August 2010 Volume 08-2010

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.

AUGUST MINUTES

The August meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on August 4th. **President Rusty, KD5GEN**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Nineteen members and two 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:

Fun Run:
Debbie Tanner from Nacogdoches Safe and Drug Free hand delivered a thank you card for the club's participation in their recent fun run.

Lufkin Hamfest:
Will be held on October 16th at the Lufkin Church of the Nazarene on Loop 287 across from the Toyota Dealer.

New Business:

K5QE is teaching a Ham Radio class in Hemphill.

KD5FEE reported that Darryl MacDonald is looking for a speaker for his Kiwanis's Club.

NAQP CW is this coming weekend.

ARRL UHF is this coming weekend.

Nominating petitions for West Gulf Division Director and Vice Director were circulated for signatures. NARC is very pleased to nominate and support for election Dr. David Woolweaver, K5RAV for Director, and John Robert Stratton, KE5ISX for Vice Director.

Meeting adjourned at 7:18 p.m.

Show and Tell:
N5AIU showed pictures of his horses he is raising and showing now that he is retired. Beautiful animals.

A Tee Shirt from the Lanana Creek Fun Run was raffled off, and won by Jimmie Lou Williams.

Oscillations From The Chair

Hello to each of you. I have had the very unpleasant task of again writing to ARRL and informing them of the loss of another club member. N5WQX, Kenneth Jerry Hughes, aka KK5BE has passed away and I certainly do miss him.

Since his passing, AE5P, W5TV and I have removed all of the radio equipment, antennas, towers, and accessories. The family will be selling the property and AE5P is in the process of inventorying the equipment so it can be sold. Over the years, KJ has acquired a number of interesting items.

This was the first time for Dr. Tom to ride in a bucket truck and he was serving as the aerial grunt for Army while taking down the antennas and towers. Even though August has been very dry, there is a little story to working 40 feet up in a bucket while standing in 1 inch of water. They will have to relate this to you at the meeting.

Some of the smaller pieces of assorted equipment will be given away during the next meeting. Be sure to show up as there are a number of surprise packages that will be given away during a drawing. Some of you may remember back when a company named BA had a radio catalogue that was sent out on a regular basis. One of the items one could purchase was boxes of assorted parts. It seems like they came in 2 pound and 5 pound boxes for a small price. Basically, this was supposedly floor sweepings of electronic parts. Things that fell off the shelf got thrown into a box and this was later packaged into smaller boxes to sell. It was quite interesting what you would receive. Some of the items were very usable pieces and some were for those experimenters working on not so usual pieces of equipment.

The process of assisting KJ's family has been interesting but it is very sad. He had a very interesting arrangement of towers and antennas and now the skyline of his house is bare of all of that. Events come into our lives, things change and occasionally, we must change with it.

We will be assisting the Lufkin radio club with their Hamfest in October. Our club will be handling the food and drinks during the event. This is something that we will need to discuss at the next meeting. Be thinking about this and how you can assist.

Finally, I will close with some tidbits on safety.

On Friday while we were in the process of removing the antennas and towers, Army's associate Mark Clark had to occasionally remind me to stay out from under the bucket where Army and Tom were working on the removal of the antennas. Objects can accidentally fall from the sky and put a dent in one's head. We were lucky that neither Tom nor Army dropped anything on that day.

When soldering connections, wear long pants so when you sling the loose solder off the gun, you do not end up with hot, molten solder burning its way through the skin on your leg.

Never ever solder on something using the wife's good table as your work table. The better half tends to get very irritated seeing solder tip burns on the good quality finish of the dining table. Globs of cooled solder also do not help the table finish.

Always let a PL 259 cool after you make the connection before admiring what a good job you did. Sometimes the finger prints grow back after the burn.

Never ride the top of a tower elevator without knowing all the facts. (Ask W5TV to explain)

Disconnecting antenna connections during a thunderstorm can give you an indoor light show plus give you a quick buzz.

Beam antenna elements can pierce a roof when they fall. Never sleep under those antennas.

Hope to see you at the meeting on September 1st.

KD5GEN- Rusty

email:
rusty.sanders@att.net

VP's CORNER

Hey Gang. Retirement did not last as long as I thought that it would. I am now directing band at Pittsburg Jr. High for this semester. The director at the Jr. High just had back surgery and is expected to be out for most of the semester. I only have to work three periods a day, so it does not take away from my retirement income. With the two salaries combined it is quite a big raise over what I was making working full time. And, I am working only four months. I am now sure that I made the right decision in retiring from Nacogdoches and moving here to the farm.

I do however miss seeing all of you as often. Hopefully, I will get some kind of HF going here soon so I can catch more of you

on the air. I unfortunately still haven't gotten the HF on the air yet.

I have had some luck talking to a few people on the Mt. Vernon repeater. It is probably only 10 miles from my farm as the crow flies. I have been able to make contacts from Longview, Mt. Pleasant, and as far away as Paris from this repeater. If you are ever up this direction, it is a very good repeater.

I have a high school friend that works for the fire department in Pittsburg that is a ham. However, I haven't tracked him down as of yet. I stopped in at the fire department today, but he was out fighting brush fires. It is so dry here at our area. We are starting to lose some oak trees due to lack of water. If any of you know a better rain dance than I am using, please send me the directions.

I also have rekindled a friendship with a friend that I use to play drums for in a country band about 38 years ago. He is also retired now from Pittsburg. He has talked me into setting up a drum set and playing a few songs together sometime in October. That ought to be quite interesting. It has been about that long since I played and the thought of doing this sober has got me pretty nervous. I will let you know how that goes another day.

I look forward to seeing everyone at the meeting. See you then.

73 de John N5AIU

email: n5aiu@yahoo.com

VE TESTING

Our next VE testing is scheduled for Wednesday, September 15th 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 September 1st 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 22

by

Thomas Atchison W5TV

An antenna that is often discussed is the Rhombic Antenna. This is a long wire antenna that consists of two wires that are placed in the form of a diamond or a rhombus as shown in Fig. 1.

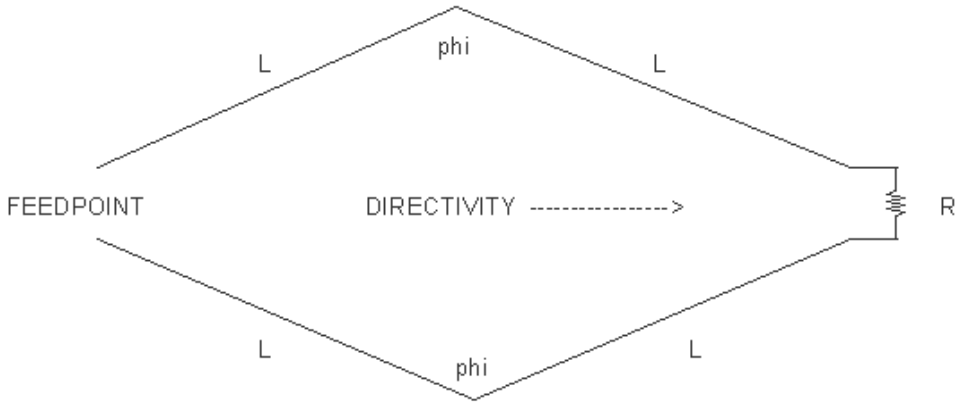

Fig. 1

The length, L, is one or two wavelengths and the angle, phi, is approximately 120 degrees. This would make the angle at the feed point and at the terminating resistor, R, to be 60 degrees. The impedance of this rhombic is approximately 700-800Ω so a terminating resistor of 800Ω is usually used. This resistor should be non-inductive. Ordinary wire wound resistors are not used because they have too much inductance. A rule of thumb for the terminating resistor is to select one whose power dissipation is half the power output of the transmitter. The use of a terminating resistor makes the antenna unidirectional in the direction away from the feed point and toward the resistor as indicated in Fig. 1. If we were to discontinue the use of a terminating resistor the antenna would become bi-directional.

The rhombic antenna is useful over a wide range of frequencies. Of course the amount of gain, the directivity and the impedance will all change; however, these changes are small. To improve the frequency range over which a rhombic can be used we can use

multiple wires in the construction. One such technique is to use three wires joined at the feed point and terminating resistor ends but increasing in separation toward the 120 degree angle. A spacing of 3 to 4 feet at the widest point will work. This reduces the impedance at the feed point to approximately 600Ω and that will match 600Ω ladder line. An alternative is to use a matching transformer at the feed point. Then we can use coax to connect to the transceiver.

An azimuth plot for a typical rhombic antenna is at Fig. 2.

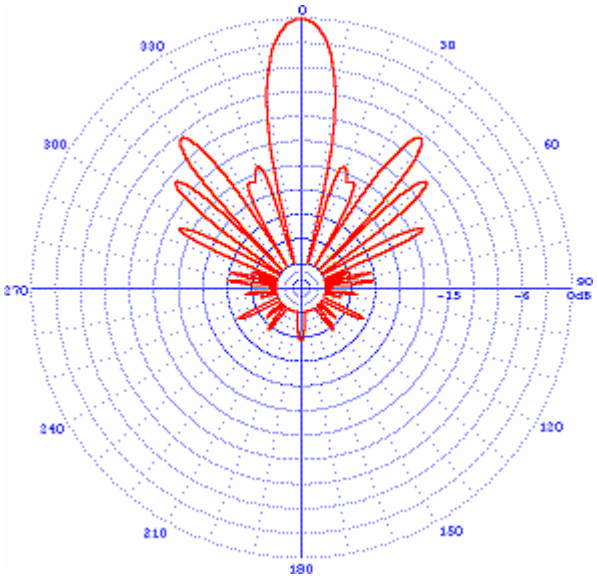

Fig. 2

Looking at the elevation radiation of a typical rhombic antenna we have Fig. 3. Notice that the angle of radiation of the main lobe is about 10 degrees.

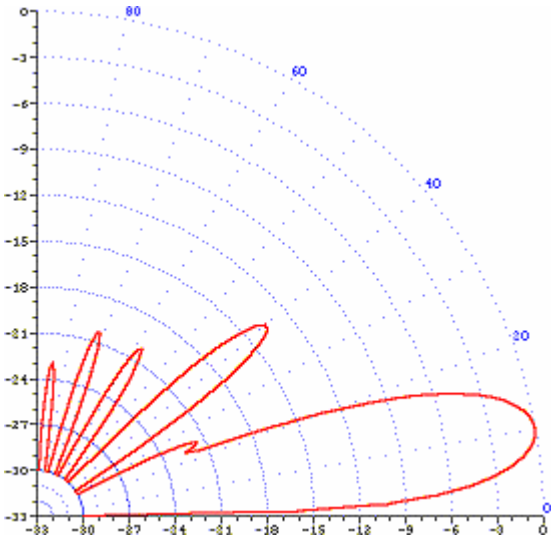

Fig. 3.

In the past couple of issues we have been discussing wire antennas that have a terminating resistor. The September 2010 issue of QST has an interesting article concerning a folded dipole antenna with a terminating resistor. You will find the article on pp. 51-52 of QST.