

Nacogdoches Amateur Radio Club

2017 CLUB OFFICERS

Pres: John Cechin - W5FWR

Vice Pres: RM Blake - K5AGE

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.



MARCH MINUTES

The March meeting of the Nacogdoches Amateur Radio Club (NARC) was held as scheduled on March 1st. **Vice-President RM K5AGE** opened the meeting at 7:00 p.m. in the Parish Hall of Christ Episcopal Church. Sixteen members and three guests were present. Each person present introduced them self. Minutes of the previous meeting were approved as published. The Treasurer's report was read.

Contest Participation:

ARRL DX CW: K5ME, W5TV, AE5P.

NAQP RTTY: W5TV, AE5P.

Old Stone Fort Bicycle Ride: Scheduled for Saturday March 18. Event begins at 8:30 a.m. and closes at 3:00 p.m. Club members will be providing communications support for the event from the several rest stops on three ride courses. All courses begin and end at the Nacogdoches Expo Center. **VP RM K5AGE** is the communications coordinator for the event.

Meeting closed at 7:34 p.m.

Program: **Army AE5P** presented a program on the Maidenhead Grid Square system.

MY 2 CENTS

FOX WILLY ROGER

APRIL 2017

April 2017, time flies, did you miss me? Getting back to time, the time for you to visit the IRS is once more. Does it seem like the years are getting shorter and certain days come around faster?

If any of you were wondering, I spent nine days in the St Luke's in Lufkin @ a cost of \$10K per day and came away with yet another illness.

How did the FEB SES go? What kind of turnout was there? Speaking of the SES, what about the next one? Things to remember, in 1836 there were 23 counties, April 21st was the day that Texas won independence at San Jacinto. Any more information and your contact will hang up on you or fall asleep at the mike.

The program for this meeting is a secret kept from me and my cats, that's why I cannot

comment on it, but I'll bet it's going to be good.

Question:

Who came up with the Q-tip?

Who invented the lawn mower as known today?

And what about ball point pens?

The word tree is a bit better these days but still slow, all I can do is wait for better times.

REMEMBER?

Dress shirts with two pockets?

Full sized auto tire in the trunk when the auto came from the dealer?

Horse meat sold in one pound cartons as dog food?

THE CRAZY CAT GUY:

The cat days around the QTH have cooled down some. It's still a mystery on how many of the outside cats will be at the door for food. To keep the

outside cats from all running into the house, I now growl like a bear and that makes them disappear, for a bit, this gives me time to get out the door without falling or stepping on a cat, I wonder how long this will last before they catch on? The cloud brothers have grown more and play as much as they used to. Tigger Boy has been on walk-about for some time now, but he does make an appearance every few weeks. Lou still gets on the roof, that's a good trick since all the trees have been cut down around the roof line, I saw him walking on my coax horizontal support to gain access to the roof. The only way this could have been done is he climbed the tower or the ladder resting on the tower, anyway if you want to know, all you have to is ask Tar Baby, she watched it all and about to have a fit trying to see more. It looks like Jerome is going to have some kittens, either that she is eating way too much. Rolly-Polly has a new moto, "why sleep when you can eat" and Tar-

Baby has a few as well "why walk when you can run and do this on the top of things".

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

I don't have to leave so many spaces these days now that we have a VP. Don't be shy, and fill up the pages, you try it sometimes, but you can't use my Word Tree.

LIVE WELL, LAUGH OFTEN, LOVE MUCH!!!

Let me know what you think, only if it's positive.

**KEEP YOUR POWER DRY AND YOUR HEAD BELOW THE HORIZON
HAPPY TRAILS**

John Cechin W5FWR
Carrots4ever2@gmail.com

FROM THE VICE PRESIDENT



The Old Stone Fort Bicycle ride was a great success. I want to thank each person who gave their Saturday to volunteer for this event. **Rusty, Megan, John, Dale, Jim, Andy, Robert, Bill** and the entire NARC club who provided equipment, and much valuable advice.

Everyone was so impressed with your skills, your patience, and your professionalism. I find it more ironic now than ever that we call ourselves "amateur". All I experienced from you was cool professionalism.

One out of the many amazing things I witnessed was the slow progression of Ray Mitchum, the race

director. At the beginning of the day, he stopped by and said hello, gave us the standard "thank you for being here" and quickly walked off. Towards the end of the ride, he was leaning on us for crucial rider information, and was super enthusiastic not only with the help we provided, but the reaction from the riders themselves. He told us several of the riders thanked him personally for getting the "radio boys" out on the course. He said the riders viewed us as one more layer of safety for them on frankly, a dangerous ride. To this I say, mission accomplished.

Understand that YOU had a hand in making this a success. I hope you share my pride for our small club after reading this. What you helped accomplish was, as our president likes to say, "Make NARC Great Again".

73 de RM Blake K5AGE
k5age@fastmail.com

NOTES FROM OUR EC

March, in like a lion out like a lamb. I'm not really sure about that. It seems we have had a lot of the lion through the month, not so much with the rains but certainly with the wind. Areas across the state had tornado alerts both warnings and watches. A friend from the Dallas area took some straight line wind damage and a FAA radar tech in Plano said they saw 95 mph winds in their radar return at DFW airport.

Which leads us to April 17th. The National Weather Service will present Skywarn Weather Spotter Training Basic and Advanced in Lufkin. Basic class starts at 5:30 p.m., Advanced starts at 7:00 p.m. Each class runs about 1 1/2 hours. The classes will be at the Lufkin Civic Center, 601 North 2nd St. This is very good information. If you haven't been, please try to go. If you have attended, please go and get a good

refresher course. As my Grandmother said, it can't hurt.

Thanks to everyone who participated in the Old Stone Fort Bicycle Ride. It will have some growing pains like a lot of other events around the area. Events like this, the Neches River Rendezvous and Piney Woods Purgatory are all great opportunities to tune up our net procedures and protocols.

A couple of procedural things from the event. Always use your call sign when you finish talking. Your transmission may not be completed, but it keeps the identification requirement under control. Yes, I was guilty of that too. When your area of responsibility is closed, (a rest stop) remember to advise Net Control that you are closed. If you are departing the event definitely let them know that you leaving and departing. If you have anything that needs to be addressed to me or to the race organizers, please forward them to me. And

if you haven't forwarded me your hours working the event please do so. You can reach me at jlchapman2@juno.com.

A couple of participants still need to get their working hours to me for my monthly report.

We will close with an interesting website please take a peek: www.community.fema.gov/untl-help-arrives

73 de John Chapman
KC5MIB
jlchapman2@juno.com

VE TESTING

Our next VE testing is scheduled for **Wednesday April 19 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.

NEXT MEETING

The next meeting will be **Wednesday April 5th at 7:00 p.m.** in the Parish Hall of Christ Episcopal Church. A program on digital modes is planned.

VE TEST RESULTS

A very good VE test session was held on March 15. Congratulations to **Alan Lovejoy** of Center who passed his Technician exam and is now **KG5SKX**, **Charles Thomas KD5NHP** of Alto who upgraded to Amateur Extra and to **Ken Dickerson** of Burkeville who successfully reinstated his Amateur Extra license that had expired several years back. Many thanks to our VE team who makes these tests possible every month.

SAN JACINTO DAY SPECIAL EVENT STATION

The San Jacinto Day Special Event Station is a new event for NARC which we hope will become an annual affair. We will be using the special call of **K5T** for the event. Members are encouraged to operate from their

home stations for the event, which will be held April 21 - 23, Friday, Saturday and Sunday.

If you wish to operate from your home station for this event, please contact the Club Secretary and advise what band/mode you want to use and your preferred operating times.

San Jacinto Day is the celebration of the Battle of San Jacinto on April 21, 1836. It was the final battle of the Texas Revolution where Texas won its independence from Mexico.

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.hornucopia.com/contestcal/contestcal.html>

**San Jacinto Day
Special Event Station****K5T**

Apr 21 - 23

<http://www.w5nac.com>

**CQ WW WPX Contest
- CW**

May 27 - 28

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

**ARRL June VHF
Contest**

June 10 - 11

<http://www.arrl.org/june-vhf>

ARRL Field Day

June 24 - 25

<http://www.arrl.org/field-day>

IARU HF World**Championships**

July 8 - 9

<http://www.arrl.org/iaru-hf-championship>

NAQP RTTY

July 15 - 16

<http://www.ncjweb.com/NAQP-Rules.pdf>

CQ Worldwide VHF

July 15 - 16

<http://www.cqww-vhf.com/>

NAQP CW

July 14 - 15

<http://www.ncjweb.com/NAQP-Rules.pdf>

NAQP SSB

August 19 - 20

<http://www.ncjweb.com/NAQP-Rules.pdf>

ARRL September VHF

Sept 8 - 10

<http://www.arrl.org/september-vhf>

CQ WW DX RTTY

Sept 23 - 24

<http://www.cq-amateur-radio.com/>

TEXAS QSO Party

Sept 23 - 24

<http://www.txqp.net/>

CQ WW DX SSB

Oct 28 - 29

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

ARRL Sweepstakes**CW**

Nov 4 - 6

<http://www.arrl.org/sweepstakes>

ARRL Sweepstakes**SSB**

Nov 18 - 20

<http://www.arrl.org/sweepstakes>

CQ WW DX CW

Nov 25 - 26

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

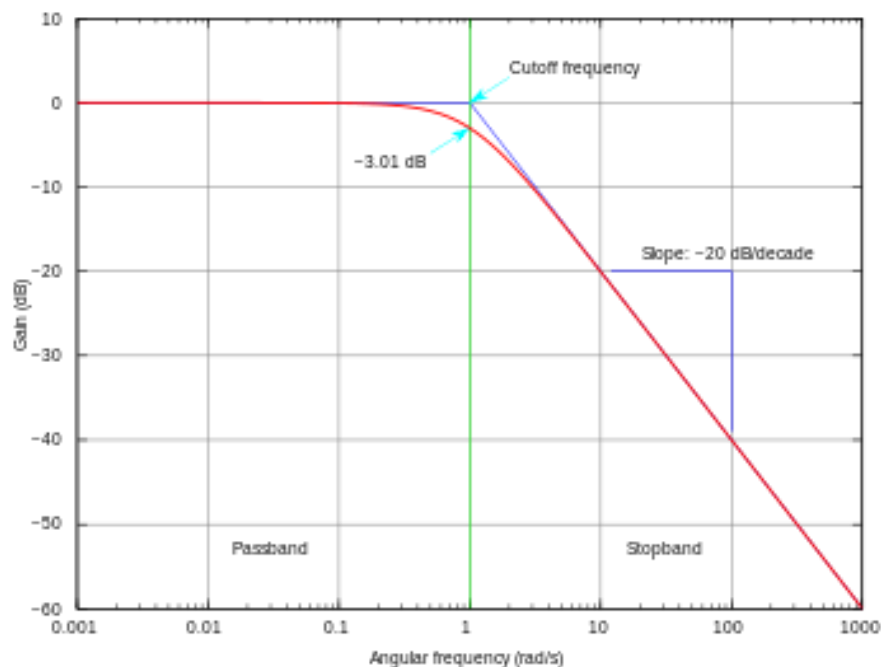
Basic Filters - Part 4

by

Thomas Atchison, W5TV

Suppose we continue to deal with a low-pass RC filter. In the last article we discussed the roll-off as we increased the frequency applied to the input of the filter. It is usual to measure roll-off as a function of logarithmic frequency. The units of roll-off are either decibels per decade (dB/decade), where a decade is a 10-times increase in frequency, or decibels per octave (dB/octave), where an octave is a 2-times increase in frequency. You might be interested to know that the concept of octave as it is used here is related to an octave in music. That is, an A4 on the piano is at a frequency of 440 Hz and the frequency of A5 (8 notes above A4 or an octave above A4), is 880 Hz. In fact, every time we move up one octave on the piano (8 notes), we double the frequency.

The first-order RC filter we discussed in previous articles will have a roll-off of -20 dB/decade which is approximately equal to -6 dB/octave as we will see below. This -20 dB/decade roll-off will always be the same for any RC combination. A typical Bode magnitude plot is shown below. As the frequency changes from 10 Hz to 100 Hz the output signal **gain** changes from -20 dB to -40 dB.



Once we pass the cut-off frequency the slope of the roll-off graph is almost constant. Since the roll-off is -20 dB/decade, if ΔG represents the change in gain, then the slope is given by

$$\frac{\Delta G}{\log f_2 - \log f_1} = -20$$

Another way of expressing this is

$$\Delta G = -20 \log \left(\frac{f_2}{f_1} \right) \text{ dB/interval.}$$

In the case of a decade interval we would have $f_2 = 10 f_1$, therefore

$$\Delta G = -20 \log 10 = -20 \text{ dB/decade.}$$

In the case of an octave interval we would have $f_2 = 2 f_1$, therefore,

$$\Delta G = -20 \log 2 \approx -20 \times 0.3 = -6 \text{ dB/octave.}$$

From this we see these are approximately equivalent measures.

One way of obtaining a steeper roll-off would be to combine two RC filters in series as shown in Fig. 1.

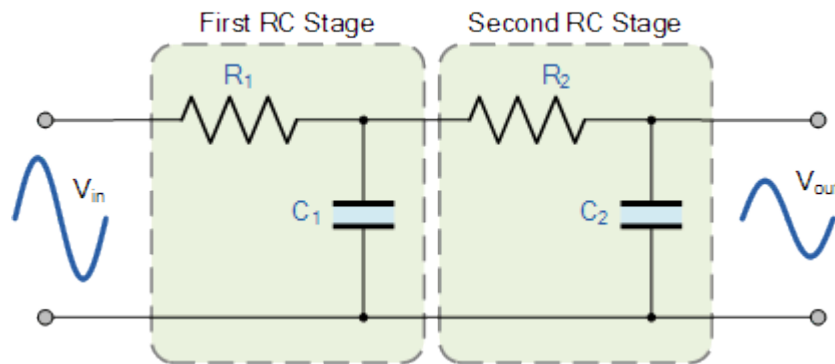


Fig. 1

This forms a second-order or two-pole filter. The result is a filter with a roll-off of -40 dB/decade or -12 dB/octave. When we cascade two RC filters as in Fig. 1 we will find that the cut-off frequency will be changed according to the following formula:

$$f_c = \frac{1}{2\pi\sqrt{R_1 C_1 R_2 C_2}} \text{ Hz.}$$

Comparing the first order RC filter with the second order RC filter we have the diagram shown in Fig. 2.

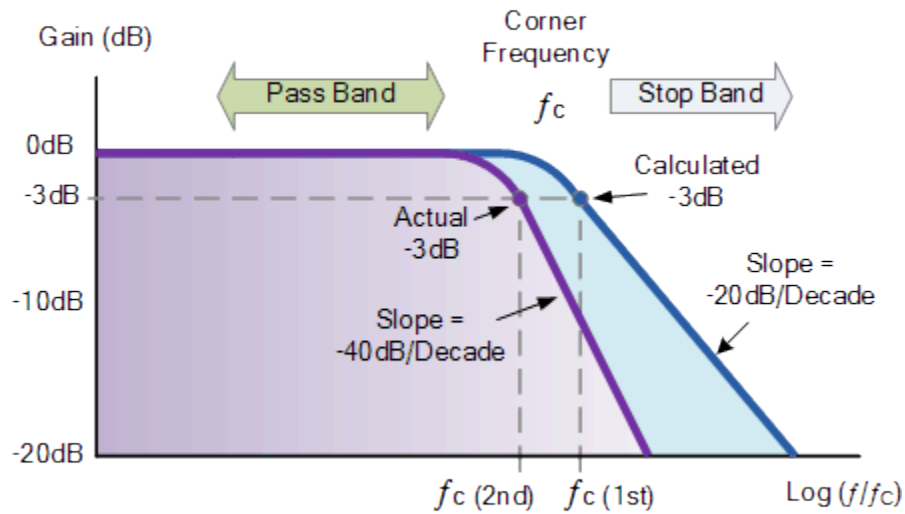


Fig. 2

This cascading of RC filters can be continued, however, we won't go any further than a two pole filter.