

# Zero Beat



Montgomery Amateur Radio Club Newsletter

Established 1938

February 2011

## CALENDER OF EVENTS

### CLUB MEETING

Every month - 3<sup>rd</sup> Monday at 7 PM  
American Red Cross Building  
5015 Woods Crossing Dr.

### FELLOWSHIP BREAKFAST

Saturday morning before the club meeting  
Shoney's - Eastern Blvd.  
8:30 AM

## FCC EXAMS

Montgomery ARRL VE Team: Last Saturday each month at  
1:00 PM at American Red Cross, 5015 Woods Crossing Dr.  
For information, contact Scott Poole W4SPA (334) 262-0412  
Montgomery ARRL VE Team Liaison  
Or email ([swpoole@yahoo.com](mailto:swpoole@yahoo.com))

CAVEC every 2<sup>nd</sup> Monday at 6:30 PM at American Red Cross,  
5015 Woods Crossing Dr.  
For Info contact Phil Salley, K4PO ([k4po@charter.net](mailto:k4po@charter.net)) or  
Jim Eiland, KR4JY ([jeiland@knology.net](mailto:jeiland@knology.net))

Additional Exam Info:

<http://www.arrl.org/arrlvec/examsearch.phtml?State=AL>

## Club Nets

Central Ala 2 meter Net on 146.84 at 8:00 PM every  
Sunday night. A controlled net with information about  
amateur radio subjects including information bulletins,  
hamfest info, satellite info, local club info.  
Net manager: Chris, KD6BOD

SkyWarn/Alabama Emergency Net Golf Thursday at  
8:00PM on 146.84. Net manager: Otto, N4UZZ

# Membership dues are due in February

## 2011 Officers

President: Ken Kohnke, KJ4CJP  
Past President: Scott Poole, W4SPA  
Vice-President: Daniel McCaffery, KE5GDK  
Secretary: Chris Hall, K4LIA ex KD6BOD  
Treasurer: Dana Persells, WJ4Z ex KJ4IBB  
Publicity: Trey Brooks, N4BTB  
Trustee: Jim Eiland, KR4JY  
Trustee: Rik Doll, KU4PY  
Trustee: Phil Salley, K4PO  
Trustee: Scott Poole, W4SPA  
W4AP Trustee: Tim Moore, K4TK

## Local Repeaters

146.840(-) W4AP Wetumpka  
146.920(-) W4AP Eastdale (DSTAR)  
147.180(+) W4AP Tall tower - Grady, AL 123 Hz  
444.5(+) W4AP Wetumpka 100 Hz  
53.350(-) W4AP Titus, AL 100 Hz  
444.450(+) WD4JRB Baptist Tower 100 Hz  
(Echolink Node 212144)  
446.450 (Splx) IRLP (4845) Baptist Tower 110.9 Hz  
147.200(+) KE4LTT Friendship 107.2 Hz  
444.575(+) KE4LTT Friendship 100 Hz  
147.380(+) W4KEN Santuck  
145.690 W4AP BBS  
144.390 W4AP-1/3 APRS Digipeaters



## From the President's Shack

*By Ken Kohnke, KJ4CJP*

My first month as the newly elected President has me overwhelmed with excitement! As some of you may know, the 2011 budget has been established. This budget included the purchase of a new D-Star radio. Thanks to Phil Salley (K4PO), the new radio has already been purchased and installed in our club shack! However, there is some confusion as to what call sign is to be used. At this time anyone operating in D-Star mode at the club shack must use their own call sign until we establish a call sign for the club. From what Phil has determined is, W4AP cannot be used because it has been assigned to the D-Star repeater.

Also, I am pleased to announce that Jason Smith (W4EGR) has volunteered to take over as chairman of the Hamfest. On January 29<sup>th</sup>, Jason held his first Hamfest committee and presented us with some information and ideas that will be announced in one of the up and coming meetings.

At the February club meeting we have guest speaker Rich Thomas, Lead Meteorologist from WSFA joining us. Rich will do a presentation about severe weather awareness since that time of season is approaching us. We will start with our customary introduction around the room and then the presentation. Following Rich Thomas's presentation, Otto Arnoscht (N4UZZ) will follow up with a short Sky Warn presentation. After these presentations we'll do a quick business meeting and then take a break. After the break if time permits, we'll conduct further business such as Hamfest and Field Day discussions. The evening will have a packed agenda, but I think you'll find it exciting!

Scott Poole (W4SPA) has been shopping around for a new club trailer and has found one at a reasonable price. He has drawn up specifications and put together some pictures of it so we may squeeze that into the February meeting, also.

I will also be conducting a Field Day committee meeting this month. In this meeting we will discuss a location for Field Day. We have a few ideas but they need to be looked into further before we decide. The last few years, we have held Field Day at the residence of Mr. Randy Sedlak off of Snowdown Chambers Rd. It has not been decided as to whether we will stay there or, have Field Day at a different location. I know many of you would like to see Field Day stay at Randy's. I for one have always enjoyed the event being hosted by him and his most gracious family. Some have expressed a need to have the event in a different place, a location that will expose our skills as ham radio operators to the public. After all, this is what Field Day needs. I think you will find a few of the ideas that the Field Day committee has produced very exciting!

On a final note, please remember to renew your club membership by the end of February. Most of the club's operating revenue comes from membership dues. There is a membership application on the last page of this and all issues of the Zerobeat.

### Need a ride to MARC Meetings?

If you or someone you know of would like to attend the monthly MARC meetings but cannot get there, we can help.

Please contact me at 334.309.4703 or by email at [secretary@w4ap.org](mailto:secretary@w4ap.org)

If you get my voice mail, please leave your name and phone number and we will make arrangements to get you to the meetings.

## Fractal Antennas: Hype or Hope? By Dan Romanchik, KB6NU

QRZ.Com currently has a very interesting item on fractal antennas  
(<http://forums.qrz.com/showthread.php?t=277623>).

While the idea of applying fractals to the design and construction of antennas has been around for quite some time, very few hams have actually built them, and there are currently no companies building commercial fractal antennas for the ham radio market. The question, of course, is why?

Those that are hyping fractal antennas—most notably W1YW, CEO of Fractal Antenna Systems—claim several advantages. These advantages purportedly include wider bandwidth and smaller size when compared to traditional antennas, such as verticals and dipoles. Those that are trying to debunk these claims contend that this is all just hogwash, and that there's no real scientific basis for these claims.

One thing that's confounding this debate is that there have been very few articles published on the topic. For commercial reasons, W1YW has made his articles unavailable. He says that he will be publishing something real soon now, but there is nothing definite at this point.

There is at least one article on the Internet that describes the construction of a fractal antenna for amateur radio use. "FYI:FYQ: Another look at the Fractal Quad Yagi" <http://www.scribd.com/doc/18788401/FYIFQY> was published in the October 1999 issue of 73 magazine. It describes the construction of a two-element, 10m antenna. Like most 73 articles, it's not incredibly technical, though, and doesn't really contribute to the technical debate, except to demonstrate that physically small antennas can be made using fractal design.

The PDF contains several photos of the antenna. It's a crazy contraption that looks relatively difficult to build. So difficult, in fact, that it makes me wonder if it's even worth it to try building one. After all, 10m antennas are not really all that big or all that difficult to build to begin with.

Even more interesting than the antennas are the personalities on both sides of the debate. The QRZ.Com discussion quickly devolved into a flame war, with neither side scoring a knockout.

Personally, I think the brouhaha is much ado about nothing. It seems to me that it's been demonstrated that you can build antennas using fractal design techniques. They are physically smaller than traditional antenna designs, but you really don't get something for nothing. Overall, they don't have as much gain as yagis or quads, and they're more complex to build.

My opinion on this is that if W1YW can build antennas that radiate a signal and can sell those antennas to someone, then more power to him. In the end, his company will live and die by how well, his antennas work and how much they cost when compared to antennas from other companies.

As for me, I think I'll stick with the more traditional HF antennas. If I need to make my antennas smaller, I'll use loading coils or designs such as the Moxon. I may not be on the bleeding edge of technology, but I'll certainly avoid a lot of headache trying to figure out who's right.

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When not avoiding flame wars on QRZ.Com, Dan, KB6NU, operates CW on the HF bands, writes and publishes license exam study guides, and teaches ham radio classes. You can find his ham radio blog at [www.kb6nu.com](http://www.kb6nu.com).

A small plug for Dan KB6NU's latest effort: Dan has published: No-Nonsense Technician Class License Study Guide as an E-Book. There is both an Amazon Kindle version: [http://www.amazon.com/No-Nonsense-Technician-Class-License-ebook/dp/B004G8QVD2/ref=tmm\\_kin\\_title\\_0?ie=UTF8&m=AG56TWWU5XWC2&qid=1295917361&sr=8-1](http://www.amazon.com/No-Nonsense-Technician-Class-License-ebook/dp/B004G8QVD2/ref=tmm_kin_title_0?ie=UTF8&m=AG56TWWU5XWC2&qid=1295917361&sr=8-1) and a Barnes & Noble Nook version: <http://productsearch.barnesandnoble.com/search/results.aspx?WRD=kb6nu&page=index&prod=univ&choice=allproducts&query=kb6nu&flag=False&r=1&ugrp=1>).

Both cost \$9.99. Of course, the PDF version is still free on my website at [www.kb6nu.com](http://www.kb6nu.com).

Thanks & 73!

Dan KB6NU

## **Diving into the Digital Realm of Ham Radio, Part I Trey Brooks / N4BTB**

I'll never forget the first time I worked digital modes on HF in 2004. It was a new window into the hobby for me and once I got the hang of operating in that area, I was hooked!

I took a hiatus from the air for a few years, and after returning, one of my goals was to go back to digital work in addition to SSB phone and VHF work. I essentially learned the things that I had forgotten, and now would probably be a good time to give a little primer for those who haven't reached into that area of the hobby yet.

Things have certainly changed as far as your options, including interfaces and software that you can choose from. I fell in love with a particular program suite that I would highly recommend to anyone wishing to get involved.

The name of the program is Ham Radio Deluxe (often referred to as HRD), which within its suite programs, contains everything from logging software to DX spotting. Here are some great advantages of using it versus the others you'll find on the net.

First, it is 100% free! Secondly, the programs in the package all communicate with each other. For example, using Digital Master (the digital mode program it contains), you can make a contact on any mode imaginable, from PSK to Domino to RTTY, and after clicking on the other stations name, callsign, and other information during the QSO, have it AUTOMATICALLY logged when you end the conversation! Also, you can mate the logging book to immediately synchronize with eQSL at the same time. Ham Radio Deluxe, which is currently in version 5, can be found at <http://www.ham-radio-deluxe.com/>. Again, it is completely free.

Now that we have software, we obviously need the right hardware and interface between our radios and our computer. There are several ways to go about this, and it can be very confusing for a first-time digital mode operator.

Ideally, you want an HF rig that has some form of serial control, often called CAT. Most of the intermediate to advanced radios have these interfaces. Some radios, Kenwood and some of the newer Yaesu radios have a standard 9 pin RS-232 serial port which will plug into

your computer's COM port or connect using a USB to serial adapter. Others, such as older Icom and Yaesu radios use a special CI-V or CAT interfaces which require changing the RS-232 to usually a 5V level. Many of the newer radios provide a USB port that plugs directly into your computer. Refer to your user manual to determine the best way to control the radio.

With the computer connected to your radio, you can use Ham Radio Deluxe to take control of your radio. You can even double-click on DX spots and have the radio immediately jump to that frequency. Your logging program will now put in the exact mode and frequency you are on as you log your contacts.

The second part of your interface is the soundcard connection to your computer. I use an MFJ-1275 that has the 8-pin connection for my Yaesu FT-847. If you go to their website you can find a model that fits your rig to a tee. Another option is RigBlaster, which makes several models, many include the special interfaces for controlling the older radios. Another popular interface is the Tigertronics SignalLink USB which includes a built in USB sound card, this is an excellent interface for Laptop computer that have limited audio I/O connectors.

Now, when we have everything complete and setup, we begin learning about the waterfall display and how to pick out a signal and work it. Ham Radio Deluxe makes this pretty easy, but there is still a learning curve. 99% of the time, you will find PSK (in the BPSK-31 mode) to be the contacts you come across. On that note, here is a great site (albeit a little primitive in design) that will not only show you what different modes look like on the waterfall display, but it will let you listen to how the audio of those signals sound like as well. Just check out this website:

<http://www.nonstopsystems.com/radio/radio-sounds.html>

There is much more information to cover to really get proficient in working digital HF, but this will give you a good start if you are interested in checking it out. In the next ZeroBeat, I'll focus more on pointers regarding configuring your software and tweaking your radio settings to make sure you get the best results!

If you have any questions or want more help getting started, don't hesitate to contact me. I'll be more than happy to help you out! I love introducing hams to this often overlooked, and very fun mode of the hobby.

73 de N4BTB  
Trey Brooks  
[trey@treybrooks.com](mailto:trey@treybrooks.com)

# MEMBERSHIP APPLICATION

Year \_\_\_\_\_

**Montgomery Amateur Radio Club – PO Box 3141 – Montgomery, AL. 36109**

**Renewals** enter, name and callsign and any changes in status.

**\*Note: Senior Members** over 70 please send in application to keep roster updated.

**New Members** enter all available information.

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

## Family Members

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Class of License: N= Novice, T= No Code Technician, T+= Code Technician, G= General, A= Advanced, E= Extra

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Indicate Membership type below. Membership fees are *due every January 1<sup>st</sup>*. There is a 60-day grace period.

**Family membership** is for immediate family with 2 or more amateur radio license holders *residing at the same address*.

**Associate Membership** is for individuals who *do not have* an amateur radio license, but are interested in the activities of the club and are preparing for exams.

**Senior Membership** is for an amateur age 65 or older.

Check type of membership:

\_\_\_\_\_ Single Membership (\$25 per year)

\_\_\_\_\_ Family Membership (\$40 per year)

\_\_\_\_\_ Senior Membership - age 65-69 (\$15 per year)

\_\_\_\_\_ Senior Membership - age 70+ (no charge)

\_\_\_\_\_ Associate Membership (\$10 per year)

# The Montgomery Amateur Radio Club

Public Service Since 1938

Amateur Radio

[www.arrl.org](http://www.arrl.org)

[www.w4ap.org](http://www.w4ap.org)



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