

Nacogdoches Amateur Radio Club

2014 CLUB OFFICERS

Pres: John Cechin - W5FWR

VP: John Chapman - KC5MIB

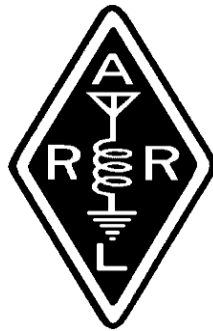
Sec/Treas: Army Curtis - AE5P

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 7th. 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 2nd. 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

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 2nd 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

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

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-uhf>

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

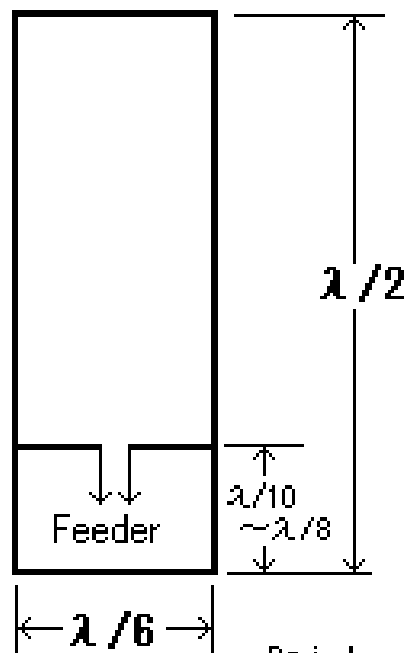


Fig. 1

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.

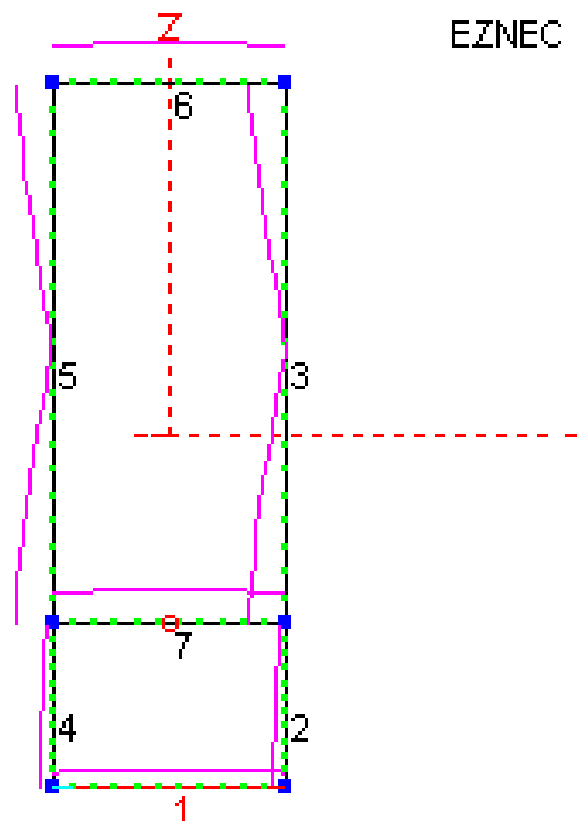
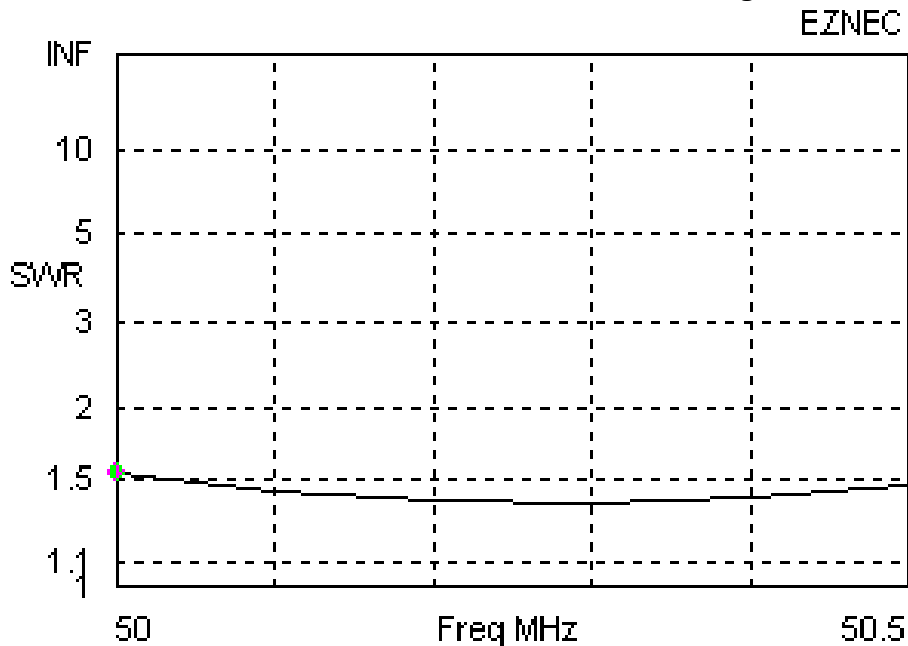


Fig. 2

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.



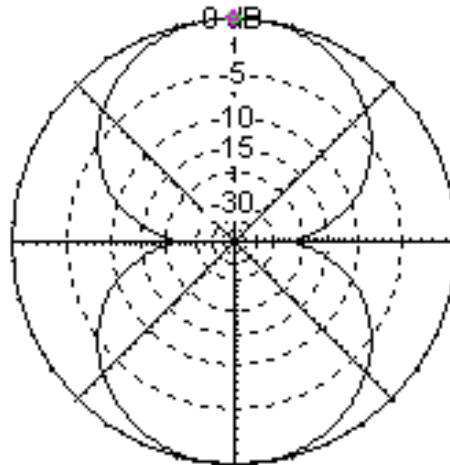
Freq	50 MHz	Source #	1
SWR	1.54	Z0	50 ohms
Z	71.1 at -13.73 deg. = 69.07 - j 16.88 ohms		
Refl Coeff	0.2117 at -33.45 deg. = 0.1767 - j 0.1167		
Ret Loss	13.5 dB		

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.