This month's meeting begins at 7pm on July 12, 2016, at Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Highway 64 (Stage Road)).

In this month's program we welcome Jack Parnell, K4BSI. Jack was born on a small farm at Neboville, TN, in 1938, and was intensely interested in all facets of radio from that very day. He says, "My entire family (I'm the youngest) swore that when I was 6 months old, I began talking and they couldn't shut me up!" First licensed at 14, his family had moved to Milan, TN, where he worked in a radio/tv shop after school and full time during summer vacations. A high school senior in 1955, he began his commercial radio announcing career at Milan's WKBJ. He married his high school sweetheart in August, 1956, and moved to Whitehaven in June, 1958, for a 13 year stay at WHBQ. In mid-1961, he joined the Delta Amateur Radio Club in Whitehaven and became treasurer during the club's second hamfest in Whitehaven. He was elected President in 1964, and in 1965 DARC held a Delta Division Convention in Memphis. Jack plans to show slides from the mid to late sixties.

Delta Club FCC testing sessions are held monthly except December. Registration begins at 5:30 PM; testing begins by 6:00 PM. Please bring a photo ID and another form of identification, copies of existing licenses or CSCEs, and your FCC Registration Number (FRN) if one has been issued. Please be on time for registration to allow our Volunteer Examiner (VE) team to complete their work prior to the club meeting. The 2016 test fee is $15 (cash or check). Individuals receiving 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 our VE Liaison, Jeff Krause, AJ4GY, 901-301-6776 or AJ4GY@comcast.net.

Congratulations to those who passed exams during Delta's June, 2016, test session: new Technician James Martin, KM4USQ, and new Extra Anthony Howald, KM4MSA. We also congratulate Delta's Amanda Nash, KM4MSC, who passed her Extra exam at the Olive Branch club.
Happy 240th birthday, America!

I hope everyone had a great 4th of July. In keeping with the spirit of the holiday, I want to quote from the opening paragraphs of the Declaration of Independence, as annotated by wikipedia.org.

"IN CONGRESS, JULY 4, 1776. THE UNANIMOUS DECLARATION OF THE THIRTEEN UNITED STATES OF AMERICA.

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."

These stirring, resolute words formed the basis of a new country. Those in power now in Washington, D.C., should be reminded from time to time of the next paragraph:

"That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness."
Consider the Declaration's ending sentence:

"And for the support of this Declaration, with a firm reliance on the protection of divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor."

If Thomas Jefferson, widely considered to be the principal author of the Declaration, and his fifty-five co-signers were with us today, how do you think they would view the current elected Federal office holders?

In one of his more lucid moments, former President Gerald Ford famously said, "If the Government is big enough to give you everything you want, it is big enough to take away everything you have." We would be well advised to keep that quote in mind as we head to the polling booths in November.

Dan Lasley, NE7JN, with utmost respect to the founders of our nation.
If you missed Field Day this year, you really missed a good one! I think we had over 200 attendees, good food, great fellowship, and yes, we did make some contacts as well. I understand that we may already have an invitation to use that venue again next year so be thinking of how we can improve on this year’s event. Please, let me know what your ideas for improvement are so I can put them on my list.

This column and this newsletter is too short for me to personally thank everyone that worked to make this year’s Field Day a success. But please accept my heartfelt THANKS for all your help. I’m already looking forward to next year, what about you?

Please don’t forget, next month is the Huntsville Hamfest. This is a great opportunity for new hams to corner the more experienced hams (Elmers) to ask them those questions you just can’t seem to find the answers for. I personally know this works, because it’s what I did some years ago, and it worked GREAT for me. Furthermore, the Huntsville Hamfest is one of the best in the country, you can find almost anything you need for setting up your ham shack or that one special fitting you need, but not sure exactly what it’s called. So if you would like to go with us, contact Joe Lowenthal, WA4OVO, and buy your ticket. I promise you, we always have fun!

As always, please don’t forget to check into the Delta Club information net on the 146.820 repeater at 8:00 pm each evening, and when you check-in, make sure to thank the net control operator for taking time from their family and busy schedule to call the net for us. They are some our most valuable assets!

If you have not renewed your club membership now is the time. I think we still have some members that are procrastinating or have forgotten. Linda, KJ4CTX, will be glad to accept your renewal application and cash, check or money order, either at a club meeting or via snail mail.

See you at the meeting Tuesday night!

73,
Kenneth Laseter
KI4AOH
Treasurer's Report
Submitted by Linda Laseter, KJ4CTX

DELTA AMATEUR RADIO CLUB
Monthly Treasurer’s Report
For month ended June 30, 2016
Submitted by: Linda Laseter, KJ4CTX Treasurer

CHECKING ACCOUNT

| BEGINNING BALANCE | as June 1, 2016 | $ 11,037.46 |

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/1/2016</td>
<td>Huntsville bus trip</td>
<td>$ 110.00</td>
</tr>
<tr>
<td>6/9/2016</td>
<td>Membership dues</td>
<td>$ 45.00</td>
</tr>
<tr>
<td>6/21/2016</td>
<td>Membership dues</td>
<td>$ 60.00</td>
</tr>
<tr>
<td>6/21/2016</td>
<td>DARC Club patch</td>
<td>$ 5.00</td>
</tr>
<tr>
<td>6/22/2016</td>
<td>Huntsville bus trip</td>
<td>$ 110.00</td>
</tr>
<tr>
<td>6/23/2016</td>
<td>Huntsville bus trip</td>
<td>$ 55.00</td>
</tr>
<tr>
<td>6/29/2016</td>
<td>Huntsville bus trip</td>
<td>$ 65.00</td>
</tr>
<tr>
<td>6/30/2016</td>
<td>Beebe Equipment sale</td>
<td>$ 75.00</td>
</tr>
</tbody>
</table>

TOTAL INCOME $ 525.00 $ 525.00

EXPENSES

<table>
<thead>
<tr>
<th>Date</th>
<th>Check #</th>
<th>To</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
</table>

TOTAL EXPENSES $ - $ -

ENDING BALANCE as of June 30, 2016 $ 11,562.46

CERTIFICATES OF DEPOSIT

<table>
<thead>
<tr>
<th>Maturity Date</th>
<th>Balance as of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate of Deposit #1</td>
<td>7/10/2016</td>
</tr>
<tr>
<td>Certificate of Deposit #2</td>
<td>10/11/2016</td>
</tr>
</tbody>
</table>

TOTAL DARC CASH ASSETS $ 26,954.49
Board Members in attendance: Ken Laseter, KI4AOH, Linda Laseter, KJ4CTX, Jim Cissell, KI4I, Barri Munday, WB4SWP, Joe Lowenthal, WA4OVO, Len Grice, KM4MRY, Steve Frazier, KK4VPT, Dan Lasley, NE7JN, and Bill Stevens, WC9S. Michael Knight, KK4IOH, was absent.

Len mentioned Field Day as being wonderful, with significant coverage in the newspapers and news coverage on channels 3, 5, and 24. He suggested we need to have a better way to collect attendance for both days of the event.

Joe said 31 people have paid for the bus trip to Huntsville on August 20th. He began a Tech class on Thursday, July 7th, with 21 people enrolled. Delta will offer Huntsville bus trip tickets for $60 to people enrolled in the Tech Class in order to help them find equipment.

Bill moved to reimburse Joe for Field Day band pass filters for 15, 20, and 40 meters. Steve Frazier seconded and the motion was approved by acclamation.

Joe mentioned Ed Frankl in, W4KIB, a longtime member of the Delta Club, passed away last Saturday after a lengthy illness.

Dan asked Ken to recognize at the next meeting club member Amanda Nash, KM4MSC, who recently passed her Extra class exam at the Olive Branch club.

Jim reminded everyone that Jack Parnell will provide the program at the next Delta meeting.

Bill thanked everyone for a very eventful Field Day; 171 attendees signed in.

Ken and Bill initiated discussions about a possible repeater addition, possible joint repeater work with other area clubs, and a possible sale of the 146.625 repeater to the Nashoba Club.

The meeting was adjourned at 9:00pm.
Delta Club president Ken Laseter, KI4AOH, opened the meeting, welcomed everyone, and reminded all to sign the roster.

Introductions were made by name and call sign.

Ham Hilliard, W4GMM, moved to accept the previous meeting minutes as noted in Sparks, second not recorded. The motion was accepted by acclimation.

Ham Hilliard moved to accept the Treasurer’s report as noted in Sparks, seconded by Rosalinda Melena, WN2V. The motion was accepted by acclimation.

Pat Lane, W4OQG, reminded us the Tour de Peddler event would take place on Saturday, June 18th, and would begin at 8am at the Peddler Bike Shop on Walker Ave, at the Peddler Bike Shop on Exeter Road in Germantown, and at the Peddler Bike Shop on Goodman Road in Southaven, MS. Pat asked for volunteers for this event.

Bill Stevens, WC9S, talked about Field Day. Set up begins Friday afternoon, June 24th, and continues early Saturday morning. The radio event begins at 1pm on Saturday and concludes at 1pm on Sunday, followed by tear down. The location is near the Pickering Center in Germantown. All four clubs in Shelby County are involved, but Bill stressed the idea is for everyone to participate as one group, not as four separate groups.

Jim Cissell, KI4I, introduced Ken Johnson, KB0ZTX, who gave a very interesting presentation on how Amateur Radio assisted in the wake of the Holly Springs, MS, tornado on December 23rd, 2015.

Following the presentation, Ham Hilliard moved to adjourn, seconded by Rosalinda Melina.
Dennis and Cindy Foster, KJ4BDU and KJ4VUV, performed one of life’s sad obligations on June 4th: they greeted visitors during the viewing for Cindy’s mother, Beverly Hartman, at Memphis Funeral Home. Her mom was laid to rest the following day next to her dad in Memorial Park.

Dennis told me Mrs. Hartman, 84 years young, was a "Georgia Peach, the perfect Southern lady."

Mrs. Hartman was a music teacher and wife of a United Methodist pastor, which meant moving to a new church every few years. Cindy's has many generations of Methodist ministers on both sides of her family.

Mrs. Hartman’s dad and all of his nine siblings went to college, quite a rare event in those days, but education has been important in their family as far back as great-great-grandparents.

When I asked Dennis and Cindy for a short remembrance of Mrs. Hartman, Dennis said she was a very strong-willed woman and Cindy said her mom was involved in every aspect of church life.

The thoughts and prayers of the ham community go out to Dennis and Cindy and their family in memory of her mom.

Submitted by Dan Lasley, NE7JN, with the grateful acknowledgement of contributions by Dennis and Cindy Foster.
We are saddened by the passing on July 1st of Dr. Edgar Ray “Ed” Franklin, W4KIB, 82 years young. He leaves his wife Alison, daughter, son and brother Art, KI4ZUZ. Ed was an ear, nose and throat physician. He was a member of the Delta Club for many years.

Until recently Ed ate lunch on Saturdays at Corkey’s BBQ with Pat, W4OQQ, Vince, WB4KIE, Barri, WB4SWP, Art, KI4ZUZ, Brown Reynolds and occasionally Joe, WA4OVO. Our prayers and condolences go to his family.

Submitted by Joe Lowenthal, WA4OVO.
Many Amateurs want to be prepared in the event of an emergency. One way is to have battery power available for use when needed. Batteries need to be constantly charged and monitored to keep them at peak efficiency and to be fully charged when the emergency occurs. One of the best ways is to use an automatic float charger to keep the battery conditioned and ready to go. It will make sure the battery stays fully charged and turns off and on when needed. Harbor Freight has a nice charger for this purpose. These are fully automatic. Just plug into 115 VAC and hook up to battery. The part number is Cen-Tech - item#42292. These sell for under $10.00 normally, but you can get them on sale for as low as $4.99. I have several I keep hooked up to spare batteries in the shop along with my lawn mower battery. These are great to keep your batteries ready to go for emergency use. The web address is http://www.harborfreight.com/
The Amateur radio standard for power connections on emergency radios and equipment is the Powerpole connector. Many companies sell these connectors now. Quicksilver Radio has a complete line of Powerpole connectors and pre-built Powerpole cable assemblies. They even offer a Powerpole starter kit which includes professional crimpers, wire stripper tool, and connectors. They also have emergency battery boxes and digital volt meters. If you are looking for a source for Powerpole connectors check out Quicksilver Radio. Their web address is http://www.qsradio.com

Come join the fun! We enjoy answering your questions and June was no exception. One ham provided us with more questions than we had time to answer and he was invited back this month so we could finish answering his list of questions.

Each month we offer a new topic for discussion and we are available to answer your questions. This month our topic for discussion will be "Resources."

We hope you will join us. This is a small, informal group setting. We are here to help you, so bring those questions and join in.

We meet upstairs in the Ellendale Church at 6:00 p.m. just prior to the regularly scheduled monthly Delta Club meeting. If you are not able to attend the forum, then please send us your questions via email.

For more information, please email Linda Laseter, KJ4CTX, at LindaLaseter@gmail.com or Dan Lasley, NE7JN, at sparks@carbheat.net.
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>
<td>7 Technician</td>
</tr>
<tr>
<td>5 General</td>
</tr>
<tr>
<td>5 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.

Classes Scheduled

**Technician Class 4-16: July 7 -- August 18, 2016.**

This class will be held on six Thursday nights beginning July 7th until August 18th from 6:15 pm to 9:30pm at the Germantown Police training room, 1930 South Germantown Road in Germantown. There will not be a class on July 21st.

There are 21 students signed up for the class. The instructors are Bob Vawter, KW4RJ, Len Grice, KM4MRY, Pat Lane, W4OQG, and Joe Lowenthal, WA4OVO. The equipment demonstrators on the last night of classes are Joe, WA4OVO, on FM repeaters, Pat, W4OQG, on HF and Winlink, Michael Knight, KK4IOH, on digital for Echolink, D-STAR, Fusion and Allstar, Rick Tillman, WA4NVM, and Rick Pellicciotti, KJ4NWQ, on APRS.

We offer our thanks to EMHC ambulance company and to the Germantown Police for generously providing their training rooms for the many ham radio classes given there.
Photo by Joe Lowenthal, WA4OVO.

Technician class beginning on July 7. We hope to welcome you to the ham community soon!
DARC is sponsoring a 50-passenger bus trip to go to the Huntsville Hamfest on August 20, 2016. The $75 fare includes the $8 hamfest entry ticket. There will be two bacon, ham or plain biscuit sandwiches, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back. There are no refunds, but you can sell your seat to someone else if you cannot go. Let me know.

Cash or checks will be accepted for payment. Make checks payable to Delta Amateur Radio Club. You can pay at a meeting. You can also send your check to Joe Lowenthal, WA4OVO, 6675 Ashbridge Cove, Memphis, TN 38120. Please include your name, call sign, cell phone number, and email address.

**Reservations will be on a first come first paid basis.**

The bus will leave Ellendale Church of Christ, 7365 Highway 70, Bartlett, TN, at 6:00am on August 20th. A second pickup point will be at Germantown Baptist Church, 9450 Poplar Avenue at Johnson Road, Germantown, TN, at approximately 6:20am. The bus will leave Huntsville immediately after the 4pm door prize drawing and return to Germantown Baptist Church at approximately 7:30pm and to Ellendale Church of Christ at approximately 8:15pm.

Ellendale Church of Christ has asked us to park in the larger parking lot on the west side of the building to leave the east side open for church activity parking.

**Note new location for the pickup point at Germantown Baptist Church.** It will be on the northeast side of the church (toward Collierville) in back of the church and east of the tree-lined median so security cameras can oversee the cars.
For the June Delta Club program, Ken Johnson, KB0ZTX, gave a presentation on a mile-wide EF4/EF5 tornado that struck Holly Springs, MS, on December 23, 2015. Ken was on his way home and was in contact with his wife, also a ham, when the tornado approached their QTH. As the tornado passed within two miles of their home, his wife both heard and felt it. She took cover in a laundry room in the middle of the house.

The tornado remained on the ground for about 150 miles and caused 11 fatalities, many injuries, and considerable property damage, including a tower and repeater used by firefighters.

Ken told us that when emergency personnel, including amateur radio operators, gathered to help, a policeman in charge pointed to different locations and told the group, "Firefighters here, police here, heavy equipment operators there. I want a report from groups present in one hour."

Many hams in Mississippi helped by manning the 147.225 Holly Springs repeater and other communications channels. Ken assisted with damage assessment the following morning and told us that about 100 homes were destroyed or seriously damaged in Marshall County.

We thank Ken for his presentation and we are grateful the tornado missed him and his family.
Field Day is a weekend of working and logging as many contacts as possible, good food, great camaraderie with old ham friends, meeting new ham friends, and making the ham community known to folks who might be the next new hams and contributors to a spectacular hobby. This year we reached out to fire fighters, police, emergency management personnel, and others who help keep us safe and who contribute in times of disaster.

Thanks to everyone who helped set up and tear down, who helped plan and organize, who helped with food preparation, who helped publicize the event, who greeted the public, and who worked and logged contacts. I can’t name everyone who participated, but I want to give special thanks to the Field Day ramrod, Bill Stevens, WC9S. Great job, Bill, I heard you say you're already planning next year's event!

Will Varnadore, KG7QAR, and daughter Katlyn help set up a canopy. Will and Katlyn are Delta Club members and Will recently earned his Extra Class license.

One of these days I hope to publish something akin to the following on page one of Sparks:

“Congratulations to those who passed exams during Delta’s most recent test session: new Technician Katlyn Varnadore, KN4xxx.”

Thanks for helping with Field Day, Katlyn, and we hope you follow in your dad’s footsteps.
Shown left to right are James Hissong, his son A.J., and our own Adrian Moseley, N4EMO. Even though they are pictured in front of the “Visitors Welcome” tent, James, Adrian, and others manned the Red Cross tent.

James and A.J. talked to Delta’s Director of Training, Joe Lowenthal, WA4OVO, about the possibility of their attending one of Joe’s Technician classes with the idea that both would become hams.

Best of luck, James and A.J.!
Icom generously loaned a 7300 rig for this year’s Field Day event. Shown below is Barry Pilkinton, KM4KSN, as he makes contacts with the radio. You’ll note other necessities for Field Day in the South: lots of water, an ice chest, and a fan!

We thank Keith Burns, KK4PRZ, for arranging the loan of the 7300 and we also thank Icom for providing the radio.

Photo by Dan Lasley, NE7JN
Linda Laseter, KJ4CTX, at the GOTA (Get On The Air) station. The Cub Scouts were waiting for an opportunity to make a contact. They later attended a presentation by David Campbell, KD4NOQ, on an introduction to fox hunts (finding a hidden transmitter).

ARRL Field Day rules state: “The GOTA station may be operated by any person licensed since the previous year’s Field Day, regardless of license class. It may also be operated by a generally inactive licensee. Non-licensed persons may participate under the direct supervision of an appropriate control operator.”

Tom Jerdon, N2PAE, is the Pack 58 Cubmaster for these young men.

Photo by Len Grice, KM4MRY
Left to right are Randy Wilder, WB4LHD, Emma Vanzant, Randy’s grandson Jackson Perkins, and Michael Knight, KK4IOH. Congratulations to Emma and Jackson: both made contacts on Field Day!

Randy told me Jackson, age 11, is studying for his Technician license.

Thanks to Randy and to Emma’s mom for getting these young people involved with our hobby. They, along with other young people shown in this article, are the future of our hobby.

Photo by Dan Lasley, NE7JN
Pictured are (L-R) Dennis Foster, KJ4BDU, President of the Mid-South Amateur Radio Association, Ken Laseter, KI4AOH, President of the Delta Amateur Radio Club, Bill Stevens, WC9S, 2016 Field Day ramrod, Fred Miller, KS2X, President of the Nashoba Amateur Radio Club, and Randy Wilder, WB4LHD, President of the Tri-State Repeater Association.

Thanks, guys, for a great Field Day!

Randy supplied a You Tube link to Field Day: https://youtu.be/h0M4Gl4WG_I. The video is courtesy of David Albert, N5COO.
Our Field Day flag.

Long may she wave!

NE7JN photo
A Call for Women Writers!
Submitted by Dan Lasley, NE7JN

In 2017 I want to publish an article on women and radio in each month's issue of the Delta Amateur Radio Club's Sparks newsletter. I would prefer that the author of each article be a YL, but I'm willing to publish articles written by women who are not hams. The women subjects don't have to be hams, but I want a tie-in between the women subjects and some aspect of the art and science of radio (but not necessarily ham radio).

I’ve received two completed articles and I have a commitment for a third article.

I’m looking for women who can write about some aspect of the following ideas:

- Women who participated in cryptographic activities in World War II, including code breakers and translators who worked at Bletchley Park, Arlington Hall, and other crypto locations and women who copied and transcribed the encrypted CW traffic of enemy nations.

- A "Rosie the Riveter" who built radio, radar, etc., equipment during World War II.

- The first female ham. See http://p1k.arrl.org/pubs_archive/65042.

- The first female DXCC recipient.

- Lee Fish, K5FF, wife of Fred Fish, W5FF (first holder of the FFMA); she "was the first YL to work WAS on 2 meters - also has WAS on 220." See w9fz.com/csvhfs/FFFJ.doc.

- Women's contributions to the Delta Amateur Radio Club.

- YLs who have made significant contributions to ARES, RACES, the ARRL; women who work as net controllers, as Public Information Officers, in AuxComm positions, or in related fields.

- YLs as organizers.
- Women who made discoveries in radio or who worked in research and development (e.g., Bell Labs, MIT's Radiation Laboratory, etc.).

- YL contesters.

- Women’s ham organizations: ylrl.org, ylsystem.org (on 14.332 MHz and other frequencies); women podcasters, etc.

- Women who are both astronauts and hams. Three Radio Amateurs on the ISS Head Home on June 18 says, "NASA astronaut Kate Rubins, KG5FYJ ... scheduled to launch on July 6 from Baikonur, Kazakhstan." Who will interview Kate and write about her?


- Women involved with the mysterious numbers stations.

- Marie de Forest, widow of Dr. Lee de Forest (father of the vacuum tube), held the call WB6ZJR. See http://p1k.arrl.org/pubs_archive/65042.


- Kay Craigie, N3KN. Kay recently retired from the position of ARRL President.

If you have an idea for an article, contact me. I'm open to suggestions, but keep in mind that I need a tie-in between the women subjects and some aspect of the art and science of radio.

If you need resources for an article, consider the Internet, the ARRL archive, a list of women DARC officers, etc.

Come on, YLs, step up to the plate and hit one out of the park!
Equipment for Sale
Submitted by Dan Lasley, NE7JN, contributions by Bill Stevens, WC9S

Most of the equipment listed below is from the estate of Jimmy Rye, Jr., KG4TKY. All equipment will be available for sale at July’s Delta Club meeting.

Thanks to Bill, WC9S, for being the equipment wrangler. I hope everyone appreciates what a time consuming and laborious task this is!

<table>
<thead>
<tr>
<th>Jimmy Rye Jr KG4TKY Estate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tentecc Orion II HF transceiver #566</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Tentecc Antenna Tuner #238b</td>
<td>$350.00</td>
</tr>
<tr>
<td>Tentecc External Speaker #307</td>
<td>$75.00</td>
</tr>
<tr>
<td>Tentecc Power Supply #963</td>
<td>$80.00</td>
</tr>
<tr>
<td>Tentecc Encoder/Keypad #302</td>
<td>$75.00</td>
</tr>
<tr>
<td>Tentecc Desk Mic. By Heil</td>
<td>$100.00</td>
</tr>
<tr>
<td>Kenwood TR-2500 HT 2 meter with desk charger</td>
<td>$25.00</td>
</tr>
<tr>
<td>Drake UV-3 KM Transceiver &amp; Drake PS-3 Power Supply</td>
<td>$450.00</td>
</tr>
<tr>
<td>Miscellaneous Antennas</td>
<td></td>
</tr>
<tr>
<td>Tentecc receiver kit #1254</td>
<td>$100.00</td>
</tr>
<tr>
<td>Tentecc QRP 40 meter CW transceiver kit</td>
<td>$60.00</td>
</tr>
<tr>
<td>Tentecc 2 meter FM transceiver kit</td>
<td>$100.00</td>
</tr>
<tr>
<td><strong>Left over from last sale</strong></td>
<td></td>
</tr>
<tr>
<td>MFJ-267 Dummy Load / Watt meter</td>
<td>$75.00</td>
</tr>
</tbody>
</table>
I had planned to discuss a simple 40M oscillator circuit this month, but a more pressing circuit issue popped up in the form of a failed nickel-cadmium battery charger. I'll have more to say on the oscillator and battery charger circuits in later issues, as neither subject is ready for Sparks. This month let's take a look at a failed carbon resistor from the battery charger.

I extracted a toasted resistor from the battery charger and attempted to determine the color bands so I could replace it. When I say *toasted*, I mean the resistor had been baked to a uniform black color. I could see it had three bands, but no color was evident. I took the resistor to a ham breakfast recently to see if anyone could discern the band colors but no one could see any colors. Interestingly, the toasted resistor initiated a lively discussion on whether it was a 1/8 watt resistor or a 1/4 watt resistor.

Resistor manufacturer Ohmite has a [document](#) that discusses its carbon composition resistors. The Ohmite image below gives physical dimensions of these resistors. Note that OD, OF, and OA indicate 1/4, 1/2, and 1 watt resistors, respectively. Measuring the resistor diameter indicates the resistor size in watts.

![Resistor Image](#)

<table>
<thead>
<tr>
<th>Series</th>
<th>Length max.</th>
<th>Diam. max.</th>
<th>Lead Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td>0.276 / 7.0</td>
<td>0.098 / 2.5</td>
<td>0.024 / 0.60</td>
</tr>
<tr>
<td>OF</td>
<td>0.406 / 10.3</td>
<td>0.150 / 3.8</td>
<td>0.028 / 0.70</td>
</tr>
<tr>
<td>OA</td>
<td>0.591 / 15.0</td>
<td>0.236 / 6.0</td>
<td>0.035 / 0.92</td>
</tr>
</tbody>
</table>

I also found a [NASA](#) document with physical dimensions:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Style</th>
<th>Power Rating</th>
<th>Resistance Range</th>
<th>Nominal Dimensions (L x D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIL-R-39008/4</td>
<td>RCR05</td>
<td>0.125 W</td>
<td>2.7 Ω to 22 MΩ</td>
<td>0.145” x 0.062”</td>
</tr>
<tr>
<td>MIL-R-39008/1</td>
<td>RCR07</td>
<td>0.25 W</td>
<td>2.7 Ω to 22 MΩ</td>
<td>0.250” x 0.090”</td>
</tr>
<tr>
<td>MIL-R-39008/2</td>
<td>RCR20</td>
<td>0.50 W</td>
<td>1.0 Ω to 22 MΩ</td>
<td>0.375” x 0.138”</td>
</tr>
<tr>
<td>MIL-R-39008/3</td>
<td>RCR32</td>
<td>1.0 W</td>
<td>1.0 Ω to 22 MΩ</td>
<td>0.562” x 0.225”</td>
</tr>
<tr>
<td>MIL-R-39008/5</td>
<td>RCR42</td>
<td>2.0 W</td>
<td>10.0 Ω to 22 MΩ</td>
<td>0.688” x 0.318”</td>
</tr>
</tbody>
</table>

This document covers additional wattages and, when wattages match between tables, the diameter matches are in good agreement.

I hope you find these tables useful.
We are excited about YL News, a new section we are adding to Sparks this month. We plan to include the YL News in Sparks each month and would welcome any news or items of interest you would like to contribute. Please send any news items you wish to publish to Dan Lasley, NE7JN.

YL NET -- Several of us have been discussing the possibility of starting up the YL net again. Knowing how busy all of us YLs are, especially during the week, we thought perhaps Saturday night would be a good choice for our net. Rather than set up a new net Danny Banks, KJ4FXZ, has suggested the regular Saturday night net as a starting point and possibly our regular YL net.

I will be sending an email to all YLs who I have email addresses for and inviting you to join the YLs on Saturday nights on the 146.82 repeater at 8:00 p.m. starting July 16, 2016. If you are interested and would like to make sure you receive information and reminders, please send your email address to LindaLaseter@gmail.com.

YL LUNCHEON -- Also on this same note we would like to start a regular monthly Saturday luncheon for the YLs. If you would be interested in attending a luncheon once a month, please send me an email with your suggestions for the restaurant of your choice and the Saturday that would work best for you (first, second, third, or fourth Saturday of the month). If another day of the week would be better for you, please let us know that as well.

If you have any other ideas or suggestions, please feel free to share those as well.

I am looking forward to hearing from each of you.

Gentlemen/OMs -- please pass this information along to your YLs.

33,
Linda Laseter, KJ4CTX
I’m on 40 meters every morning. In preparation for the morning QSO, I check the prevailing solar conditions via a web page banner at my web site (see an example of the solar conditions banner below). I found the banner at HF Propagation Tools and Solar Data. They have about two dozen banners available. Banners are available for Linux, Mac, Windows, iPhone, iPod, or Android, plus lesser beasts. If the geomagnetic field is other than quiet, my next stop is What’s up in space to get an idea of how uncooperative the ionosphere is going to be. The banner and space weather sites are highly recommended.

Solar conditions on June 6\textsuperscript{th} were ugly and propagation was lousy!

JAPAN, JA. Special event station 8J2UMI is QRV from Umi Festa Higashimikawa, IOTA AS-007, until July 31. QSL via bureau.

SLOVAK REPUBLIC, OM. Special event station OM41KYSUCE is QRV until August 31 during the 41st ARDF Championship Kysucky pohar that occurs July 29 to 31. QSL via OM3CND.

DOMINICAN REPUBLIC, HI. Members of Radio Club Dominicano will be QRV as HI8RCD from June 12 to July 12 in celebration of the club’s 90th anniversary. Activity will be on 80, 40, 20, 15 and 10 meters using all modes. QSL via operators’ instructions.

MACEDONIA, Z3. Special event station Z370RSM is QRV until the end of 2016 to celebrate 70 years of the Radio Amateur Society of Macedonia. QSL via Z33RW.

MAURITIUS, 3B8. Robert, M0RCX is QRV as 3B8/M0RCX until July 14. Activity is on the HF bands and 6 meters using SSB and various digital modes. QSL via EB7DX.

GERMANY, DA. Special event station DR777RI is QRV until the end of 2016 to mark the 777th anniversary of the town of Rinteln. QSL via DL8OBQ.

ICELAND, TF. Alan, W4MQC is QRV as TF/W4MQC from the Troll Peninsula until the end of July. Activity is holiday style mostly on 30 meters, but also on 40 and 20 meters as well. QSL to home call.
CAPE VERDE, D4. Harald, DF2WO is QRV as D44TWO from Praia, Santiago Island, IOTA AF-005, until July 13. Activity is holiday style on 40 to 10 meters using CW, SSB and various digital modes. QSL via M0OXO.

DOMINICA, J7. Howard, WB4WXE is QRV as J79XE until July 11. Activity is on 40 to 10 meters, but concentrates on 6 meters when conditions allow. QSL to home call.

GREECE, SV. Juergen, DK3SJ is QRV as SV8/DK3SJ from Eresos/Lesbos Island, IOTA EU-049, until July 24. Activity is holiday style on 80 to 10 meters using CW and SSB. QSL via bureau.

EUROPEAN RUSSIA, UA. Special event station R270SR is QRV until September 12 to celebrate the town of Rychovka’s 270th anniversary. Activity is on 160 to 10 meters, and various VHF bands. QSL via UA9SIV.

LAOS, XW. Bruce, 3W3B will be QRV as XW4XR from Vientiane from June 30 to July 12. Activity will be on 40 to 10 meters, and possibly 6 meters, using mainly RTTY and JT65 and possibly CW. QSL via E21EIC.

NICARAGUA, YN. Rafael, NN3RP is QRV as YN2RP until July 22 while traveling to various parts of the country. Activity is on 40 to 10 meters using CW and SSB, with some activity on Satellites FO-29 and SO-50. QSL to home call.

MONTENEGRO, 4O. Bill, ON5JE is QRV as 4O1/ON5JE until July 20. Activity is on 40 and 20 meters. He is also active as 4O1/ON5JE/p from various World Flora and Fauna areas. QSL to home call.

SAMOA, 5W. Pascal, HB9EXA is QRV as 5W0RX from Apia, Upolu Island, IOTA OC-097. Activity is holiday style on the HF bands using CW and SSB. His length of stay is unknown. QSL to home call.

CHILE, CE. Members of the CE DX Group are QRV as XR18CE during the month of July to celebrate the group’s 18th anniversary. QSL via XR4CW.

BOLIVIA, CP. Antonio, EA5RM is QRV as CP1XRM until August 3 while working on a project here. Activity is on the HF bands in his spare time. QSL direct to home call.

BULGARIA, LZ. Members of the Bulgarian Radio Club Blagovestnik are QRV as LZ1886PGS during the month of July to honor Bulgarian Saints. QSL via bureau.

BRAZIL, PY. Special event callsign PY160FD is QRV during the month of July in celebration of the 160th anniversary of the first fire department in Brazil. Activity is on the HF bands using CW, SSB and various digital modes. QSL via operators’ instructions.

The 10-10 International Spirit of 76 QSO Party runs from July 4 to 10.
When I realized my December, 2015, QST never arrived, I sent an email to the appropriate party at the ARRL and asked for a replacement copy. I received neither a response nor a replacement copy. I sent a second email request. Dead silence. I sent a third and a fourth email request; more dead silence. To say I am not happy with the ARRL is more than an understatement.

I finally scrounged a replacement copy, no thanks to the ARRL. Sorry for the old news, but in reading the December issue, I discovered an interesting bit of news: the Elser-Mathes Cup was established 87 years ago to "commemorate the first two-way Amateur Radio contact between Earth and Mars." QST speculates the cup will be awarded this century.

For those of you who like to look up at the night sky as well as squirt RF into it, I found a guide to Mars’ location.

Sky & Telescope says, "This week [June 24 - July 2], Mars is as far west (left) of Saturn and Antares as it’s going to get. Watch it move back toward them in the coming weeks -- very slowly at first, then with increasing speed."

If you are in a dark sky, you may be able to discern Mars’ rusty color. Try to observe the color sooner rather than later; Mars is now moving away from our planet and the farther away it moves, the less conspicuous will be its color.
The American Diabetes Association sponsored the Tour de Peddler bike ride on June 18. The ham community assisted with the event by providing communications support for the 60 mile bike ride. Hams were stationed at mid-point rest stations and at the peddler bike shops in Germantown, Southaven, and in the University of Memphis area. In addition, other hams trailed the bike riders.

Shown below (L-R) are Steve Frazier, KK4VPT, Linda Laseter, KJ4CTX, Art Barnett, WA4PSS, and Pat Lane, W4OQG. Pat was the ramrod for the ham volunteers. Thanks to everyone who helped!
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, neither 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
annbarrimunday@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
sparks@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
km4mry@arrl.net

Immediate Past President:
Joe Wray, WD4GXI

Board members beginning their positions in 2016 are listed in red.
If you are a coordinator for any of these events, please review the listed information. Email corrections to sparks@carbheat.net.

<table>
<thead>
<tr>
<th>Event Date</th>
<th>Event</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 10-11, 2016</td>
<td><strong>Bike MS: Rock-N-Roll 2016</strong></td>
<td>Darrell Sheffield, KK4D</td>
</tr>
<tr>
<td></td>
<td>Landers Center in Southaven to Gold Strike</td>
<td><a href="mailto:darrell.sheffield@memphistn.gov">darrell.sheffield@memphistn.gov</a></td>
</tr>
<tr>
<td></td>
<td>Casino in Tunica and back on 2nd day;</td>
<td>(901) 277-8122</td>
</tr>
<tr>
<td></td>
<td>Multiple Sclerosis fundraising event</td>
<td></td>
</tr>
<tr>
<td>October 1, 2016</td>
<td><strong>Bluff City Blues 100 Ride</strong></td>
<td>Danny Banks, KJ4FXZ</td>
</tr>
<tr>
<td></td>
<td>Start from downtown Memphis</td>
<td><a href="mailto:dbanksd@bellsouth.net">dbanksd@bellsouth.net</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>901-517-7661</td>
</tr>
<tr>
<td>Dec. 3, 2016</td>
<td><strong>St. Jude Marathon</strong></td>
<td>Roger Schlichter, WR4R</td>
</tr>
<tr>
<td></td>
<td>26.2 mile fund raiser in downtown Memphis</td>
<td><a href="mailto:wr4r@bellsouth.net">wr4r@bellsouth.net</a></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:

http://www.tn.gov/revenue/article/emergency-safety

The application can be found at this link:

http://www.tn.gov/assets/entities/revenue/attachments/f1312601Fill-in.pdf
It's Time to Renew Your 2016 Annual Memberships! Download the latest Delta Club Membership Application Form. 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><strong>Delta Club Information Net</strong></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>As needed</td>
<td></td>
</tr>
<tr>
<td>CUSEC (Center for United States Earthquake Consortium)</td>
<td>7.180</td>
<td>As needed</td>
<td></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
DELTA CLUB ADVERTISEMENTS
See Advertisement Order Form for Instructions.

MID-SOUTH AMATEUR RADIO SUPPLY (MSARS)
6631 Vallendar Cv., Bartlett, Tennessee 38135
tel: 901-371-9700 • fax: 901-266-3374 • web: www.msars.com

<table>
<thead>
<tr>
<th>Currently Stocking</th>
<th>Antennas</th>
<th>Antenna Mounts</th>
<th>Connectors</th>
<th>Coax &amp; Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT</td>
<td>Magnet</td>
<td>UHF</td>
<td>RG-213</td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>Trunk Lip</td>
<td>“N”</td>
<td>RG-8/U Mini</td>
<td></td>
</tr>
<tr>
<td>Base Station</td>
<td>Roof Mount</td>
<td>SMA</td>
<td>RG-58</td>
<td></td>
</tr>
<tr>
<td>HF</td>
<td>Window Mount</td>
<td>BNC</td>
<td>450 &amp; 300 Ohm</td>
<td></td>
</tr>
<tr>
<td>Wire</td>
<td>Swivel Ball</td>
<td>RCA</td>
<td>Rotor Cable</td>
<td></td>
</tr>
</tbody>
</table>

LDG Electronics

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Antenna Tuners</td>
<td>RF Chokes</td>
</tr>
<tr>
<td>Remote Tuners</td>
<td>Power Poles</td>
</tr>
<tr>
<td>Brand Specific Antenna Tuners</td>
<td>Antenna Switches</td>
</tr>
<tr>
<td>Baluns</td>
<td>SWR/Power Meters</td>
</tr>
<tr>
<td>Ununs</td>
<td>Mic Holders</td>
</tr>
</tbody>
</table>

Mid-South Amateur Radio Supply, (MSARS.COM) is owned and operated by local hams who are dedicated to promoting the hobby and providing help to anyone interested in ham radio. We actively support the local amateur radio clubs and are ARRL members.

MSARS offers free antenna building classes each year and help many new hams with guidance on their first radio, setting up a ham shack, programming a radio and much more. We are proud to be a part of the ham radio community and are here to help you.

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!

We offer our continued thanks to EMHC ambulance company for generously providing their training room for the many ham radio classes given there.

This space is available!
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 sparks@carbheat.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.

SPARKS ADVERTISING

<table>
<thead>
<tr>
<th>FULL PAGE</th>
<th>HALF PAGE</th>
<th>¼ PAGE</th>
<th>BUSINESS CARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50.00</td>
<td>$25.00</td>
<td>$15.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>for 3 Months</td>
<td>for 3 Months</td>
<td>for 3 Months</td>
<td>for 3 Months</td>
</tr>
<tr>
<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>
</table>