

Nacogdoches Amateur Radio Club

2013 CLUB OFFICERS

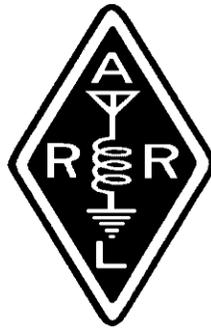
Pres: Mike Brown - KF5KEY

VP: John Cechin - W5FWR

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.



JANUARY MINUTES

The January meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on January 2nd. **President Mike KF5KEY**, 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 themselves. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

Army AE5P gave an update on repair efforts on the 147.320 repeater.

Discussion held on the 10th anniversary Shuttle Columbia Special Event Station, which will be held at the Hemphill Columbia Museum on Friday and Saturday February 1st and 2nd. Because this is the 10th anniversary of the loss of Columbia, many dignitaries and guests from NASA are expected to attend. This is an opportunity to put our special event station on the air Friday as well as Saturday. All Amateur Radio operators, and especially NARC members, are invited to attend. Carpooling will be available to those interested. On Friday, the museum will open at 10:00 with radio operations to begin at 11:00. On Saturday, radio operations will begin at 8:00. A more complete schedule is available at

<http://nasacolumbiamuseum.com/>

The ARRL January VHF contest will be held the weekend of January 19 - 20. **Wayne N6NB** and **Carrie W6TAI** are planning to join us as rovers for the event. Several local rovers are expecting to participate as well. Promises to be an interesting weekend.

Meeting adjourned at 7:43 p.m.

Show and Tell:

Robert KD5FEE showed off a magmount he refinished.

Bill WK5F showed off a PC board he recently acquired for a 5760 transverter.

FROM THE PRESIDENT

Greetings to one and all. It's truly hard to believe that 2013 is upon us. Surely another year has not gotten by us... somebody must be getting old! I keep getting email

from some of my old high school gang, and unfortunately, they sometimes include pictures. It's a good thing that they label them, or I wouldn't be able to tell who all of those old farts are. I'm sure glad that I haven't gotten old as they have...Oh well, enough of the lies....

If you haven't made your plans to attend the NARC Special Event Station that is scheduled for Feb. 1st and 2nd, then please do so! This will take place at the Columbia museum at Hemphill located at 375 Sabine Street. This is a beautifully organized museum commemorating the loss of the shuttle Columbia, and the Nacogdoches Amateur Radio Club will once again be on the air in remembrance of the shuttle's loss. Once again, regarding the passing of time, it is so hard to believe that 10 years have passed since the loss of Columbia. I will wager that each of you can tell me exactly where you were when this tragic loss

occurred. If you've never visited the museum, you will be very much surprised at the caliber of the exhibits. There are individual exhibits for each of the astronauts who were lost that day. Some of the displays will bring a lump to the throat. The beautiful exhibits contain much personal as well as professional materials of each person in the crew of the Columbia. As you browse these displays, you can't help but feel the great loss that America suffered at the death of these bright, professional, dedicated young people. In addition, the museum presents much information regarding the shuttle itself. There is even a large movie theater screening films outlining the launch, mission and loss of the Columbia. All in all, this is truly a class presentation commemorating the loss of Columbia and crew.

Please come and be a part of the special event station. Last year we had two stations operating

simultaneously, and the contacts were fast and furious. Please plan to operate one of the stations for at least a small period of time. With sufficient operators, I'm sure that we can log hundreds of contacts, and what better reason to have a special event station than the remembrance of the Columbia. Let's celebrate the lives of those lost astronauts by reaching out and touching as many hams as possible during those two days.

At the last meeting, Army stated that we planned to carpool to Hemphill, and if you planned to go to contact him via the internet. If you haven't yet done so, please email him immediately so that we can finalize the number of vehicles that we will need. Once again, don't miss this one...it's well worth your time and for a worthy cause.

Also, if you haven't been coming to the weekly Wednesday NARC luncheons at Clear Springs,

make a point to do so. Great food and fun and a great opportunity to swap lies and war stories.

Speaking of war stories, the recent VHF contest tested the mettle of the participants and resulted in one of those outings in which "if it could happen, it did!" The rovers and participants experienced just about every possible occurrence on those two days, and overall, it seems that the normally passive, tranquil character of amateur radio was blown to hell and the contest turned into an adventure to test the mettle of the most dedicated ham. If you get a chance, talk to the fellows who went...as Dr. Tom said, "I saw things and heard things that I never expected!" Try to make it to one of our luncheons: every Wednesday, 11:30 at Clear Springs...bring your sense of humor!

I'll have to cut this short. I look forward to seeing you at the museum, Clear Springs and at the next club meeting. See you

there.

73 to all....

KF5KEY - Mike

Email:

michaelleebrown@hotmail.com

MY 2 CENTS FOX WILLY ROGER

Did you hear that thud?

That thud was the sound of the gauntlet being thrown down. That's right, the gauntlet or challenge if you prefer.

The challenge is to build a tube-type QRP radio and work HF for a year. What do you think? Not a General? Build for 10m. Can't find a schematic for a tube radio? A lot of hams will be happy to show you where to go to get the info. Too complicated to build a phone rig? Build a (DARE I SAY IT) CW rig. Don't know CW? Use a computer. Can't type? Use a talk and type program. Although my "talk and type program" was like being

married, the program and my wife didn't understand me. Any other problems you may have, feel free to contact AE5P.

Build a simple QRP tube rig and be part of the "glow group". That's the glow of a vacuum tube not a monitor. Don't push or cut in line, I will get to everyone, sign up now and avoid the rush. What do you think, let me know?

Farming, that's the next subject, farming is very important to Hams. I am talking about antenna farms, in the up and coming newsletters we'll be featuring antenna farms of different club members. We will see farms of members that have a dollar or two to thousands of dollars and to us that only have a few cents. I have seen many of the shacks that our fellow club members have some have the latest SDR rig and some have rigs that have been around for many years and I am here to tell you that my first rig was a MFJ 9406, I upgraded to a IC 756. With the MFJ

and ICOM I used a G5RV given to me by AC5Z/SK and I made a bunch of contacts on 6m. I don't believe that I could have done any better with a million dollar antenna farm. In the years since, my shack has been upgraded with an IC 756 PRO along with new HF VHF, UHF antennas and a tower to go along with them. What I am finding out is that with all that, it all comes down to the nut that holds the knob, so all you newbies remember that a rig with a simple antenna can get you around the world, and that's the name of the game.

What do you think, let me know?

In the up and coming meetings these programs will be offered:

AE5P- Flex 6700 (Checks in the mail)

N5YA- Antenna farms I have grown

WK5F- Report on the CAP

W5TV- Pros and Cons on different antennas

W5TV- Extra antenna information

What do you think, Let me know?

73,

John Cechin W5FWR

Carrots4ever2u@suddenlink.net

VE TESTING

Our next VE testing is scheduled for Wednesday, February 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

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 February
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.

NARC WEEKLY LUNCH

Please come join us for
lunch each Wednesday
beginning at 11:30 a.m. at
Clear Springs Restaurant
on Old Tyler Road.

BASIC ANTENNAS

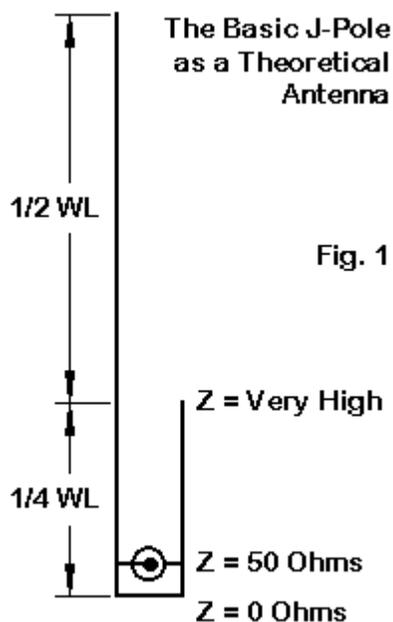
PART 49

by

Thomas Atchison W5TV

An antenna that is very popular on 2 meters is the J-pole antenna. There are several reasons for this. For example, it covers the entire band with an SWR less than 2:1, it provides a nearly circular azimuth pattern, it requires no radials, and it can match a 50-Ohm feedline. There are several articles that describe the construction of the J-pole antenna for 2 meters. I will discuss a construction using 450 Ω ladder line in this article. In a following article I will discuss using copper or aluminum pipe to construct a J-pole.

The basic J-pole is shown in Fig. 1 below.



The vertical radiator is an electrical half wavelength and the matching stub is an electrical quarter wavelength parallel conductor. The feed point is moved up or down between the matching stub conductor and the main vertical element until the impedance is approximately 50 Ω . The electrical lengths of both the vertical radiator and the matching stub depend on the diameter of the conductor used in the

construction and the type of insulation that may surround the conductor. If we use 450Ω ladder line for the construction then the insulation will affect the electrical wavelength.

With an EZNEC simulation I used the following dimensions:

Vertical element = 60 inches,

Matching stub = 21 inches,

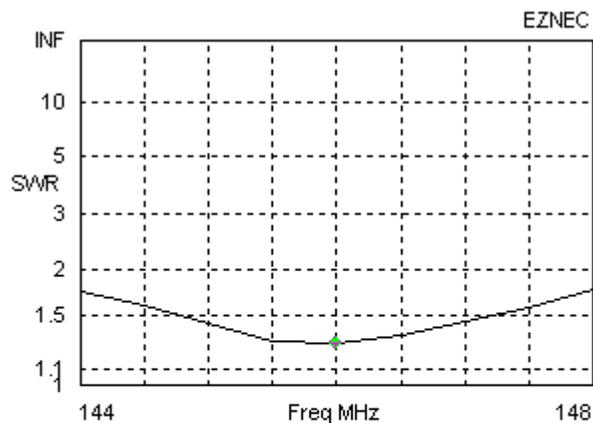
Spacing between radiator and stub = 1 inch,

Load point = 2 inches from the bottom shunt, and

Height of base above ground = 10 feet.

The 50Ω feedline has the center conductor connected to the main vertical element and the ground connected to the matching stub at the load point.

The SWR in the EZNEC simulation is as follows:

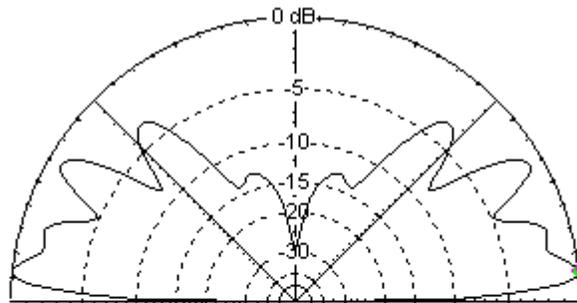


Freq 146 MHz
SWR 1.28
 Z 44.91 at -12.45 deg.
 = 43.86 - j 9.68 ohms
 Refl Coeff 0.1215 at -116.52 deg.
 = -0.05425 - j 0.1087
 Ret Loss 18.3 dB

The elevation radiation pattern at 146 MHz is as follows:

Total Field

EZNEC



146 MHz

Elevation Plot		Cursor Elev	6.0 deg.
Azimuth Angle	0.0 deg.	Gain	4.26 dBi
Outer Ring	4.26 dBi		0.0 dBmax

Slice Max Gain	4.26 dBi @ Elev Angle = 6.0 deg.
Beamwidth	16.6 deg.; -3dB @ 2.7, 19.3 deg.
Sidelobe Gain	4.26 dBi @ Elev Angle = 174.0 deg.
Front/Sidelobe	0.0 dB

This antenna can be constructed from a length of 450 Ω ladder line. Cut the total length to about 61 inches. If you want to experiment a bit, cut the length slightly longer and trim the main vertical element after construction. Remove the insulation 1 inch from the bottom on each side and solder these together to form the shunt. Next clip one side at 21 inches to form the matching stub. Finally, remove the insulation from both the radiator and the matching stub starting at 1 inches above the shunt to 4 inches above the shunt. This will allow 3 inches to move the load point to find the best match. Once the best match has been determined then a coax connector can be permanently soldered to attach the feed line. Remember that the center of the connector is connected to the long vertical element and the ground is connected to the short vertical element. The J-Pole can be hung from a tree using nylon cord.