

# 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.



## JUNE MINUTES

The June meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on June 4th. **President John W5FWR**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Twelve members and no guests were present. Each person present introduced them self. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

### Old Business:

Neches River Rendezvous was held on Saturday,

June 7<sup>th</sup>. Participants from NARC included W5TV, KD5FEE, WD5RAH, AE5P, and K5ME. Army reported it will be several weeks before he recovers from all the chigger bites.

Reminder given that Field Day the last full week-end in June will be held at the shack of AE5P.

### New Business:

Our now annual Ice Cream Social will be held at the July monthly meeting on July 2<sup>nd</sup>. Bring your favorite flavor and/or toppings and enjoy.

Meeting closed at 8:45 p.m.

### Contest Reports:

**Bob K5ME** reported working the CQ WPX CW contest and doing rather well. **Army AE5P** reported

also working the CQ WPX CW contest and not doing well at all.

## MY 2 CENTS FOX WILLY ROGER

JULY:

AE5P, ONCE AGAIN,  
TELLING ME THAT IT'S  
THAT TIME.

So now I have to find my  
crayons and Big Chief  
notebook and do  
something.

The winter has taken its  
toll on my word tree, so  
this month's NL will be on  
the fly.

I wanted to wait until  
after the Field Day event  
so I had some news to  
report. Not having that  
information I will report  
on the event anyway. "The  
crowd was tremendous;  
the club had to have the  
Sheriff's department  
around to control coming  
and goings. Due to the  
amount of the rain that we  
have had lately the  
catering truck parked at  
the back of the AE5P's  
shack got stuck and had to  
be pulled to the street at

the evening meal. The  
driver parked in the  
driveway but many cars  
had to be moved about to  
allow the truck to fit in.  
The food, as I reported  
earlier, was soooo good  
that it made you want to  
fire your cook. There were  
many CWers present and  
these guys racked up some  
incredible points, I don't  
know how it's done but  
some of them used keys,  
that was even more  
incredible. Next we had  
the SSB Phone guys take  
the next shift. These guys  
racked up so many points  
that it is going to take a  
math type person to find  
who the leader was. We  
even had some PSK and  
RTTY contacts. The event  
came to a point that AE5P  
had to set up another  
radio so the competition  
could continue. A Field Day  
to remember, and to think,  
it happened on my watch,  
thanks guys.

PS: Even the slackers  
joined in on the fun.

Well this is the time for  
the second annual **ICE  
CREAM SOCIAL**, no one  
has reported in, to me at  
least, on what HE or SHE

will be bringing so I guess  
it will be potluck for sure.  
I myself has been under  
the weather and not sure  
about anything lately, I  
will do my best be there.

The past month has been a  
hectic one, the river run,  
VHF contest, and too many  
for me to remember,  
maybe I should look at my  
notes, so please remind me  
during the club meeting.

### PHASE II.V.V:

In a past newsletter I had  
reported that **GB** had  
made her bid to be a house  
cat good, so far **GB** has  
extended her range. She  
now has mastered the  
garage, the kitchen, and  
the living room. The  
getting to know you  
process is, at best, a day  
to day event. **TB** even  
looked at **GB** a few times  
without hissing at her, the  
progress is slow but sure.  
But now **TB** and **CU** have  
started a game, a night  
game. These two will stand  
around and watch me get  
ready for bed and when  
the light go out the game  
starts. This game is one of  
chase, run, follow the  
leader, tumble, and repeat.

This is nothing new to them except now my bed has been added to the game as the landing/turn around/tumbling area, and that includes the whole bed. Next comes a rest period after which **TB** comes to bed but not to sleep, not yet. **TB** has to mish-mash, and she does this sitting on my hip. That's not so bad, but she is mish-mashing the bed, are you getting the picture?

**TB** is sitting on my hip and doing her thing to the bed, her hands on the bed and her butt high in the air, this goes on until all is good with her and she rolls in to a ball and goes to sleep. It seems that I don't know how to pet, at least as far as **CU** is concerned, I will be petting her and a claw will remind me that I am doing it wrong. At this point I have to point to her and she does the rest. **CU** curls up at my feet when I am on the computer and that is her place, and all is well in mud town. **GB** has found that she can sit beside me in the chair. The only thing is that only

lasts a few minutes at best, then the wiggling starts and rubbing, and shifting around and before I know it **GB** is climbing all over me, and I mean all over me, most of the time I have to remove her from me and all is good once more.

In the last NL I gave out a CAT test, of course it was a cat test on my cats. I have had so many replies to that test that I couldn't believe the response. Here are the questions:

Answer the following questions for **TB**, **CU**, **GB**, and **BC**:

- A) FULL NAME
- B) DATE OF BIRTH
- C) COLOR OF FUR
- D) BREED
- E) GENDER

**TB**) Tar Baby AKA Nasty Child, 11 March 2013, Black, Black Foot, lady

**CU**) Coal Underfoot AKA Roly-Poly, 1 September 2014, Black Foot, lady

**GB**) Grey Baby AKA Speckle-Belly, 1 September 2014, Paw-Nee, lady

**BC**) Butter cup AKA He-Man, 1 September 2014, man

**IN DAYS OF OLD, CATS WERE WORSHIPED AS GODS AND THEY HAVE NEVER FORGOTTEN IT**

I don't know how many of you know that I have a century plant in bloom in my front yard. Its shoot is up as high as the power lines or higher. The thing looks like a cell tower, quite truly impressive, come and look-see.

Be sure and hug a cactus today, they need love too.

Just a reminder, **FIELD DAY, ICE CREAM SOCIAL, HAM COM, TXQSO, VHF CONTESTS**, and much more is just around the corner.

Remember: keep your powder dry and your head below the horizon.

Happy Trails

73 Enjoy

What do you think, let me know?

73,

John Cechin W5FWR

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

## VEEPS CORNER

CQ CQ CQ CQ Field Day. Hope everyone managed to get some air time this weekend. Had a full schedule so couldn't get out to the AE5P shack to get on the air.

Wednesday, 2 July will be our 2<sup>nd</sup> annual Ice Cream social, so please bring your favorite Ice cream topping, etc. and let's share a little bit of summer.

Phillip Blackburn will be here next month to talk about some of his projects with miniature and smaller tracking radios.

Looking forward to seeing everyone on Wednesday.

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

## VE TESTING

Our next VE testing is scheduled for Wednesday, July 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 August 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. Please come join us and bring a friend.

## FIELD DAY 2014

Many thanks to the following members who stopped by the AE5P shack during Field Day: W5FWR, KD5GEN, WK5F, and W5COX. A total of 112 contacts were made on 40, 20, 15, 10 and 6 meters. 95 Q's were CW; 17 Q's were phone. Total score was 207 points.

## UPCOMING EVENTS OF NOTE

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

**NARC MONTHLY MEETING AND ICE CREAM SOCIAL** - July 2

**IARU WORLD HF CHAMPIONSHIP** - July 12-13  
<http://www.arrl.org/iaru-hf-championship>

**CQ WORLD WIDE VHF CONTEST** - July 19-20

<http://www.cqww-vhf.com/>

**CENTRAL STATES VHF SOCIETY ANNUAL CONFERENCE**- July 24-26 in Austin.

<http://csvhfs.org/>

**AUSTIN SUMMERFEST** - Aug 1-2

<http://www.austinsummerfest.org/>

**ARRL UHF CONTEST** - Aug 2-3

<http://www.arrl.org/august-u-hf>

**NORTH AMERICAN QSO PARTY (NAQP) (SSB)** - August 16-17

<http://ncjweb.com/naqp/>

**33rd Annual 2014 ARRL/TAPR DCC (Digital Communications Conference)** - Sept 5-7 in Austin.

<http://www.tapr.org/dcc>

**ARRL SEPTEMBER VHF CONTEST** - Sept 13-15

<http://www.arrl.org/september-vhf>

**TEXAS QSO PARTY** - Sept 27 - 28

<http://www.txqp.org/>

## The Hentenna Antenna

By

Thomas A. Atchison W5TV

Not long ago John, W5FWR, asked me about an antenna that he was interested in called the "Hentenna". I was not familiar with this antenna so I decided to do a little research on it. It seems there are several articles concerning this antenna in QST and on the Internet. I have tried to summarize some of the information I discovered in this article.

The Hentenna first appeared in the Japanese ham literature. Apparently, the word "Hen" means fantastic or miraculous, therefore, this word was connected to the word "antenna" to form the name for this antenna. I understand the Hentenna has several useful properties. A prototype for this antenna was first suggested in 1972 by JE1DEU. It was constructed using two quad loops fed in phase. After that, JH1FCZ and several other Japanese amateurs experimented to establish the basic form of the Hentenna. They found that this new antenna compared with the gain of a conventional two-element quad.

The Hentenna shape is as follows (Fig. 1):

Structure of Hentenna

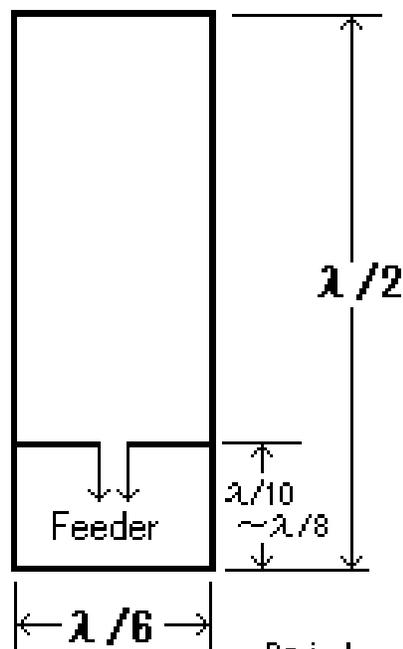


Fig. 1

Da i . I

Note that the feeder is located at the midpoint of the horizontal wire that is located somewhere between  $\lambda/8$  and  $\lambda/10$  above the bottom wire. I have read in other places that  $\lambda/6$  is a good starting place. This distance above the bottom wire should be adjusted for best SWR. Once this has been established, the feeder wire can be soldered to the vertical wires.

If the Hentenna is mounted as shown in Fig. 1, the radiation is horizontally polarized. Rotating the configuration 90 degrees will provide vertical polarization.

Suppose we consider constructing the Hentenna antenna for 6 meters. The construction can be made from aluminum tubing totally, with wire and a framework to hold the wire, or the top and bottom elements can be aluminum tubing and the vertical sides can be wire. The latter construction can permit portable use by hoisting the Hentenna in a tree.

We will simulate the Hentenna using EZNEC. The construction for EZNEC will be 0.25 inch aluminum tubing. Fig. 2 shows the EZNEC model.

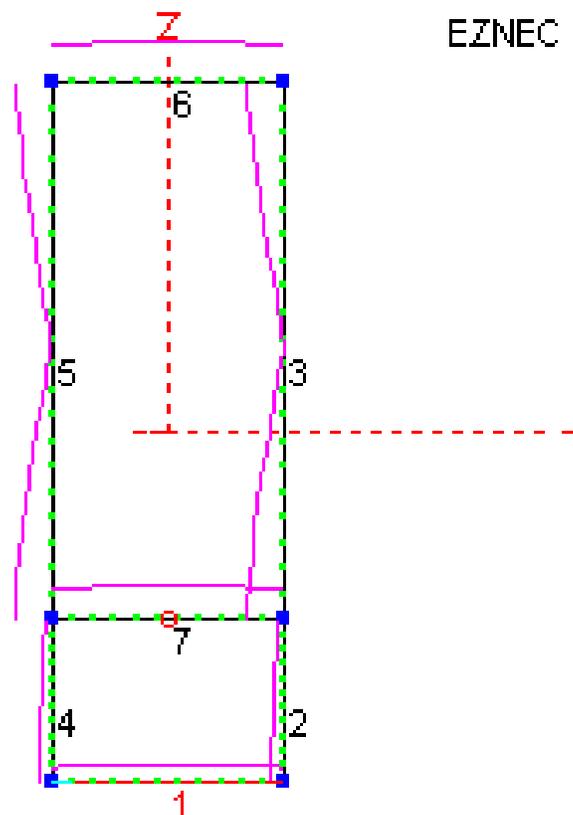
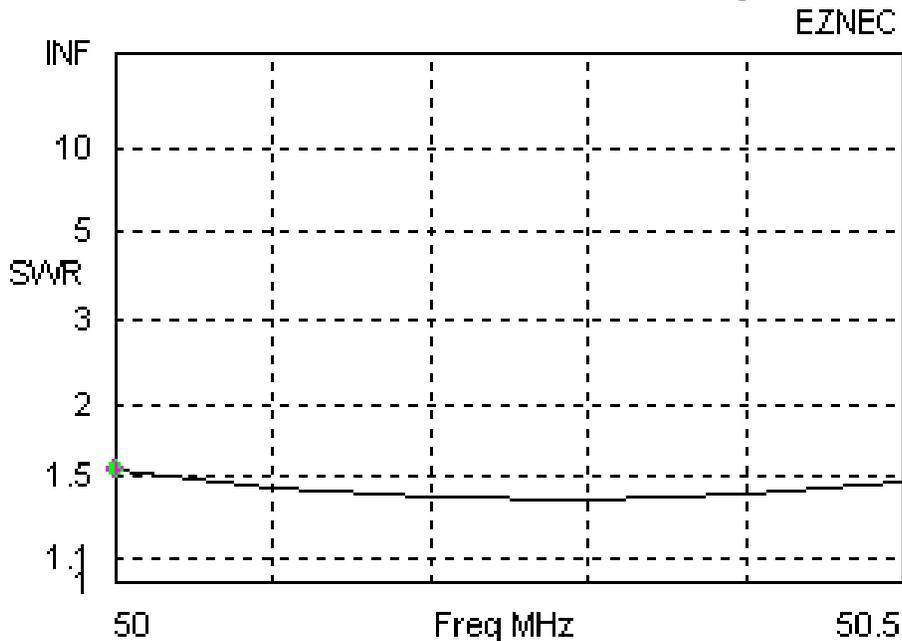


Fig. 2

The length of wire 1, wire 6, and wire 7 are each 3.25 feet. The length of wire 3 and wire 5 are 7.5 feet and the length of wire 2 and wire 4 are 3.25 feet. That means the length of each vertical side is 10.75 feet. The feed point is in the middle of wire 7. The resulting SWR plot from 50 MHz to 50.5 MHz is shown in Fig. 3. Notice that we are using 50 ohm coax to feed the Hentenna. You can get a better match by using 75 ohm coax as can be seen in the Z of the data in Fig. 3.



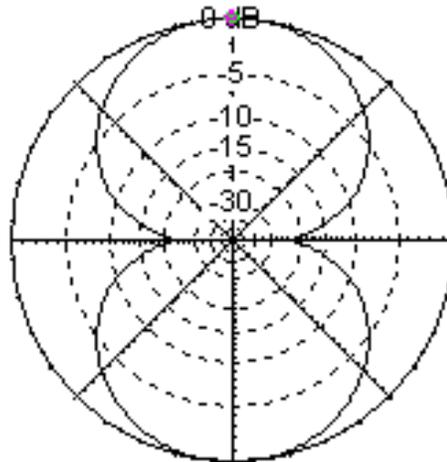
Freq	50 MHz	Source #	1
SWR	<b>1.54</b>	Z0	50 ohms
Z	71.1 at -13.73 deg. = 69.07 - j 16.88 ohms		
Refl Coeff	0.2117 at -33.45 deg. = 0.1767 - j 0.1167		
Ret Loss	13.5 dB		

Fig. 3

The directivity of the Hentenna is shown by the azimuth plot in Fig. 4. Here the elevation angle is 13 degrees and maximum radiation occurs perpendicular to the plane of the Hentenna.

Total Field

EZNEC



50.1 MHz

Azimuth Plot

Elevation Angle 13.0 deg.

Outer Ring 9.75 dBi

Cursor Az

90.0 deg.

Gain

9.75 dBi

0.0 dBmax

Slice Max Gain 9.75 dBi @ Az Angle = 90.0 deg.

Front/Side 22.02 dB

Beamwidth 87.8 deg.; -3dB @ 46.1, 133.9 deg.

Sidelobe Gain 9.75 dBi @ Az Angle = 270.0 deg.

Front/Sidelobe 0.0 dB

Fig. 4

You can find additional information on the Hentenna at the following references:

Koji Sugihara, JJ1UMS, "Let's Make the Hentenna," QST, February 1982, pp. 16-17.

Shirow Kinoshita, JF6DEA/KE1EO, "The Hentenna—The Japanese Miracle Wire Antenna," The ARRL Antenna Compendium, Vol. 5, pp. 66-68.

Paul Danzer, N1II, "Omnidirectional Hentenna," QST, April 2014, pp.48-50.