

Nacogdoches Amateur Radio Club

2021 CLUB OFFICERS

Pres: Bill Rascher - KT5TE

Vice Pres: Steve Bartlett-WB5IDY

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.



NOVEMBER MINUTES

The November meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on November 3rd. **President Bill KT5TE** opened the meeting at 7:00 p.m. in the Nacogdoches City/County Emergency Operations Center off FM 3314. Self-introductions were made by members and guests present. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

In accordance with the Club's constitution and

bylaws, the President appointed a Nominating Committee consisting of **Army AE5P**, **Ralph N6RH** and **Tom W5TV**. The Nominating Committee reported they were recommending **Bill KT5TE** for 2022 President, **Aaron KI5FIQ** for Vice President, and **Army AE5P** for **Secretary-Treasurer**. A motion was made to accept the report of the Nominating Committee and to close nominations. A vote of those present saw all ayes, no nays. **Motion passed.**

Army AE5P, recognized **Darrell KI5PYQ** and **Mark KI5POH**, for their work in repairing the **Winlink iGate** on the roof of the Fredonia Hotel.

Darrell KI5PYQ gave a short report on Digital Mobile Radio and his

experiments with DMR using a 'hot spot' and his cell phone for an internet link. Darrell then made a motion that the club convert our existing UHF repeater from Analog to DMR. **Motion passed.** Darrell will work with the club repeater trustee to make the changes needed.

Book Raffle: The book "ARRL Antenna Basics" was won by **Tom W5TV**.

Meeting closed at 7:47 pm.

Program: Robert KD5FEE gave a program on Solar Activity and Radio Propagation. Very nicely done.

FROM THE PRESIDENT

For the month of November I rarely touched my radios because the days were too busy and by night time I just wanted to relax. For the first time in several years we lost a few baby goats to coyotes. When the mamas have their babies down in the woods they tend to be too far from the herd for the dogs to keep an eye on them, so the coyotes have an opportunity for a quick meal they can carry off. Right now I have old fences to remove and we are adding cross fences in a few pastures to make better use of the land. Hopefully by next spring we have a new hay field in and all fencing completed. Time will tell...

December is a good month for building several radio projects since it is dark by 6pm and can be very cold. Although these

cloudy, cold, rainy days are perfect for casting bullets in the shop also. The 45-2 7/8 Sharps eats a 538g bullet, so casting such a large bullet means everything has to be hot before casting starts. A large single capacity mold used for a 538g bullet needs to be heated almost to the melting point of lead. 308 bullets are much easier to cast and the mold can cast 2 bullets at a time. Basically, it is all too hot for summer work.

A nice windless 60 to 70 degree day would be perfect for climbing the 70' tower to replace the rotator and move all the cables to the inside of the tower. Cables on the inside make it easier to climb and not damage the coax. This is an important project since the TH11 is stuck pointing towards South America. Also on my list is to add another section to the VHF tower near the shack. Plus the mast needs to be swapped out for a longer chromoly mast which hasn't been

bought yet. Right now there is a 6m, 5 element, yagi at the base of the mast and a vertical oriented 2m/70cm yagi for FM at the top of an 8' mast. Waiting to go up are a Cushcraft 70cm, M² 1.25m and a M² 2m. Most of these yagis were taken down from Tom, W5TV. All the antennas are ready, so the sooner this gets done the better.

It would be very interesting to hear what projects you are planning for this winter. Come to the meeting on Wednesday, December 1st and let us know about your plans.

73, Bill KT5TE

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FROM THE VP CHAIR

Up In Smoke

I normally try to write something about projects or ideas that share knowledge on radios or preparedness. This month I wanted to break from that mold and talk about something fun and different.

For many years, I have enjoyed the pseudo-hobby of outdoor cooking including open fire dishes, dutch oven recipes, and of course, smoking meats. There is nothing better than a black smokey bark on a meat, which is probably some carcinogenic compound that I don't want to know about! The art of meat preparation, special rubs, brining, and marinating can consume many hours of research and test meals. I have used direct smokers, charcoal cookers, electric smokers, offset wood smokers, and open fire grills. Several years ago, I found a special cooker that was created over

3,000 years ago in China and later imported to Japan where it was called a Kamado. Made from fired clay, this cooker combined the flavor of a wood smoker with the heat retention of an oven. Throttling air flows in and out of the vessel produced the ability to change the temperature of the cooker and also made it very fuel efficient. Kamado cookers can hold a constant temperature for many hours using a minuscule amount of lump charcoal.

Today, kamado cookers are ceramic domes with a fire bowl, adjustable vents, and multilevel grates. Popular brands include Big Green Egg, Kamado Joe, Primo, and Vision. They all basically operate the same, but each manufacturer touts special features and accessories that make them the best!

I recently upgraded to a large "Kamado Big Joe" cooker and love it. I can smoke a brisket that rivals any big offset wood smoker. Pork butts are cooked until they pull

apart and smoked salmon fillets are unbelievable. Steaks can be seared at 600 degrees and smoked turkeys are the hit of any Thanksgiving feast. Veggies and shrimp on the grill are fantastic.

I have replaced most all of my outdoor cooking fixtures with a single kamado that produces restaurant quality dishes including wood-fired pizzas. I can cook directly over a charcoal fire or indirectly heat and or smoke anything. A kamado is designed to use larger lump charcoal but I add hickory, pecan or apple wood chunks if I am looking for a smoky flavor.

Lastly, a kamado is a great emergency cooker. We used ours during the ice storm to prepare several meals, which allowed me to have the sustenance and energy to monitor critical ham radio activity and deliver emergency updates on City water issues. So there, this was a radio related article after all!

Go grill something.



73

Steve Bartlett
WB5IDY

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NOTES FROM OUR EC

It's Thanksgiving Eve around 5:30 pm. The roads may be stacking up between here and there and last minute shoppers are grabbing a few things they forgot or in some cases the whole meal. I stopped at Krogers this morning. The crowd wasn't too bad, just the registers were slow. Did you (or the YL) get all of your culinary needs?

The 2021 Hurricane season is coming to an end (30 Nov). It was expected to be a very busy season and it was. All 21 names were used and it was the 4th most costly season with \$70B in damages.

There were only 3 events, as best as I could tell close to us along the Gulf Coast. Right now there is nothing on the National Hurricane Center Map and nothing predicted. So there you have it for the 2021 Season.

It sounded like we had some folks that decided to

take care of their generator and other emergency needs. December will be upon us and so will the colder weather. Praying we don't have a repeat of Snowmegadon.

Quick note about net participation, though the numbers aren't complete we have 2 more nets left this month. To date: ARES 61 participants, average of 15 through 4 nets; SKYWARN 36 participants, average of 12 through 3 nets.

How did your antenna system fare in the heavy winds? Have you made a last minute check of your skyhook(s) before we really have to stay inside?

Remember 160m and 80m and 40m will be opening up overnight. Wouldn't want to miss it.

We will be having our annual Christmas Pot Luck 1 Dec. I'm certain there will be more than one or two announcements for it elsewhere in the news letter. And, Army, Yes, I

have adjusted my work schedule so I can attend. Looking forward to seeing everyone and yes, I'll do my best to handle the White Elephant auction. Remember to bring money.

Have you made your Christmas shopping list yet? Knowing most of you, it's just an extension of your regular ham shopping list.

I hope everyone has an enjoyable Thanksgiving. We have much to be thankful for. Remember those that will be unable to celebrate.

73 de John Chapman
KC5MIB
kc5mib@arrl.net

VE TESTING

The November VE session had no applicants.

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

Remember that we give 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.

BTW: We are looking for new net controllers as we come to the new year. If you are interested please contact John KC5MIB or Army AE5P. We will supply assistance to get you off on the right foot.

NEXT MEETING

Our next meeting will be Wednesday December 1st at the City/County Emergency Operations Center off FM3314. This will be our annual Christmas Party and White Elephant Auction. Wives are specifically invited to attend. A very short meeting begins at **6:00**; doors open at **5:30**. The

Christmas Party features a pot luck supper. Please bring whatever you like; an entrée, a salad, a dessert, a snack, or just an appetite. The club will furnish paper plates and bowls, eating utensils and drinks. The EOC has a kitchen area with stove and refrigerator. Come early for a little socializing before the meeting.

We will also have our annual White Elephant auction with KC5MIB as our auctioneer. Bring your White Elephants, wrapped or unwrapped, with a card showing who brought it for the benefit of the auctioneer and a hint as to what it might be. Several ladies gifts are expected to be part of the auction as well.

2022 club dues will be accepted. Remember that dues are just \$20 per year, and cover all licensed hams in a family.

FROM THE NEW VICE PRESIDENT

Aaron KI5FIQ would like your ideas for meetings. While he already has some in mind that he wants to set up, he wants to hear from you as well. To do this, simply fill out the survey form at the following

link: <https://forms.gle/ggEupretZSBVCkeY8>

Already have a topic that you really want to present as well? Great! There's an option in the survey to let me know so I can get with you to schedule which meeting to present at.

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 <http://www.hornucopia.com/contestcal/contestcal.html>

Note that all dates shown here are local, CST dates while all contest logging uses UTC dates and times.

CQ WW CW

Nov 27 - 28, 2021

<http://www.cqww.com/rules.htm>

VHF FT Activity Contest

Dec 1, 2021

<http://www.ft8activity.eu/index.php/en/>

ARRL 160M Contest

Dec 3 - 5, 2021

<http://www.arrl.org/160-meter>

FT Roundup

Dec 4 - 5, 2021

<http://www.rttycontesting.com/ft8-roundup/rules/>

ARRL 10M Contest

Dec 11 - 12, 2021

<http://www.arrl.org/10-meter>

ARRL Rookie Roundup CW

Dec 19, 2021

<http://www.arrl.org/rookie-roundup>

ARRL Kids Day

Jan 1, 2022

<http://www.arrl.org/kids-day>

VHF FT Activity Contest

Jan 5, 2022

<http://www.ft8activity.eu/index.php/en/>

ARRL RTTY Roundup

Jan 8 - 9, 2022

<http://www.arrl.org/rtty-roundup>

ARRL January VHF Contest

Jan 15 - 16, 2022

<http://www.arrl.org/january-vhf>

NAQP SSB

Jan 22, 2022

<http://www.ncjweb.com/NAQP-Rules.pdf>

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.

Digital Mobile Radio (DMR)

by

Thomas Atchison W5TV

We have been having some discussion about digital mobile radio in the radio club lately so I decided I needed to know more about DMR. I found some information that I want to share with you. In particular, I urge you to click on [Miklor DMR Basic Tutorial](#). This tutorial was a great help for me to get a basic understanding of DMR and understand some of the words used.

If you want to google DMR for videos or additional information be sure and include key words like **amateur radio** and **DMR**. In fact you might want to spell out **digital mobile radio**. When I did this I found this URL:

<https://kf5iw.com/presentations/Introduction%20to%20DMR%2020170117.pdf>

This is a very short article, however, the tutorial above will answer most of the questions that those of us who are new to DMR might have.

Have fun.

DMR FOR NARC

by

Darrell Thornton KI5PYQ

In the November 2021 NARC meeting, I proposed we convert the UHF (444.050) repeater to a DMR repeater. This repeater is currently located on the City of Nacogdoches tower on Powers St. We could get the conversion done for less than \$300. The only thing that we would have to wait on is internet access at repeater site. The club voted for the conversion.

For some folks that are not familiar with DMR, DMR or Digital Mobile Radio uses the Motorola TRBO protocol for communications. The TRBO protocol converts your voice into digital form and sends it out via RF to a hotspot, repeater or other DMR radio.

Since the November 2021 vote, things have changed. There has been a recommendation that we keep the UHF repeater as is and simply add another repeater. Lucky for NARC, we have an extra Yaesu DR-1X repeater that will work perfectly. Army (AE5P) informed me that we already have an UHF antenna mounted on the 147.32 repeater tower. With even more luck, internet access is available at the radio shack at the 147.32 repeater location. DRM supplies have already been ordered and are en route at the time of this article. We will need to register a UHF frequency for the new repeater. Get permission from the County of Nacogdoches to use the internet at that location. As you can see, progress is being made on this project.

There has been interest in what new equipment us HAM operators get to purchase. Since DMR is an open standard, it allows many manufacturers to make radios using this technology. Unfortunately for the top three brand buyers out there, DMR is not on their radar. Yaesu uses Fusion, Icom and Kenwood uses D-Star. In my opinion, the Anytone radios are the top one.

Some Anytone HT and mobile radios are rebranded by other companies. The Btech DMR-6X2 (\$210) is basically a Anytone AT-D878UV (\$200). The Alinco DJ-MD5X (\$190) is a very similar radio as well.

When purchasing a DMR radio, HT or Mobile, make sure they can hold at least 200,000 contacts. The DMR contact database is growing every day. The Anytone AT-D878UVIII Plus (\$300) holds up to 500,000 contacts. This type of capacity will future proof your radio for a few years. The RadioID.net database houses the whole world of DMR contacts. You can limit the database to only the contacts you might want. I personally only want the contacts that I can communicate with like USA, UK and a few other countries that speak English. That would limit the contact count. Just because you don't have the contact in the radio, doesn't mean you won't be able to hear or talk with them. You will just see the RadioID # on the display, not their Name, CallSign and location.

Any DMR radio will work. Some are more difficult to program or create a codeplug for. I have the TYT-UV380 (Used for \$90) and an Anytone AT-D868UV (Used for \$120). The Anytone radio was by far the easiest one to program and operate. I have not experienced any others so my recommendation would be an Anytone DMR radio. The Anytone HT and Anytone Mobile radio take the same codeplug (programming). You will not be programming DMR radios from the face of the radio. It will require a computer, software and cable. Software and cable usually come with radio. Most DMR radios are dual band. You can use the analog side of the radio like you can with a normal HT/Mobile. This radio can easily replace your existing dual band HT/Mobile radio.

For the operators that would like to travel with their DMR radio, you can build/purchase a hotspot. This will allow you the same connection to the world you would have with our new DMR repeater. I currently connect my hotspot to my mobile phone for internet access. With this connection, I can travel anywhere and connect to my preferred talkgroups. You can also connect to other DMR repeaters that are in other cities. You will have to

look up the details of each city's repeaters. Lufkin, Tyler and Longview as well as many large cities have DMR repeaters that can be accessed.