

# Nacogdoches Amateur Radio Club

## 2010 CLUB OFFICERS

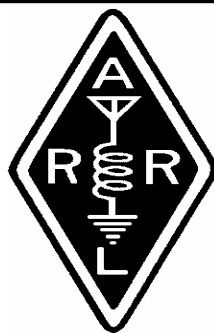
Pres: Rusty Sanders - KD5GEN

VP: John Jordan - N5AIU

Sec/Treas: Army Curtis - AE5P

## 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.



## MAY MINUTES

The May meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on May 5th. **President Rusty, KD5GEN**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Eighteen members and four guests were present. Each person present introduced himself. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

### Old Business:

#### Winlink:

The Winlink Node from the top of the Fredonia Hotel is in the process of being rebuilt.

#### Health and Welfare:

**Bert, AC5Z**, is currently in Willowbrook Nursing Home and is slowly improving.

**K.J., KK5BE**, is home and recovering from his surgeries.

#### Field Day:

**W5TXR** has stepped down as FD co-chair, and has asked **Robert, KD5FEE** to take over that position. After some discussion, it was moved to defer our Field Day operations this year due to lack of participants. Approved.

**New Business:**

**Neches River**

**Rendezvous:**

NRR is scheduled for June 5. Please contact **Mike, WD5EFY**, if you can help.

**VHF June Contest:**

Rovers going out in June include **W5TV/KE5ZNJ** in the White Rover, **N5AIU/AE5BN** in the Red Rover, and **WK5F** in his new rover.

**Bob, K5ME**, noted that the **CQ WPX CW** contest is coming up the weekend of May 29. A fun contest.

Meeting adjourned at 7:30 p.m.

**Show and Tell:**

**K5QE** showed pictures of his new 432 EME antenna.

**KE5ZNJ** showed his 2M copper pipe loop antenna.

**Program:**

**Army, AE5P**, presented a program on directional antennas. The antenna he used for his talk, a homemade 2M cheap yagi, was presented to Richard,

**KE5TCU** after the program. You can see the same basic program at

[http://blog.makezine.com/archive/2010/02/seeing\\_radio\\_waves\\_with\\_a\\_light\\_bulb.html](http://blog.makezine.com/archive/2010/02/seeing_radio_waves_with_a_light_bulb.html)

## Oscillations From The Chair

Hello to each of you as the month of May is almost over. It appears that the weather has been extremely hot and humid earlier this year than in the past however some have told me that increasing age will make one think that.

The **Neches River Rendezvous** will be coming up quickly. I understand that all the needed ham operator positions have been filled but you may want to check with **WD5EFY** in Lufkin to verify. I would assume that if you showed up, you could be put on standby for assisting in the ops. I am planning on working the event this year. The **Neches river** is a beautiful stretch of water that is in a battle for preservation.

The **Winlink** station will be going back on the air shortly at the **Fredonia Hotel**. **Army, AE5P**, has done a fantastic job on assembly of the equipment and the container to weatherproof the equipment.

I am sure there is possibly more news out there but at the moment, I cannot recall such. I suppose my oscillator is not working as it should.

If any of you has information on what it takes to get on the air in foreign countries, that might be an interesting discussion at the next meeting or as a training topic.

See you on Wednesday night.

**KD5GEN- Rusty**

email:

[rusty.sanders@att.net](mailto:rusty.sanders@att.net)

## VP's CORNER

As many of you may know, I have recently retired

from teaching at McMichael Middle School. At the moment, I am living on my family farm in Mt. Pleasant, but this may change. I will be coming back to Nacogdoches for the next few meetings, but it's not clear yet what my future might hold in store. Stay tuned.

There are several club members, including me, planning to go out as rovers in the ARRL June VHF contest. This is a lot of fun, and not hard to do. If you would like to join in the fun, please see me at our next meeting.

John, KC5MIB, will be presenting an interesting program for us at our June meeting. You will definitely want to be there.

Hope to see you all there.

73 de John N5AIU

email: new e-mail coming soon.

## VE TESTING

Our next VE testing is scheduled for Wednesday, June 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 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 June 2nd at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. The church is at the corner of Starr and Mound Streets in Nacogdoches. Please bring any show and tell items you might have.

## BASIC ANTENNAS

### PART 19

by

Thomas Atchison W5TV

In Part 18 we discussed a full wave loop antenna. In that discussion the loop was mounted vertically, that is, the plane of the loop was perpendicular to the ground. The radiation pattern was broadside to the loop. We can use this full wave loop as the driven element of a multielement directive array. We can add a full wave loop as a parasitic element as we did in the case of the yagi antenna. If we make a parasitic loop about 3 percent longer than the driven element it will serve as a reflector and if we make it about 3 percent shorter it will serve as a director. An antenna formed using full wave loops is called a cubical quad antenna.

Suppose we consider the case of a driven element and a reflector. The usual spacing for a driven element and a reflector is about 0.2 wavelength. Using EZNEC we will simulate a quad designed to operate at a frequency of 14.1 MHz. In the simulation the driven element will be 18.3 feet on each side and the reflector will be 19 feet on each side. This is a little more than a 3% difference, however, these figures match a  $75\Omega$  load best. The spacing will be 14 feet. In Fig. 1 we have the driven element to the left, fed at the point labeled 1. The reflector is on the right.

EZNEC

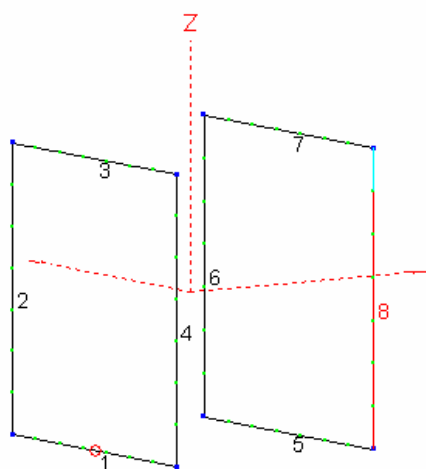


Fig. 1

We place the lower wires at the 40 foot level and look at the radiation pattern. It is shown in Fig. 2. The maximum lobe is to the left with maximum radiation at about 20 degrees. We are looking into the side of the antenna with this radiation pattern. The polarization is horizontal because the feed point is at the bottom. If we wanted vertical polarization we could feed the antenna on one of the side wires.

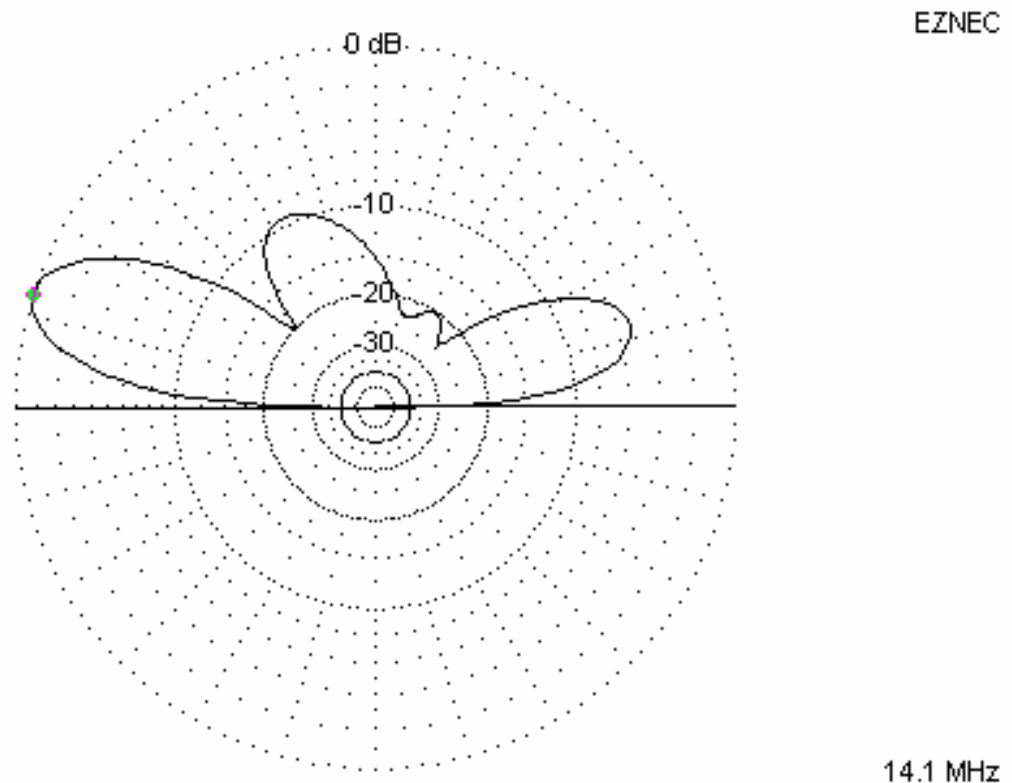


Fig. 2

At 14.1 MHz the SWR in this model is close to 1.1:1 with an impedance of 75 ohms.

There are various construction techniques for quad antennas that can be found in the ARRL Antenna Manual or the ARRL Handbook. Some people use bamboo poles to hold the wire in a square shape and others use fiberglass. The dimensions for the construction of a quad for 144 MHz are such that it can be accomplished in a short period of time with excellent results.