

Nacogdoches Amateur Radio Club

2015 CLUB OFFICERS

Pres: John Cechin - W5FWR

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.



JANUARY MINUTES

The January meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on January 7th. **President John W5FWR**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Fourteen members were present. Each person present introduced themselves. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

Old Business:

Timpson ISD balloon launch is scheduled for late January. The exact

date will depend heavily on the weather, as clear skies are a requirement. All hams are invited to participate in tracking the balloon. We will have APRS equipment on board transmitting location data on 144.390 using W5NAC-11 as the callsign. Contact AE5P for more info on how you can help.

The ARRL January VHF contest will be held the weekend of January 24th.

The North American QSO Party (NAQP) SSB will be held the weekend of January 17th.

New Business:

The **Shuttle Columbia Special Event Station** will be held the weekend of February 7, 2015 using the callsign K5C. Several club members will be operating

the event from their home stations. More details later in this newsletter.

Members were reminded of the total overhaul recently completed on the club website at <http://w5nac.com/>. If you haven't visited it lately, take a look. Many thanks to **Andy KE5EXX** for his hard work in making this happen.

Meeting closed at 7:40 p.m.

2015 Dues Are Now Payable

Club dues for 2015 are now payable. Dues are just \$24 for the year, and cover all licensed Amateurs in a family. Have a large family? Just \$24 will cover all of them for a year. Dues can be paid at any club event or mailed to the club Secretary/Treasurer. Checks should be made payable to NARC.

Congratulations

To **Ray Fuller, W5NRF**, on his upgrade to Amateur Extra.

To our newest ham, **Donnie Barron KG5FQE**, who passed both his Tech and General class exams.

MY 2 CENTS FOX WILLY ROGER

FEBRUARY 2015:

That's right, it's February 2015, and Xmas is far behind us for another year. Dates to look forward to are: Groundhog Day, Valentine's Day, my Mother and Sister's Birthdays, the **SES**, and many more days that I can't remember or record them all. **AE5P** has put out a plea for **NL** columns, how many of you have responded to the call?

Now that I'm on the topic, I am not so old that I do not remember the lack of members rushing up to be a club officer; I know who you are and where you live.

Many goodies are coming our way again this year, **SES, Field Day, ICS**, to name a very few.

In the past Army has said that I needed to take care of **The word tree**, I am sorry to say that didn't work out as well as it should have, a visit to **TWT** found a sign posted saying "**CLOSED FOR THE SEASON**". I cannot bring myself to yell or pester my tree into any kind of action that would cause harm, be and let be.

TWT will be feeling better, I'm sure, when the weather is warmer, for more than an hour or two a day that is. What's even worse, the fire wood that I have is wet and puts up a fight when it's burned, it's always something. A fire in the fireplace is comfort food for me and no one is going to talk me out of that.

At the January meeting, no one showed off the Xmas gift that was received, are you trying to get into the slacker group? At that same meeting,

ARMY showed off the tracker package he fabricated for Timpson's balloon launch, what a great job that was done, a big thank you to all who were in on that project and for a good talk, thanks all. By all the e-mail chatter the launch was a big success and the tracking package worked better than planned, well done tracker team.

As of this writing I have not been in contact with our program director, again, to gather information on the next program, I am sure that it will have something to do with the balloon launch, Mushroom time again. Gas prices still almost at the point that can be afforded by almost everyone.

PHASE II. V.V:....

As of the first of this year one of my cats is **UA, HE-MAN**. I hope he found what he was looking for. The inside cats are still into the get up, eat, play, nap, get up, play, eat, nap, play, go to bed, a rough life. TB has managed to open yet another cabinet

and explore its interior. She now will sit at a cabinet door and open it and let it slam closed until I get up and open up the garage door for her to inspect the garage, I would say my training is proceeding as planned.

In the NL of **JUNE 2014**, I reported that **GB** made good her bid for freedom, these days she runs into the house at feeding time. I don't know if it's to visit old times or say hello to the inside cats or what. But the colder it is outside the more she wants or needs the inside. I did let her stay the night when the weather was in the teens, I think **GB** is a fair weather cat, I just can't tell yet?

THOUSANDS OF YEARS AGO CATS WERE WORSHIPED AS GODS, THEY HAVE NEVER FORGOTTEN THIS

The century plant is still standing but I don't know how, I am still waiting for it to fall onto the power lines and produce some fireworks.

If anybody wants an offspring let me know.

Be sure and hug a cactus today, they need love too.

WHY IS IT?

Does anybody know what came before paperclips, was the question last month, anyone have the answer?

Something has occurred to me, what would someone call Frosty the Snowman if Frosty was frost free?

Why is milk white when the cow eats green grass?

HMMMM

GREAT INVENTIONS OF ALL TIME:

The backdoor of the house, how else will you get away when your in-laws come to visit?

It's better than a fight with your mate.

The word tree, well I can't remark on what its condition is yet; I think it's mad about the warm days going away.

Remember: keep your powder dry and your head below the horizon.

Happy Trails

73 Enjoy, what do you think, let me know?

John Cechin W5FWR
Carrots4ever2u@suddenlink.net

DIDJA KNOW?!?!?!?!?

Recently, AE5P brought up a FCC rule requirement during a club meeting which I had never heard of but made perfect sense. Of course, it has been a week since the meeting and I do not remember the topic! Also recently, AE5P and W5FWR have asked all club members to submit a short topic for the newsletter. So, here is my topic and if everyone submits something, I have a few years before I must do this again.

DIDJA KNOW: Your FCC Amateur radio license is only a grant. Yep, it is only a grant but not one of

those monetary things to some foreign *gubernment* that hates us!

DIDJA KNOW: One of the basis and purpose of your license grant is "Continuation and extension of the amateur's unique ability to enhance international goodwill" ? Here is your sign! You are sort of an unofficial, official goodwill ambassador for this United States of America. Do your part when talking to foreign stations. But,,,,,do not expect any money or honor to be given you by the *gubernment*.(97.1(e))

DIDJA KNOW: Indicator is not only something on your radio dial (yes, this goes back a long way) but is the "Words, letters or numerals appended to and separated from the call sign during the station identification." And we have been calling it a suffix!

DIDJA KNOW: Bureaucrats really must be frustrated English majors? For example, from 97.3

(27), the definition for In-law and I cite, "*In-law. A parent, step-parent, sibling, or step-sibling of a licensee's spouse; the spouse of a licensee's sibling, step-sibling, child, or stepchild; or the spouse of a licensee's spouse's sibling or step-sibling.*"

DIDJA KNOW: Should the FCC send you mail and it is returned as undeliverable, your station license may be revoked or suspended? (97.23) Make sure to update your mailing address. You can do this on-line or if you like to travel, just drive up to Washington, DC. After you are strip searched, you might get into the FCC offices. Good luck finding someone who can direct you to getting your address changed!

DIDJA KNOW: AE5P referred to this during the last meeting. 97.119 (4)(d): When you are operating as a special event station, you are required to transmit your assigned station call at least once per hour.

DIDJA KNOW: The FCC has powers in places other than the continental United States, Alaska and Hawaii? Yep, it includes Puerto Rico, US Virgin Islands (50 islets and cays) and Navassa Island, Johnston Island, Midway Island and in the Pacific Insular areas. That tells me I need to make more trips to check out the 50 islets and cays!!! This is in Appendix 1 to Part 97.

DIDJA KNOW: There is a lot more info in the regulations than what I listed. You can view the current documents on line and not have to buy them. Be sure to bookmark them for easy reference later. They are found at: <http://www.ecfr.gov/cgi-bin/text-idx?SID=dbeb298b08f96f6d0152e0e5b5f5bf04&node=pt47.5.97&rgn=div5>

DIDJA KNOW: Every amateur license holder has a responsible part in his/her community and organization? We all need to chip in and assist in whatever way we can. It is so easy to sit back and let

others do the work but when you do that, where is the satisfaction? You have no sense of satisfaction in being the silent majority. Come on out, chip in and help to make our club a vibrant part of the amateur system. Expand your horizons and work a few brain cells. Naps are optional later!

DIDJA KNOW: I hope this short article has brought a smile to your face plus maybe even enlighten you. I certainly need to involve myself more in using the grant the FCC has given me. Hope to see you on the air. (After my next cruise of course)

Rusty - KD5GEN

SHUTTLE COLUMBIA SPECIAL EVENT STATION

The Shuttle Columbia Special Event Station will be held the weekend of February 7, 2015 using the

callsign K5C. This year every club member is invited to operate the event from their home station if they so choose. The only requirement is that only one station is allowed to transmit on a band at one time. To facilitate this, please note the following:

1. Sign up with the club Secretary for the band(s), mode(s) and time slot(s) of your choice.
2. Keep an electronic log of all contacts made. ALog by N3FJP is recommended as the logging program of choice. Send an electronic copy of your log to the Club Secretary immediately following the event.
3. A special QSL card is available through W5NAC. A SASE is appreciated.
4. The station at AE5P will be available for club members to

operate during the event.

5. Have fun and make lots of contacts.

VE TESTING

Our next VE testing is scheduled for Wednesday, February 18 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 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.

The actual operating frequency for each net is at the discretion of the net control operator. The Monday night nets have been meeting recently on the club 444.050 UHF repeater or the 147.32 VHF repeater. Stay alert to other possibilities such as a simplex frequency or even HF.

NEXT MEETING

The next meeting will be on **Wednesday February 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. Please join us and bring a friend.

UPCOMING EVENTS OF NOTE

Mark your calendars for the following events coming up in the next few months:

Shuttle Columbia Special Event Station K5C

1500Z Feb 7 to 2359Z Feb 8

<http://w5nac.com>

CQ WW RTTY WPX Contest

0000Z Feb 14 to 2400Z Feb 15

<http://www.cqwxrtty.com/rules.htm>

ARRL International DX Contest, CW

0000Z Feb 21 to 2400Z Feb 22

<http://arrl.org/arrl-dx>

CQ 160 Meter Contest, SSB

2200Z Feb 27 to 2159Z Mar 1

<http://www.cq160.com/rules.htm>

North American QSO Party, RTTY

1800Z Feb 28 to 0600Z
Mar 1

[http://www.ncjweb.com/N
AQP-Rules.pdf](http://www.ncjweb.com/N
AQP-Rules.pdf)

ORANGE HAMFEST

Orange TX

1330Z - 2000Z Feb 28

<http://www.qsl.net/w5nd/>

IRVING HAMFEST

Irving TX

1400Z - 2000Z Mar 7

<http://irvingarc.org>

ARRL International DX
Contest, SSB

0000Z Mar 7 to 2400Z
Mar 8

[http://www.arrl.org/arrl-
dx](http://www.arrl.org/arrl-
dx)

HOUSTON HAMFEST

Ft Bend County
Fairgrounds, Rosenberg,
TX

1400Z - 2130Z Mar 28

<http://houstonhamfest.org>

CQ WW WPX Contest,
SSB

0000Z Mar 28 to 2400Z
Mar 29

[http://www.cqwp.com/rul
es.htm](http://www.cqwp.com/rul
es.htm)

ARRL Rookie Roundup,
SSB

1800Z-2359Z Apr 19

[http://www.arrl.org/rookie
-roundup](http://www.arrl.org/rookie
-roundup)

7th Call Area QSO Party
1300Z May 2 to 0700Z

May 3

[http://ws7n.net/7QP/new
/Page.asp?content=rules](http://ws7n.net/7QP/new
/Page.asp?content=rules)

HAMVENTION

Dayton, Ohio

May 15 - 17

<http://hamvention.org/>

CQ WW WPX Contest,
CW

0000Z May 30 to 2400Z
May 31

[http://www.cqwp.com/rul
es.htm](http://www.cqwp.com/rul
es.htm)

HAMCOM HAMFEST

Irving TX Convention
Center (New Location)

June 12 - 13

<http://www.hamcom.org/>

ARRL June VHF Contest

1800Z Jun 13 to 0259Z
Jun 15

[http://www.arrl.org/june-
vhf](http://www.arrl.org/june-
vhf)

ARRL Field Day

1800Z Jun 27 to 2100Z
Jun 28

[http://www.arrl.org/field-
day](http://www.arrl.org/field-
day)

IARU HF World
Championship

1200Z, Jul 11 to 1200Z,
Jul 12

[http://www.arrl.org/iaru-
hf-championship](http://www.arrl.org/iaru-
hf-championship)

CQ Worldwide VHF
Contest

1800Z, Jul 18 to 2100Z,
Jul 19

[http://www.cqww-
vhf.com/2014VHFcontest
%20rules.pdf](http://www.cqww-
vhf.com/2014VHFcontest
%20rules.pdf)

North American QSO
Party, RTTY

1800Z, Jul 18 to 0600Z,
Jul 19

[http://www.ncjweb.com/N
AQP-Rules.pdf](http://www.ncjweb.com/N
AQP-Rules.pdf)

North American QSO
Party, CW

1800Z, Aug 1 to 0600Z,
Aug 2

[http://www.ncjweb.com/N
AQP-Rules.pdf](http://www.ncjweb.com/N
AQP-Rules.pdf)

North American QSO
Party, SSB

1800Z, Aug 15 to 0600Z,
Aug 16

[http://www.ncjweb.com/N
AQP-Rules.pdf](http://www.ncjweb.com/N
AQP-Rules.pdf)

The Half Square Antenna, Part 2

by

Thomas Atchison W5TV

Continuing with our discussion of the Half Square Antenna, suppose we want an 80-meter half square antenna. To do this we will consider the vertical elements to be 65 feet in length (approximately $\lambda/4$) and the horizontal element to be 130 feet (approximately $\lambda/2$). The EZNEC model is shown in Fig. 1.

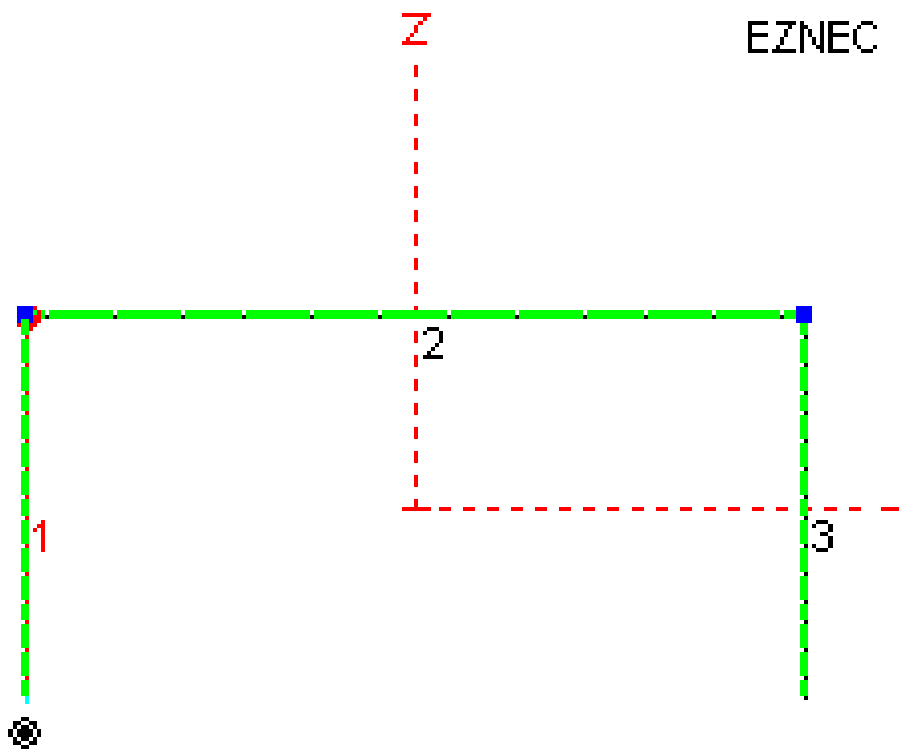
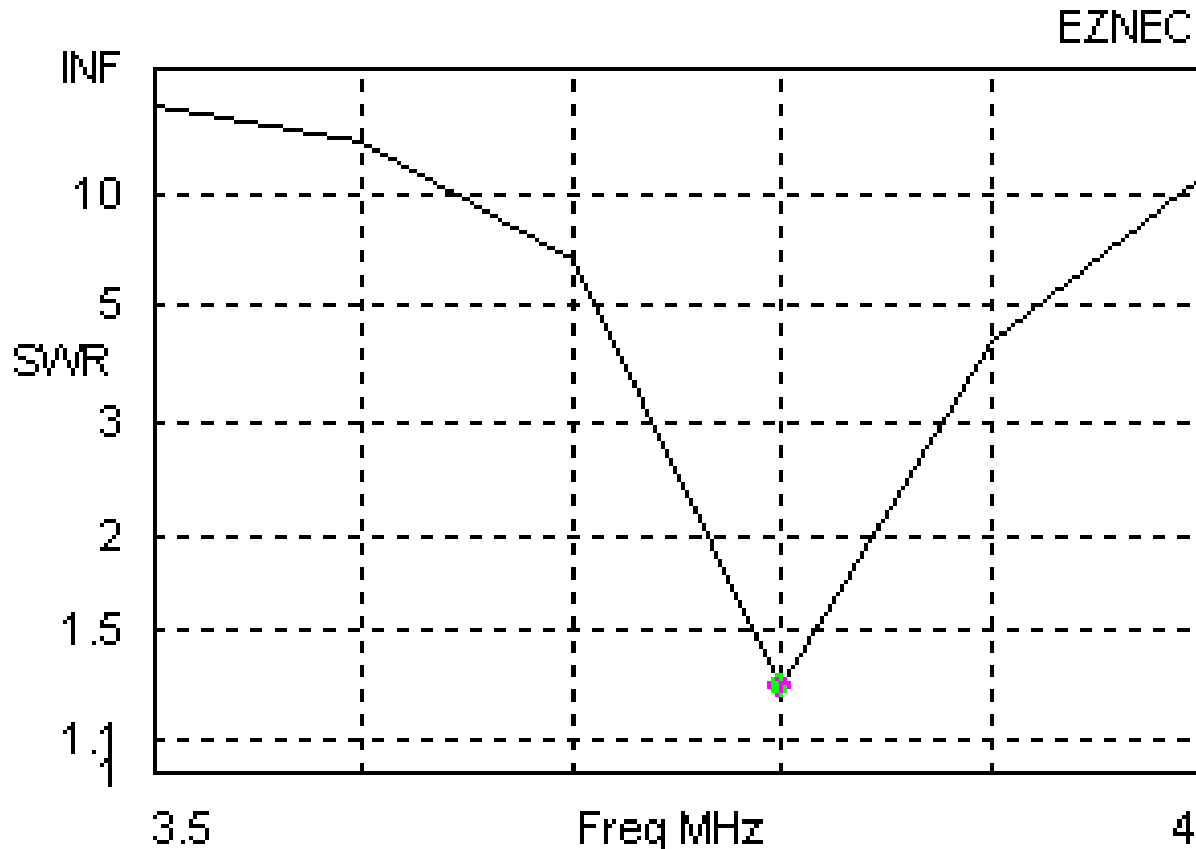


Fig. 1

In this simulation the horizontal wire (wire 2 in Fig. 1) is 70 feet high so the ends of the vertical elements are only 5 feet from the ground. The SWR sweep from 3.5 MHz to 4.0 MHz, assuming a 50-ohm transmission line connected at the corner where wire 1 joins wire 2, is shown in Fig. 2.



Freq	3.8 MHz	Source #	1
SWR	1.27	Z0	50 ohms
Z	53.92 at -13.04 deg. = 52.53 - j 12.17 ohms		
Refl Coeff	0.1204 at -71.49 deg. = 0.03821 - j 0.1141		
Ret Loss	18.4 dB		

Fig. 2

Notice that the SWR at 3.8 MHz is low, however, the SWR increases rapidly as we move away from 3.8 MHz. You would need a tuner to load this antenna over the entire 80-meter band. The 3D radiation pattern is shown in Fig. 3.

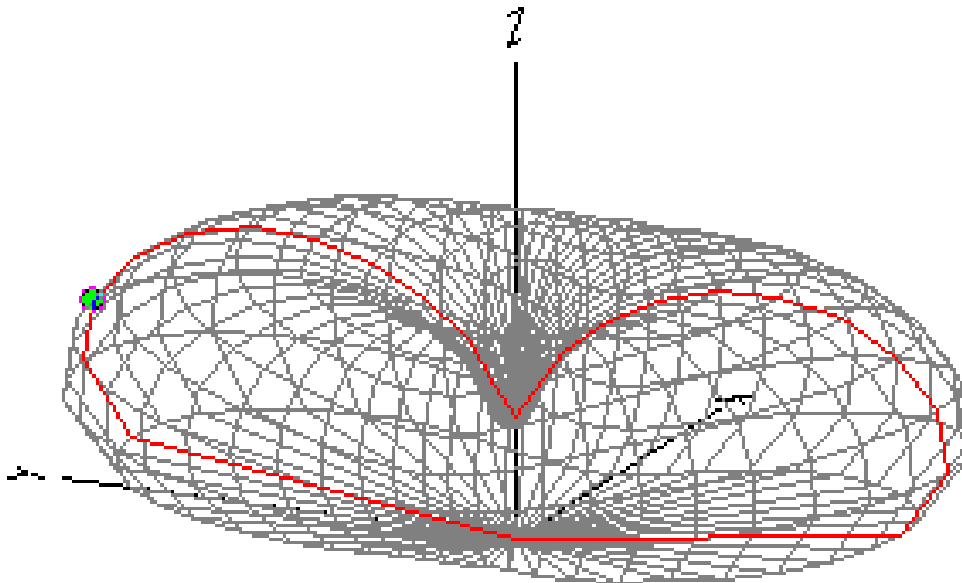


Fig. 3

The red curve is the elevation radiation pattern perpendicular to the plane of the wires with maximum radiation at the green dot at about 23 degrees.

If the height of 70 feet is too much for your particular location, suppose we consider lowering the height of the horizontal wire to 40 feet and bend the vertical elements in at the bottom so the vertical pieces are 35 feet and the amount of wire bent in is 30 feet. These bottom wires are still 5 feet above the ground. (See Fig. 4)

EZNEC

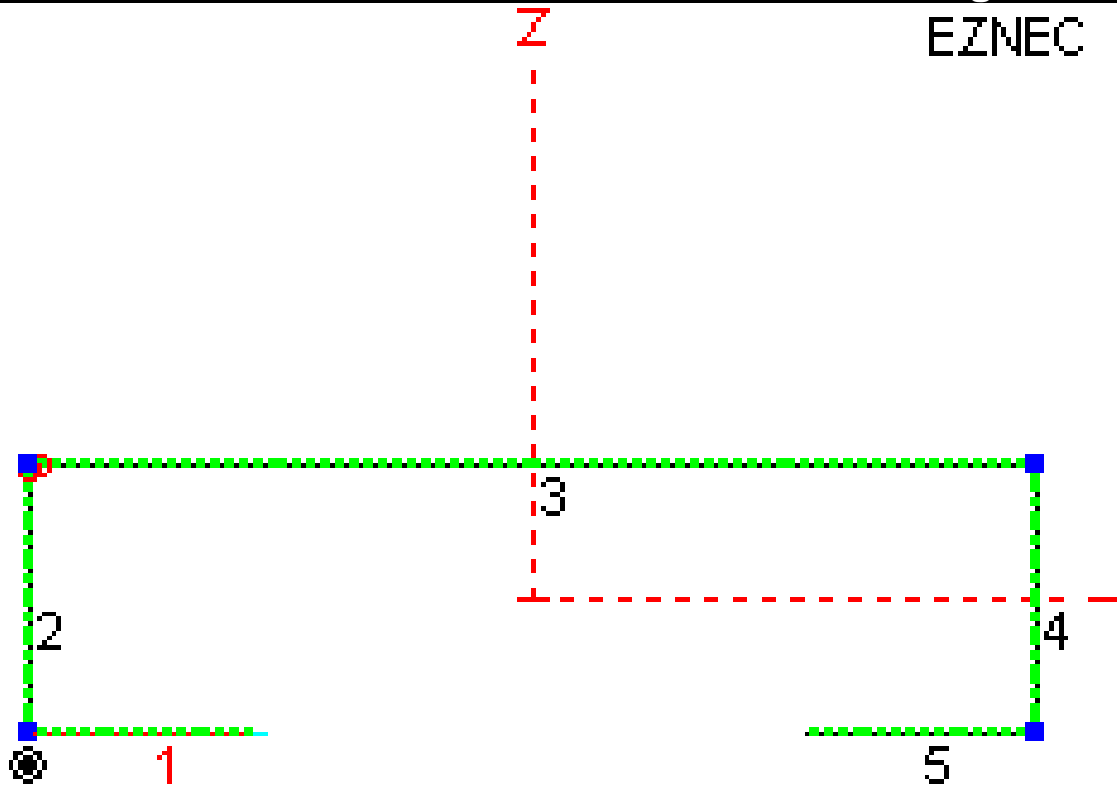
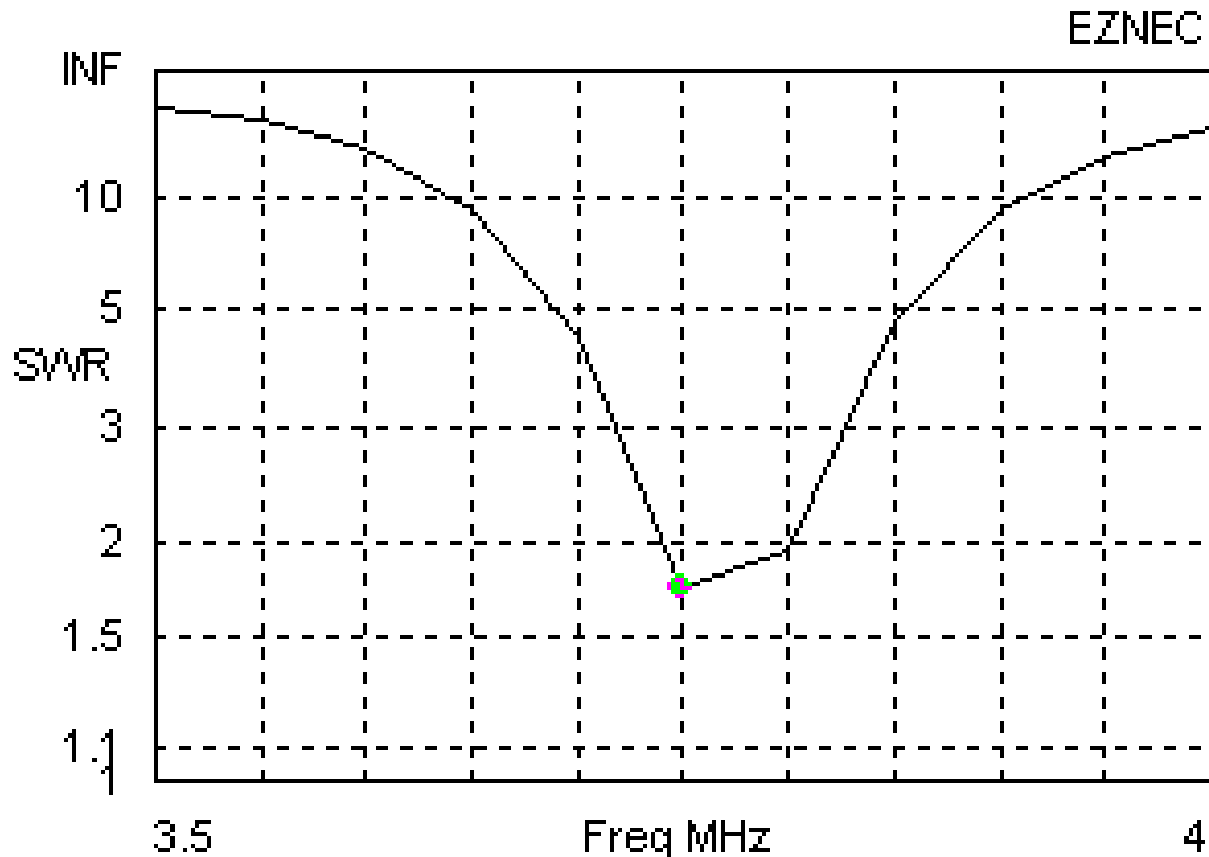


Fig. 4

We will feed a 50 ohm transmission line into the corner where wire 2 and wire 3 join. The resulting SWR scan from 3.8 MHz to 4.0 MHz is shown in Fig. 5.



Freq	3.75 MHz	Source #	1
SWR	1.76	Z0	50 ohms
Z	40.98 at -28.71 deg. = 35.94 - j 19.69 ohms		
Refl Coeff	0.2744 at -112.62 deg. = -0.1056 - j 0.2533		
Ret Loss	11.2 dB		

Fig. 5

Notice that the minimum SWR is at 3.75 MHz and it is higher, however, the general shape of the SWR curve is not too different. The 3D radiation pattern for this antenna is shown in Fig. 6.

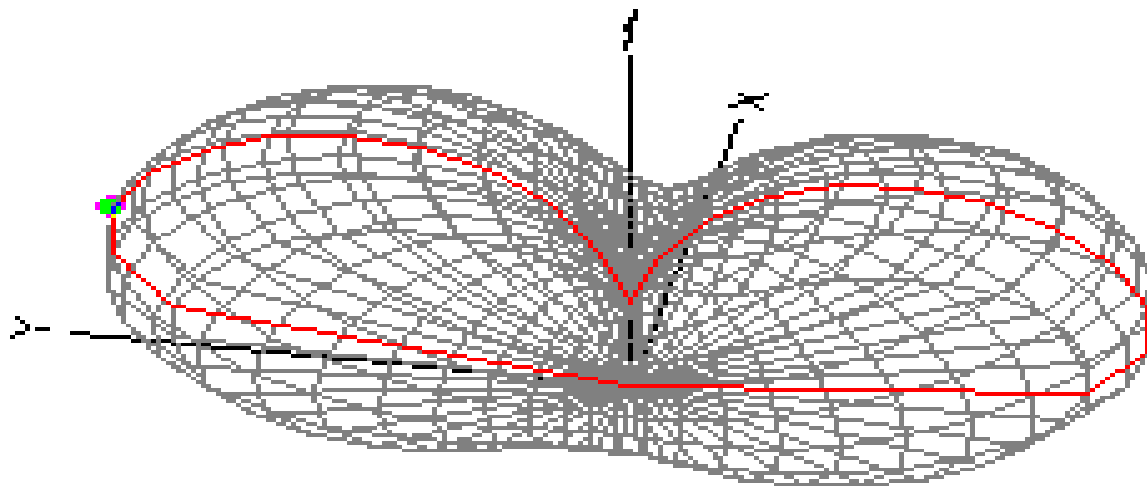


Fig. 6

The red curve is the elevation radiation pattern with maximum radiation (green dot) at an angle of about 23 degrees. This maximum elevation pattern is perpendicular to the plane of the antenna.