September 2011 **Volume 09-2011**

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.

SEPTEMBER MINUTES

The September meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on September 7th. **Vice-President Clarence, KC5UBP**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Nine members and three guests were present. Each person present introduced himself. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

The Lufkin Hamfest will be held on Saturday, October 22. See their website at www.lufkinhamfest.com for complete details. NARC will assist with the food concession and the VE testing.

The ARRL September VHF contest will be held this next weekend.

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.

A discussion was held on the wildfires currently raging in the western part of Nacogdoches County, and the request for communications support that has several members currently deployed. See the President's Corner column below for more information.

Meeting adjourned at 7:40.

NEWEST HAMS

At our September 21st VE test session, Peyton Ware of Lufkin passed his Tech test and is now KF5MWL, Ted Harding, W5WAG of Crockett upgraded to Extra and James Cole of Lufkin passed his Tech and is now KF5MWM. Congratulations to all. At the end of this newsletter you can find a picture of these three gentlemen.

OSCILLATIONS FROM THE CHAIR

Hello everyone. Fall has arrived and hopefully some cooler weather and some moisture will see its way to our area.

A Big Learning Event!

Last month's column dealt with being prepared if you volunteer for situations. I do not know if you could tell from the article but I knew that I would not be a suitable candidate for an extended operation away from my home base. After Hurricanes Rita and Ike, I saw the light and decided that going off and assisting with radio communications was not something I could do.

I had never visualized that I might be called upon to assist at a remote site in our own county. I received a call that officials on the scene of the River Bottom Fire needed ham operators to assist in message traffic handling. A mad scramble resulted in trying to find operators. I jumped up and grabbed a couple of items and took off to the command post while AE5P scrambled to find two more operators.

Upon arrival at the CP, I was able to set up my portable 2-meter J-pole antenna, feed my coax into the CP and get on the air with my portable. All was working well for a while and suddenly communications were intermittent to impossible. I hooked up the rubber antenna that came with the radio and went outside where I could hit the repeater. One key down the repeater would answer, the next time it would not. Thankfully my son was on site with my other portable but it did the same thing. Shortly after dusk, the radios started working again like nothing had happened.

The next day, KF5KEY and I responded to the CP and set up the club's tripod and antenna, using AE5P's brown box radio. KD5FEE responded to the Lilbert site and set up his rig. Once Mike and I got into the CP and turned on the radio, we discovered that the PL tone was not correct. We immediately pulled out the instruction booklet and attempted the

procedures for entering the correct PL tone. The PL tone was entered and we hit the repeater. Next transmission we discovered that we had not saved the PL tone to memory. Many futile tries and we could not get the radio to respond as the instructional sheet said it would. I requested Mike to continue and try to work with the radio and I would go to my vehicle and get my portable. When I got back, "Magic Fingers Mike" had made it work. We worked a short time and they released us since the firefighters had gotten containment and fire units were being released. If you saw the picture in the paper of Mike and me, we were struggling with the radio and the instructional booklet at that time. Little did the photographer know that we were having problems.

Lessons Learned

Even though you feel you will not be called upon to respond to such a need, it may happen anyway. When on site, it is good to have two people working the radio. One works the radio, the other takes notes, receives info from others in the CP, and delivers messages to the next room where the command staff is located. With two people, you can verify the traffic received. Headphones for both persons are occasionally needed along with the proper splitter. Noise in the area can be distracting and cause one to miss parts of the message traffic.

When working as an amateur radio operator, you are there to receive and send traffic pertinent to the situation. You are not there in a command and control mode. That is the job for the folks running the emergency. Simply deliver the traffic they request you to send. Please remember the world is listening so keep it professional. Utilize the terminology they give you. If a brush truck is requested to go to XYZ site, do not change that to a tanker to XYZ site. There is a difference.

Be sure to take notepaper and several pens/pencils. I had a 'good' pen run out of ink immediately but I had backups.

In our particular situation, there was plenty of food and drinks but in some instances, there may not be any. A second operator is handy so that one can leave the radio for personal needs and there is still an operator on-duty.

I found that it is important to use tactical call signs followed by your FCC call sign at the end of the traffic. In this situation, the operating station at the CP should be Command with the other two sites being Lilbert Base and Sacul Base. In addition, I found it is great to have a Liaison Station back in town.

The Liaison Station would have several duties. That station is your link into hard wire telephone traffic or internet if

needed. They can arrange for additional equipment you may need. They can arrange relief personnel to come out and relieve the operators on duty. In the event that one of the relay stations goes out, they can be monitoring traffic and respond to the calling station. Depending on circumstances, there could be the possibility that with a good Liaison Station, traffic could be carried on simplex if one of the operators is having repeater connection problems.

Andy, KE5EXX, has now programmed all of the Orange Box radios the same and has included a sheet of what each channel is for. I enlarged the sheet, making added copies for those with Geriatric Vision Difficulties.

Army, AE5P, is in the process of obtaining additional tripods and antennas for each Orange Box so we will have a more reliable way to reach back to the repeater. He is also looking to obtain 'cheat sheets' which basically are Cliff Notes on the radios. This may assist in making program changes if needed.

In conclusion, the Nacogdoches Amateur Radio Club was able to assist our county leaders in a time of need. Even better, all came out well and we learned a lot from the life experience. I appreciate all those who stepped forward to assist and volunteer for assignments had the event progressed. NARC has the respect of City and County leaders by stepping up to the plate in a time of need.

Hope to see you at the meeting on October 5.

KD5GEN- Rusty

email:
rusty.sanders@att.net

VP's CORNER

I might bring an old solid state HF linear amp for a show and tell sometimes. It's a prototype I built and isn't pretty. It's rated at 100 watts with 4 watts input.

73 de Clarence KC5UBP

email:
clarence404@hotmail.com

VE TESTING

Our next VE testing is scheduled for Wednesday, October 19th 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 October 5th** 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. A special program is planned. Hope to see all of you there.

RADIO GIVEAWAY

If you are a current member of the Nacogdoches Amateur Radio Club, and upgrade your ham license to General or Extra during the calendar year 2011, you will receive one or more tickets for a special drawing to be held at the club's annual Christmas party / meeting on December 7th, 2011.

Members upgrading from Tech to General will receive one ticket. Members upgrading from General to Extra will receive two tickets. Members upgrading from Tech to Extra will receive three tickets.

Each winner of the drawing will receive at minimum an Amateur Radio HF transceiver complete with power supply and microphone. Depending on donations, there may be more equipment added to this.

At this time, there are at least three complete HF radios available for the drawing:

1. Drake TR-5 transceiver
2. Kenwood TS-140 transceiver
3. Kenwood TS-130 transceiver

The drawing will be administered and conducted by the Club Secretary/Treasurer.

Winners of this equipment are asked to donate their equipment back to the club if they no longer have a need for it, so the program can be continued in future years.

If you would like to donate equipment to be used for this program, please contact **AE5P**.

Texas QSO Party

The Texas QSO Party (TQP) was held September 24-25, and as we have done in past years, the AE5P home station was used as the club station (W5NAC) for this event. Several members stopped by, and a couple even operated. All had a fun time.

We operated strictly on 40 meters this year, and wound up with 350 contacts and 116 counties. We especially had fun following several HF mobiles as they travelled through multiple counties. Many thanks also to KE5EXX mobile who activated several counties for us on 2M.

BASIC ANTENNAS

PART 36

by

Thomas Atchison W5TV

In Basic Antennas Part 35 we talked about a triangular loop antenna mounted with the apex on a single vertical mast and the two legs sloping down and folding back toward the mast. We can create a two element array by adding either a triangular director or reflector. If we add a director the total length of wire should be about 5% shorter and if we add a reflector the total length of wire should be about 5% longer. The separation between driven element and either a director or reflector should be about 0.125 λ.

Suppose we consider constructing a two element wire array for use on 20 meters with a driven element and a director. We will use a center frequency of 14.25 MHz with a driven element of length of 72.3 feet and a director of length 70.2 feet (See Fig. 1).

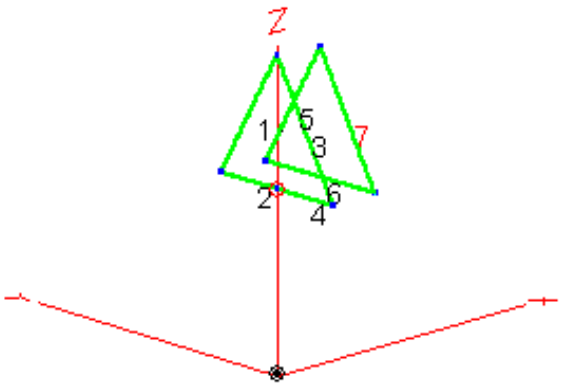

Fig. 1

The antenna is shown in green. Wires 1 and 3 are 24.1 feet long and wires 2 and 4 are 12.05 feet long. The driven element mast is 49.9 feet high and the bottom wire is 29 feet above the ground. The director mast is 49.3 feet high and the bottom wire is 29 feet above the ground. Wires 5, 6, and 7 are 23.4 feet long. The separation of the two elements is 9 feet. The impedance at the feed point is about 35 ohms. If we feed the driven element with 52-ohm coax the SWR sweep from 14 MHz to 14.35 MHz is shown in Fig. 2.

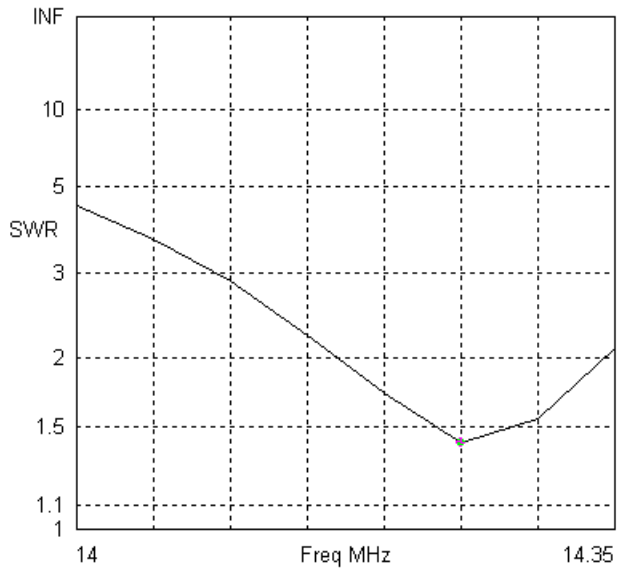

Fig. 2

Minimum SWR occurs at 14.250 MHz. The elevation radiation pattern for this antenna is shown in Fig. 3.

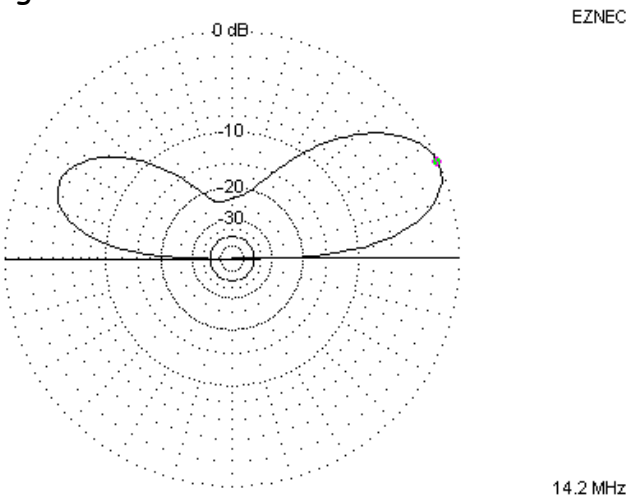

Fig. 3

Maximum radiation occurs at about 25 degrees and it is in the direction of the director.

If we only have one mast we can lean the top of the director over to the mast so the director is slanted. In this case we make the apex of the director 3 feet below the apex of the driven element. The bases of the two triangles remain 9 feet apart. The antenna looks like Fig. 4.

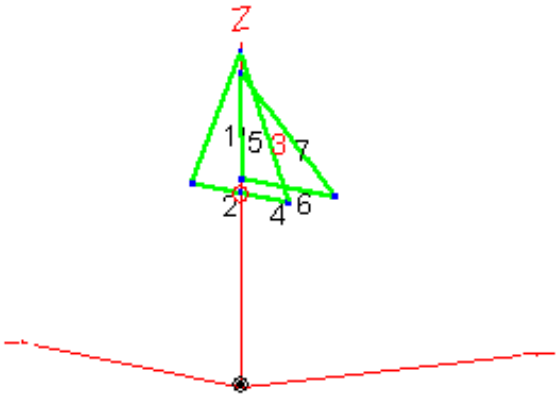

Fig. 4

The SWR plot from 14.0 to 14.35 for 52-ohm coax is shown in Fig. 5.

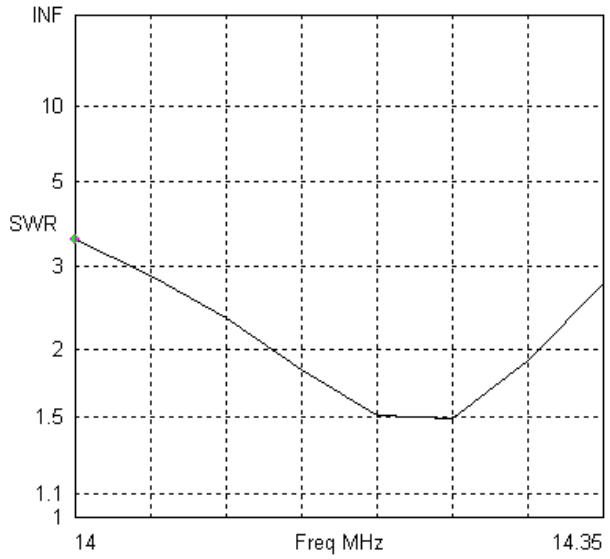

Fig. 5

The elevation radiation pattern is shown in Fig. 6.

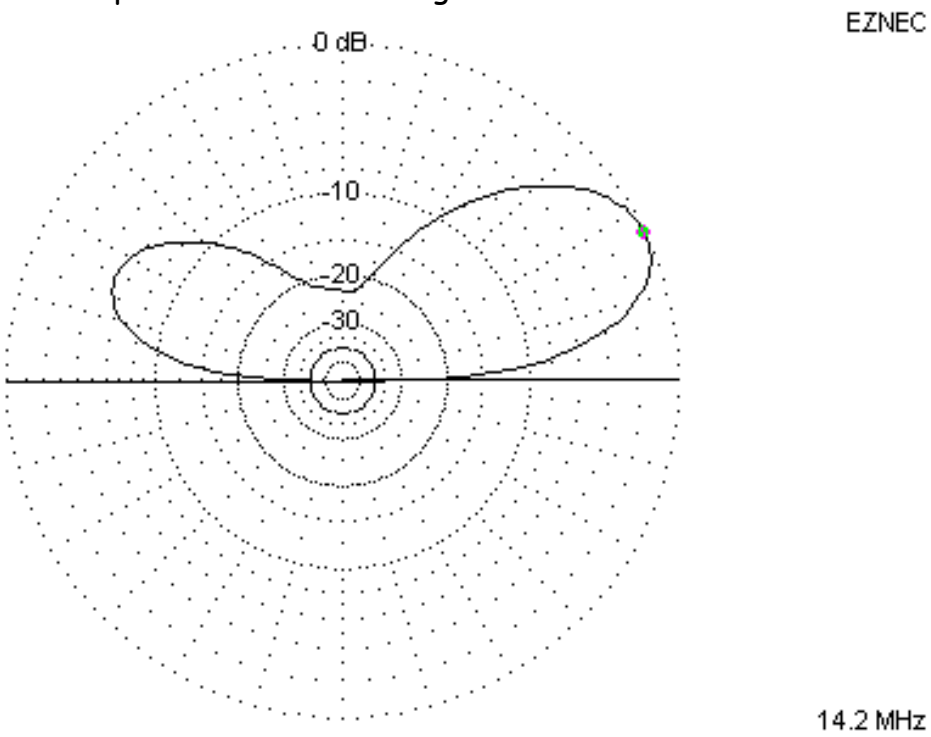

Fig. 6

The maximum radiation is about 26 degrees and it is in the direction of the director. The gain of this antenna with a slanted director is approximately the same as the one with parallel triangular elements and it only requires one support mast.

September VE Testing

Below are the three candidates at our September VE test session.

From left to right are Peyton Ware, Ted Harding, and James Cole. Congratulations to all of them.

Picture by KD5GEN.