

# Zero Beat



Montgomery Amateur Radio Club Newsletter

Established 1938

2<sup>nd</sup> Quarter 2007

## MARC CALENDER OF EVENTS

**MONTHLY CLUB MEETING** every 3<sup>rd</sup> Monday 7:00 PM  
American Red Cross 5015 Woods Crossing Dr.

**FELLOWSHIP BREAKFAST** every Saturday preceding the  
monthly club meeting at Flip's on the corner of Perry Hill Rd. &  
Atlanta Hwy at 8:30 AM

## FCC EXAMS

**ARRL** Last Saturday each month at 1:00 PM at  
American Red Cross, 5015 Woods Crossing Dr.  
**For Info** contact Scott, W4SPA (334) 262-0412  
Or email (w4spa@arrl.net)

**CAVEC** every 2<sup>nd</sup> Monday at 6:30 PM at American Red Cross,  
5015 Woods Crossing Dr.  
**For Info** contact Steve, K4NM ([padgett@jschool.troy.edu](mailto:padgett@jschool.troy.edu)) or Jim  
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 K4DJL, EL.

**Skywarn/Emergency Net Golf** Thursday at 7:00PM on 146.84.  
Net manager Mark, WB5NMZ.

# CQ Field Day 2A Alabama June 23<sup>rd</sup>, 24<sup>th</sup>

## 2007 Officers

**President:** KG4PNL-Rick Seeders  
**Past Pres:** W4SPA-Scott Poole  
**VP:** K4DJL-EI Erby  
**Secretary:** KD6BOD-Chris Hall  
**Treasurer:** K4APG-Paul St. John  
**Publicity:** KI4OZW-Bruce Jenkins  
**Trustee:** KR4JY-Jim Eiland  
**Trustee:** K1AZE-Lew Nyman  
**Trustee:** K4PO-Phil Salley  
**W4AP Trustee:** K4TK-Tim Moore

## Local Repeaters

146.840(-) W4AP Wetumpka  
146.920(-) W4AP Eastdale  
147.180(+) W4AP Baptist Tower (Autopatch)  
444.5(+ ) W4AP Wetumpka--Linked to IRLP 100 Hz  
53.350(-) W4AP Baptist Tower 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 Simplex Packet  
144.390 Simplex APRS- W2



## From the President's Shack

By KG4PNL, Rick Seeders

Hello to all!

This issue of ZeroBeat will be packed with discussions of Field Day with it just around the corner. I hope that everyone will take the time to not only come out to say hello, but climb in the operator seat and make some contacts. KV4AC is doing a fine job of organizing our field day exercise and has a fine staff working hard to make this a success. Lew may even be dicing up the onions for his chili and hotdogs, which is a reason to come out all by itself! Field day is one of the operations that prepare us for the traffic generated during disasters. We know that training isn't always fun, but in this case it really is.

Speaking of training, W4AP has played a vital role in several training/support operations recently. March 1 saw excellent support from the Montgomery Amateur Radio Club with the Montgomery EMA, and the Department of Public Health. Operators joined MARC members from all corners of the state to deliver mock vaccines from the Strategic National Stockpile. MARC got great reviews from the EMA and DPH on our performance. Participants braved rain, and even severe weather to make this happen. While the exercise was in progress, the Skywarn net had to be activated on an alternate frequency. We were all saddened by what happened in Enterprise that very same day, a tornado ripped through Enterprise killing several students and destroying the school. Information of this quickly traveled through our community and nets.

On a lighter note, May 21 brought with it an opportunity to assist Kid One's "Wheelin' and Healin'" bike ride which began in the Pike Road community. Again our amateurs performed so professionally, we were asked to come back next year and were even approached by a cycling club in Birmingham for their event. We were flattered by the request to come to Birmingham but referred them to W4CUE.

I would like to thank all of our members who assist the community during the drills, severe weather, and public service events such as the bike rides. I am proud to say each event that requires our service is approached with professionalism and excellence.

Help us continue our tradition of high marks, come climb behind a microphone or pound some brass at this years Field Day!

Mid July is the approximate target for the replacement of the tower located at Bald Knob in Wetumpka. If you haven't heard, they rusty old tower that has hosted our 146.840 repeater so well for so long is coming down. While the repeater will be down for a short period of time, it is really a good thing for the club. This gives us the opportunity to replace the ageing antennas, new hardline will be run (at no cost to the club), and the tower will be new. As the time draws near there will be an announcement added to the repeater that will alert everyone to the expected date our machine will be brought down.

One thought that comes to mind when we talk about the 84 repeater being out of commission, SKYWARN! You may ask "what will we do for the SKYWARN nets?" WB5NMZ - Net Manager is planning on utilizing the Ft. Deposit repeater on 146.670 for the primary net. If spotters have difficulty reaching that machine, Relays or an alternate net can be established to cover our area. Stay tuned to the Skywarn nets each Thursday for updates.

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## From the Editor

This will be my last issue of Zero Beat. I have asked Rick if he would find someone with new ideas for the newsletter, maybe someone who attends most of the meetings and has more insight as to the activities within the Club.

I have enjoyed the task for the past 5 years and truly appreciate the opportunity to handle the chores of the Editor. I would like to thank everyone who has contributed information and articles that go into the newsletter. I think it is a valuable part of the club's activities and many non-club members have access to it since we now put it on the Club's web page for downloading.

Special thanks to KT4DY, TinyRay for the design of the newsletter header, KU4PY for mailing labels, and W4MF for handling printing and mailing of the hard copies.

Again, Many Thanks to all.

N4AU-Bobby

*Zero Beat is published by the Montgomery Amateur Radio Club.  
Editor, N4AU. Hard Copy, W4MF and KU4PY.*



### **Southeastern Division Leadership**

**Director**--Frank M. Butler Jr--W4RH-- w4rh@arrl.org

**Vice Director**--Sandy Donahue--W4RU-- w4ru@arrl.org

**Assistant Director** --Alabama--Rik Doll--KU4PY--ku4py@arrl.net

**Section Manager**--Greg Sarratt-- W4OZK-- w4ozk@arrl.org

**ARRL Alabama Section Cabinet at**

**Ala Section Web Page** [www.arrl-al.org](http://www.arrl-al.org)

## **League Notes**

*By Rik Doll, KU4PY  
ARRL Assistant Director  
Southeastern Division*

Since Field Day is rapidly approaching, I thought I would pass along some of the thoughts and musings of the ARRL leadership. Both Dave Sumner, at headquarters, and Greg Sarratt, our Section Manager, Have some good information to pass along.

### **It Seems to Us: The Field Day Bug**

Are you getting bitten by the bug? A good next step is to *read the rules* -- even if you're a loyal FD regular, since there are some changes this year. A summary appeared in last month's *QST* on page 98. The complete, official rules are at [www.arrl.org/contests/rules/2007/fd.html](http://www.arrl.org/contests/rules/2007/fd.html). Don't know what ARRL section you're in? If you know your county, just go to [www.arrl.org/FandES/field/org/secinfo.html](http://www.arrl.org/FandES/field/org/secinfo.html). There is a link from that page to a list of standard abbreviations.

By David Sumner, K1ZZ  
June 1, 2007

By the way, if you think that the lack of sunspots means there's no point setting up for 10 meters this year, think again. June is prime time for sporadic-E, and it's a rare FD that doesn't reward preparation and patience with a spate of 1000-mile contacts. You may be surprised, too, at how reliably 10 meters works for "local" QSOs out to 200 miles or so, especially if you're in a quiet location that's in the clear.

Field Day (FD) always falls on the fourth full weekend of June, which makes it the 23<sup>rd</sup> and 24<sup>th</sup> this year. Explaining FD brings to mind the old story of the blind men and the elephant; their description varies widely, depending on what part of the beast they touch. If you experience FD with a group of serious competitors who set out to maximize their score, you will think it is a contest. If you go out with your local general-interest radio club, you might think it's a picnic with a bit of radio operating and public relations thrown in. If you are new to Amateur Radio you're likely to view it as a great learning experience, and if you're an old-timer as an opportunity to renew acquaintances and share memories.

Field Day 2007 should be one for the record books! Sunspots may not be cooperating, but every other indicator points toward an outstanding, memorable event. If you have never participated in

an ARRL Field Day -- or if it's been a few years since your last outing -- make this the year you join the fun.

Field Day is *not* about taking risks. A need for improvisation is likely to crop up at the most carefully planned event, but safety always comes first -- especially when erecting antennas and operating generators. Always be mindful of the safety not only of your participants, but of any visitors to your site as well.

For all of us, Field Day is an opportunity to pack a lot of Amateur Radio into one weekend -- an opportunity that has become more valuable as our world has gotten busier and operating from home has become more difficult, either for lack of time or because of antenna limitations. FD gives us a chance literally to "head for the hills," preferably as part of a group; it's more fun to share the experience with others, and more rewarding to learn antenna and operating lore from one another. The operating format is to make quick contacts, exchanging your number of transmitters, operating category and ARRL section with other stations. Each station can be contacted once per band (except 60, 30, 17 and 12 meters, which are off limits) and mode (CW, phone, and digital). CW and digital contacts are worth twice as many points as phone, so there is an incentive to be able to do more than just talk (not that good phone operating is easy -- picture an Air Traffic Controller at Atlanta Airport!).

Have fun on Field Day, and may the only bugs you encounter be friendly ones!

The biggest change in the rules is that it will be easier this year to earn Get-On-The-Air (GOTA) bonus points. The purpose of the GOTA station is to encourage Novices, Technicians and prospective hams under the direct supervision of a properly licensed control operator, as well as inactive hams, to get acquainted or reacquainted with HF operating. Up to 500 QSOs can be counted from this station, plus 20 bonus points for each 20 contacts made by an eligible operator (up to a maximum of 100 per operator). The bonus points double if your group provides a full-time "GOTA Coach"; see the official rules for details.

This year's theme for Field Day is "Bitten by the Bug!" It's all too common to be bitten by all manner of insects at an FD site, but the "bug" we have in mind is simply enthusiasm. For many amateurs, this year's event will be the first where they can be the control operator of an HF station. Newly minted General and Extra licensees will be on all bands, and Technicians will be able to operate on 10-meter SSB and RTTY.

(Continued on page 5)



## MARC Field Day 1974



N4AU (K4YJQ), Bobby and W4AUP, Pete Sides



W4HYI, Jim McKinstry and W4AUP, Pete Sides  
"Bic"



K4OVB, Jay Morgan, K4DEL, Fred Kreps, W4DPX, Joe Brewer  
W4AUP, Pete Sides



K4OVB, Jay Morgan, W4DPX, Joe Brewer, N4AU (K4YJQ)

## 1985 at AA4QO Farm



KK4A, Jim Meacham, WA4RMY, PA, N4AU and KK4BM Roger Littlefield

(Continued from ARRL page 3)

While the FD focus is on setting up temporary portable stations operating on emergency power, stay-at-homes and mobiles also can participate. Since 2003 there has been a special category for stations operating from established Emergency Operations Centers. The goal is to show that we can communicate with one another, *no matter what*, without the need for *any* infrastructure. This is a capability that we tend to take for granted, but that is increasingly rare -- and increasingly valuable -- as the world becomes ever more dependent on complex telecommunications systems to cope with daily life. Cell phones are ubiquitous these days, and it's natural to rely on them -- but what do we do when they don't work? Most people have no answer to that question. As radio amateurs, we do -- but only if we keep our batteries charged, our equipment ready, and our operating skills honed. "We also have this letter from our Alabama Section Manager that has some good information about field day in Alabama: "

2007 Field Day is set to be another educational, fun, eventful, competitive, and full of food amateur radio event! Set your calendar for June 23 and 24th and bring a friend.

We are proud to have a Alabama Field Day Proclamation signed by our governor and it's posted on the AL ARRL web page. <http://www.arrl-al.org/stateproc07.jpg>

Covington County EC, John Brown, KE4HIE is putting together another web base Field Day map for everyone's use. This is an informative map with field day locations and information all across Alabama.

John is looking for the following information. Name of Group: Location: Callsign : Operating Class: Talk-in Frequency: Menu: Contact: Web Page: Directions to site: Comments:

Please send this information about your event to John at [ke4hie@alaweb.com](mailto:ke4hie@alaweb.com) The URL for the Field Day map is: <http://www.wc4m.net/fd2007.html> Download the full Field Day information package at, <http://www.arrl.org/contests/announcements/fd/#logo> Please pass this email to anyone you know that is setting up for field day. I will be looking for your field day information on the map. Have a fun and safe 2007 field day!

73,  
Greg Sarratt, W4OZK  
ARRL Alabama Section Manager

## Field Day is Here

By Randy Sedlak KV4AC

CQ, CQ...Calling All Amateur Radio Operators, family, friends, and interested parties,

June is upon us, which means the ARRL Field Day exercise will be here in no time. Field Day is an annual event sponsored by the ARRL to practice and demonstrate communications abilities in conditions that could be used in emergency conditions, when access to other forms of communications is unavailable. It is always the fourth full weekend in June, so this year it is on June 23rd and 24th, with setup starting on the 22nd.

The Montgomery Amateur Radio Club will be holding field day in the field behind the home of club members Randy(KV4AC), Carla(KG4EVC), Anna(KI4PTD), Carrie(KI4PTE), and Rebecca(KI4PTF). The address is 4975 Snowdown Chambers Rd.;Montgomery, AL.,and the phone number is 613-3848. It is located about half a mile west of Woodley Road in central Montgomery County, about six miles south of the Southern Boulevard.

We will be running two full time stations, CW and Phone, a GOTA (Get On The Air) station, and a welcome station demonstrating several sides of Amateur Radio. Setup will begin at about 1 p.m. on Friday. The operating event starts at 1 p.m. CDST on Saturday and continues until 1 p.m. CDST on Sunday. It is a great time to sharpen operating skills (Phone and CW, maybe some modes you are not familiar with), learn or teach about portable station setup, enjoy camaraderie with the club, and gain back all the weight you've lost since your New Year's resolution last January. The station captains will be looking for operators of all skill levels to run the radios, or help with logging contacts.

The volunteers who are really doing all the work are:  
CW Station Captain - Mark Wintersole WB5NMZ  
Phone Station Captain - Chris Hall KD6BOD  
GOTA/Satellite Station - Rik Doll KU4PY  
Power Guru - Daniel McCaffery KE5GDK  
Iceman - James Brucke KG4ATW  
Publicity - Bruce Jenkins KI4OZW  
Elected Official Contacts - Clay Redden KC4YAU

and the one ultimately responsible for the success of Field Day: Head Chef - Lew Nyman K1AZE

What really makes Field Day successful and fun is the participation of all the members. Please come and bring family and friends. Please do be aware that it is a field, with all that means in the southeastern U.S., including bugs, fire ants, (rarely)snakes, poison ivy, sunburn, etc. There are also some ponds close by, so everyone watch your own children, please.

We look forward to seeing everyone out there.  
73



## Alabama Amateurs Deliver a 1, 2, 3 Training Punch

*Courtesy The ARES E-LETTER and The American Radio Relay League.*

It was a busy month for Alabama amateurs as they supported the March 1 State EMA Pandemic Exercise, the March 8 State EMA, Industry and Alabama Homeland Security Mobile Communications Functional Exercise, and the March 14 Chemical Stockpile Emergency Preparedness Program (CSEPP) Exercise.

Amateur radio operators from all over the state found themselves providing Emergency Management communications support for real life exercises. From delivering Pandemic supplies across the state, supporting communications vehicle upgrade test and evaluation, to providing vital communications support for a large-scale mock chemical spill disaster, they did it all. Amateurs gained valuable experience from these exercises.

The March exercises were kicked off with an actual disaster on March 1: The deadly tornado outbreak that covered most of Alabama killed nine people in Enterprise. Amateur radio played vital roles on this day supporting the exercise and actual emergency communications. For exercise reports and more details, contact Greg Sarratt, W4OZK, Alabama Section Manager [w4ozk@arrl.org](mailto:w4ozk@arrl.org).

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*From ARRL Web Site*

## The Amateur's Code

### The Radio Amateur is

**CONSIDERATE**...never knowingly operates in such a way as to lessen the pleasure of others.

**LOYAL**...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

**PROGRESSIVE**...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

**FRIENDLY**...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

**BALANCED**...radio is an avocation, never interfering with duties owed to family, job, school or community.

**PATRIOTIC**...station and skill always ready for service to country and community.

*--The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928.*

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## SWR and Line Loss

*By, N4AU-Bobby*

We hear hams talking about the 'SWR' on their antenna system. Just what does SWR mean? Well, we normally are referring to the VSWR (Voltage Standing Wave Ratio) on the transmission line carrying the power from the source (transmitter) to the load (antenna), (or from the antenna to the receiver). It means the voltage along the transmission line is not equal, if it is not 1:1.

This is caused by a mismatch at the load (we think antenna) end of the line. Say the transmission line is our normal 50 ohms and the antenna is a dipole with an impedance of 75 ohms (normally about 72). We would have a mismatch of 75/50 or 1.5, which would give us a 1.5:1 SWR. This means the maximum voltage (if you measured from center to shield in coax) at points along the line is 1.5 times the Minimum voltage. It means that part of the power we transmit would not be radiated by the antenna, but has been returned to the transmitter. It also means the loss increases in the transmission line. This is practically negligible with 1.5:1, but when we get to 2:1 the reflected power is about 10% and at 3:1 about 25%. It also means the transmission is now a radiator and can affect the pattern of the antenna.

The SWR measured at the transmitter end is not exactly the same as presented by the load because the transmission line has loss. If your line has 3dB loss, and you transmit 100 watts, only 50 watts reaches the load (antenna) and if the mismatch is 2:1, 5 watts is reflected and the 3dB loss makes the reflected power look like 2.5 watts. This looks very good on the SWR meter, but is not the true reading. (However, 3dB is considerable loss!) We can use this to measure transmission line loss to check for bad (lossy) coax. If we apply 10 watts into a line with no load (open) and it has 3dB loss it would reflect 5 watts (3dB=1/2) and the power at the transmitter end would be 2.5 watts (3dB loss on return).  $DB=10\log P1/P2$ , so to calculate the loss, divide the forward power by the reflected power and extract the log, then multiply by 10. This is the loss 2 ways (about 6dB) so the loss would be 1/2 of 6 or 3dB. You can also put a dummy load with wattmeter at the output end of the line and use the same formula for loss:

$$\text{Loss (dB)} = 10 \times \log (\text{power in}/\text{power out}).$$

I hope this gives you some idea about SWR..

# 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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