

Nacogdoches Amateur Radio Club

Pres: John Chapman - KC5MIB

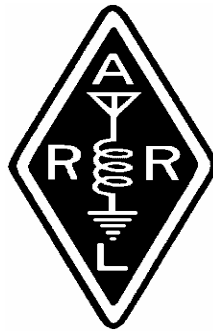
VP: Andy Delgado - KE5EXX

Sec/Treas: Army Curtis - AE5P

OCTOBER MINUTES

The October meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on October 3rd. Twenty-eight members and three guests were present. **President John, KC5MIB**, opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Each person present introduced himself. Minutes of the previous meeting were approved as published. Treasurer's report was read.

Andrew, KE5GAQ, suffered a broken nose in a non-auto accident this past weekend. Surgery was done this past Monday and



he is reported to be doing well.

Texas QSO Party was worked by club members **W5TV, KE5EXX/M, N5AIU, KD5SHM, KC5IIT, KD5GEN, K5QE, KA5BQM, AE5P (W5NAC), and W5BL**. Everyone reported having a fun time of it.

Alan, NE5AH, reported on the Piney Woods Purgatory bike race this past weekend. Amateurs once again provided communications for this far ranging event.

Skywarn training is scheduled for October 18,

6:00 p.m. in the Rec Center on North Street.

School Club Roundup will be October 15 - 19. The NISD school club **KD5VVI** will be on the air under the leadership of **N5AIU**.

President John appointed a nominating committee consisting of **AE5P, KC5IIT, and KK5BE**. They will report back at the November meeting on a slate of candidates for officers for next year.

A Shuttle Special Event committee was appointed to include **KC5IIT, KD5SHM, Kay Simpson, and KC5MIB**. The special event is planned for February 2, 2008.

After discussion, it was voted to have a Christmas Party/regular meeting the same as we did last year.

So, it will be held on the first Wednesday of December in the Parish Hall of the church, with light pot luck. More details to follow.

Kent, KD5SHM, explained how to use the new weather station on the 32 repeater.

Bill, WK5F, says he still has a few items left from the KI5KR estate.

Meeting was adjourned at 7:45 p.m.

Show and tell:

John, N5AIU, showed plaques and certificates from several contests that KD5VVI has done very well in.

John, KC5IIT, showed a certificate he got from the Indianapolis ARC.

Army, AE5P, showed a 5 watt RF amplifier he built from a kit by HF Projects.

Jerry, K5JLW, showed two home brew crystal radios he built a few years back.

PRESIDENT'S PODIUM

It's November. Wow, how time flies. I really want to thank everyone who has checked in and asked about me. The surgery went just fine. I'm out of my collar, except when I have to ride. I'll be able to drive next week (8 Nov) and not have the collar on at all. Not that I'm counting days or anything.

How did everyone do during the DX Contest? Any new stations to add to your list?

This is the season to give thanks. Traditionally this is the time the harvest comes in and we prepare for the winter. We have had a quiet year as far as weather is concerned and we've seen changes in the ham community. We have a thriving club, with great members who want to participate. So many clubs get off to a bang and then slowly dwindle away.

The young folks we have are the future of ham radio and our technological

world. So many engineers got their first technological push by being an amateur radio operator.

Please don't forget our next meeting. The nominating committee will be bringing the new slate of officers for your consideration. We will be talking plans for a Christmas get together at the December meeting and of course the February Columbia Special Event Station. Bring your show and tell items.

I always look forward to seeing everyone at our club meetings and visiting whenever I can with you on the radio. I have one more column before I run the key over to whomever is our new president.

See everyone soon.

73 to all,

John Chapman

e-mail: kc5mib@arrl.net



V.P.'s ELEMENT...

Tent - check
 Sleeping Bags - check
 Food - check
 Water - check
 Icom 706, mic,
 headphones, battery -
 check
 Buddipole antenna - check

We were all set. Got on the road at 6:30 pm Friday night and headed for Texarkana where we spent the night. (If you are going to be sleeping in Texarkana, I recommend the Hampton Inn. It was FANTASTIC!) We were up and at 'em Saturday morning headed toward Mena, AR and finally Queen Wilhemena State Park. The view on AR 88 was absolutely gorgeous. Plenty of fall colors (made my XYL happy), plenty of trails (made Andrew happy), and plenty of nice, quiet radio waves (made me happy).

We setup camp, and while Andrew was out looking

for dead wood for the fire, I setup the W3FF Buddipole on a 16' tripod mast. Pulled out the IC-706 and a battery and voila, 20 meters was wide open...and AMAZINGLY QUIET! I never knew that a 706 MKIIG could sound as quiet as a 756 Pro II. Believe me, if you are above the top of the world (or close to it) you only hear the good stuff. I think we were at about 2900 feet above sea level.

I turned off the radio, made sure we were ready for the night, and went on a few trails with the family. If you want a workout, walk a couple of these trails and get your heart rate up.

When I was able to get back on the air, I checked 20, then 40 and found both to be nice and active with nearly no QRM to deal with. I made a few contacts on 20 and then was happy just to listen at what was coming in. I heard Prague, South America, Australia, Canada, and the UK as well as all over the US. I knew

the ARRL Nov CW Sweepstakes was going on so I switched to 20 CW and heard what must have been 200 different people in just a 5 minute span. It was just amazing.

If you get a chance to make it to Queen Wilhemena State Park, take your radio. You don't have to be a "roughing it" kind of camper. There is a lodge and plenty of RV hook-ups.

This Wednesday is the next installment of the Nacogdoches Amateur Radio Club. We will have plenty to talk about with the upcoming Christmas Party, election of Officers, and a special presentation from K5JLW as well as other club business.

I look forward to seeing you Wednesday!

73 de KE5EXX
 email: ke5exx@arrl.net

VE TESTING

Our next VE testing is scheduled for Wednesday, November 21st 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 \$14 to cover the cost of the exam(s). Correct change is always very much appreciated.

73 de AE5P

email: ae5p@arrl.net

TRAINING MATERIALS

The club has purchased several copies of the latest ARRL "Now You're Talking" books, which provides everything a person needs to be able to pass the Technician class Amateur Radio license exam. Anyone may "borrow" one of these books for a \$20 deposit. When you return the book in good condition, you will get your deposit back. Interested? See **Army, AE5P**.

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 Net on the 147.32 repeater (PL 141.3). Please join us for one or both.

NEXT MEETING

The next meeting will be on Wednesday November 7th 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. Hope to see y'all there.

Basic Electronics Part Twenty By Thomas Atchison

We can define an ac voltage as one that continuously varies in magnitude and periodically reverses in polarity. An ac voltage is usually

represented by a sine wave or a sinusoid because the amount of voltage is proportional to the sine of the angle of rotation in the circular motion producing the voltage from a generator. When a sine wave of alternating voltage is connected across a load resistance, the current that flows in the circuit is also a sine wave. Suppose we connect a 100 ohm resistor, R, to a sine wave voltage generator as in the circuit below.



Fig. 1

The amount of current is given by Ohm's Law: $I = V/R$. If we make a small table of values of voltage, V, and current, I, using Ohm's Law we get the following:

V	I
0 V	0 A
+50 V	+0.5 A
+100 V	+1.0 A
-50 V	-0.5 A
0 V	0 A
-50 V	-0.5 A
-100 V	-1.0 A

-50 V -0.5 A
0 V 0 A

As the voltage builds in the positive half-cycle from 0 volts to 100 volts, the current is flowing in one direction through R and building from 0 amp to 1 amp. The voltage then decreases from 100 volts back down to 0 volts so the current decrease from 1 amp back down to 0 amp, still flowing in the same direction. In the next half-cycle, the voltage builds in the negative direction and the current builds accordingly, but it is flowing in the opposite direction from the preceding half-cycle.

We see that the alternating current in the circuit has sine-wave variations corresponding exactly to the sine-wave alternating voltage. Only the waveforms of V and I can be compared. There is no comparison between relative values, because the current and voltage are different quantities. You should note that the two half cycles of voltage produce the same size

current but the direction of current flow is reversed. The direction does not matter, since it is just the motion of electrons against resistance that produces power dissipation. In short, resistance R has the same effect in reducing I for either direct current or alternating current.

Since an alternating sine wave of voltage or current has many instantaneous values through the cycle, it is convenient to define specific magnitudes for comparing one wave with another. The peak, average, and root-mean-square (rms) values can be specified. These values can be used for either current or voltage.

Peak value is the maximum value of either the voltage, V_M , or of the current, I_M . In the example above, $V_M = 100$ volts, and $I_M = 1$ amp. This specifies the highest value that the sine wave reaches. Notice that peak voltage and peak current occur at the same time.

The peak value applies to either the positive or the negative peak.

In order to include both peak amplitudes, the peak-to-peak (p-p) value may be specified. In the above example the peak-to-peak value of voltage is 200 volts and the peak-to-peak current is 2 amps.

The average value is the arithmetic average of all the values in the sine wave for one half-cycle. The half-cycle is used for the average because over a full cycle the average value is zero. The relationship between the peak value and the average value is as follows:

Average value = 0.637 (peak value).

In the above example, the average value is 0.637 (100 volts) = 63.7 volts.

The most common method of specifying the amount of a sine wave of voltage or current is by relating it to dc voltage and current that will produce the same heating effect. This is

called the root-mean-square value (rms value). The relationship between the peak value and the rms value is as follows:

rms value = 0.707 (peak value).

In the above example, the rms voltage is 0.707 (100 volts) = 70.7 volts. The rms current is given by 0.707 (1 amp) = 0.707 amp.

There are times when we need to convert from rms voltage to peak voltage (or current). We do this by inverting the above formula.

Peak value = (1/ 0.707) (rms value)

= 1.414 (rms value).

The rms value of an alternating sine wave corresponds to the same amount of direct current or voltage in heating power. An alternating voltage with an rms value of 120 V is just as effective in heating the filament of a light bulb as

120 V from a steady dc voltage source. For this reason, the rms value is also called the effective value.