April 2024 Volume 04-2024

Nacogdoches Amateur Radio Club

2024 CLUB OFFICERS

Pres: Mark Phillips – KI5POH

Vice Pres: Darrell Thornton – KI5PYQ

Sec/Treas: Army Curtis - AE5P

Visit our web site at

https://w5nac.com/

MISSION STATEMENT

The Mission of the Nacogdoches Amateur Radio Club is to support and promote Amateur Radio by public service, offering training to unlicensed interested parties and licensed Amateurs, mutual support of other Amateurs, engaging events that promote Amateur radio to the general public and other Amateur radio operators, and continuing fellowship by regularly scheduled organized meetings and events and having fun.

MARCH MINUTES

President Mark KI5POH opened the meeting at 7:00 in the EOC. Everyone in attendance introduced themselves. Minutes of the previous meeting were approved as published. Treasurer's report was read.

32 repeater: Thanks to Steve WB5IDY and Darrell KI5PYQ, the city water tower on Park Street next to the McMichael Middle School appears to be our best bet for relocating the 32 repeater. There will be some work required at the site before we can install our radio equipment.

Meeting closed at 7:31.

Ticket drawing resulted in Jim N5JGE winning a copy of the ARRL 'Parks On The Air' book. Congratulations Jim.

Program:

Tom W5TV presented a program on 6 meters, the "Magic Band"; propagation, equipment, antennas, and more.

Meeting wrapped up at 8:05.

2024 DUES ARE DUE

Please, if you have not yet paid your 2024 NARC dues, sit down **right now** before you get distracted and write a check for just $20 payable to NARC and mail it **right now** to the club at 167 CR 2093, 75965.

SUPPORT YOUR CLUB

Are you a member of NARC? Do you check into one or more of the weekly nets on 2M? If not, why not? Do you participate in the club Fox Hunts? If not, why not? Do you participate in the club Special Events K5C and K5T? If not, why not? Do you participate in Field Day with the club? If not, why not?

Participation in the various club events usually involves only a tiny few of our membership. Why is that? If you are a member, are you part of the problem or are you part of the solution? Is there something we can change that would make it easier for you to participate?

Let the club officers hear from you. You are the club and without you we don't have a club.

FROM THE PRESIDENT

I hope everyone has a Happy Easter!

We had another Fox Hunt in March and for those that hunted, we had a good time. I hope more of us can join the next hunt.

Our discussions with the City of Nacogdoches to relocate our 32 Repeater (147.32) to a city water tower continue. The proposal will be presented at April's City Council meeting on Tuesday (4/2). Once approved by the city council, hopefully we can get the equipment moved soon after. Nacogdoches County is moving forward with the demolition of the current location of our 32 Repeater, scheduled for the end of April.

I hope to see everyone at this month's meeting.

Up coming Hamfests:

April 13th - Temple Amateur Radio Club's Hamfest, Belton, TX

April 27th - Emory Hamfest, Emory, TX

I am thankful for each of you for being a Ham and being part of our club!

73, Mark KI5POH

KI5POH21@gmail.com

FROM THE VP CHAIR

With that last frost we had last week, I think Spring is truly here. With that, time for all the outside projects. My garden is ready for planting. Just have to wait for a dry few dry days. Now that the wild flowers in the yard are not blooming, I was able to mow last weekend. My wife and I are bee keepers, so those bees were really working the yard when everything was blooming.

Are you ready for the next club meeting? I know I am. Wolfie (KI5MHB) will give a presentation on frequencies. He is going to show us the entire radio spectrum and what bands/ranges are used for what purpose.

Below is the Zoom information:

http://tinyurl.com/ym4bwfhn (I shortened the URL for those that might type the URL)
Meeting ID: 87186663202
Passcode: 578262

The shack is almost complete. I think that status will be permanent. We are always making changes to our shacks. With the soldering done, I immediately did some testing. I did some listening and a little bit of talking on SSB. Spain is one of the locations I was able to work. I then changed to FT8. This way I could pick where in the world that I wanted to communicate with and all the bands. Being my end fed antenna is positioned North and South, I was curious how it did North and South of me. I was able to work Cuba and Brazil. I was able to see many stations North of me but couldn't work them for one reason or another. I almost worked the Canary Islands…..almost.

I have been checking into the Nets from the new shack as well. I'm currently adding a panadapter to my radio via SDRPlay and a MFJ SDR switch. I have a two monitor setup, side by side. I just installed a 34 inch wide screen monitor above that. I don't have all that working as of this writing, but probably by the end of this week.

Army hid the Fox well for the March's Fox Hunt. I was in a meeting that morning, so I couldn't attend in the AM. However, the guys were kind to me and left it running. So after the club lunch, which was very good food and conversation, I was able to go find the Fox. You guys should try to attend the next Fox Hunt in May. It will test your radio skills. How well do you know your HT and mobile radios?

73, KI5PYQ
Darrell Thornton

NOTES FROM OUR EC

Here we are, Spring 2024 has arrived. There are still a few days left for March. Still have some rain percentages forecast for the end of the month. It seemed like a pretty mild winter. High temps approaching the low 80's for the end of the month.

Enough of that. Let's look at THE event for April, the solar eclipse.

April 8th a solar eclipse will pass over Texas. It will enter at Eagle Pass about 12:11 PM CT and depart Texarkana at 3:07 PM CT. Those in the totality region will experience 3-4 minutes of darkness. Dallas, Fort Worth, Austin and North West San Antonio will all experience it. There are a number of web (there's a million I tell ya) that show the path and then give some ideas of the time and on a few maps the relative levels of darkness. Please see the end of the column for one of the websites.

The Texas Division of Emergency Management has a 28-page discussion.

Again please check out the website. Lots of maps, lots of tables. I won't distill it, just far too much information. I gathered from other sources and one sit down visit with an acquaintance: traffic, people and lodgings are going to be rough.

I have heard advertisements for numerous eclipse parties. Kerrville, home of a large folk music event is having one, Waco has advertised a viewing and the Nacogdoches Public Library will hold a viewing event. It starts at 11:30.

I'm going to wrap with some safety reminders. **DON'T LOOK DIRECTLY AT THE SUN.** At least only do it with proper filters. An alternative would be to make a pinhole observing device. My best idea starts with a 1/2 gallon of your favorite Blue Bell ice cream, some aluminum foil, tape and a needle. Eat the ice cream then proceed with the build. There are plenty of plans out there and most are not very expensive.

Agan, thanks to all who check into the nets and our controllers.

73 and see you on the nets de John Chapman KC5MIB kc5mib@arrl.net

VE TESTING

We had two applicants for the March VE test session. Congratulations to Melanie Cervenka of Nacogdoches, now KJ5FLE and Robert Davis of Broaddus, now KJ5FKV. Both Melanie and Robert are now new Technicians.

Congratulations to both.

Many thanks to VE's, **Mike AA5HH, Mike W5NXK, Ralph N6RH, Robert KD5FEE, Rusty KD5GEN** and **Army AE5P.**

Remember that we give in-person VE tests the third Wednesday of **EVERY** month. For the latest information always check the club website at: https://w5nac.com/ve-testing/

73 de AE5P.

email: ae5p@arrl.net

TWO METER CLUB NETS

Please join us each week for the two-meter nets sponsored by NARC. All stations are welcome to check into the nets.

Each **MONDAY** is the **NARC ARES/RACES** net, at 8:00 p.m. on the club's 146.84 repeater (PL 141.3).

Second, on **THURSDAY** evenings at 8:00 p.m. is the **Deep East Texas Skywarn Emergency Weather Net** on the 147.32 repeater (PL 141.3).

Please join us for one or both.

HAMLIST

Are you on Hamlist? Check it out and join at: https://w5nac.com/about/email-reflectors/

NEXT MEETING

The next regular NARC meeting will be Wednesday April 3rd at the Nacogdoches City/County EOC. Meeting begins at 7:00; doors open at 6:30. Come early for socializing before the meeting. After a short business meeting, we will have what promises to be a most interesting program by Wolfie KI5MHB who will give a presentation on frequencies. He is going to show us the entire radio spectrum and what bands/ranges are used for what purposes.

Remember that the meeting will be available via Zoom. Check out the VP's column for log-in information

Hope to see ya'll there.

FOX HUNT

The fox hunt was held Saturday March 23rd. The fox was located hanging from a tree branch at the south end of the parking lot of the Nacogdoches Senior Center on West Austin St. Mark KI5POH reported hearing the fox on North St and found the critter in about 15 minutes. Aaron KI5FIQ reported hearing the fox at Walmart and found it in just 28 minutes. The fox was placed by Army AE5P and Ralph N6RH. Next time we'll try to find a location that's not so easy to find.

Participants were treated to lunch at Smoke House.

Darrell KI5PYQ was not able to start looking until after lunch but only required 5 minutes to find it, he says.

Next fox hunt will be in May. How long will it take you to find it?

UPCOMING EVENTS OF NOTE

Mark your calendars for the following events coming up in the next few months. Full information on these events and much more can be found at https://www.contestcalendar.com//contestcal.html

CQ WPX SSB
March 30-31, 2024
http://www.cqwpx.com/rules.htm

San Jacinto Day Special Event Station K5T
April 26-28, 2024
w5nac.com

7th Call Area QSO Party
May 4-5, 2024
http://7qp.org

New England QSO Party
May 4-5, 2024
https://neqp.org/rules/

Volta WW RTTY
May 11-12, 2024
http://www.contestvolta.com/rules.pdf

CQ WW WPX CW
May 25-26, 2024
http://www.cqwpx.com/rules.htm

ARRL International Digital Contest (No RTTY)
June 1-2, 2024
https://contests.arrl.org/dig/

ARRL June VHF Contest
June 8-10, 2024
http://www.arrl.org/june-vhf

ARRL Field Day
June 22-23, 2024
http://www.arrl.org/field-day

Check out the many contests listed on the Contest Calendar link shown here. There are many State QSO parties and 'Parks-On-The-Air' events that may be just right for you. Check 'em out.

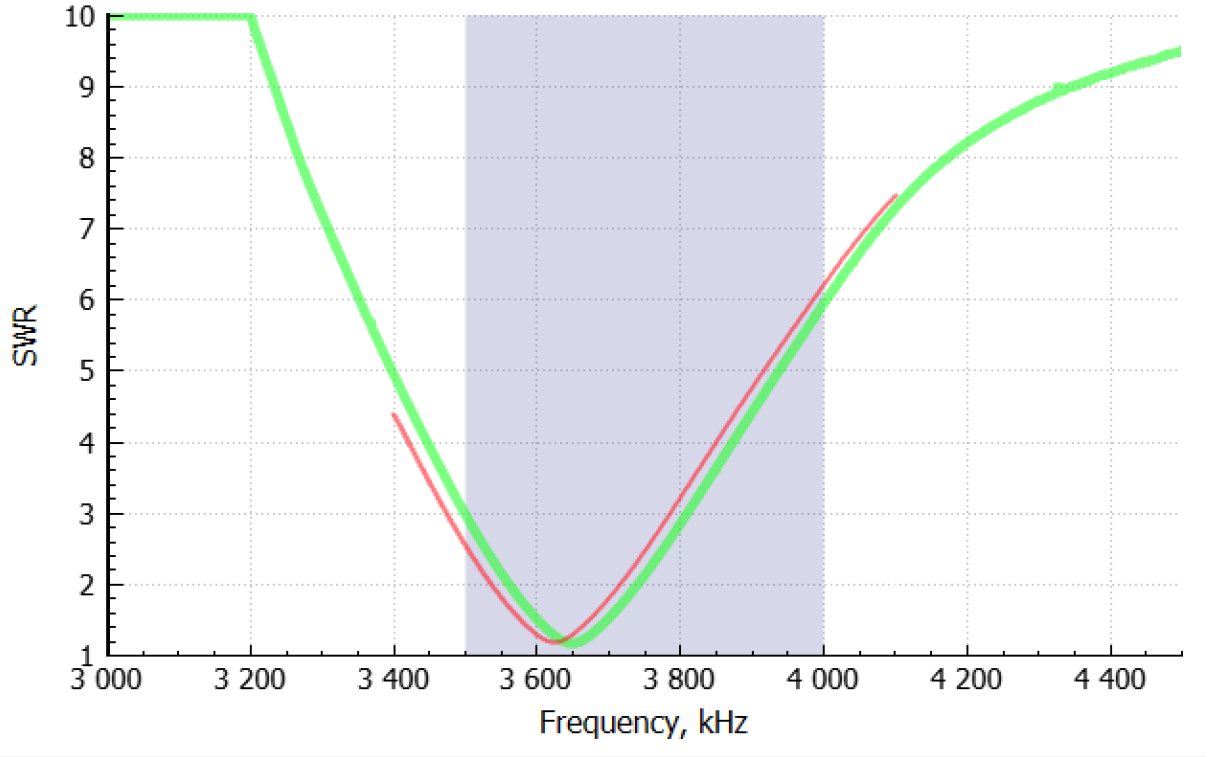
ANTENNA INTERACTIONS, CONTINUED

Jim Edmondson, N5JGE

This is a short followup to my previous article on antenna interactions. My original plan was to mount two wire antennas on a sidearm on the tower. The first is an 80M / 60M fan dipole mounted in an inverted vee configuration and the second is an 80M EFHW mounted as a sloper. I have previously had good success using 80M EFHW antennas mounted horizontally using trees or a push pole bracketed to the garage as supports. The objective of using an EFHW was to have a more omnidirectional multi-band antenna for contesting so I did not have keep "swinging the beam".

In the previous article, we saw that when the two antennas were mounted parallel to one another both performed very poorly. When the EFHW was turned perpendicular to the dipole, the EFHW still performed poorly, but the dipole showed a perfectly acceptable SWR curve. A very unexpected result was that the EFHW resonant frequency in the 80M band was not affected by shortening the antenna.

In my next series of tests, I tried orienting the EFHW perpendicular to the dipole, but with the feedpoint near the ground instead near the dipole. First, I re-analyzed the dipole without the EFHW to see how it compared to previous measurements. Figure 1 shows the previous scan (December 2023, in red) and the



current scan (February 2024, in green). As you can see, the SWR curve changed very little over the two-month period. Since the SWR minimum went up slightly, the change is not due to the antenna wire stretching. The difference is probably due to ground conductivity changes with all of the winter rains in January and February.

Figure 1: SWR curves for 80M Dipole in December and February

Figure 2 shows SWR curves for the dipole antenna without (green) and with (red) the EFHW mounted with the feedpoint near the ground and well away from the tower. The SWR minimum shifted to a slightly higher frequency and the SWR remained essentially the same. An odd dip and hump appeared just below the band resulting in a noticeably poorer SWR in the lower portion of the 80M band. Overall, the dipole is still perfectly usable on the 80M band and could be adjusted as desired for the lower or upper parts of the band. Figure 3 shows that the impact of the EFHW was only on 80M with the 60M dipole completely unaffected.

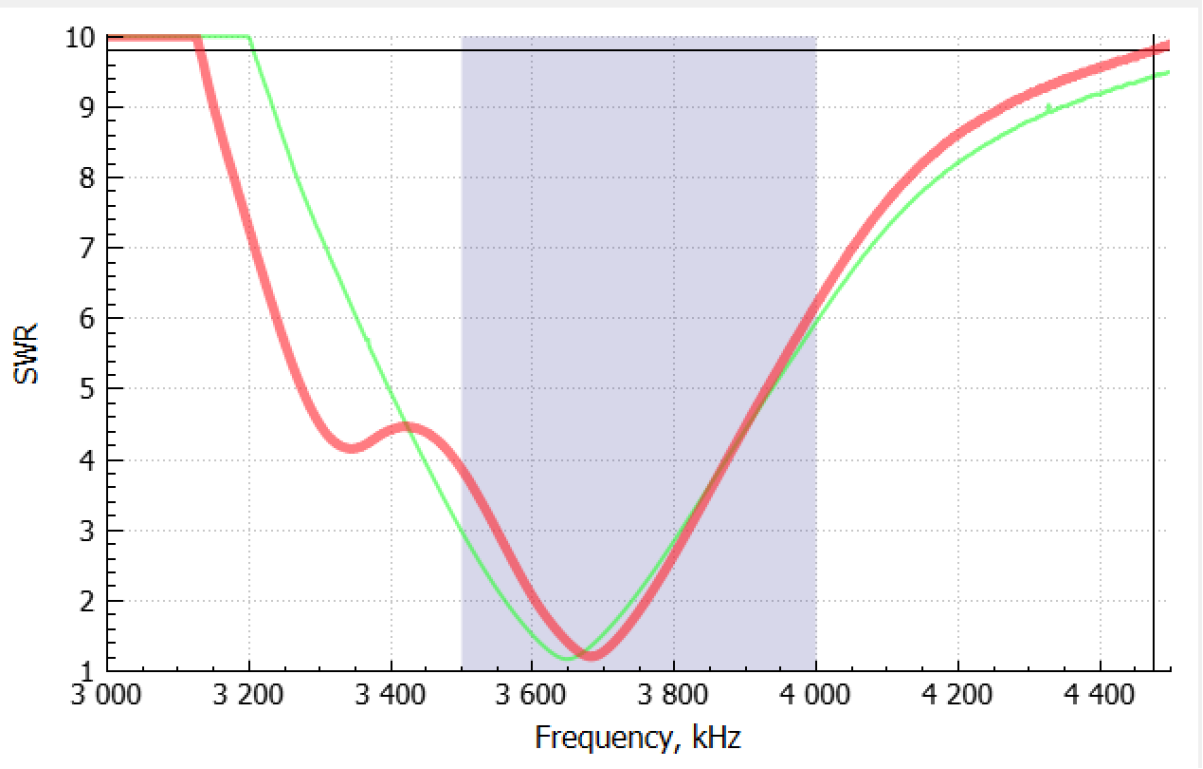


Figure 2: SWR curves for 80M Dipole Without EFHW (green) and With EFHW (red)

I made SWR curve measurements for the EFHW. My analyzer can only save graphs if connected to a PC. Since the EFHW feedpoint was away from the tower, I could not connect it to the coax into the shack. I did not take my laptop out into the pasture with me for the measurements. (Since the dipole was on the tower antenna switch, I was measuring it in the shack with the analyzer connected to the

laptop.) The EFHW curves showed an SWR minimum below the 80M band because I cut it long. However, again adjusting the length of the EFHW did not move the SWR minimum.

At this point, I am at a loss to explain the results for the EFHW. I decided that it was not worth anymore time to try and solve this puzzle. This is not a very satisfying conclusion to these articles, but I have contacts to make and my other antennas work quite well. So I decided to cut my losses at this point. If anybody has any ideas on what the problem with EFHW could be, please let me know and lets discuss your ideas.

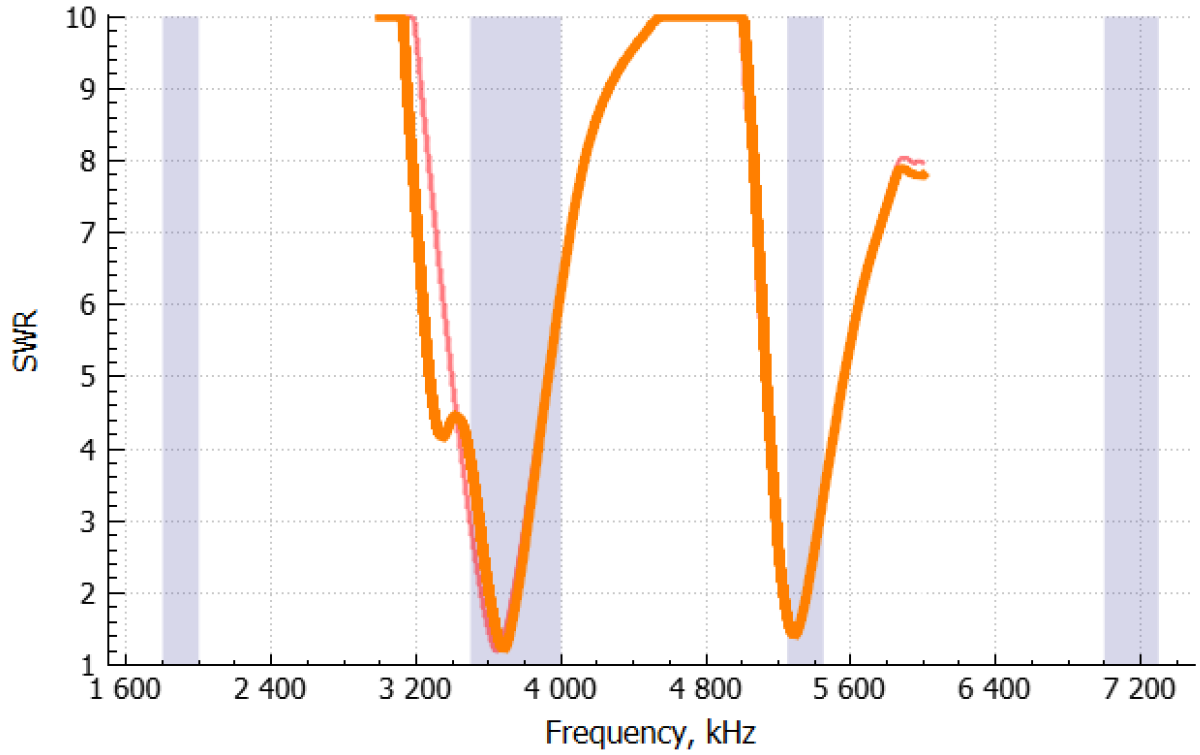


Figure 3: SWR curves for 80M / 60M Dipole Without EFHW (green) and With EFHW (red)