

Nacogdoches Amateur Radio Club

Pres: John Chapman - KC5MIB

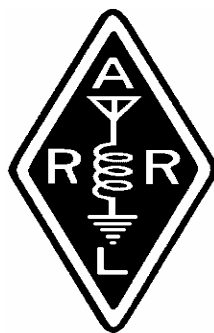
VP: Andy Delgado - KE5EXX

Sec/Treas: Army Curtis - AE5P

DECEMBER MINUTES

The December meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on December 6th. Twenty-seven members and eight guests were present. **President Tom, W5TV**, 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.

As this was not only our December meeting, but also our annual Christmas party, the emphasis was on



fellowship and good food. Both were outstanding.

Our special guest for the evening was **Doug Loughmiller, W5BL**. Doug presented an excellent and informative program on the ARBONET high altitude balloon project. Doug also gave us a few words on his candidacy for North Texas Section Manager, of which the vast majority of the club appears to be in favor of. Doug also joined NARC and is our newest member.

Doug was flown to Nacogdoches by **Jerry Johnson, W5URJ**, a most congenial fellow and the owner of a very nice

Mooney. Many thanks to Jerry for flying Doug down.

A traditional feature of our annual Christmas party is the White Elephant Auction, and this year, **John, KC5MIB** did an outstanding job as auctioneer, raising \$472, a new record. **Marshall, K5QE**, was kind enough to donate a brand new Icom IC-V8 2 meter handheld, which was raffled off. The lucky and very happy winner was **Sheree, KD5QXZ**. The raffle raised an additional \$247 for the club.

Many thanks to the many people who helped to make this evening such a success.

Meeting was adjourned at about 9:00 p.m.

PRESIDENT'S CORNER

Wow, it's been a year since I wrote my first column and now I'm writing as the President. I have had a good time over the past year, learning more about the club and the folks that make it up. The Columbia Special events station and Field Day stand out the most. I didn't participate in any contests, oops scratch that, I did give Marshall - through Kent - one contact as I was coming back from North Texas. I don't really count Field Day as a contest.

I sure don't have a crystal ball, so I can only see forward from what has been presented in the past. The FCC changed some of our band limits. They have removed the Morse Code requirements (a separate debate on its own). We are at the bottom of the sunspot cycle but still seeing many 6 meter opportunities. We have the Columbia Special events station coming up, numerous contests (I'm going to

rover in the upcoming VHF-UHF contest), Field Day, the SET will be coming up and I'm sure we'll have more than one or two SKYWARN events.

Technology is springing up giving us some really small high quality radio and of course the "Tuna Tin" or now is it the "Altoids Tin" QRP radios are still around and from what I've heard quite fun. Army and Marshall have been working on a Software defined radio that sounds a hoot from what I have read. I'll be looking forward to a report on how it goes.

Our next testing session will be 17 Jan 2007 (yep I remembered to change years. The name is Bond, James Bond). Okay, bad joke, but you knew it was coming sometime. But, how many of you who are like me have been sitting on Tech for years are now going to test for General? How many of the Generals out there will test for Extra? How many will go all the way to Extra in one sitting? I've challenged

some of my Ham friends in San Antonio. I've challenged myself in the process.

I look forward to our new year together. All of you know my e-mails. You can contact me at just about any time.

Happy New Year to one and all, 73 and all those other benedictions. We'll see you on the 3rd for our next club meeting.

73 to all,

John Chapman

e-mail:

jlchapman2@juno.com or
kc5mib@arrl.net



V.P.'s
ELEMENT...

Please allow me to introduce myself. I am Andy Delgado, KE5EXX, husband to Sharon and dad to Lauren, Joel, and Andrew. I am humbled that you have elected me as your Vice President for 2007. I was licensed in May 2005 and upgraded to

General in September 2005. I am an ARRL Accredited Volunteer Examiner. I am involved in SKYWARN, ARES and Texas RACES. Most recently my son Andrew, KE5GAQ, and I have become pretty heavily involved in VHF Contesting.

I have some thoughts about us as Amateur Radio Operators and as the Nacogdoches Amateur Radio Club. Firstly, and most importantly, I understand the term Amateur Radio, but I hope that we continue to be seen as a group of highly trained professionals by the community we are serving. I know for a fact that our local government esteems us highly due to the manner in which we served during the Columbia disaster and Hurricane Rita. Congratulate yourselves for a job well done. We operated as a team...a team of professionals.

We pull together and show that even with our various backgrounds, skill sets, and personalities; we have

an ability to get the job done. A great example is the tower project at McMichael School. A group of guys ranging in age from 10 (KE5GAQ) to 100 (AE5P, HI HI) was able to put up a small tower, secure it to the school, pull 2 runs of coax, and install 2 antennas on the tower on a Saturday. Way to go!

We now have antennas at 2 schools, the Sheriff's Office, the Police Department, and the County Annex. We are currently working to get a Winlink node up in the downtown area that should service most of the city.

As a club we've accomplished a great deal, and I hope we continue to grow. Perhaps to improve, we should begin with an assessment. I know my thoughts will invariably differ from yours. So I ask you, what do YOU want in 2007 for YOUR club? E-mail me your thoughts and suggestions to delgado@apollos-dev.com

73 de KE5EXX

VE TESTING

Our next VE testing is scheduled for Wednesday, January 17th 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.

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 January 3rd at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. This is at the corner of Starr and Mound Streets in Nacogdoches. Hope to see y'all there.

Basic Electronics

Part Ten

By Thomas Atchison Capacitors

A capacitor has two conducting surfaces separated by an insulator. Capacitors are electrical devices that store

electrical energy. One way to look at this idea of storing electrical energy is to consider the circuit in Fig. 1.

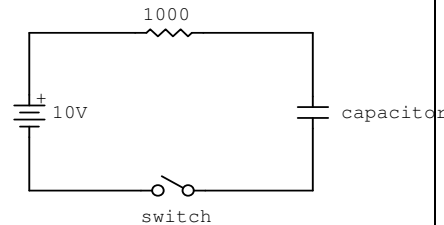


Fig. 1

Notice the capacitor schematic diagram looks like two parallel conductors with a space between them. This symbol accurately pictures capacitor construction. When we close the switch, electrons leave the negative battery terminal. The positive battery terminal attracts the electrons, and they move through the circuit. We can use Ohm's Law to calculate the current when we first close the switch.

$$I = \frac{E}{R} = \frac{10 \text{ volts}}{1000 \text{ ohms}}$$

So $I = 10 \text{ mA}$.

This current cannot continue for long, however. The electrons reach the capacitor, but they can't get through it because

there is an insulating layer between the conductors. Two things happen. First, electrons move onto the conductor surface. These electrons exert an electric force to repel electrons from the opposite conductor. Second, the positive battery terminal attracts electrons from the second conductor. As electrons move off the second conductor, it has a positive charge.

The negative charge on the first capacitor plate also repels any more electrons that try to reach it. At first there are few electrons and this force is small. The battery pushes with a stronger force, so electrons continue to accumulate. As more electrons pile up, the force becomes stronger. Eventually, the repelling force of electrons on the capacitor plate equals the battery force, and no more electrons flow onto the capacitor.

While electrons are piling up on one capacitor plate, the battery is pulling

electrons off the other plate. As the battery pulls electrons off that plate it becomes more difficult to pull electrons away. The forces reach a balance, and the battery can't pull any more electrons off the capacitor plate.

When we first close the switch, the current is 10 mA. The current immediately begins to decrease. Also, when we first close the switch, there is no voltage on the plates of the capacitor, however, as the electric charge builds up, there is a voltage across them. When that voltage reaches the battery voltage, current no longer flows in the circuit. As charge builds up on the capacitor plates, then, there is an electric field between the plates. This electric field between the capacitor plates represents stored electrical energy. The capacitor will store this energy as long as the charge remains on the capacitor plates.

If we remove the capacitor from the circuit,

a perfect capacitor would not lose any charge. Since no capacitor is perfect, some of the charge will leak through the insulation between the capacitor plates and some charge will leak off the capacitor from the capacitor leads. You should be careful of charged capacitors because if you accidentally contact the leads, you can receive an electrical shock. Don't ask me how I know this.

Camp Pirtle

On November 4, NARC members provided communications for Cub Scouts at Camp Pirtle for a Mom and Me day. Present were John Jordan, N5AIU, Mark Lacy, W5TXR, Bert Fisher, AC5Z, and John Streeb, KE5DXJ. Here is a photo from the outing.



Meeting Photos

Since I've got a little room left, here are some photos from our December meeting, compliments of KC5IIT

