

# Nacogdoches Amateur Radio Club

## 2011 CLUB OFFICERS

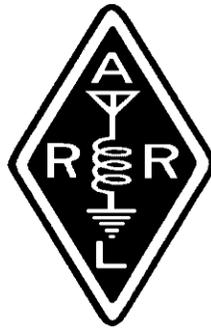
Pres: Rusty Sanders - KD5GEN

VP: Clarence Riddle - KC5UBP

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.



## JUNE MINUTES

The June meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on June 1st. **President Rusty, KD5GEN**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Twenty-one members and three guests were present. Each person present introduced himself. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

**Army - AE5P** made a motion to purchase a portable PA system to use at meetings for

approximately \$70.  
Approved.

**Contests:** A short report was made by members who participated in various contests and QSO parties during the past month.

**Neches River  
Rendezvous:** will be held on Saturday, June 4<sup>th</sup>. If you can help, please contact **Steve-KB8QWN** or **Greg-KE5JQV** for details.

**Robert - KD5FEE** showed off a number of items he got from the State at their Disaster Preparedness outing recently at Walmart.

**Marshall - K5QE** reported the VHF South Memorial Day Barbeque went very well, with about 70 in attendance.

**UPCOMING EVENTS:**

**HamCom / ARRL National Convention** in Plano, June 10-11.

**ARRL VHF+ June Contest**, June 11-12.

Meeting adjourned at 7:18.

**Program: Army - AE5P** presented a program on Field Day coming up the end of the month.

**NEWEST HAMS**

At our June 15<sup>th</sup> VE test session, Ralph Hollingshead passed his Tech test and is now KF5LLX. Congratulations Ralph.

**OSCILLATIONS FROM THE CHAIR**

Hello to everyone from Xtal Beach, Texas. For those of you not really radio savy, that is called Crystal Beach by most folks. As I write this article, my family is enjoying a few days on the beach.

If many of you have not been relaxing on a beach lately, I must say that one can see an interesting assortment of folks up and

down the shoreline. By doing some people watching, I thought about the subject of this article, "You must be a ham if".

You must be a ham if.....

While driving down the road, you tend to drive out of your lane looking at an antenna system.

While driving down the road, you see a garage sale and wonder if they are selling any old radios.

While going through a flea market, you see some old tubes for sale and you look through them to see if you need any even though all your radios are transistorized.

Advertisements for estate sales catch your eye and you look to see if any antique radios are in the sale.

When some piece of electronics break down at home, you take it apart to see if you can repair it.

When an old TV goes on the blink, you start taking

it apart to get resistors and capacitors for your junk drawer.

When planning a vacation, you look up the repeater frequencies for the towns you will be passing through.

You have difficulty throwing away a piece of wire.

Your neighbors ask you to look at some kitchen appliance that does not work.

And finally, when making reservations or purchasing something via telephone, you automatically use phonetic spelling to make sure the order clerk gets the information correct.

I am sure that you may think of some other humorous situations and I would love to hear of them.

Hope to see you at the next meeting.

KD5GEN- Rusty

email:

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

### VP's CORNER

Field Day was very good and can't wait for the next one. We had at least three contacts to Hawaii and one to the Virgin Islands. That little straight wire was amazing.

73 de Clarence KC5UBP

email:

[clarence404@hotmail.com](mailto:clarence404@hotmail.com)

### VE TESTING

Our next VE testing is scheduled for Wednesday, July 20th 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 July 6th** 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. Hope to see all of you there.

### RADIO GIVEAWAY

If you are a current member of the Nacogdoches Amateur Radio Club, and upgrade your ham license to General or Extra during the calendar year 2011, you will receive one or more tickets for a special drawing to be held at the club's annual Christmas party / meeting on December 7th, 2011.

Members upgrading from Tech to General will receive one ticket. Members upgrading from General to Extra will receive two tickets. Members upgrading from Tech to Extra will receive three tickets.

Each winner of the drawing will receive at minimum an Amateur Radio HF transceiver complete with power supply and microphone. Depending on donations, there may be more equipment added to this.

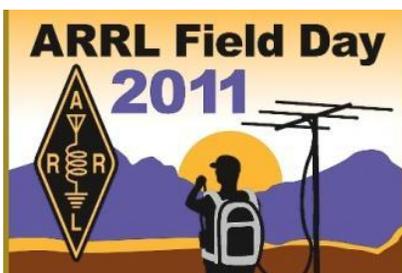
At this time, there are at least three complete HF radios available for the drawing:

1. Drake TR-5 transceiver
2. Kenwood TS-140 transceiver
3. Kenwood TS-130 transceiver

The drawing will be administered and conducted by the Club Secretary/Treasurer.

Winners of this equipment are asked to donate their equipment back to the club if they no longer have a need for it, so the program can be continued in future years.

If you would like to donate equipment to be used for this program, please contact **AE5P**.



### FIELD DAY 2011

The NARC Field Day was held at the Nacogdoches Airport, operating 2 HF stations from the mobile EOC trailer, with many

thanks to Tommy Wheeler, Emergency Manager for the City of Nacogdoches.

Two separate HF antennas were used; the multi-band Butternut vertical and a 40 meter dipole that was made at the site. Propagation was quite good, and both radios stayed very busy. Robert - KD5FEE stayed up until about 3:00 AM operating one station, but seemed very glad to have been relieved by Tom and Army.

Larry Nolan - KJ5LDN volunteered to provide the food for Saturday dinner and Sunday breakfast, and what a job he did! Barbeque with all the trimmings for dinner, and two cakes that had to be seen to be believed. Pictures are elsewhere in this newsletter.

We operated in Class 2F, and wound up with just over 400 Q's. As usual with Field Day, it was a lot of work, but was a lot of fun. If you didn't come out, you really missed a good one.

## BASIC ANTENNAS

### PART 33

by

Thomas Atchison W5TV

I was talking with Army, AE5P, today about antenna articles and he mentioned small loop antennas. After looking into this I discovered it is an interesting topic. I will attempt an introduction to small loop antennas with the hope that readers will be tempted to read further about them and perhaps construct their own. This would certainly make a great show and tell antenna for a club meeting.

A small loop antenna is a loop antenna that is formed with a total element length of less than 0.1 wavelength. Such antennas are often used in radio direction finding and in listening for weaker stations in the presence of strong interfering stations. A small loop has a radiation pattern that has a figure eight pattern. In addition, it has very sharp nulls in the radiation pattern. The usual practice is to rotate the loop until interfering signals are in a null allowing the signal of interest to be heard.

A common statement made about small loop antennas is that one may have at most two of the following three properties: Small size, Efficiency, Wide Bandwidth. For example you may have a small loop that is efficient, but it will not have wide bandwidth. This means that as you alter frequency you will need a method to retune the loop. The usual method of retuning the loop is to have a capacitor in the loop that may be used to counteract the inductive reactance of the loop.

When constructing the loop one may use multiple turns of wire or one may use tubular metal such as copper. The shape can be circular, square, rectangular, or hexagonal. The result is an inductor so the addition of a capacitor to the loop creates a tuned circuit that can be adjusted to the required frequency. Since we have an inductor of relatively large size, radiation will occur. Experimentation has shown that the more turns there are in the inductor, the less efficient it is. For some low frequencies, more than one turn is needed to obtain resonance, however, in many cases construction is accomplished with a single loop of tubular metal. We should also realize that

multiple turns of wire will increase the resistance loss in the antenna. A diagram of a small loop is shown in Fig. 1.

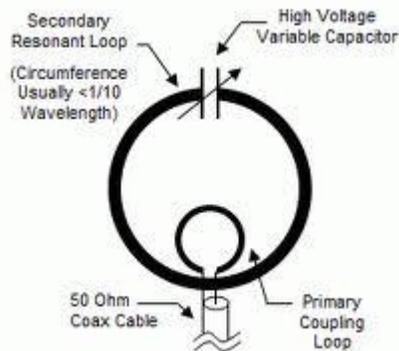


Fig. 1

Coupling a 50 ohm transmission line can be accomplished using transformer coupling. One can use a small coupling loop or a gamma match. The equivalent circuit is shown in Fig. 2.

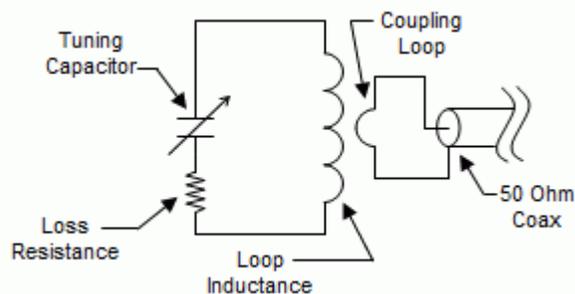


Fig. 2

The loop is usually mounted vertically, therefore, the polarization is horizontal and the radiation lobes form a figure eight pattern broadside to the plane of the loop.

Some URLs for the construction of small loop antennas are below:

<http://www.aa5tb.com/loop.html>

<http://www.antennex.com/preview/myloop.htm>

<http://www.standpipe.com/w2bri/>

<http://www.frontiernet.net/~jdale/Loop.htm>

<http://va3stl.wordpress.com/2011/04/24/small-loop-antenna-for-hf-listening/>

You will find many more articles concerning small loop antennas by searching 'small loop antenna' on the web. This would be a good home construction project that will result in an excellent receiving antenna for HF.

## PICTURES FROM FIELD DAY



This is the Mobile EOC trailer our HF stations were located in. The White Rover was used for our VHF/UHF/microwave station, although no contacts were made on those bands.



This was one of the two HF stations, consisting of a Kenwood TS-140 with a laptop computer for logging. Tom - W5TV and Army - AE5P had an absolute ball using this station to operate CW, which without a CW filter in the 140, proved to be quite a challenge.



This was one of two cakes with Saturday dinner, compliments of Susan Nolan.



Check out this cake radio also made by Susan. This looked so great, no one had the heart to eat it. It even had a lollipop microphone! Susan does custom cakes, cupcakes, invitations, candy displays and molds, diaper cakes and fruit displays. She can be reached at 936-645-1138.