

# Nacogdoches Amateur Radio Club

## 2014 CLUB OFFICERS

Pres: John Cechin - W5FWR

VP: John Chapman - KC5MIB

Sec/Treas: Army Curtis - AE5P

Visit our web site at

<http://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.



## MARCH MINUTES

The March meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on March 5th. **President John W5FWR**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Sixteen members and five guests were present. Each person present introduced themselves. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

### Old Business:

Members gave short reports on several HF contests they had

participated in during the past month.

Several members travelled to the Orange Hamfest on February 22<sup>nd</sup>. Through skillful last minute planning, the group was able to disprove earlier predictions of their return time.

### New Business:

Field Day is coming up June 28<sup>th</sup>. Motion was made to hold Field Day this year at the AE5P shack. Motion carried.

Skywarn training will be held tomorrow evening March 6<sup>th</sup> in the Student Center Building at SFA. All are welcome.

**Todd Hoover N5TJH** gave a short presentation on the upcoming Tailgate Sale to be held in Longview on April 12<sup>th</sup>. The sale is co-

sponsored by most of the ham radio clubs in East Texas and Todd invited NARC to also be a co-sponsor. Motion made and carried. If you want a ride to the sale, contact AE5P. Three seats are available.

Meeting closed at 7:35 p.m.

#### Program:

**Tommy Gober N5DUX** gave a great program on various projects he has presented to the ARRL "Technology in the Classroom" program for teachers. Tommy sent an e-mail to Hamlist after the meeting giving numerous links to additional information on several of the projects he demonstrated during the program. If you missed it, contact AE5P for a copy.

### MY 2 CENTS FOX WILLY ROGER

#### APRIL:

This is the time when the **IRS** is everybody's friend, so be kind to the **IRS** agent, invite him/her to lunch.

**WOW**, what a program that was, wouldn't you agree? It was so good I went out and purchased one of those dongles. I even found one that would cover 10M, now that's great, the only thing is that it only goes to 1.7GH, I guess you can't have everything. Stand by Dr. Tom for a boat load of questions. Thanks John for arranging all. How about all the members sending John, KC5MIB, a thank you and a **BIG** well done. John please pass along the same to the presenter, Tommy Gober.

How about that write up on our own **N5YA** and **K5QE** in the April QST magazine, page 91, nice going guys, I can't wait for the next grid. When are you guys going to do the south pole, just a thought?

#### PHASE II:

In the last newsletter I had laid out my plans for bringing **COAL** into the house. I can now report that the project went very well, very well indeed. Coal and Tar Baby are now fast friends and I over hear

them making plans for mischief. The other day both of them came to me and with a secret, a secret they had been keeping for some time. I am going to tell you that secret but I don't want it to go any further. Both Tar Baby and Coal told me that they were Indians, that's right, Indians, Indians from the Blackfoot Nation, and Coal's full name is... wait for it...wait for it, Coal Underfoot. Now remember don't tell anyone.

#### PHASE III:

This phase I am not sure about, I was looking at bringing Gray Baby into the house to complete the three ring circus. Then it occurred to me, what about Buttercup? He will be all alone, remember these cats have not had adult teaching, so they are not sure what or how to do things, just one more problem. Will they never end?

I will keep you posted; I know everybody is on the edge of their seats waiting for the finish to this drama.

Last week I was so sure that our cooler weather was over for the year I went out and planted my garden. First off I planted two grape plants, one on either side of my, once was green house, one on the North side and one on the South side, that way I got them coming and going. Next I tilled three rows into the rich red iron media that we in East Texas like to call soil or dirt, the compost will come later. Now the chore is to decide which veggies to plant. I had Beets, Lettuce, Carrots, Sweet Peas, Short Peas, Tall Peas, and Beans, for a start. I also planted four Blackberry bushes, looking at maybe some wine making later. Now all I have to do is sit back and wait for harvest time and go into a veggie OD, and a good time was had by all.

At the time of this writing, the weather is on the cold side and I am out of fire wood, what's this world coming to when the trees stop giving, what is a person to do?

The word tree has been stripped clean, so that's it for now, I guess I will go and put some extra cloths on.

Happy Trails

73 Enjoy

What do you think, let me know?

73,

John Cechin W5FWR

[Carrots4ever2u@suddenlink.net](mailto:Carrots4ever2u@suddenlink.net)

## VEEPS CORNER

Hope everyone had a good March. Spring showers are on the way. We will have a program on High Altitude Balloons and amateur radio in April, Maybe a little class time in May and haven't figured out June yet.

I've noticed in some of the groups I'm in that digital audio is starting to make some inroads. There is a group of IC9100 owners who are using

digital audio on HF and seem to be having some good luck. I've think Yaesu is preparing or has in service a digital hand held.

Now my crystal ball is a bit (a lot) foggy but 20/20 hind sight yields some level of foresight and some predictions.

I worked in the Land Mobile radio field when I was on active duty at Kelly AFB in San Antonio. We had 2 competing systems, Motorola and General Electric. One was not compatible with the other EXCEPT at the pure FM point to point level. The repeating systems didn't /couldn't/wouldn't work. Now let me qualify that. It took a lot of converting to make them work, but it wasn't easy or pretty.

It's something we've seen here, during the Columbia recovery activity, this 3 letter government agency couldn't talk to that 3 letter agency and neither of them could talk to the 3rd 3 letter. The beauty

of ham radio has always been we can talk to each other and it didn't matter if you had an Icom, Yaesu, Kenwood, or (put the name of your radio here) \_\_\_\_\_. We just could because they all met the same standard.

So where is all of this leading? Well Icom has a digital voice standard and Yaesu has one but will they be mutually exclusive or will they inter operate? Your guess is as good as mine. See you Wednesday. Have a great month and good DX. Have you heard Japan on 10m yet?

73 de  
John  
KC5MIB  
[jlchapman2@juno.com](mailto:jlchapman2@juno.com)

## CONGRATULATIONS

From our March VE testing session:

To Ray Fuller, KG5AMB, for upgrading to General.

To Jonathan Erbey, KF5RGL, for upgrading to General.

And to three others who either earned their Technician class license or upgraded an existing license.

## VE TESTING

Our next VE testing is scheduled for Wednesday, April 16th at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Applicants should bring a picture ID, the original and a copy of their current Amateur license, the original of any CSCE's and \$15 to cover the cost of the exam(s). Correct change is always very much appreciated. 73 de AE5P  
email: [ae5p@arrl.net](mailto:ae5p@arrl.net)

## CLUB NETS

Remember to join us each week for the 2-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. We are always looking for folks who would like to become net control operators. If you are interested, please contact any of the existing net controls. We will be pleased to help you in any way we can.

## NEXT MEETING

The next meeting will be on **Wednesday April 2nd** at 7:00 p.m. in the Bailey Library of Christ Episcopal Church. The church is at the corner of

Starr and Mound Streets in Nacogdoches. Please come join us and bring a friend.

## EDITOR'S NOTE

With the Lenten session in full swing, the church has some special programs planned for Wednesday evenings in the Parish Hall during Lent.

Arrangements are being made to find an alternate location at the church for us to use for our March meeting and March VE testing session.

## UPCOMING EVENTS OF NOTE

Mark your calendars for the following events coming up in the next few months:

**HAMCOM** - June 13-14 in Plano.

<https://www.hamcom.org/>

**CSVHFS** - July 24-26 in Austin.

Make your reservations now for three days of learning and enjoyment at the Marriott Austin South in Austin, Texas. The 2014 Central States VHF Conference includes forums, demonstrations, technical presentations, a Saturday evening banquet and a fun filled Austin boat tour and bat watching.

The 2014 conference theme of QRO brings speakers and vendors from around the world with talks, projects and systems for high-power on VHF and up bands.

See a complete list of talks and vendors at <http://csvhfs.org/> and register today!

**33rd Annual 2014 ARRL/TAPR DCC (Digital Communications Conference)**

Friday, September 5th -  
Sunday, September 7th

Austin Marriott South in  
Austin, TX

The DCC has two days of Technical forums on Friday & Saturday and a concurrent Introductory forum on Saturday.

On Saturday night the banquet will feature an interesting speaker and the Sunday morning seminar will be a deep-dive into a technical topic.

We encourage those interested in attending the DCC to make your hotel reservations early to get the special TAPR hotel rate.

Updated DCC Information Available on TAPR's Web Site at:

[www.tapr.org/dcc](http://www.tapr.org/dcc)

## Antenna Simulation Introduction

by

Thomas A. Atchison W5TV

The idea of simulating an antenna system using a computer is a concept that several amateur radio operators are now able to accomplish with a number of different software packages. Some packages such as EZNEC have a small cost associated with them; however, there are some that are FREE. One such free package is located at the following URL:

[www.qsl.net/4nec2/](http://www.qsl.net/4nec2/)

When you click on the above URL you will open the '4nec2' home page. You should see a brief article by Arie Voors entitled "NEC based antenna modeler and optimizer". If you scroll down the page you will find two columns, one labeled 'Information' and the other labeled 'Downloads'. You can read a bit about the software by opening some of the Information items. Some of these are 'List features', 'View screenshots', etc.

When you are ready to download the 4nec2 package, you can click on 'Latest 4nec2 version (5.8.14)' and it should download and install the package. If you click on the '4nec2 files as a ZIP (no install) (5.8.14)' it will download a ZIP file that you can unzip and install yourself. I used the automatic install (first choice) and it worked without a hitch.

When you have installed the 4nec2 simulation package you will discover that there is a lot of information out there discussing this package. In particular, if you will click on '4NEC2 Tutorials' under Information on the Home page you will find several tutorials. One of these is called 'Simulation of wire antennas' and it is a good starter. Gunthard Kraus wrote it and it talks about the Numerical Electric Code (NEC) and how to install the package from the ZIP file.

I would like to 'walk you through' some first steps in using this software. You can branch out on your own very quickly and find that this is a very useful addition to your ham shack.

After you have installed the 4nec2 software on your computer you should have a shortcut on your main screen that looks like this



If you double click on this shortcut you will open two screens, one is the Main screen and the other is the Geometry screen. The Main screen is available using F2 and the Geometry screen is available using F3, but you don't need to use those F-keys to get started. The open folder icon at the top left of the Main screen can be used to open some of the simulation files that are provided with the package. Click on this icon and it will open a file called 'models'. In this file you will see several file folders and three files labeled Example1.nec, Example2.nec, and Example3.nec. Double-Click on the 'HFsimple' folder. Click on 36dip.nec and click the 'Open' button. This should populate your Main screen with some information and the Geometry screen should have a picture of a dipole (purple) with an X, Y, Z coordinate system in green.

The main screen should show the Filename '36dip.nec'. The Frequency should show 3.68 Mhz, the Wavelength should show 81.47 mtr, the Environment box should show some information and the Comment box should say 'Dipole antenna for 80 mtr'. On the Main screen click 'Settings' and be sure the 'Geometry edit' line is checked. Go down to 'Length' and be sure 'feet' is checked. Go to 'Radius unit' and be sure the 'Inch/AWG' is checked. These should be the only ones checked at this time. If others are checked, click them again to uncheck them.

If you press the F6 key you should get the Geometry Edit window. This is where you can change the antenna you are simulating. Press 'Segm-info' and you should get another window labeled 'Structure/segment info'. This shows how many wires and how many segments are used in the simulation. We will talk about what that means later.

Now, let's do something with this model. Press F7 and you should get a window labeled 'Generate (F7)'. Click on 'Far Field pattern'. This should expand the Generate window where 'Full' should be checked and 'Resol.' should be 5 deg. Click the 'Generate' button. After a couple of seconds you should get another window labeled 'Pattern (F4)'. This shows the vertical plane of the antenna. Press F9 and you will get a view of the antenna over ground. If you then press 'r' on the keyboard it will show you a 3-dimensional pattern of the simulated signal. Close the View screen by clicking the 'X' in the upper right corner.

Now, press F7 to open the 'Generate' screen again. This time check 'Frequency sweep'. This will expand the Generate screen. Under FR: enter 3.5 in the Start window, 4.0 in the Stop window, and 0.05 in the Step window. Click the 'Generate' button at the bottom. Give the processor a few seconds and it should generate an SWR graph for the antenna from 3.5 MHz to 4.0 MHz. It should also generate a Reflection Coefficient graph.

I hope to provide more information about 4nec2 in the next few articles. Please let me know if you have trouble getting to this point. I will help if I can.