

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.



MARCH MINUTES

The March meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on March 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.

Old Business:

Discussion on the Shuttle Columbia Special Event.

For a variety of reasons, participation by NARC members this year was very low, but still we managed almost 400 contacts. All contacts have been uploaded to LOTW, and all QSL cards received with an SASE have been answered.

Robert KD5FEE who won the ARRL Antenna Compendium last month was kind enough to return it this month so it could be raffled again. Thanks **Robert**.

The raffle this month saw **KT5TE** win an ARRL Hints and Kinks book. Congratulations **Bill**.

Meeting Ended at 7:34.

Program: **Army AE5P** led a discussion on the recent winter storm. 92% of those present experienced

power outages. That same 92% had a generator; 25% had whole house sized generators.

92% of those present experienced water outages; 100% had prepared with a supply of drinking water.

All present agreed that the loss of water was much more serious than the loss of electrical power.

Ralph N6RH presented an early look at his Flex 6600 running 4 instances of WSJT, with 4 slices on 4 monitors. Ralph says this is a work in progress.

Programs completed by 8:32 p.m.

Club dues are now due and payable to the club treasurer. Dues are just \$20 for the year, and cover all licensed Amateur Radio operators within a family. Dues can be paid to the treasurer at our April meeting or can be mailed to his callbook/QRZ address. New operators who obtained their first

license through the NARC VE test sessions in 2020 are exempted from paying dues for 2021.

FROM THE PRESIDENT

This year is turning out to be one of the fastest I've experienced. The time period of March thru June always flies by because every weekend, in a non-covid year, has some kind of event happening. Since I've been a Ham any weekend that I might have been free there is always a contest, QSO party, special event or other activity. The nice thing about the radio is that you're never bored because you can just power up and start calling CQ.

Outside of Ham radio the months of April and May are full with horse shows & events, rabbit shows and Texas Draft Horse and Mule Association plow days, field days, harvest days, trail rides & demonstrations.

The heat of summer will slow down outside activities so the summer afternoon can be spent building a K2 100w amp and transverters for 6m and 1.25m. Not to mention there are over 10,000 slides of my children that need scanning, or I could print some of the thousands of B&W negatives. I guess what I'm saying is boredom won't be a problem, and that is a good thing.

Guess what? Another month has passed by and Tom's (W5TV) tower is still standing, so maybe April will be a good month to disassemble his tower. We could always use help, so let me know if you're interested. The target time will be a week day during the first or second week of April.

Hope to see you at our April 7th meeting.

73, Bill KT5TE

bill@watershipfarm.com

FROM THE VP CHAIR

Radio Operator License Plates

Have you ever wanted custom Radio Operator license plates? To my surprise, it is easier than you might think. I had always assumed it was expensive like any custom vanity plate, but Texas allows you have these plates for no extra cost as recognition of the service amateur radio operators perform for the public.

Google for the form "VTR-53" and you will get a link to the Texas DMV form in PDF for download. Fill out the basic information in the form including the VIN number for the vehicle. You can find the vehicle identification number (VIN) on your title or on a metal tag located on your dash near the bottom of the windshield on the driver's side. It can be read from the outside.

Interestingly, you can order the same call sign plates for more than one vehicle with this form. The regulations state that the plates may only be used for vehicles where amateur radio equipment is operated inside the vehicle. No apparent restrictions are made on the type of equipment or frequency of use, so a handheld would qualify.

You will also need to obtain a copy of your FCC license, which spoiled my plans to get a plate with one of my buddy's calls Oh well. If you don't have a copy of your license, you can obtain one by going online to the FCC license Manager:

<https://wireless2.fcc.gov/UlsEntry/licManager/login.jsp>

Enter your FRN (federal registration number) and your password. Select your ham license call (you may have more than one - like GMRS). Select the green bar at the top of the page to download your official license copy. Print the PDF file and take it to the courthouse where you

normally renew your plates, along with the completed VTR-53 form.

The plates should take about 3 to 4 weeks to arrive in the mail. (Things must be backlogged at the prison...). When they arrive, you must return to the tax office to surrender the old plates and activate the new ones.

73

Steve, WB5IDY

bartlett.steve58@gmail.com

NOTES FROM OUR EC

I'm a little later getting this done and I expect the Editor is looking at the clock tapping his finger and muttering something about deadlines or some such, OH HI Army!

(Editor's note: As a matter of fact, I was).

Spring is here and the last 2 days except for the wind have been very nice almost Chamber of Commerce quality. Sadly I spent most of both days in the office.

March was wet and luckily for us not terribly stormy. There were a few tornadoes, but not very close. Other places, including nationally have not been quite so lucky. And it is that time of year, we have started tornado season. Obviously as the last few months and years have shown, there is no specific season or locale for tornadic activity. There are number of us who have sat through the SKYWARN training. For those who haven't or would like to refresh their training, the NWS in Shreveport has links to online training. Go to their website Click on the SKYWARN button and you'll see the links. How many of our members are prepared to observe from their location or to

deploy to a safe location? How is your equipment set up and how new (or old) are your batteries?

Daylight Saving Time is a good time to change your smoke and carbon monoxide detectors, what about checking your other batteries at the same time? What condition is the battery in your handheld, your UPS with battery backup, even your laptop? Knock on wood, I still have the original battery for my handheld. However, I do know it's time is coming.

Enjoy this beautiful Easter weekend.

See everyone on the nets

73 de John Chapman
KC5MIB
kc5mib@arrl.net

VE TESTING

The March VE session saw five applicants, all for their Technician license. Congratulations to **Karl Kuenning KI5PBU** from Crockett, **James**

McElhaney KI5PBV from Nacogdoches, **Jonathan Wyatt KI5PBW** from Conroe, and **Terri Maberry KI5PBX** from Lufkin. One candidate has not yet received his new callsign. Many thanks to VE's **Rusty KD5GEN**, **Ralph N6RH** and **Army AE5P**.

Beginning with our next VE exam session in April, we will be scanning the various forms and answer sheets from the session, and transmitting them electronically to the ARRL-VEC in Connecticut. They will review them and then transmit them to the FCC for license issue. This new action can reduce the time it takes for a new callsign to be assigned to just a few days.

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.

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

Our next meeting will be Wednesday April 7th at the City/County Emergency Operations Center off FM3314. Meeting starts at 7:00; doors open at 6:30. Come early for a little socializing before the meeting.

We will have our monthly book raffle, with everyone present receiving a raffle ticket without charge. One ticket will be drawn and the winner will be given a book on a ham radio subject.

A program is planned on using the N1MM contest logging program. Hope to see you there.

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.

ARRL ROOKIE ROUNDUP SSB

April 18, 2021
<http://www.arrl.org/rookie-roundup>

SAN JACINTO DAY SPECIAL EVENT STATION K5T

April 24-25, 2021

CQ WPX CW

May 29-30, 2021
<http://www.cqwp.com/rules.htm>

ARRL JUNE VHF

June 12-13, 2021
<http://www.arrl.org/june-vhf>

ARRL FIELD DAY

June 26-27, 2021
<http://www.arrl.org/field-day>

CQ VHF CONTEST

July 17-18, 2021
<http://www.cqww-vhf.com/>

NAQP RTTY

July 17-18, 2021
<http://www.ncjweb.com/NAQP-Rules.pdf>

NAQP CW

Aug 7-8, 2021
<http://www.ncjweb.com/NAQP-Rules.pdf>

NAQP SSB

Aug 21-22, 2021
<http://www.ncjweb.com/NAQP-Rules.pdf>

A 20 Meter Vertical Antenna

by

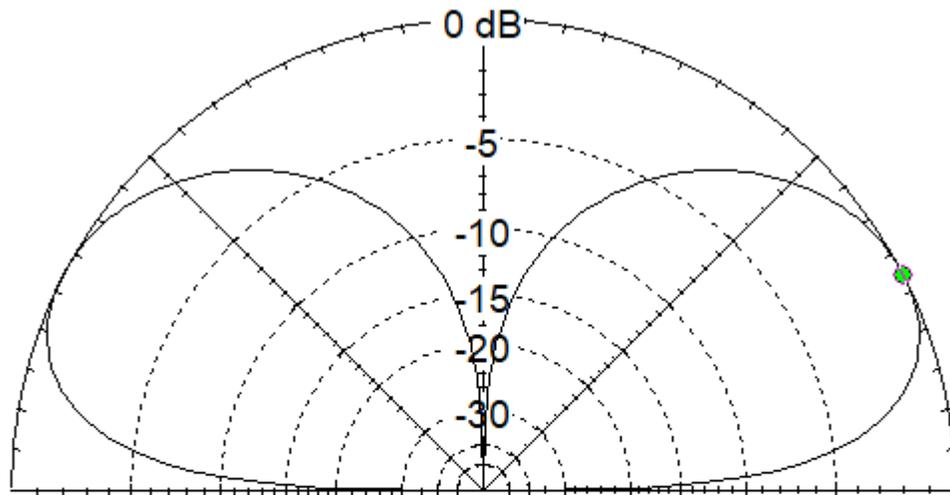
Thomas Atchison W5TV

We have been talking about 20 meter antennas, including a 20 meter dipole and a 20 meter inverted vee. Suppose we consider a 20 meter ground mounted vertical antenna or ground plane antenna. We will use $\frac{3}{4}$ inch aluminum electrical conduit for a vertical radiator. This material is available at Home Depot or Lowes at a reasonable price. We will simulate this antenna using EZNEC. The radiator will be a quarter wave length long and it will require some ground radials to complete the antenna. The electrical conduit comes in 10 foot lengths and it is threaded so we can join lengths to form a radiator of any required length. For our simulation we will join two pieces and cut the length to 16.7 feet. We will need to insulate the vertical radiator from ground. The feed line will be 50 ohm coax with the center conductor attached to the vertical radiator and the ground attached to radials laid out in a uniform pattern at the base of the antenna. The radials should be approximately one quarter wave length long. I recommend having at least four radials, but more is always better.

The EZNEC elevation pattern for this antenna is shown in Fig. 1.

Total Field

EZNEC



14 MHz

Elevation Plot
 Azimuth Angle 0.0 deg.
 Outer Ring -0.27 dBi

Cursor Elev 27.0 deg.
 Gain -0.27 dBi
 0.0 dBmax

Slice Max Gain -0.27 dBi @ Elev Angle = 27.0 deg.
 Beamwidth 44.3 deg.; -3dB @ 9.5, 53.8 deg.
 Sidelobe Gain -0.27 dBi @ Elev Angle = 153.0 deg.
 Front/Sidelobe 0.0 dB

Fig. 1

Maximum radiation is at 27 degrees and the pattern is omnidirectional as shown in the 3D radiation pattern of Fig. 2.

EZNEC

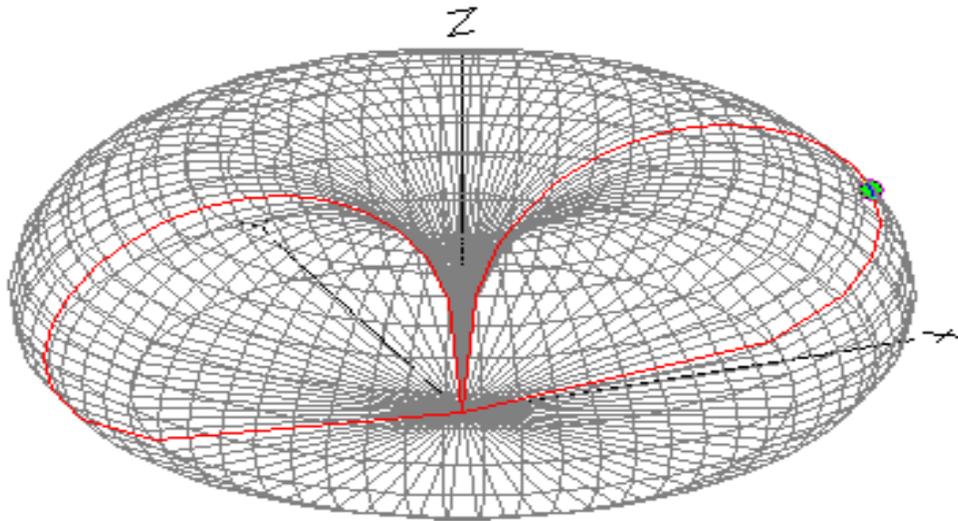


Fig. 2

The elevation plot of Fig. 1 is shown in red in the three dimensional plot.

The SWR for this ground plane antenna is shown in Fig. 3.

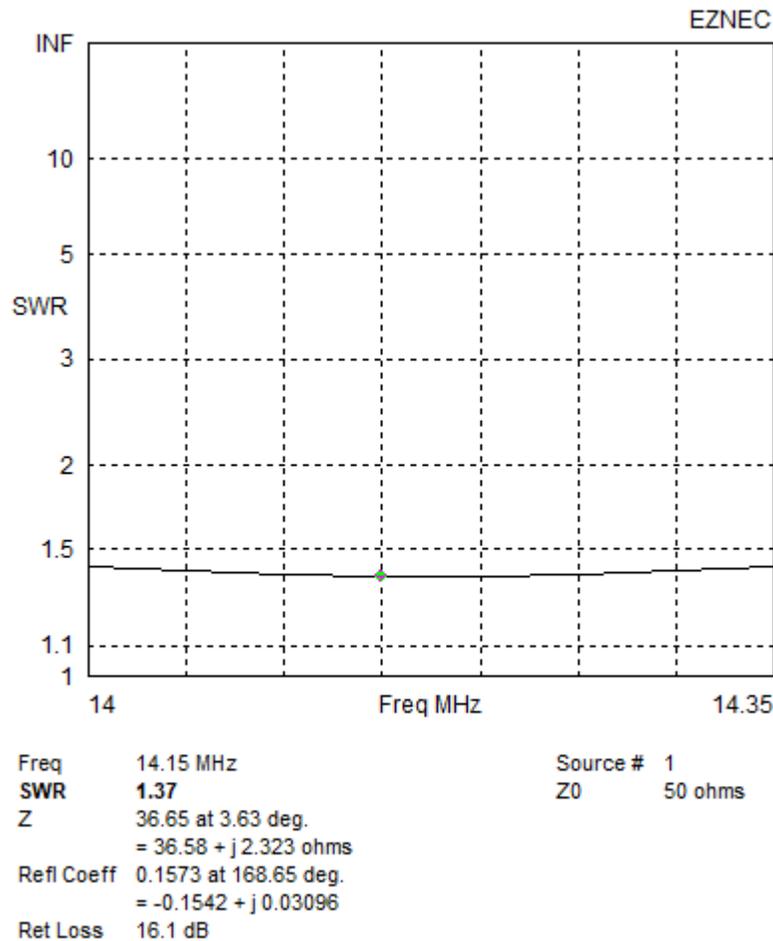


Fig. 3

Referring back to Fig. 1 we see that the gain for this vertical is -0.27 dBi. Remember that the expression dBi describes the gain of an antenna system relative to an isotropic radiator at the same frequency. In this case the minus sign indicates that an isotropic radiator is **BETTER** than the vertical by 0.27 dB or the vertical has a loss of 0.27 dB relative to the isotropic radiator.

Are Better Times Coming?

by
Army Curtis AE5P



Carl Luetzelschwab K9LA, presented a most interesting article in the April 2021 QST on the history of solar cycles, and the forecast of scientists for solar cycle 25.

Sunspot Cycle 25 video by Carl K9LA -- if you are a DXer you might enjoy this video.

https://youtu.be/1QLc_J5eI0w