

Nacogdoches Amateur Radio Club

2018 CLUB OFFICERS

Pres: RM Blake - K5AGE

Vice Pres: Jack York - KG5POU

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 and having fun.



SEPTEMBER MINUTES

The September meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on September 5th. President RM K5AGE opened the meeting at 7:00 p.m. in the Lunch Room of Christ Episcopal School. Twelve members and one guest were present. Each person present introduced them self. Minutes of the previous meeting were approved as published. The Treasurer's report was not available.

Several contests, both recent and upcoming were

discussed. The NAQP SSB contest, the 13 Colonies Special Event, and the Route 66 Special Event were discussed.

Army AE5P discussed the draft of comments made regarding the ARRL proposed Strategic Plan for ARES. The most recent draft comments have been posted on the club website and mentioned on our e-mail reflector. A motion was made and passed to authorize Army to finalize comments and submit them on behalf of the club.

The upcoming Texas QSO Party was discussed and it was noted that it will be held before our next meeting. Members are encouraged to operate their home stations using their own callsigns this year. The AE5P station will

again operate using the club callsign W5NAC, and members are invited to come operate the station during the event.

Meeting closed at 8:20 p.m.

FROM THE PRESIDENT



When you read this, we will have past the marking of the Fall Equinox which fell on September 22 this year.

In the Northern Hemisphere, we mark this as the day we say goodbye to summer and hello to fall. I have never once been sad to see the end of summer living in East Texas. We can all breathe a sigh of relief that the temperatures from here forward will certainly

become tolerable as night grows longer.

This brings me to an interesting point. The word "Equinox" is derived from Latin and means "equal-night". The history of the equinox goes back much further than Latin.

Many ancient structures are designed to have features that align on the equinox. For example, the Mayan pyramid at Chichen Itza, Mexico. The staircases on this pyramid are at a very precise angle which makes an optical illusion of a snake slithering down the steps on the day of the equinox.

Our next earmark for astronomical events marking the end/beginning of seasons is Friday, December 21st, for the Winter Solstice.

73 de RM Blake K5AGE
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From the VP Chair

This space is reserved for the Vice President's column. Nothing has been received for this month's newsletter.

73 de Jack York

K65POU

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NOTES FROM OUR EC

Wow, we finally got some rain which we certainly needed. As of 24 Sep the plant measured 6.5" of rain. The upside, the grass is green again, the downside, I need to harvest my weeds.

Pat Curtis NH6VJ thanks for running the SKYWARN net. If you are a listener (lurker) and haven't checked in, please join us for the net. It will help with "mic fright". If you check in regularly, have

you thought about trying your hand at net control? The scripts are available on our web site. The nets can always use a deep bench.

The 2018 hurricane season still has 2 months left. The season ends 30 November. This year, we've had 13 events, 8 of which happened in September. Events are tropical / subtropical depressions, tropical storms and hurricanes. Last year at about this same time we had 14 events, 5 of which were in September. When I started working in the broadcast industry, I took a greater interest in the weather. Mainly it was to keep tabs on when my equipment may be affected by the weather. I now spend a lot of time looking over the various websites, particularly the National Hurricane Center, and the NWS Shreveport web site. I look over the data from there. The hurricane data for 2017 and 2018 were pulled from the NWS wikipedia pages.

I'm not a forecaster, I'll let Bob K5ME regale you with the weather stuff.

Last month I touched on the recommended changes to the ARES program. The club's comments, submitted by Army and my comments have been forwarded to the ARRL. Both are available for your perusal on our website under news.

We will have a guest speaker at our next meeting so please come down for that.

Again, don't forget to join us on the Monday and Thursday nets

Web sites referenced:

www.nhc.noaa.gov The National Hurricane Center

www.weather.gov/shv National Weather Service, Shreveport

en.wikipedia.org/wiki/2018_Atlantic_hurricane_season

en.wikipedia.org/wiki/2017_Atlantic_hurricane_season

<http://w5nac.com/>

73 de John Chapman
KC5MIB
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VE TESTING

Our next VE testing is scheduled for **Wednesday October 17 at 7:00 p.m.** in the Lunch Room of Christ Episcopal School (Our usual meeting place).

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

NEW HAMS

We are pleased to report that Ms. Deborah Murray KI5BSE and Austin Harris,

KI5BSF who is a student at Huntington HS both successfully passed their Technician exams. If you hear them on the air, please make them feel welcome.

W5BFF, the NTX SEC will be our guest speaker and program.

TWO METER CLUB NETS

Remember to join us each week for the two 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.

NEXT MEETING

The next meeting will be **Wednesday October 3rd** at 7:00 p.m. in the Lunch Room of Christ Episcopal School (Our usual meeting place). Jerry Goodson

UPCOMING EVENTS OF NOTE

Mark your calendars for the following events coming up in the next few months. Full information on these events and much more can be found at <http://www.contestcalendar.com/contestcal.html>

Items in RED are NARC Club Events

Texas QSO Party

Sept 29-30

CQ WW DX - SSB

Oct 27-28

ARRL Sweepstakes - CW

Nov 3-4

ARRL Sweepstakes - SSB

Nov 17-19

CQ WW DX - CW

Nov 24-25

ARRL 10 Meter

Dec 8-9

HOMEMADE WIRE ANTENNAS

by

Thomas Atchison, W5TV

Many of us have put up wire antennas for the HF bands. I thought it would be a good thing to review some of the things we have attempted in these endeavors.

Suppose we focus on constructing a 40 meter center fed wire antenna. If we consider a single wire dipole the center impedance is about 60 ohms, depending on the height and the ground characteristics. The antenna may be fed with either 72 ohm twin lead or 50 or 75 ohm coax. In any case there is concentrated weight at the center of the antenna tending to pull the center down. We can compensate for this by suspending the center in some way i.e. use a center pole or suspend the center from a tree limb using string. The feed line should come away from the antenna at right angles and the feed line will need to be long enough to reach the transmitter. Normally the wire used for our antenna will be either #12 or #14 wire. I tend to use #14. It may be either solid wire or stranded wire. The use of stranded wire has the advantage of reducing the chance of breaking when the antenna moves in the wind over a long period of time. Smaller wire is usable however you will need to pull the antenna at each end and this puts a lot of stress on smaller wire. Remember that a dipole is approximately the same distance above the ground for the entire length of the wire.

The formula for a half wavelength antenna is

$$\frac{\lambda}{2} = \frac{468}{f(\text{MHz})}$$

Where λ denotes wavelength. If we choose a resonant frequency of 7.150 MHz (the middle of the 40 meter band) we get

$$\frac{\lambda}{2} = \frac{468}{7.150} = 65.5 \text{ feet}$$

As you may suspect, when we put the antenna up in the air the surrounding trees and structures as well as the conductivity of the ground and the height above ground will affect the resonant frequency of the antenna. Notice in the formula that as we lower the frequency of resonance the length of the antenna will be longer. This suggests

that we may want to cut the antenna slightly longer than 65.5 feet and then slowly cut it shorter until we have the resonance we want. To do this we will need some way of measuring the resonance of the antenna when it is in the air. If you have an antenna analyzer such as an MFJ-259 this is easy, however, an inexpensive SWR meter will work just fine. In fact, the transmitter you plan to use may have an SWR meter built in. Be sure and reduce the output of the transmitter when you are measuring SWR. Just a few watts of output will be sufficient and you won't risk damaging your transmitter

Now suppose we decide to cut our #14 wire a little longer than 65.5 feet and trim it so the resonant frequency is at about 7.150 MHz. I will choose to cut the antenna to a length of 67 feet. We now cut that wire into equal halves and feed the center of the two pieces (each 33.5 feet long) with 52 ohm coax connecting the center conductor to one piece and the shield to the other piece. Suppose we are able to raise the dipole to a uniform height of 25 feet. When we measure the SWR over a range from 7.0 to 7.3 MHz we find that the resonant frequency appears to be lower than 7.15 MHz. If we expand our measurement frequencies we find that the SWR is a minimum of 1.13 at 7.0 MHz. If we cut 3 inches off each end of the antenna we find that the minimum SWR is 1.14 at 7.05 MHz. Cutting another 3 inches off each end brings the minimum SWR to 1.14 at 7.10 MHz. Finally, cutting 3 more inches off each end produces a minimum SWR of 1.15 at 7.15 MHz. Of course your numbers will be different from this because your location will have trees and buildings at different places.

Now suppose we find that we can hoist the center of our antenna to 35 feet and let each leg of the antenna slope down until each end is only 10 feet off the ground. This is now called an inverted vee antenna. If we do this with our previous wire which was 65.5 feet total length we find that the minimum SWR will be 1.32 at 7.350 MHz. That is, creating an inverted vee antenna from the same wire will increase the resonant frequency. Note that you can't solve this problem by cutting the antenna to a shorter length because that will only increase the resonant frequency. If you plan on mounting your antenna in an inverted vee configuration you will need to start with a longer piece of wire so the resonant frequency is lower than 7.15 MHz and trim the antenna as we did above until the resonant frequency is where you want it. In my particular situation I was able to achieve a minimum SWR of 1.3 at 7.15 MHz with a length of 33.6 feet on each leg (a total length of 67.2 feet). The SWR in this inverted vee was less than 2.5 over the entire band.

In summary, decide on the configuration of your antenna based on the supports you have. Once this is determined cut your wires longer than you know you need and proceed to trim the antenna length uniformly on each end keeping the legs the same length. Monitor the SWR after each cut to be sure you are approaching the minimum SWR from below. This is accomplished by measuring the SWR both above and below the resonant frequency. Once you are **NEAR** the resonant frequency **STOP TRIMMING**.

MY TWO CENTS

FOX WILLY ROGER

OCTOBER 2018

Well this is my second draft, I was on my way to the editor when a dragon jumped out of the bushes and ate my memory stick, so if I forget to copy everything from the first draft, tuff.

October is Halloween time, remember to come as your favorite Sandwich, AE5P has a great prize for the winner.

October is also the TXQSO party, a non-contest contest, so get out and have fun, bring your wife, I'm sure she would love to watch you operate and drive from county to county.

Jack has a load to say, I hope, he's been out of sorts here lately, what it is that he has to say this month I have no idea.

With all this rain we have had lately the TWT is showing some color, just in time for fall.

The leaves on the trees and bushes are turning brown and falling off, this time it's the fall that's the culprit.

QUESTION:

Why is it called carrot juice, there's no juice in a carrot?

Why is it called a running board, you don't run when in use?

Where did the term come from "avoid the rush"?

REMEMBER:

Remember making a skate board from an apple crate and roller scats?

Remember adding and subtracting in your head?

Remember metal bumpers?

COMMENTARY:**What the hell is going on?**

A new branch to the military is being proposed, "Space command"? Now talk is going around to make some sort of organized control over the satellites and maybe building some armed birds, why? Some organized group or groups are already controlling the birds. Why not take that money and brain power to find ways to control the weather storms? Cleaning the water supply, fewer chemicals in the food, grown in the crops and livestock, recycle plastics. At one time corn was being looked at to solve many of these problems, is all they could come up with is an additive for gas? There are more ways to cure the world than killing it.

So now is the time to make and display the front yard signs, don't forget the bumper stickers "heal the earth not destroy it".

GUEST COLUMNIST**JACK TALDI****THE CRAZY CAT GUY:**

The end of an era is closer.

It looks like I now have a pair of **I/O** cats, **RP** likes the morning time of the day, she will go out and sit on the same spot on the front walk. Then she will look into the dark and after a bit will travel into the yard to do whatever peaked her attention. **RP** will only go out on good days, no rain is on top of her list, rain is for fish is her motto, and she lives by it to the letter. One time **RP** ran out the door with me, stood on the walk looked around and ran back into the house all was accomplished when the door was closing, I wasn't holding the door open for her. When **TB** is out catting around for the night, **RP** started sleeping on my bed at night, I didn't know she was on the bed until morning.

TB now is a whole another story, she seems to tolerate rain a bit more than **RP**, but doesn't much care for it, she knows to take shelter under something when it rains but would rather be in the house. The other day it started to rain when she was out, I went to the back door, her private entrance, to check on her and found **TB** huddled under the cove windows drenched, she ran in, dried off but kept an eye on the weather. It seems that she has become fast friends with **TWT** and has many visits together; you don't think that is why I'm not getting as much help lately?

When the weather is wet, is when it's in house time, but if it's clear, well that's all she needs, out she goes and fulfills the wild side in her. It was clear when I went to treatment this AM and it was a problem when the two wanted to get out at the same time, it was like a black Friday sale rush.

TB's outside world still seem to be 4627's property lines, still a paper lion for sure.

"The pride is still three members strong with **Tuff Guy**, he seems to be hanging around our house more lately, he even talks to me now and then.

Heckle and Jackal is still visiting, now and then. The Doves are still friends of the neighborhood and that's a good sign. The hummingbirds are daily visitors two and sometimes three will drink the nectar made for them.

**DOGS HAVE MASTERS
CATS HAVE SERVANTS**

**"THOUSANDS OF YEARS AGO CATS WERE WORSHIPED AS GODS
THEY HAVE NEVER FORGOTTEN"**

**BE THE KIND OF WOMAN/MAN THAT WHEN YOUR FEET HIT THE GROUND
EACH MORNING THE DEVIL SAYS, "OH CRAP, THEY'RE UP"!**

LIVE WELL, LAUGH OFTEN, AND LOVE MUCH!!!

KEEP YOUR POWER DRY AND YOUR HEAD BELOW THE HORIZON

HAPPY TRAILS

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