

Nacogdoches Amateur Radio Club

Pres: John Chapman - KC5MIB

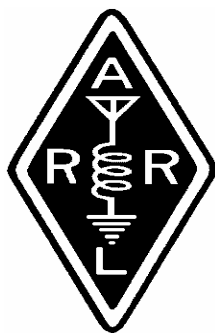
VP: Andy Delgado - KE5EXX

Sec/Treas: Army Curtis - AE5P

FEBRUARY MINUTES

The February meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on February 7th. Thirty-three members and three guests were present, believed to be a new record. **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 corrected. A very rough Treasurer's report was read.

Please welcome our newest member, **B.B. Stanfield, KE5JER**.



The Shuttle Columbia Special Event Station was held on Saturday, February 3, and was very successful. All club members who were there were presented with a very nice Certificate of Appreciation signed by **KC5MIB** and **KE5EXX**.

Speaking of the Shuttle Columbia, the Columbia Museum is looking for oral histories. If you were part of the Columbia effort, they museum would like to hear from you.

We are looking for ideas on this year's Field Day. Where do you want to hold it?

A request was made by **Bryan, KK5XM**, to purchase the club's old 84 repeater hardware. After some discussion, it was voted to sell the hardware to Bryan for \$600.

NARC has been invited to hold our April meeting at the Columbia Center, downtown on the square. The Columbia Center has requested that a ham radio station be set up there.

Kent, KD5SHM, proposed adding an automated weather station to the 32 repeater. An informal vote indicated positive response to this proposal.

A new club WAS competition was proposed, with separate competitions for phone and CW. More details next month.

John, KC5IIT, requested that the club purchase the military push-up mast he originally purchased from KE5KDE. He is asking \$250. Approved.

Meeting was adjourned at 8:10 p.m.

Show and tell included John - KC5IIT showing a WWII BC745-B transmitter, John - KC5MIB showing his new Icom IC-8500 receiver, Jerry - K5JLW showing a 16 ft. push up aluminum flag pole/antenna mast, a 2 element 2M quad on a PVC frame, and a dual band antenna featured in the August 2006 QST, and Tom - W5TV, showing many examples of different types of capacitors, following up on his excellent Basic Electronics series that has been running in this newsletter.

CONGRATULATIONS!

I am very pleased to announce that several of our NARC members have successfully upgraded to

General. My sincere congratulations to Tim Dyess - KD5HWO, John Cechin - KC5IIT, Don Allen - K5HIS, Patricia Allen - K5HER, and Faye Helton - K5FAY on their recent upgrades.

PRESIDENT'S CORNER

Congratulations to all the folks that took this recent opportunity to test. Good on ya! I guess we'll be hearing some Slash AE and Slash AG in some callsigns next week. Army will be talking about the exams and the updates later in the news letter.

I've talked with a few hams that went down to Orange and all said it was a disappointment. I was unable to attend, but did send a request for materials down. I got what I needed, but Robert (KE5FEE) said that was all the vendor had. That's a shame. I've heard some scuttle butt about having a tailgate party here sometime. There are a bunch of hams in East Texas that may want to

get together. Do you have any ideas?

The section manager elections were announced in the Feb 23 ARRL Newsletter. We voted, but to no avail. Let's see what happens with it. It sure was nice though to have Doug come out and visit and become a member.

Our next big club event will be Field Day in June. It is always held the last full weekend in June. That weekend will be 23 and 24 June. Please come to the next meeting and let's discuss how we want to conduct Field Day this year.

We haven't heard anymore from the city or the county about their emergency exercise. We do know it is planned for 21 March but not much more than that. We will let you know more as we have it. As we said a long time ago, stand by to stand by.

See you Wednesday at the club meeting. Remember

we will be in the library at Christ Episcopal Church due to Lent.

73 to all,
John Chapman
e-mail: kc5mib@arrl.net



V.P.'s ELEMENT...

This month we face the challenge of the Texas Simulated Emergency Test. While the parameters are unknown to us, we can be prepared in case the call comes from our city and/or county to help provide communications.

One way we can be ready for this simulation (or the real thing) is by getting a Winlink station on the air. KD5SHM and I visited the proposed site on the top of the Hotel Fredonia. We are currently working out the details and obtaining hardware to get everything installed and ready.

Individually we can prepare by double checking our GO BAGS. If you don't have a go bag look at <http://home.comcast.net/~buck0/hamgear.htm> for an idea of what you might want to include in yours. Other preparations include:

- Make sure you have performed a complete discharge and recharge on your HT's and any spare batteries. Check to make sure that you have any adapters and cables should you need to attach an external antenna and/or power source.
- If you have Winlink capabilities, make sure you can reassemble your station after moving from your normal operating location.
- One thing we noticed from last year is the limited availability of operators that could make the connection to the Lufkin UHF repeater. If you are

looking to upgrade your station, consider this need.

- Go to <http://www.arrl.org/FandES/field/forms/radiogram2.pdf> and download the ARRL Message Form and print a few copies. You may want to review your notes from AC5Z's message handling class. Look at <http://www.arrl.org/FandES/field/forms/fsd218.html> for a refresher.
- A pen, notebook, and bottled water would also be good to have.

All of this falls in line with our guest speakers for the next NARC meeting. We will have Kari Tatro, KE5FJN, who is the Regional Liaison Officer (RLO) for the Texas Department of Public Safety. We will also have Mike Miles, WD5EFY, who is the Texas RACES District Radio RACES Officer (DRO) for District 24. Kari will be discussing her role as a liaison in the

Emergency Management process, and Mike will tell us everything we wanted to know about Texas RACES but were afraid to ask. If you are interested in joining Texas RACES, Mike will have applications with him.

Remember, the primary reason for the Simulated Emergency Test is for us to see how prepared we are for a real emergency. Let's prove to ourselves that we are ready.

73 de KE5EXX
email: ke5exx@arrl.net

VE TESTING

Our next VE testing is scheduled for Wednesday, March 21st at 7:00 p.m. in the Bailey Library 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 March 7th at 7:00 p.m. in the Bailey Library of Christ Episcopal Church. The Bailey Library is just to the left of the Parish Hall, which will be in use for Lenten services of the church. The church is at the corner of Starr and Mound Streets in Nacogdoches. Hope to see y'all there.

Basic Electronics Part Twelve By Thomas Atchison

We will now consider what happens if we place multiple capacitors in a dc circuit. Connecting capacitors in parallel is equivalent to adding the plate areas. This means that the total capacitance is the sum of the individual capacitances. If a 10- μ F capacitor is connected in parallel with a 20- μ F capacitor, the voltage is the same across the parallel capacitors (see Fig. 1).

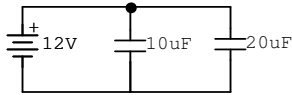


Fig. 1

The equivalent capacitance would be 30- μ F.

Connecting capacitors in series is equivalent to increasing the thickness of the dielectric. Therefore, the combined capacitance is less than the smallest individual value. If we have C_1 and C_2 connected in series, the equivalent capacitance is given by

$$\frac{1}{C_{EQ}} = \frac{1}{C_1} + \frac{1}{C_2}.$$

Consider $C_1 = 10\mu\text{F}$ and $C_2 = 20\mu\text{F}$ connected in series as in Fig. 2.

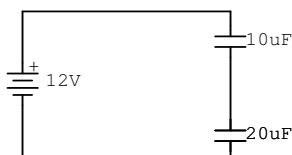


Fig. 2

The equivalent capacitance is given by

$$\frac{1}{C_{EQ}} = \frac{1}{10} + \frac{1}{20} = \frac{3}{20}$$

This means that

$$C_{EQ} = 20/3 = 6.7\mu\text{F}.$$

There is a division of voltage across unequal capacitors in series. The voltage across each of the capacitors in Fig. 2 is inversely proportional to its capacitance. The smaller capacitance has the larger proportion of the applied voltage. The reason is that the series capacitances all have the same charge because they are in one current path. With equal charge, a smaller capacitance has a greater potential difference. Since the equivalent capacitance is 6.7 μF and the applied voltage is 12 volts, the charge on the equivalent system is

$$Q = CV$$

where Q is the charge stored in the dielectric in coulombs (C),

V is the voltage across the plates of the capacitor, and

C is the capacitance in farads.

In this situation, $Q = 80 \times 10^{-6}$ coulombs.

Since C_1 and C_2 each have this charge then the voltage across C_1 is given by

$$V_1 = \frac{Q}{C_1} = 8 \text{ volts}.$$

Similarly, the voltage across C_2 is 4 volts.

Notice that we have used the symbol C for capacitance and for coulombs. It should be clear in usage which one we mean.