

# Nacogdoches Amateur Radio Club

## 2022 CLUB OFFICERS

Pres: Bill Rascher - KT5TE

Vice Pres: Aaron Baker - KI5FIQ

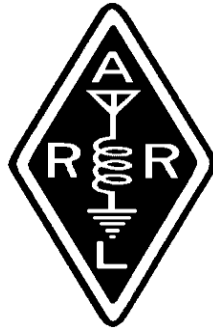
Sec/Treas: Army Curtis - AE5P

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.



## SEPTEMBER MINUTES

The September meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on September 7th. **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 everyone present. Minutes were approved as published. Treasurer's report read.

**The August OTA Challenge** was won by **Robert Judy KD5FEE**, who was presented with an ARRL book on antennas. Congratulations Robert.

**August OTA Challenge** was to make the highest score in the NAQP SSB contest, August 20-21.

The Piney Woods Purgatory bike race is scheduled for Saturday October 1. Hams are needed to provide communications from the several rest stops along the route, as well as in various vehicles that will be following the bikes to provide assistance when needed. If you want to help, please contact Mike Miles WD5EFY at [wd5efy@suddenlink.net](mailto:wd5efy@suddenlink.net). Your help is needed for this.

## FROM THE PRESIDENT

The cooler weather sure makes it nice to be outside. It isn't just cooler, but when the day gets hot it still cools off faster in the evenings. Toss in some dry air and it makes it nice to be outside after dark. This makes it a great time to sit outside for some QRP contacts. October is a very busy month for special event stations, so might be a good opportunity to enjoy the sunset/sunrise and make a few QSOs with that cup of coffee or ice tea.

This year, even with less rain, our sycamore and cottonwood trees have grown so much that they are threatening the 80m-10m wire antenna I use with the K2 I built. I know that Army's, AE5P, suggestion is to cut down the trees, but Lauren would have none of that since she grew the trees from seeds. So, it looks

like a little trimming is in order. Trimming might do for a year or two, but I suspect I'll have to move the antenna or the shack. Or maybe build an off-grid shack down in the south pasture. Hmm...

Hope to see you at our October 5<sup>th</sup> meeting.

Hope to see you at our October 5<sup>th</sup> meeting.

73, Bill KT5TE

[bill@watershipfarm.com](mailto:bill@watershipfarm.com)

## FROM THE VP CHAIR

End of September already? So glad that I got sick with COVID at the beginning of the month because so much happened at the end of the month. We had a couple of radio contests this month and I got to participate in one of them.

I got to line up my schedule perfectly that I worked the TXQP from my folk's place down in Jasper County and that was fun. Next year will have to clear more of my schedule so that I can stay on a frequency and call CQ rather than spending a couple of hours of operating and hunting the other counties that are calling CQ Contest.

Another thing that happened that I actually had a surprisingly fun time in doing was participating in the Texas RACES SET. Mainly because I needed to hit the Lufkin 94 and my daily driver antenna isn't the best. That Saturday morning I just

happened to have one of those "aha" moments and looked at my tape measure yagi and the tripod mast that goes to the Buddipole 2m antenna that I am currently using on loan for my portable HF needs. Four bungee cords later, I had my tape measure yagi high up in the air pointed towards Lufkin and had a good signal to KOYY for the net. The next fun part was finding out that I needed to turn it more slightly to hit the W5IRP-10 Winlink repeater so I could send in my ICS-213.

The final event that happened this month was the NWS Shreveport Integrated Warning Team workshop. A good amount of information was given here. So much in fact that I'll turn it into a mini series starting with next month's newsletter.

Anyway. Hope y'all have a good October and see some of y'all at the meeting.

73 de Aaron Baker  
KI5FIQ

[baker.barisax@gmail.com](mailto:baker.barisax@gmail.com)

## NOTES FROM OUR EC

Let's start this missive with Ian. As of 29 Sep, Ian has cleared Florida and is working its way up the Atlantic coast. The National Hurricane Center web site and spaghetti models are 2 very good websites for tracking hurricanes. As always, web sites to follow.

October is National Preparedness Month. The ARRL and the North Texas section are having simulated emergency test (SET) in October.

1) The National ARRL COMDEX is the first weekend in October, 2022. While North Texas is not directly participating as a whole on that weekend, it is possible for you to participate by reading the Public Service Article in the September 2022 edition of QST. If you do participate, please copy activation/deactivation and After-Action Reports (AAR) to arrlntx-ops via Winlink

2) The North Texas ARES SET will be held on 29 October. What will your team do when some major multi-county event occurs that requires supporting your served agencies? The agencies could be overwhelmed by regional or local 911 / first responder communications services failing; major weather, solar or fire event; or infrastructure (power, water, etc.) failure. How will your team help identify and communicate what support your community needs? How do you report the status of your infrastructure and information about the event?

I have been remiss. I have not reviewed the September issue of QST. Nor have I received any information about the 29 October SET. The scenario will be released the week of the 10th. Please keep an eye on the mail list and I will distribute the information.

For those of you who will be participating in the Piney Woods Purgatory, will you

email me with the time you assisted the event.

Everyone, thanks for participating in our nets and those of you who listen in.

See ya on the nets.

73 de John Chapman  
KC5MIB  
[kc5mib@arrl.net](mailto:kc5mib@arrl.net)

## VE TESTING

We had two applicants for the September VE test session.

Ozay Ford KB5DHA, a regular check-in on our 2-meter nets, upgraded from General to Extra, with a perfect score on his Extra Class written.

Gina Jones passed her Tech exam, also with a perfect score. She is now KI5YFR. Congratulations Gina.

Many thanks to VE's Rusty KG5GEN, Ralph N6HR, Mike AA5HH, Mike W5NXX, Robert KD5FEE 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/>

Several of the VEC's, including ARRL-VEC who we use, are now offering remote on-line testing, allowing folks to take the exam(s) from their home without driving. After a long discussion with our NARC VE team, we have decided to make our exams available on an in-person basis only.

73 de AE5P.

email: [ae5p@arrl.net](mailto: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.

## NEXT MEETING

The next NARC meeting will be Wednesday October 5th at the Nacogdoches City/County EOC. Meeting begins at 7:00; doors open at 6:30. Come early for socializing before the meeting. A program is planned that will show you how to operate CW without knowing anything about CW.

## HAMLIST

Are you on Hamlist? Check it out and join at:

<https://w5nac.com/about/email-reflectors/>

## 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>

**California QSO Party**  
1600Z, Oct 1 to 2200Z, Oct 2, 2022  
<http://www.cqp.org/Rules.html>

**Nevada QSO Party**  
0300Z, Oct 8 to 2100Z, Oct 9, 2022  
<http://nvqso.com/contest-rules/>

**Arizona QSO Party**  
1500Z, Oct 8 to 0500Z, Oct 9, 2022  
<https://www.azqp.org/>

**Pennsylvania QSO Party**  
1600Z, Oct 8 to 0400Z, Oct 9 and 1300Z-2200Z, Oct 9, 2022  
<http://paqso.org/pa-qso-party-rules.html>

**South Dakota QSO Party**  
1800Z, Oct 8 to 1800Z, Oct 9, 2022  
<http://www.sdqsoparty.com>

**New York QSO Party**  
1400Z, Oct 15 to 0200Z, Oct 16, 2022  
<http://www.nyqp.org/>

**Illinois QSO Party**  
1700Z, Oct 16 to 0100Z, Oct 17, 2022  
<https://w9awe.org/ilqp/>

**CQ WW SSB DX Contest**  
0000Z, Oct 29 to 2359Z, Oct 30, 2022  
<http://www.cqww.com/rules.htm>

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.

## What is NVIS?

by

Thomas Atchison W5TV

Near Vertical Incidence Skywave (NVIS) refers to a propagation mode which uses high angle radiation to send signals almost straight up to be reflected back to Earth for effective short to median distance communications. It is a mode of operation which may be useful for in-state communications during disasters or other emergency situations.

The frequencies normally used for NVIS propagation are from around 3 MHz up to around 10 MHz. The reason for this is that the signal needs to penetrate the ionospheric D layer and bounce off the F layer. Lower frequency HF signals travel through the D layer in the shortest dimension, nearly at a right angle to the layer's spherical shell overhead. Because of this, absorption of low frequency signals is minimized and NVIS regional communications is often viable during daylight hours, particularly on the 40 meter band. We need to be aware of the Maximum Useable Frequency (MUF) when we are considering NVIS propagation. The amateur radio frequencies often used for this mode of operation are on 80 and 40 meters.

Now let's talk about antennas. If we have a normal dipole at a reasonable height or a vertical antenna, then the angle of radiation of our radio signal will be small and the propagation will not be vertical. This may be good for DX, however, it is not good for NVIS propagation. Usually, there is a skip zone between the ground wave and the shortest sky wave distance where no communications are possible. Depending on operating frequencies, antennas, and propagation conditions, this skip zone can start at 10 to 20 miles and extend out for several hundred miles. Of course the ground wave will reach someone closer but the usual desire for NVIS communications is **to reach people who would normally be located in the skip zone.**

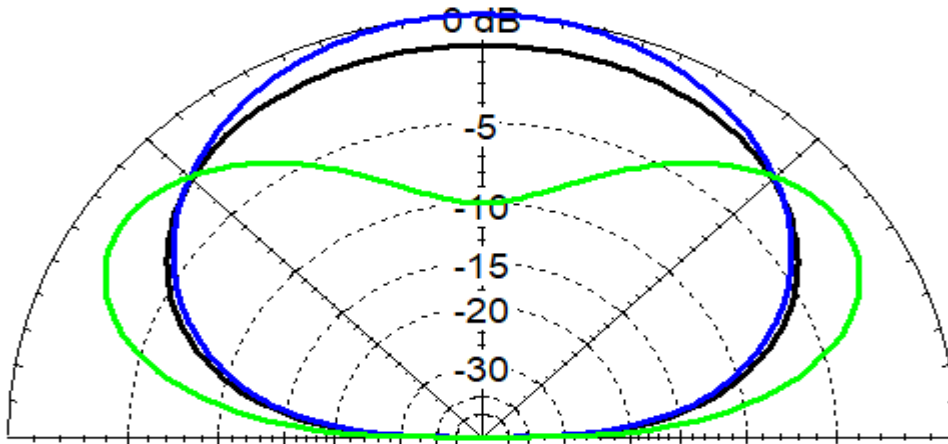
The NVIS mode is normally used for making reliable HF communications below 10 MHz for a range up to **600 miles**. Often a low dipole is a good antenna to use for this propagation to provide reliable communications. That is, dipoles will not have the low angle of radiation until they are around 1/2 wavelength above ground. If we place our dipole at a height of 1/10 to 1/4 wavelengths above ground then we will have a more vertical radiation pattern.

For example, Fig. 1 shows three far field patterns for a 40 meter dipole. The primary dipole is in black and it's at 30 feet elevation. The blue trace is the same dipole at 15 feet and the green trace is the same dipole at 60 feet.

### Total Field

EZNEC Pro/2+

\* Primary  
dipole40at15ft  
dipole40at60ft



7 MHz

Fig. 1

The dipole at 15 feet is closer to an NVIS antenna than the other two elevations.

There are internet sites that suggest two dipoles mounted as inverted vees and at right angles may improve the vertical pattern. These could serve as guys for the mast that holds the center.

Another possibility is to place a dipole at ground level directly under the dipole in the air in an attempt to improve the vertical pattern. The ground dipole would serve as a reflector giving the appearance of a two element yagi mounted vertically.

You may find that experimentation will yield an improved antenna for NVIS propagation.

## THE KI5FIQ TEMPORARY 2M ANTENNA





## Operating the TXQP From a Rare County KI5FIQ

The TXQP this year was a fun one for me to play in as I decided to set up shop in one of those rare counties. I didn't get to do much on the air as I was hunting in between plans that were going on at my folk's place, but hearing everyone's reaction to getting that new county that they don't normally get was pretty fun - especially on Sunday right before the event ended.

All in all, I got a total of 20 contacts, 1 out of state and 19 in different TX counties arranging from Central, to NTX, ETX, and even a few in SETX (and yes, the OCD in me is a little upset I didn't get that last county to make it an even 20, mostly because I miscounted somewhere in my log).

One guy was even doing a POTA activation at Tyler State Park and completely forgot about the TXQP, but thankfully he played and gave the exchange for both. So yes, I was a 59 into Park K-3059 in Smith County.

As I stated in my main article, I hope to do it again next year from Jasper County and spend more time to help others get that rare county that they might not get every year.

I thoroughly enjoyed hearing everyone's reaction to being excited to getting the county or doing a second take for not being used to hearing the county on the air.