

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.



DECEMBER MINUTES

The December Christmas Party and meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on December 7th. **President Rusty KD5GEN**, opened the meeting at 6:00 p.m. in the Parish Hall of Christ Episcopal Church. Seventeen members and five guests were present. Each person present introduced himself. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

The new officers for 2012 were installed in their respective offices.

President: Rusty KD5GEN,
Vice-President: Mike
KF5KEY, and
Secretary/Treasurer:
Army AE5P.

Contests discussed included the ARRL 10 meter contest and the 160 meter CW contest. Also discussed were the new frequencies and rules for 60 meters, where it was noted that these changes are NOT yet effective.

Meeting adjourned at 6:25.

After a blessing by Dr. Tom, W5TV, the buffet was opened and everyone enjoyed some excellent food. Following the meal, the first (and hopefully annual) HF Radio Giveaway was held. Ken, K5TRK won the drawing for his choice of the available radios, and selected a very nice

Kenwood TS-140 with matching mike and power supply. Mike, KF5KEY was second in the drawing, and selected a beautiful Drake TR-5 with matching Drake power supply.

The NARC White Elephant Auction was then held, with our auctioneer John, KC5MIB running the show. Twenty-two items were auctioned off, raising \$449 for the club. Many thanks to everyone who donated items for the auction, and special thanks for those who bid on and purchased the items.

OSCILLATIONS FROM THE CHAIR

Another year has passed us by and Mother Nature has shown again that she is in control.

Mother Nature showed her power in the display of various natural disasters. Our 3rd rock from the sun saw the effects of a major tsunami, earthquakes, volcanic eruptions, hurricanes, flooding,

tornadoes, winter storms, drought, severe heat waves, and wildfires.

Directly affecting this country, natural events that made the news were winter storms, a continuing drought, wildfires, and a disastrous rampage of tornadoes over large areas of the United States over several months.

This year's tornado activity spawned 5 EF5 events with a total of 1,626 tornadoes causing an estimated \$25 Billion dollars in loss and 552 fatalities.

Not recorded is the amount of time that amateur radio operators spent assisting affected citizens and emergency response agencies. Hams turned out to volunteer their equipment, expertise, and time for the benefit of affected citizens they have never met. Hams have provided communication equipment that is one of the best bargains our government agencies have ever had. I guess we all get a chuckle

when multi-million dollar, highly engineered radio systems cannot handle the needs and volunteers from the ham radio community show up to accomplish what big money cannot do.

NARC can relate to the call for service from past events over the years. Our members and non-members along with hams from other clubs have come forward to provide unselfish service to our community, our city, our county, our state, and even agencies of our federal government.

I am very proud of our ham community, members and non-members of NARC who are ready to assist when needed.

I am wishing all of you a great 2012. Hope to see you at the next meeting on January 4.

KD5GEN- Rusty

email:

rusty.sanders@att.net

VE TESTING

Our next VE testing is scheduled for Wednesday, January 18th 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 January 4th** 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.

OPERATING EVENTS

We have two operating events coming up soon that should appeal to almost all of our members.

First, on the weekend of January 21-22 is the ARRL January VHF Sweepstakes. This year, the club has a once in a lifetime opportunity to be part of an attempt to win first place nationally in the medium sized club competition. To accomplish this will

require the help of many club members. Prior experience is NOT required, but your help that weekend is absolutely necessary for this to be a success.

Several e-mails on this have already been sent out via Hamlist. Full details at the meeting on January 4th or contact AE5P.

Second, the Shuttle Columbia Special Event Station will be held February 4th, 2012. Kay Simpson (N5YA xyl) is the new manager of the Columbia Museum in Hemphill, and has invited us to hold our SES at the museum in 2012. Kay has requested NASA to send an astronaut to participate with us, and is awaiting a response. NARC will be organizing car pools to assist members with the drive to and from Hemphill. It promises to be one of the best SES operations yet.

Remember, this is your club. Your participation in club events is vital to the club's success.

BASIC ANTENNAS

PART 39

by

Thomas Atchison W5TV

We discussed a 3 element 20 meter yagi in an earlier article. This antenna is shown in Fig. 1.

EZNEC

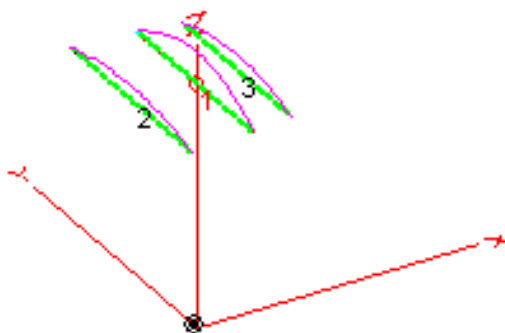


Fig. 1

Here the driven element is number 1 and it is 33.8 feet long. The reflector is number 2 and it is 35 feet long. The director is number 3 and it is 31.2 feet long. The spacing between the reflector and the driven element is 10.4 feet and the spacing between the director and the driven element is 6.9 feet.

The SWR sweep from 14.0 to 14.3 is shown in Fig. 2.

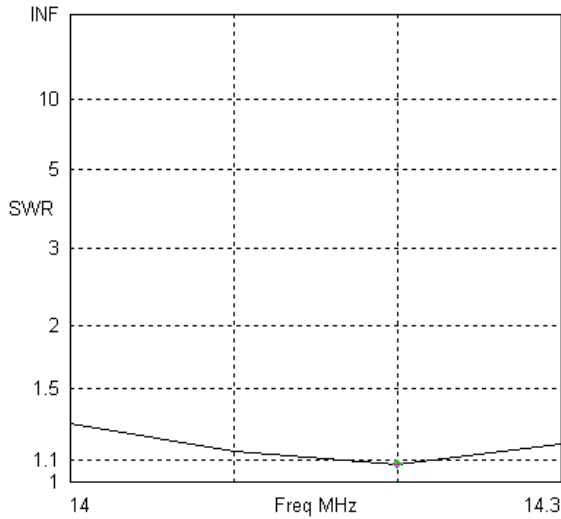


Fig. 2

The minimum SWR is at 14.2 and it is 1.08 to 1 with a 50-ohm feedline.

The elevation radiation pattern at 14.2 is shown in Fig. 3.

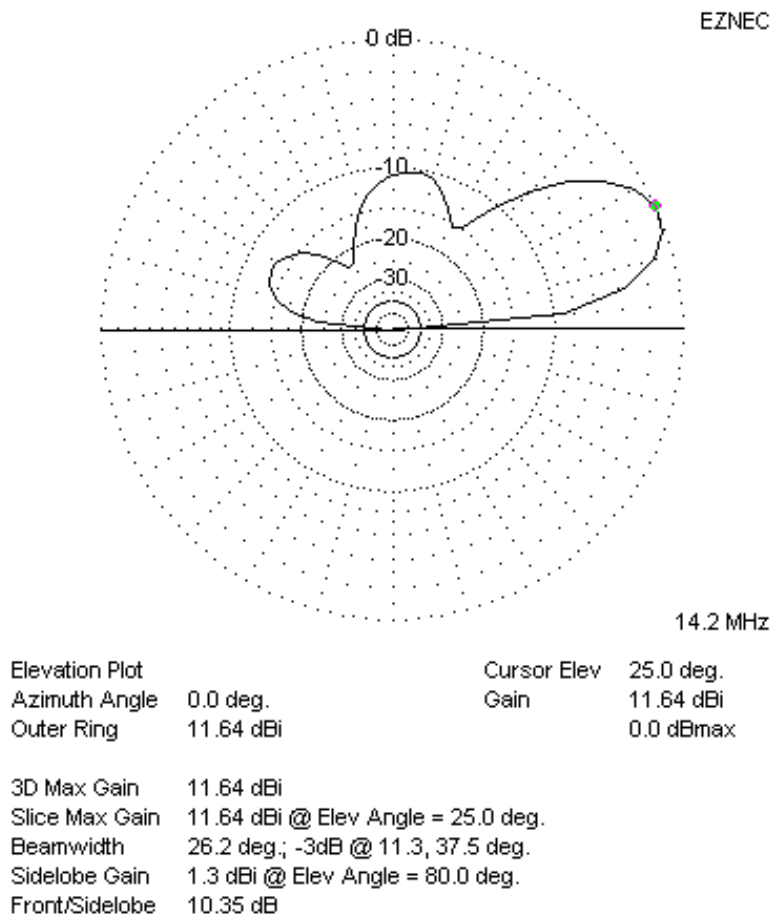


Fig. 3

Notice that the gain is 11.64 dBi at 25 degrees.

In an attempt to construct a dual band 3 element yagi for both 20 meters and 15 meters, suppose we reduce the length of the director to 21 feet. This length is chosen to improve the radiation on 15 meters. The resulting elevation pattern for 14.2 MHz is shown in Fig. 4.

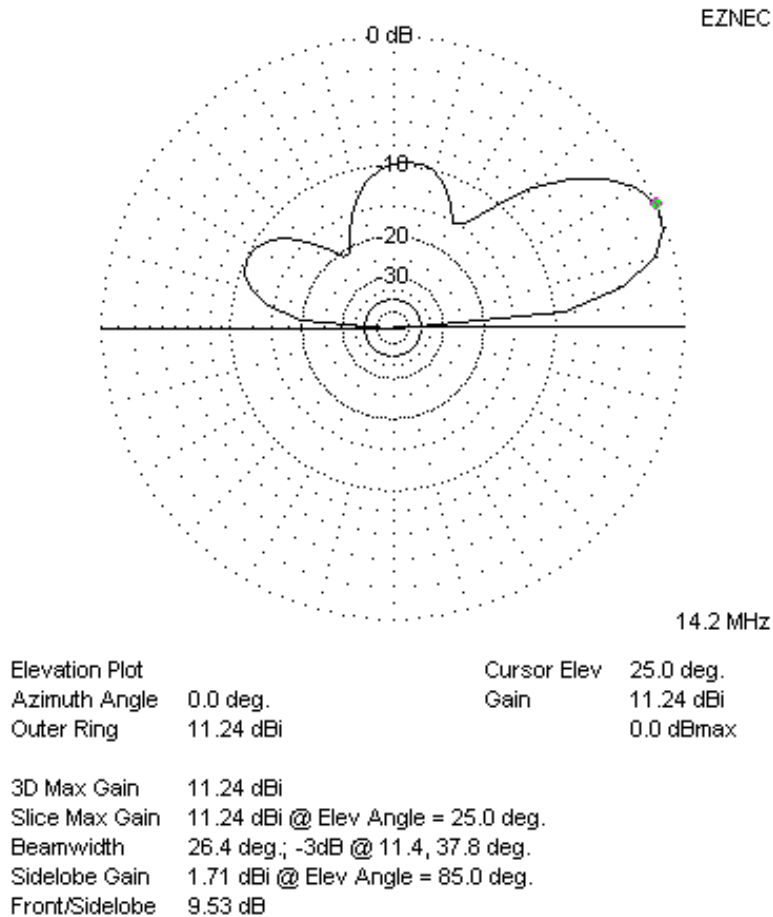


Fig. 4.

Notice that we have not degraded the radiation pattern for 20 meters too much.

The elevation radiation pattern for 21.3 MHz is shown in Fig. 5.

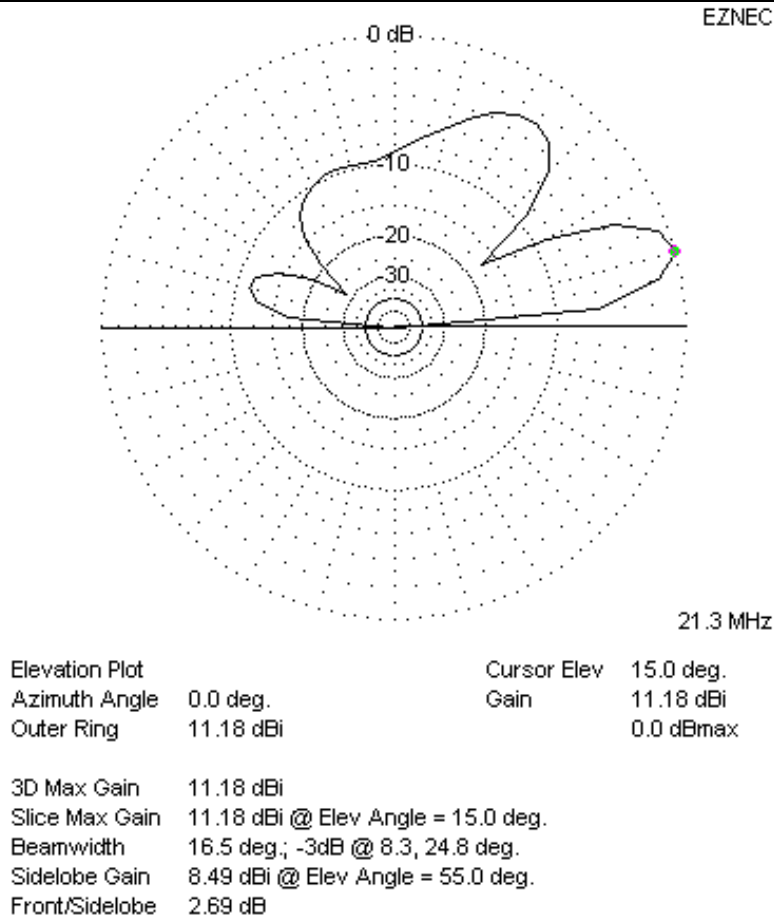


Fig. 5.

Here is major lobe is at 15 degrees and we have 11.18 dBi gain.

If we use 450-ohm ladder line to feed this antenna we have the SWR sweep from 14.0 MHz to 14.3 MHz shown in Fig. 6.

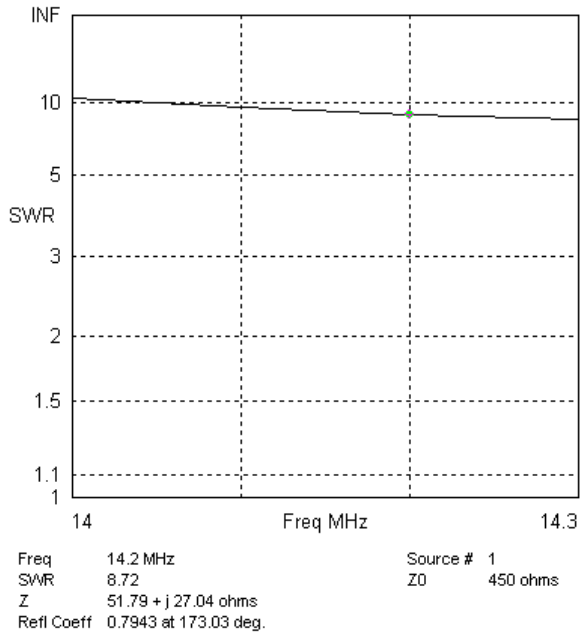


Fig. 6.

If we look at an SWR sweep from 21.0 to 21.4 with the same 450-ohm feedline we have Fig. 7.

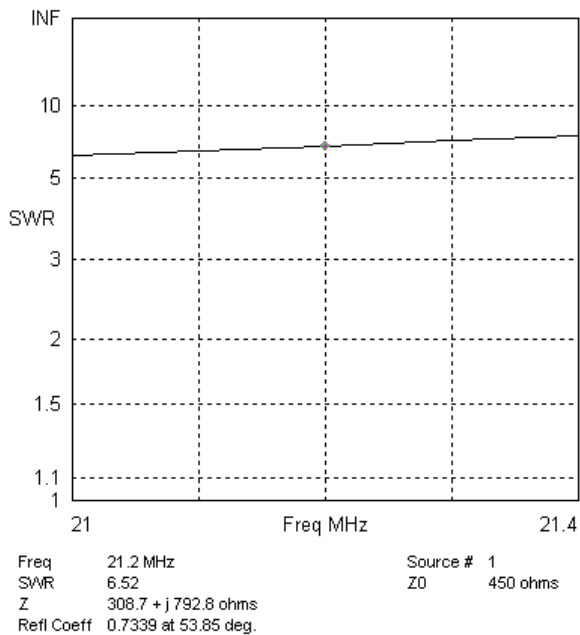


Fig. 7.

To use such an antenna it is recommended that an antenna tuner be used to match the transmitter to the antenna. The loss in the feedline will not be large because of the use of ladder line. This can be a very effective dual band antenna with excellent directivity on both 15 and 20 meters.