Welcome to the Delta Amateur Radio Club
Visit our home on the web at: http://www.deltaclub.org
EMAIL: darc4you@gmail.com
Facebook: https://www.facebook.com/darcmem

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 22 * February 2016

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Facebook: https://www.facebook.com/darcmem

W4BS
REPEATER SYSTEM
146.820-107.2  147.360+107.2
146.625-107.2  443.200+107.2
224.420-107.2

Club Meetings (7:00 PM, 2nd Tuesday of each month)

DATE: February 9, 2016
PLACE: Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Hwy. 64 – Stage Road)

PROGRAM: Gary Woodall, KD5WUT, is the Warning Coordination Meteorologist at the National Weather Service in Memphis. Gary oversees the hazardous weather preparedness and storm spotter training programs, and regularly collaborates with media and emergency management partners across the mid-South. Gary's program, "Amateur Radio and the Integrated Warning System," will describe the Integrated Warning System, the most effective means of getting weather information to the public and will discuss the role amateur radio operators play, at both the storm spotter and net control level. He will stress the continued need for trained storm spotters, and present some methods to enhance our communications before and during significant events.

FCC Amateur Radio License Testing: Delta Club FCC testing sessions are held every month except December. Registration begins at 5:30 PM and testing begins by 6:00 PM. Please remember to bring two forms of identification, at least one a photo ID, and copies of any existing licenses or CSCEs you might have. You need to know your FCC Registration Number (FRN) if one has been issued. Please be on time for registration to allow our Volunteer Examiner (VE) team to finish in time to attend the club meeting. The 2016 test fee is $15 (cash or check). Individuals who successfully test for their initial FCC license grant at a Delta Club test session or through a Delta Club training class will receive a complimentary individual club membership for the remainder of the current calendar year when they also show proof of ARRL membership. For more information, please contact:

Jeff Krause, AJ4GY - VE Liaison
Phone: 901-301-6776
Email: AJ4GY@comcast.net
January, 2016, test results: congratulations to Cameron Mosley KM4QGE, Steven Lasday KM4QGF, Justin Milam KM4QGG, M.A. Breckenridge KM4QGH, John Cunningham KM4QGI, and David Newberry KG5LAS for earning their Technician licenses. Also congratulations to Chris Henson KM4NIX and Bob Vawter KM4OWT for upgrading to General.

I'm looking forward to our February meeting in hopes that all our members can attend. It seems like we have more fun when we have a larger group. So please, if you have been missing the meetings, make a special effort to attend this month.

We had a great turnout of volunteers for the Swamp Stompers ultra-marathon a few weeks ago. If you missed it, you missed much fun. Dan and Danny have a great article about the event in this issue of Sparks.

For all you guys and gals, don't forget that little something special for your special someone on Valentine’s Day this month. It seems to always sneak up on me.

I understand from Phil Fentress that we still need volunteers to help out as net control operators. This is a great opportunity for new hams to get involved in ham radio and overcome any mic-fright you may have. Our net control operators will work with you, mentoring you each step of the way.

As a closing note, if you have not renewed your club membership now is the time. Linda will be glad to accept your renewal application and cash, check or money order.

Thank you, each and every one of you, for making ham radio a great hobby and public service. I appreciate each of you!

See you at the meeting!
# Treasurer's Report
Submitted by Linda Laseter, KJ4CTX

## CHECKING ACCOUNT

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tr>
<td>1/15/2016</td>
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**TOTAL INCOME**

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## EXPENSES

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<td>Annual Report</td>
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<tr>
<td>1/25/2016</td>
<td>1364</td>
<td>L. Laseter</td>
<td>Rubber Stamp</td>
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**TOTAL EXPENSES**

<table>
<thead>
<tr>
<th>Amount</th>
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<td>$ (66.33)</td>
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## ENDING BALANCE

**as of January 31, 2016**

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<tr>
<th>Amount</th>
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## CERTIFICATES OF DEPOSIT

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<tr>
<td>Certificate of Deposit #2 10/11/2016</td>
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**TOTAL DARC CASH ASSETS**

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<tbody>
<tr>
<td>$24,076.58</td>
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## 2016 Proposed Budget
Submitted by Linda Laseter, KJ4CTX

### 2016 PROJECTED DARC INCOME

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<td>Membership (Jan 1 thru Dec 31)</td>
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<td>Ticket Sales (Discontinued)</td>
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<td>Advertisement</td>
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<td>Huntsville Trip</td>
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<td><strong>TOTAL PROJECTED INCOME</strong></td>
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### 2016 PROJECTED DARC EXPENSES

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<td>Small Prizes - Jan - Nov</td>
<td>$(500.00)</td>
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<tr>
<td>Attendance Incentives - Nov</td>
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<td>P.O. Box - Annual rental</td>
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<td>Equipment Insurance</td>
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<td>Repeater Systems Upgrades</td>
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<td>Field Day</td>
<td>$(250.00)</td>
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<td>DARC Board Discretionary Fund (awards, repeater upgrade, supplies etc.)</td>
<td>$(2,000.00)</td>
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<tr>
<td>Huntsville Trip</td>
<td>$(2,500.00)</td>
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<tr>
<td>Free Fest Donation</td>
<td>$(200.00)</td>
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<tr>
<td><strong>PROJECTED TOTAL EXPENSES</strong></td>
<td><strong>$(8,611.00)</strong></td>
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</table>

**2016 Projected Net Operating Results** (Income - Expenses) $ (3,986.00)

Checking Account Balance 1/31/2016 $ 8,746.32
2016 Projected Net Operating Results (Income - Expenses) $ (3,986.00)
Projected Checking Account Balance 12/31/2016 $ 4,760.32

Certificate of Deposit #1 $ 10,280.23
Certificate of Deposit #2 $ 5,050.13

**PROJECTED 2016 DARC END OF YEAR ASSETS** $ 20,090.68
Board members in attendance: Linda Laseter, KJ4CTX, Ken Laseter, KI4AOH, Joe Lowenthal, WA4OVO, Barri Munday, WB4SWP, Jim Cissell, KI4I, Dan Lasley, NE7JN, Bill Stevens, WC9S, Michael Knight, KK4IOH, and Len Grice, KM4MRY. Ryan Turner, K0RET, attended as a guest.

Ken called meeting to order at 7:01 pm and welcomed everyone. Bill reported the 146.625 repeater is having issues with weak RF output. He says APRS is to be added to existing equipment at Methodist North Hospital and should give the APRS system in this area more coverage to the north.

After a presentation by Ryan on HamWan equipment installation at Methodist North Hospital, Michael made a motion to complete the project; it was seconded by Bill and the group voted to move forward with the project.

Joe said the Extra class is in progress with three classes to go before testing on February 20th. A General class is to start February 27th with testing at FreeFest on April 9th. Joe is planning a tentative Tech class beginning February 25th on Thursday nights and is to finish one week before FreeFest.

New Net Control Operators: Carl Payne, K4GPZ, Bob Vawter, KM4OWT, and Keith Barton, KT4EP. We are looking for one or more Net Control Operators for Tuesday nights.

An ARES/Skywarn presentation is scheduled for March 22nd at the Lord of Life Lutheran Church at 6:45 or 7:00 pm on Poplar Pike near Kirby Parkway.

Len Grice, KM4MRY, has joined the board of directors as Public Information Officer. He will be getting information into the community about the benefits of Ham Radio.

Jim reported on upcoming programs: Gary Woodall, KD5WUT, is the Warning Coordination Meteorologist at the National Weather Service in Memphis (February), Michael Knight, KK4IOH, on repeaters (March), and Glen Popiel, KW5GP, will speak on Arduinos (April).

Linda gave the Treasurers Report and discussed money making ideas for the club such as a silent auction and dinner. She is soliciting other suggestions.

Upon Ken’s acknowledgement of no further business, Linda moved to adjourn at 8:45 and Michael seconded.
The meeting was called to order by Ken Laseter, KI4AOH, at 7:00pm.

Introductions were made by name and call sign.

Ken thanked all of last year’s board members for their service.

Ham Hilliard, W4GMM, moved to accept the minutes of last month’s meeting as printed in SPARKS, seconded by Ned Savage, KA4BLL.

Linda Laseter, KJ4CTX, read the treasurer’s report. Ham Hilliard moved to accept the treasurer’s report as read, seconded by Steve Smith, W5VAA.

Joe Lowenthal, WA4OVO, Director of Training, announced that an Extra class began Saturday, January 9. Joe will not offer a Technician class since Jelly Thompson, N4HLT, with the Nashoba Club is offering that class.

Jeff Krause, AJ4GY, VE Liaison, announced that six folks passed the Technician exam and two folks passed the General exam tonight.

Jim Cissell, KI4I, Director of Programs, is asking for volunteers to present programs in 2016. As of today he has scheduled Gary Woodall, KD5WUT, with the National Weather Service for February and Glen Popiel, KW5GP, for an Arduino presentation in April. Jim also announced he is working on acquiring a PA system for the club.

Ken announced that Phil Fentress, AK4UE, is requesting net control operators for the Delta Net. He is in desperate need of operators on Wednesdays.

The Swamp Stompers event in Shelby Forest is coming up on January 17. Contact Danny Banks, KJ4FXZ, if you would like to participate. His number is 901-517-7661.

Ken announced there will no longer be a November drawing for grand prizes due to potential legal issues so we need suggestions on money making activities. One suggestion offered was a dinner and silent auction.

David Campbell, KD4NOQ, and Eric Davis, KK4RXU, spoke on building and using Field Strength Meters. David gave away FSM kits for the do-it-yourselfers.

Richard Martin, K4DXF, moved to adjourn the meeting; Joe Lowenthal seconded.
Many times we want to monitor signals and waveforms. The best piece of test equipment to use for this is the oscilloscope. This test gear can show voltage in the vertical axis and time in the horizontal axis on a small screen. Used oscilloscopes have become cheap on the used market and make a nice addition to the ham shack. The ARRL has come out with a new book, "Oscilloscopes for Radio Amateurs" by Paul Danzer, N1II, to explain the operation of the oscilloscope along with a history of its use. This is a great book for learning how to use an oscilloscope and has chapters for input modes, using the oscilloscope, buying a used oscilloscope, and even information on the new software-based oscilloscopes that hook up to your computer. The book is available at the ARRL website for under $20.00. See http://www.arrl.org/shop/Oscilloscopes-for-Radio-Amateurs.

When we use paddles for Morse code we need electronics for generating the dits and dahs from our paddle inputs to hook to our radio. Early electronic circuits and Morse code chips did a good job. Companies made keyer circuits with more features like adjustable speed, memories, and auto beacons. In the last few years programmers have used PIC chips to design keyer chips for sale. Now that Arduino microprocessor boards are under $5.00, hams are programming them to send Morse code. These programs are available for free on the internet. You can program an Arduino for many types of keyer functions. Software can be studied and changed to add features you want. You can modify the code all you want to try your new ideas. If someone else has a keyer program they wrote, you can download it and run it to see how it works. Available from the ARRL website for $29.95 plus shipping, Arduino for Ham Radio by Olive Branch, MS, resident Glen Popiel, KW5GP, has a keyer project. You can also do a Google search for "Arduino keyer software" for more information.
**There is no charge for classes, but the student is responsible for the purchase of the license manual and the $15 ARRL FCC examination fee.**

<table>
<thead>
<tr>
<th>Licenses Earned in 2016 from Delta Classes</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>0 General</td>
</tr>
<tr>
<td>0 Extra</td>
</tr>
</tbody>
</table>

If you are interested in attending a training class, send an email to Joe Lowenthal at wa4ovo@gmail.com with the desired class name in the subject line, along with your name, email address and (cell) phone number in the text.

**Current Classes**

**Extra Class 1-16 – January 9 – February 20, 2016**
This Extra Class license class started on January 9th and will run for six Saturdays (January 30th excluded) from 9am to 1pm at EMHC ambulance company training room, 6972 Appling Farms Parkway. Seven hams are in the class: Chris Henson KM4NIX, Jerry Klein N4POY, Jack Moody KK4VPY, Richard Smith KJ4UZK, Mike Sparks KK4VPZ, Bob Vawter KM4OWT, and Kevin Zent KM4PND. The instructors are Ed Arndt KV4LF, Dean Honadle N2LAZ, Pat Lane W4OQG, Paul Roberts KA9VAU, and Joe Lowenthal WA4OVO. The Delta Club VE team headed by Jeff Krause AJ4GY will provide the opportunity for FCC testing on February 20th.

**Classes Scheduled**

**General Class 2-16 – February 27 – April 9, 2016**
This General class is scheduled to start March 5th for six Saturdays (excluding March 12th) from 9am to 1pm at EMHC ambulance company training room, 6972 Appling Farms Parkway. There are currently six signed up for the class. If you are interested, send an email to Joe Lowenthal at wa4ovo@gmail.com with General Class in the subject line and name, call sign, email address and cell phone number in the text.

You may want to do some pre-study by going to [www.KE0OG.net](http://www.KE0OG.net) The right side has links to Technician, General and Extra Class YouTube video training.

Alternative approach: If you want to check on class availability and/or to register for a future training class, go to URL [www.deltaclub.org](http://www.deltaclub.org) and click on the link under Training – registration form will guide you through needed information, and an email will be automatically sent.

We offer our continued thanks to EMHC ambulance company for generously providing their training room for the many ham radio classes given there.
The Delta club’s 2015 New Ham of the Year award goes to Barry Pilkinton, KM4KSN. Congratulations, Barry!

Photo by Joe Lowenthal, WA4OVO.
David Campbell, KD4NOQ, and Eric Davis, KK4RXU, presented the January program on the Field Strength Meter, a device which indicates the relative strength of an RF field. First up was a YouTube video by Randy, K7AGE, about building a field strength meter (FSM) into a digital volt meter (DVM). Randy based his video on an article by Richard Russo, KB3VZL, in the February, 2015, issue of QST. After the video ended, David mentioned that you can obtain the DVM for free at Harbor Freight if you have the right coupons.

David and Eric had set up a 2 meter transmitter near the far end of the room and a 2M Yagi antenna (see the photo) pointed at the transmitter. David used the transmitter and Yagi antenna to demonstrate a Micronta FSM and the FSM he had built into a Harbor Freight DVM. After answering questions, David generously gave away parts so that others could change the Harbor Freight DVM into a dedicated FSM.

Thanks to David and Eric for an excellent presentation.
I would like for everyone to welcome Len Grice, KM4MRY, as the Delta club’s Public Information Officer, a role well suited to Len’s background. Here is a bit about Len, in his words:

“As a now retired marketing person—and brand new ham, KM4MRY—I was excited to accept the offer from Delta Club President, Ken Laseter, KI4A0H, to become the Public Information Officer for the Delta Club.

Having worked in both the healthcare and educational arenas for the past 30+ years, I am hoping that my past communication and marketing experiences will help us promote ham radio throughout the Mid-South region.

As mentioned above, I am a new licensee, but not new to ham radio. Since I was a wee lad living in Vicksburg, Mississippi, I first fell for the hobby when a new neighbor moved in—a bachelor—and had a whole room full of ham equipment. I eagerly listened while he talked literally “around the world,” as well as send strange messages with some type of contraption that he clicked away on. He then waited for a like message to return back to him that only he could decipher. After receipt he would tell me what those dots and dashes meant. As I grew older, I still loved ham radio, but my holdback was that darn Morse code.

Fast forward 50+ years. An email to Joe Lowenthal, WA4AV0, made the number one item on my bucket list become reality after taking Joe’s Tech Class. And now I find myself with a whole new group of friends and acquaintances that never would have been open to me without making that call to Joe.

One thing that I have learned in my career is to not promote self, but promote the “widget” before you. I can assure you that a story cannot be properly promoted if it is not shared. I know there must be hundreds of stories that my fellow hams can share and I in turn share with our local media.

As you well know, the media does not respond to everything. Unfortunately they do not necessarily think what you and I may think is a “hot” ticket. But, I assure you, while many doors may be slammed when pushing a story to the media, they will eventually strike the bait.
I look forward to working with each and every one of you and know that I am excited to be a member of Delta Club.

73 to all.

Len Grice, KM4MRY”
The Lancaster/Marston Corner
Submitted by Dan Lasley, NE7JN

The Lancaster/Marston Corner refers to the works of Don Lancaster and Ray Marston, both of whom published extensively in various electronics magazines. This column will cover wide-ranging topics in electronics but won’t be limited to Lancaster and Marston; we’ll cover other authors as well.

This month, before we look at some of Don Lancaster’s books, I would like to mention a few bits of his biography from here and here:

Don Lancaster is the author of 35 technical books that include two million sellers. He has also published two videos, a CD ROM, a patent, and 1800+ technical articles. His TTL Cookbook, CMOS Cookbook, and Active Filter Cookbook are industry classics. He is recognized as a leading independent PostScript and Acrobat authority. Don owns and operates Synergetics and Synergetics Press, new age media, consulting, and publishing firms. His avocations include firefighting, spelunking, cycling, and tinaja questing.

His first professionally published article, “Solid-State 3-Channel Color Organ,” appeared in the April, 1963, issue of Electronics World. Don’s articles also appeared in Popular Electronics, Radio Electronics, Byte, Kilobaud, Nuts and Volts, PC Techniques, and Circuit Cellar. In high school he was licensed as K3BYG, although qrz.com doesn’t recognize that call sign now.

Don has written a number of books, the most famous being the TTL Cookbook, the CMOS Cookbook, and the Active Filter Cookbook.

If you want to build or learn about digital electronics, there are few sources of information better than the TTL or CMOS Cookbooks. If you favor analog electronics, the Active Filter Cookbook is an excellent way to learn about active filters. As a bit of irony, you could use the knowledge in his Active Filter Cookbook to replace the 0.25, 1.5, and 4.5 Henry inductors in his first article with smaller, cheaper, much more readily available active filters!

Next month we’ll talk about some of Ray Marston’s contributions to the field of electronics.
Delta Club Information Net Control Operators Needed
Submitted by Phil Fentress, AK4UE

We are still in need of a Net Control Operator for our 8:00 p.m. Tuesday sessions, as well as back-up and standby operators. Positions can be assumed for half of the month or for the whole month to help distribute the work load. If you have a desire to serve the local ham community in this vital role, we can work with you to make it happen! Prior experience is great, but there’s certainly room to learn as you go through a variety of possible training options. Performing net control duty is very rewarding, improves your on-mic skills, and allows a unique opportunity to get to know a wide cross-section of club members, local, and visiting hams.

Additionally, Net Controllers get together for an information-sharing group luncheon one weekend day each quarter. Absolute fun has been known to break out during these sessions!

For more information on this exciting opportunity, please contact Net Coordinator Phil Fentress via email at p_fentress@bellsouth.net. (Note: there is a flaw in Microsoft’s conversion of a word document to a pdf file; there is an underscore, not a space, between “p” and “fentress” in Phil’s email address.)

St. Jude Says “Thank You”
Submitted by Dan Lasley, NE7JN

We received a letter from Erin Martin, Event Director at St. Jude Children’s Research Hospital, thanking the members of the Delta Amateur Radio Club for participating in the 14th annual St. Jude Memphis Marathon. The letter reads, in part, “This success would not have been possible without committed volunteers like those in your group and your dedication to support our participants. Thank you for providing operators and equipment to support our event. On behalf of the children and families of St. Jude, the ultimate beneficiaries of this successful event, please know how grateful we are for your loyal support!”

Please mark your calendar for the 15th annual St. Jude Memphis Marathon on Saturday, December 3rd, 2016.
The annual Swamp Stompers event, a 25 and 50 kilometer run through Shelby Forest, was held on Sunday, January 17, with nine hams (and one potential ham) supporting the event. It should be a surprise to no one that the hams began the day by meeting for breakfast. We thank James Holland, event organizer, for picking up the ham breakfast tab at the Shelby Forest General Store and for a well-organized race.

The 50K run began at 7:30am with 47 runners and completed with the last 50K runner crossing the finish line at 4:10pm. The 25K run began at 8am; 139 runners participated. Net Control for the event received a report of a single runner who was not able to finish the race, a pretty impressive statistic considering the distances involved.

The Men’s Journal described the trail far more eloquently than I could:

"The SwampStomper gracefully wends through the dense hardwoods of Meeman-Shelby Forest State Park, punctuated by about a half-dozen steep climbs and descents, and is an ideal blend of terrain for a first-time endurance race (choose 50K or 25K). Until it rains -- then the course goes from manageable to slippery to muddy to a bonafide swamp."

Ken, KI4AOH, reported that one runner said that due to trail hazards and the remote event location, he and some of his friends would not have participated without the support of the ham community.
What’s Cooking?
Submitted by Dan Lasley, NE7JN, contributions by Bob Gruner, W4UFT.

What are the two things hams like to do? Hams like to talk and hams like to eat! In furtherance of the latter, I present a recipe from my good friend, raconteur, bon vivant, and CW expert Bob Gruner, W4UFT:

**Amish Pickled Ham Appetizer**

- 4 cups cubed, cooked ham (1/2 to 1 inch cubes)
- 1 large onion, chopped
- 1 cup vinegar (I used apple vinegar)
- 1-2 cups water

Mix all ingredients together and place in a quart jar. Refrigerate at least 2-3 days before serving.

Although my own cooking skills are legendary (but not in a good way, just ask my XYL), I managed to make and serve this dish without poisoning anyone. We served it as a side dish and it was very tasty!

For an extra kick, I added a couple of large, thinly sliced jalapeno peppers to the mix. I’ve discovered that jalapenos make everything I cook taste better, just ask my XYL. On second thought, don’t ask her; she still hasn’t forgiven me for the incendiary spaghetti sauce that nearly caused spontaneous combustion. She did, however, enjoy this dish even though she isn’t that fond of hot peppers, and she made the helpful suggestion of reducing the size of the ham cubes to about ¼”.

I hope you enjoy Bob’s recipe. I plan to publish another of his recipes next month. Don’t forget the Tums when you stock up on jalapenos!
SPARKS Newsletter & Delta Club Information

SPARKS is published monthly by the Delta Amateur Radio Club and emailed to club members. All information published in this newsletter is provided as a service. While every reasonable effort has been made to ensure accuracy, the Delta Amateur Radio Club nor its officers assume any liability resulting from errors or omissions. All correspondence may be mailed to:

Delta Amateur Radio Club * P.O. Box 342768 * Memphis, Tennessee 38184-2768

An alternative email address to offer the Board your suggestions, ask questions, and voice complaints is darc4you@gmail.com.

Please note that you must provide your name and call sign if you’re requesting specific actions or personal follow-ups, and also be aware that any profane or mean-spirited comments will be unceremoniously discarded without consideration.

Delta Club Members Can Like Us/Follow Posts On Facebook! Go to https://www.facebook.com/darcmem.

2016 BOARD OF DIRECTORS

President:  
Ken Laseter, KI4AOH  
901-853-0400  
KenLaseter@gmail.com

Vice-President:  
Michael Knight, KK4IOH  
901-832-8636  
KK4IOH@arrl.net

Secretary:  
Barri Munday, WB4SWP  
901-756-5259  
anbarrimunday@att.net

Treasurer:  
Linda Laseter, KJ4CTX  
901-268-1766  
LindaLaseter@gmail.com

Director of Training:  
Joe Lowenthal, WA4OVO  
901-628-4318  
WA4OVO@yahoo.com

Director of Publications:  
Dan Lasley, NE7JN  
901-827-5049  
KL7@carbheat.net

Director of Programs:  
Jim Cissell, KI4I  
901-326-5544  
james4296@aol.com

Director of Meetings & Special Events:  
Steve Frazier, KK4VPT  
901-218-6385  
sfrazier1@bellsouth.net

Repeater Trustee:  
Bill Stevens, WC9S  
WC9S@att.net

Public Information Officer:  
Len Grice, KM4MRY  
901-488-4195  
LenardGrice@aol.com

Immediate Past President:  
Joe Wray, WD4GXI

Board members beginning their service in 2016 are listed in red.
If you are a coordinator for any of these events, please review the listed information. If it is incorrect or changes need to be made, please email corrections to sparks@carbheat.net.

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
<th>PUBLIC SERVICE EVENT</th>
<th>CONTACT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 30, 2016</td>
<td>March for Babies</td>
<td>March of Dimes fundraising event: walk around Memphis Botanical Gardens</td>
<td>Linda Laseter, kj4ctx</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:lindalaseter@gmail.com">lindalaseter@gmail.com</a></td>
</tr>
<tr>
<td>June 4, 2016</td>
<td>Diabetes Tour de Cure</td>
<td>Start on Mud Island and ride thru Shelby Forest</td>
<td>Pat Lane, w4oqg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:w4oqg@bellsouth.net">w4oqg@bellsouth.net</a></td>
</tr>
<tr>
<td>Sept. 2016</td>
<td>2016 Bike MS: FedEx Rock-N-Roll</td>
<td>Landers Center in Southaven to Gold Strike Casino in Tunica and back on 2nd day; Multiple Sclerosis fundraising event</td>
<td>Darrell Sheffield, kk4d</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:darrell.sheffield@memphistn.gov">darrell.sheffield@memphistn.gov</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(901) 277-8122</td>
</tr>
</tbody>
</table>

### Tennessee Ham Radio License Plate

Submitted by Joe Lowenthal, WA4OVO

The link below is for information and instructions about Tennessee ham radio call sign Emergency/Safety automobile license plates:


The application can be found at this link:

[http://www.tn.gov/assets/entities/revenue/attachments/f1312601Fill-in.pdf](http://www.tn.gov/assets/entities/revenue/attachments/f1312601Fill-in.pdf)
It’s Time to Renew Your 2016 Annual Memberships!
Download the latest .pdf Delta Club Membership Application Form from the web at
Thanks for Your Active Support of Delta Amateur Radio Club!

Memphis Area VHF/UHF Nets
Updated Nov, 2015

<table>
<thead>
<tr>
<th>Name of Net</th>
<th>Freq. MHz</th>
<th>Tone</th>
<th>Local Time</th>
<th>Day of Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta Club Information Net</td>
<td>146.820</td>
<td>- (107.2)</td>
<td>8:00p</td>
<td>Daily</td>
</tr>
<tr>
<td>Mid-South Barefooted Bullfrog Net</td>
<td>146.535</td>
<td></td>
<td>7:30p</td>
<td>Daily</td>
</tr>
<tr>
<td>Secret Service Net</td>
<td>224.780</td>
<td></td>
<td>8:30p</td>
<td>Mon</td>
</tr>
<tr>
<td>Elmer Net</td>
<td>145.210</td>
<td>- (107.2)</td>
<td>9:00p</td>
<td>Mon</td>
</tr>
<tr>
<td>The Short Winded Net</td>
<td>146.850</td>
<td>- (107.2)</td>
<td>8:30p</td>
<td>Tue</td>
</tr>
<tr>
<td>MedMERS Net</td>
<td>146.820</td>
<td>- (107.2)</td>
<td>12:00p</td>
<td>Wed</td>
</tr>
<tr>
<td>CERTPlus Net</td>
<td>443.200</td>
<td>+ (107.2)</td>
<td>8:30p</td>
<td>Wed</td>
</tr>
<tr>
<td>ARES Training Net</td>
<td>146.880</td>
<td>- (107.2)</td>
<td>9:00p</td>
<td>Thu</td>
</tr>
<tr>
<td>Super Sunday Niner Net</td>
<td>927.6125</td>
<td>- (146.2)</td>
<td>8:30p</td>
<td>Sun</td>
</tr>
</tbody>
</table>

Delta Club sponsored Nets are shown in red.

TENNESSEE HF NETS
As of December, 2015
All times are Central Time

<table>
<thead>
<tr>
<th>Net Name</th>
<th>Freq. MHz</th>
<th>Local Time</th>
<th>Day of Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee CW Net</td>
<td>3.563</td>
<td>7:00p</td>
<td>Daily</td>
</tr>
<tr>
<td>Tennessee Slow CW Net</td>
<td>3.682</td>
<td>7:30p</td>
<td>Tue-Sun</td>
</tr>
<tr>
<td>Tennessee Alternate Phone Net</td>
<td>7.238</td>
<td></td>
<td>As needed</td>
</tr>
<tr>
<td>CUSEC (Center for United States Earthquake Consortium)</td>
<td>3.810</td>
<td></td>
<td>As needed</td>
</tr>
<tr>
<td>CUSEC (Center for United States Earthquake Consortium)</td>
<td>7.180</td>
<td></td>
<td>As needed</td>
</tr>
</tbody>
</table>

3980 kHz – TN Phone Net
Mon-Fri - 5:40 AM, 6:45 AM & 6:30 PM
Saturday - 8:00 AM & 6:30 PM
Sunday - 8:00 AM only
Holidays - 8:00 AM only
Please thank our sponsors by using their services and mentioning that you saw their ad in the Delta Club SPARKS Newsletter!

This ad space is available
Please thank our sponsors by using their services and mentioning that you saw their ad in the Delta Club SPARKS Newsletter!

Wednesday night Net Control Operator positions for our 8:00 p.m. Delta Club Information Net sessions need to be filled! For additional information, please contact Phil Fentress via email p_fentress@bellsouth.net

We offer our continued thanks to EMHC ambulance company for generously providing their training room for the many ham radio classes given there.
Delta Amateur Radio Club
Sparks Advertising Order Form

Date: ____________

Name: __________________________________________________________________

Call Sign: __________ Phone: __________ Email: __________________________________________________________________

TO PLACE AN ORDER

1. Mark the box below indicating the ad size you are purchasing and the months you want your ad to appear in Sparks.
2. Submit this completed order form and your camera ready ad, via email at KL7@carheat.net. Make check payable to Delta Amateur Radio Club (DARC) at monthly Delta Club meeting, or send US Mail to club mailing address at P.O. Box 432768, Memphis, TN 38134-2768. Camera ready means that ad copy is exactly as you wish it to appear, scaled to fit within the dimensions specified below. Ads may be submitted in .gif or .jpg format, or submitted as a hard copy (we will scan and place your ad for you).
3. Your ad order and payment must be received on or before the first Tuesday of the month before you want it to appear in Sparks.

<table>
<thead>
<tr>
<th>SPARKS ADVERTISING</th>
<th>FULL PAGE</th>
<th>HALF PAGE</th>
<th>¼ PAGE</th>
<th>BUSINESS CARD</th>
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<tbody>
<tr>
<td></td>
<td>$50.00</td>
<td>$25.00</td>
<td>$15.00</td>
<td>$10.00</td>
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<tr>
<td></td>
<td>for 3 Months</td>
<td>for 3 Months</td>
<td>for 3 Months</td>
<td>for 3 Months</td>
</tr>
<tr>
<td></td>
<td>7” w X 8 ½” h</td>
<td>7” w X 4” h</td>
<td>3 ½” w X 4” h</td>
<td>3 ½” w X 2” h</td>
</tr>
</tbody>
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