Welcome to the Delta Amateur Radio Club!
Visit our home on the web at: http://www.deltaclub.org

P.O. Box 750482 * Memphis, Tennessee 38175-0482 * Volume 17 * August 2011

Welcome to the Delta Amateur Radio Club!
Visit our home on the web at: http://www.deltaclub.org

NEXT CLUB MEETING

DATE: August 9, 2011 (2nd Tuesday of each month)
PLACE: Ellendale Church Of Christ, 7365 Highway 70
        Memphis, TN (1 ½ miles north of Hwy. 64 – Stage Road)
TIME: 7:00 PM
PROGRAM: Software Defined Radio
          Presented by: David Campbell, KD4NOQ

VE TESTING: Don’t forget the monthly Volunteer Examiner testing session. Registration
begins at 5:30 PM and testing begins promptly at 6:00 PM. Please remember to bring two (2) forms
of identification and copies of any existing licenses or CSCE’s you might have. Please be on time for
registration, as you will not be allowed to enter the testing session after 6:00 PM. This is to allow our
volunteer VE team to finish in time to attend the club meeting. For more VE testing information,
please contact:

    Bill Stevens, WC9S, VEC
    Phone: 901-603-3448
    Email: WC9S@att.net

PRESIDENT’S CORNER
By: Rosalinda Melena KI4ZKW

No article received.
The Delta Club is sponsoring a 50-passenger bus trip to go to the Huntsville Hamfest on August 20, 2011. The fare is $70. The cost includes entry to the hamfest. There will be biscuit sandwiches, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back.

Cash or checks will be accepted for payment. Make checks payable to Delta Amateur Radio Club. There are only twelve seat left. You can pay at the August meeting with reservations will be on a first come first paid basis. You can also send your check to Joe Lowenthal WA4OVO, 6675 Ashbridge Cove, Memphis, TN 38120. Please include your name, callsign, cell phone number, and email address.

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 6:40am. The bus will leave Huntsville immediately after the 4pm door prize drawing and return to Germantown Baptist Church approximately 7:30pm and 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.**

There is a new pickup point at Germantown Baptist Church. It will be on the east side of the church (toward Collierville) near the gym (called the ROC) in the back.

### TREASURER’S REPORT
Submitted By: Rick Tillman WA4NVM

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tr>
<td><strong>Beginning Balance as of July 1, 2011</strong></td>
<td>$16,274.86</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
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</tr>
<tr>
<td>U of M (phone line)</td>
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<tr>
<td>Trailer Repairs</td>
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<tr>
<td>Refreshments (club meetings)</td>
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<td><strong>Income</strong></td>
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<td>Nov. Ticket Sales</td>
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<tr>
<td>Donation</td>
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<tr>
<td>Huntsville Bus Trip</td>
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<tr>
<td><strong>Total Income</strong></td>
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</tr>
<tr>
<td><strong>Ending Balance as of July 31, 2011</strong></td>
<td>$16,650.29</td>
</tr>
</tbody>
</table>

Submitted by Rick Tillman WA4NVM
The board meeting was called to order at 7:00 P.M. by President Rosalinda Melena KI4ZKW.

- It was brought up that the 443.200 repeater located at University of Memphis needs to be checked out. The output power seems to be very low.
- There was a discussion about what to do with the estate items that we still have and where to store them. No decision was reached but Bill Stevens WC9S stated that he would be able to store everything for a couple of more months. The board is looking for ideas on how to sell these items including the two old repeaters that have been replaced with new Icom repeaters.
- It was brought up that only 2 of our 4 repeaters have lightning protectors installed. The other two repeaters need to have lightning protectors installed.
- Rick Tillman WA4NVM said that he is working on merging all the field day logs so that our final log can be submitted to ARRL.
- The insurance on equipment and our liability insurance are coming due in September. We need to update our equipment list, which hasn’t been updated since 1994.
- David Campbell KD4NOQ discussed the program for this month. It will be on a tour of K4TO’s shack, which is a good example of a messy shack.

Meeting adjourned

The meeting was called to order by President Rosalinda Melina KI4ZKW.

- Motion by Ham Hilliard W4GMM and seconded by Jeff Krause AJ4GY that the minutes of the last meeting be approved as posted in Sparks. Passed
- The Treasurer’s report was read by Rick Tillman WA4NVM. Motion the accept report as read by Frank Griffin K4FEG and seconded by Jeff Krause AJ4GY. Passed
- Bill Stevens WC9S reported that two people passed testing. 1 technician and 1 general.
- Joe Lowenthal WA4OVO reported that there are going to be about 22 people in the technician class.
- Joe also reported that there are 33 people signed up for the bus trip to the Huntsville Hamfest so far.
- Richard Martin K4DXF reported that we made 1007 contacts at field day this year.
- Rosalinda Melena KI4ZKW announced that the proposed bylaw changes will be tabled until we can have meeting entirely devoted to them.
- Richard Webb NF5B announced that he needs help repairing/replacing antennas on his tower.
- Roger Schlichter WR4R announced that everyone needs to be thinking about volunteering for the MS 150 and the St. Jude Marathon.
- Pat Lane W4OGQ announced that the Tennessee QSO party is September 4 this year.
- Frank Griffin K4FEG announced that he is putting together an expedition to go to Queen Willamina State park in Arkansas for the VHF/UHF contest in September.
- It was also announced that there will be a foxhunt July 23.
- The program was presented by David Campbell KD4NOQ on the messiest shack, a tour of K4TO’s shack.
- Motion by Bill Covington KC4SXT and seconded by Jeff Krause AJ4GY to adjourn. Motion Passed.

Meeting Adjourned.

**AMATEUR PACKET UPDATE**

By: James Butler – KB4LJV

Many times we want to run digital modes on the HF bands. Coming up with an HF antenna can cost more money than we want to spend. A good alternative to building up you own is the get one of the single band dipoles from MFJ. They have units for 160 to 6 meters. You buy the unit for the band you want and trim it to length with the chart you get. Since digital mode like packet or PSK31 only covers a small segment of the band you can tune for low SWR. Hang it in a tree and hook up coax and you are ready to go. These cost from $29.95 to $69.95 depending on the band you want. The part numbers are MFJ1779 A, B, or C. The website for MFJ is [www.mfjenterprises.com](http://www.mfjenterprises.com).

**AMATEUR HARDWARE UPDATE**

By: James Butler – KB4LJV

When we use Morse code we usually use a straight key, bug, or electronic keyer. Radios can be different in the way the key needs to be connected. The voltages and grounding method required can vary from radio to radio. Luckily most modern radios have a simple key line at that is low voltage and connected to ground to key the radio. Some Heathkits had the polarity reversed on them. Older tube rigs may be keyed by using a higher (over 100 volts) line to ground. This could be positive or negative polarity. Tube style QRP rigs can make you switch higher voltages. I noticed even 12 volt DC QRP rigs sometimes just turn the power transistor off and on to key the rig making for higher currents up to amp that has to be turned off and on by the keying circuit. The straight key can usually handle the current but high voltages at the key with older tube rigs can be dangerous. Electronic keyers cannot handle the voltage or higher currents. One way to get around all these problems is the use a relay to isolate the keying from the radio. This month’s project is the QRP RELAY KEYER. It allows me to hook any type of keying device to the box and the output is a set of isolated relay contact to key the radio. I built this to use my keyer with my PIXIE and TUNA 2 QRP rigs. Built up in a surplus box the circuit is a transistor that is turned on and off by the keyer. The transistor is used to turn a relay on and off. The isolated relay contacts are then used to key the radio. This circuit can be used to key any radio as long as the relay contact voltage and current of the relay contacts are not exceeded. The unit works well and gives me a chance to use my electronics keyer on...
rigs I normally could not. I can still hook a straight key to the interface if I want to. If you are having trouble hooking to your radio check on the Internet. They have sites that show relay keying circuits.

2011 TRAINING CLASSES
Submitted by: Joe Lowenthal WA4OVO, Director of Training

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.

Licenses Earned in 2011 from Delta Classes
13 Technician
13 General
6 Extra

CLASSES PLANNED

If you are interested in any of the classes, send an email to Joe Lowenthal at wa4ovo@yahoo.com with your name, email address, and phone number, preferable cell with subject line of the class you are interested in.

Basic Electronics Class 5-11 – September 24-October 29, 2011

This course is a bridge between the General Class license and the Extra Class license. The Basic Electronics class will be on six Saturdays from 9am to 1pm from September 24th until October 29th at the Memphis-Shelby County Health Department east complex at 1075 Mullins Station Road across from the Penal Farm.

The text to be used in the class is The ARRL Understanding Basic Electronics Second Edition. The suggested calculator is the Casio fx-260 solar calculator, which can be purchased at Wal-mart for about $10. The instructors are Dean Honadle N2LAZ and Alan Proffitt AE5RX. Both have years of experience teaching electronics. Dean taught electronics in the Navy for 10 years and another 10 years at State Tech. He has a Masters degree in mathematics. Alan has a Masters and PhD in instrumental sciences and taught in the Engineering Department at the University of Memphis.

CLASSES IN PROGRESS

Technician Class 4-11 – July 11-August 15, 2011

Tech Class 4-11 began on July 11th for six Monday nights from 6:15-9:30pm and running through August 15th at the Memphis-Shelby County Health Department East Complex at 1075 Mullins Station Road across from the Penal Farm. Twenty-three students attended the session. The students will have a review and the opportunity to take their FCC exam on August 8th. The last class on August 15th will be an open discussion of VHF/UHF radio gear for the Technician, and a session on how to program the Wouxun radio.
**CLASS INFORMATION**

**Technician Class**

If you are interested in the first amateur license class, Technician, please let us know by sending an email to wa4ovo@yahoo.com with subject line "Technician Class" and give name, email address, and a contact phone number (preferably a cell number). Or you can go to the Delta Club webpage www.deltacclub.org click on Training Classes; then click on Technician Class to send an email, or call at 901-683-2701. We usually publish class schedules a month or two in advance. You will be notified by email or phone when the class is set if you send an email informing us of your desire to be in a class.

There is no charge for the class, but registration is required. Advanced study of *The ARRL Ham Radio License Manual, product #0977 / ISBN 978-0-87259-097-7* (red-brick colored cover) is strongly suggested as well as study of the 396 question and answer Technical Class License question pool. Barnes & Noble Booksellers may have this manual. You can purchase it online from [www.msars.com](http://www.msars.com), [www.arrl.org/catalog](http://www.arrl.org/catalog) or on [Amazon.com](http://www.amazon.com). The list price is $29.95 (which includes a CD). The older ARRL Ham Radio License Manual, Second Edition, was priced at $24.95, but did not have a CD.

The current Technician License question pool, which was approved by the NCVEC on February 1, 2010, can be seen at [http://www.ncvec.org/page.php?id=356](http://www.ncvec.org/page.php?id=356). Testing for this new question pool started July 1, 2010.

Practice tests are highly recommended. The [www.qrz.com](http://www.qrz.com) website is free. To access the sample tests, click on Main Menu to the right of the Search button on the QRZ Home Page. Scroll down and click on Practice Amateur Radio Exams. Click on Start Test to enter QRZ Practice Test Center. Click on Technician 35 Questions. Click on Wait For Correct. (This feature gives you the ability to answer again to get the correct answer if you miss the first time. On each answer it will either show Wrong Answer or Correct.) Click on Begin Test. Statistics are given at the top of the screen with the number of Completed questions, the Accuracy percentage, and the Overall percentage of questions completed on the test. Be sure to study multiple QRZ tests. The first test is only the first question from each of the 35 subgroups of the question pool. The second test is only the second question from each of the 35 subgroups, and so on. It is recommended to take at least 15 of the sample tests to be able to see all 396-question pool questions.

There are a number of other free sample-test sites. The following are some other ham radio practice exam sites:

- [www.aa9pw.com](http://www.aa9pw.com)
- [http://kb0mga.net/exams](http://kb0mga.net/exams)
- [www.qrz.com](http://www.qrz.com)
- [http://www.hamradioclass.org](http://www.hamradioclass.org)

The 35-question FCC exam will be given at the end of class by a Volunteer Examiner (VE) team. There is a $15.00 ARRL VEC FCC exam fee.

**General Class**

If you are interested in a General License Class, please let us know by sending an email to wa4ovo@yahoo.com with subject line "General Class." Or you can go to the Delta Club web page [www.deltacclub.org](http://www.deltacclub.org); click on Training Classes; then click on General Class to send me an email with name, email address and contact phone, preferably cell number, or call at 901-683-2701. A new question pool became effective July 1, 2011. The new textbook is *The ARRL General Class License Manual, Seventh*
This edition with its question pool is valid through June 30, 2015. Lately, we have been running a combined Technician-General class. You will be notified by email or phone when the class is set.

**Basic Electronics Class**

The Basic Electronics Class is designed to bridge the electronics-learning gap between the General and the Extra Class licenses. The class textbook is ARRL’s *Understanding Basic Electronics, Second Edition*. The suggested calculator is the Casio fx-260 solar calculator, which can be purchased at Wal-Mart for about $10. There is no exam for this class. The class has been held in the September-November time frame.

If you are interested in the Basic Electronics Class, please let us know by sending an email with name, email address and contact phone, preferably cell number to wa4ovo@yahoo.com with subject line “Basic Electronics Class” or call at 901-683-2701. You will be notified by email or phone when the class is set.

**Extra Class**

If you are interested in an Extra Class, please pre-register by going to the Delta Club web page [www.deltaclub.org](http://www.deltaclub.org); click on Training Classes; then click on Extra Class to send an email with name, email address and contact phone, preferably cell number to Joe Lowenthal, WA4OVO, at wa4ovo@yahoo.com or call at 901-683-2701. You will be notified by email or phone when the class is set. Classes have been held on Saturdays for 6 or 7 weeks in January and February.

**COMPLETED CLASSES**

*Technician Class 3-10 Revisited*

Congratulations to Jose Ibarra KJ4TCJ for upgrading to General at the Delta Club FCC testing session on June 14th.

*Technician Class 3-11 – April 17, 2011*
*Technician-General Class 2-11 – March 26, 2011*
*General Class 5-08 Revisited*
*Extra Class 1-10 Revisited*
*Technician Class 5-10 Revisited*
*Extra Class 1-11 - February 19, 2011*
*Boy Scout Radio Merit Badge – January 22, 2011*
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

2011 BOARD OF DIRECTORS

President: Rosalinda Melena – KI4ZKW
901-921-4474
ti4zkw@gmail.com

Vice-President: Richard Martin – K4DXF
901-372-3722
k4dxf@att.net

Secretary: Bill Stevens – WC9S
901-603-3448
wc9s@att.net

Treasurer: Rick Tillman – WA4NVM
901-268-7047
wa4nvm@comcast.net

Director of Training: Joe Lowenthal – WA4OVO
901-683-2701
wa4ovo@yahoo.com

Director of Publications: Kenneth Laseter – KI4AOH
901-853-0400
kmlaseter@laseterinc.com

Director of Programs: David Campbell – KD4NOQ
901-388-6166
kd4noq@arrl.net

Director of Meetings & Special Events: Danny Banks – KJ4FXZ
901-861-3229
kj4fxz@arrl.net
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 provide me with the correct information. Please email corrections to me at kmlaseter@laseterinc.com.

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
<th>COORDINATOR</th>
<th>CONTACT INFO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
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<tr>
<td>16th</td>
<td>Swamp Stompers</td>
<td>Danny – KJ4FXZ</td>
<td><a href="mailto:kj4fxz@arrl.net">kj4fxz@arrl.net</a></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td></td>
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<tr>
<td>4th weekend</td>
<td>City Slickers Equestrian Event</td>
<td>Richard – NF5B</td>
<td>(No Contact Information)</td>
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<tr>
<td>April</td>
<td></td>
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<tr>
<td>30th</td>
<td>Tour de Cure</td>
<td>Denise – KJ5DG</td>
<td><a href="mailto:kj5dg.denise@gmail.com">kj5dg.denise@gmail.com</a></td>
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<tr>
<td>30th</td>
<td>March for Babies (March of Dimes)</td>
<td>Bob – KF4NDH</td>
<td><a href="mailto:kf4ndh@bellsouth.net">kf4ndh@bellsouth.net</a></td>
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<td>May</td>
<td></td>
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<tr>
<td>22nd</td>
<td>Memphis in May Triathlon</td>
<td>Ned - KA4BLL</td>
<td><a href="mailto:ka4bll@arrl.net">ka4bll@arrl.net</a></td>
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<tr>
<td>September</td>
<td></td>
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<td></td>
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<tr>
<td>10th &amp; 11th</td>
<td>MS 150 Bike Ride</td>
<td>Darrell - KK4D</td>
<td><a href="mailto:kk4d@xipline.com">kk4d@xipline.com</a></td>
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<tr>
<td></td>
<td>WE NEED YOUR HELP! (Darrell needs volunteers for the MS 150 Bike Ride. If you can volunteer or have questions don’t hesitate to email him.)</td>
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<tr>
<td>December</td>
<td></td>
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<tr>
<td>3rd</td>
<td>St. Jude Marathon</td>
<td>Roger – WR4R</td>
<td><a href="mailto:wr4r@bellsouth.net">wr4r@bellsouth.net</a></td>
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<td>3rd</td>
<td>Bartlett Christmas Parade</td>
<td>Dennis – KJ4BDU</td>
<td><a href="mailto:dcvv3714@aol.com">dcvv3714@aol.com</a></td>
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<td>TBA</td>
<td>Boy Scout Merit Badge University</td>
<td>Hugh – WB4SLI</td>
<td><a href="mailto:hwardlaw@bellsouth.net">hwardlaw@bellsouth.net</a></td>
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<td>TBA</td>
<td>Juvenile Diabetes Research Foundation Walk</td>
<td>Kathleen - KC0HZU</td>
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### MEMPHIS AREA VHF/UHF NETS

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<th>Net Name</th>
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<th>Local Time</th>
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<tbody>
<tr>
<td>Mid-South Barefooted Bullfrog net</td>
<td>146.535</td>
<td>7:30p</td>
<td>Daily</td>
</tr>
<tr>
<td><strong>Delta Club Traffic and Information Net</strong></td>
<td><strong>146.820-(107.2)</strong></td>
<td><strong>8:00p</strong></td>
<td><strong>Daily</strong></td>
</tr>
<tr>
<td>Secret Service Net</td>
<td>224.780-</td>
<td>8:30p</td>
<td>M</td>
</tr>
<tr>
<td>Elmer Net</td>
<td>147.030-(107.2)</td>
<td>9:00p</td>
<td>M</td>
</tr>
<tr>
<td>The Short Winded Net</td>
<td>146.850-</td>
<td>8:30p</td>
<td>Tu</td>
</tr>
<tr>
<td>MedMERS Net</td>
<td>146.730-(107.2)</td>
<td>12:00p</td>
<td>W</td>
</tr>
<tr>
<td>Six Meter Tech Net</td>
<td>53.01-</td>
<td>8:30p</td>
<td>W</td>
</tr>
<tr>
<td>The 440 Net</td>
<td>443.200+(107.2Hz)</td>
<td>9:00p</td>
<td>W</td>
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<tr>
<td>Two meter single Sideband Net</td>
<td>144.260 USB</td>
<td>8:30p</td>
<td>Th</td>
</tr>
<tr>
<td>ARES Training Net</td>
<td>146.880-(107.2)</td>
<td>9:00p</td>
<td>2nd &amp; 4th Th</td>
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### TENNESSEE HF NETS

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<td>Tennessee CW Net</td>
<td>3.563</td>
<td>7:00p</td>
<td>Daily</td>
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<tr>
<td>Tennessee Slow CW Net</td>
<td>3.682</td>
<td>7:30p</td>
<td>T-Su</td>
</tr>
<tr>
<td>Tennessee Early Morn Phone Net</td>
<td>3.980</td>
<td>5:40a</td>
<td>M-F</td>
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<tr>
<td>Tennessee Morning Phone Net</td>
<td>3.980</td>
<td>6:45a</td>
<td>M-F</td>
</tr>
<tr>
<td>Tennessee Evening Phone Net</td>
<td>3.980</td>
<td>6:30p</td>
<td>T-Su</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>
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GOOD EVENING: This is _____________ calling this session of the DELTA CLUB'S TRAFFIC AND INFORMATION NET. This net is affiliated with the ARRL and the NTS and is organized to pass traffic in and out of the mid - south area, in addition to providing information about club events and amateur related topics. This net meets nightly at 8:00 p.m. CT except the second Tuesday of the month on the 146.82 W4BS repeater and requires a pl. tone of 107.2 Hz. All stations will refrain from transmitting without being acknowledged by net control.

All licensed amateurs are encouraged to participate.

Before we begin, is there any station with emergency or priority traffic?
During this net should any station have emergency or priority traffic please use a double break followed by your call sign.

Is there an NTS Liaison station on frequency?

Is there any station wishing to list formal written traffic?

Does any station have announcements for the net?

(If anyone asks to make an announcement after you finish handling the ones taken here ask them to hold until after the monolog. Eliminate the following sentence unless there are announcements.)

Does any station have any questions or need any fills?

We will now take check-ins. Are there any stations that are mobile, on battery power, or needing to leave early, if so please come now phonetically with your suffix only and please remember to spread them out?

We will now take check-ins phonetically by suffix only if your suffix begins ALPHA through HOTEL pleas come now and remember to spread them out.

We will now take check-ins phonetically by suffix only if your suffix begins INDIA through KEEBECK please come now and remember to spread them out.

We will now take check-ins phonetically by suffix only if your suffix begins ROMEO through ZULU please come now and remember to spread them out.

The DELTA CLUB meets the second Tuesday of each month at the ELLENDALE CHURCH OF CHRIST 7365 HWY 70 in Bartlett at 7:00 P.M. V. E. Registration begins at 5:30 P.M. with testing starting promptly at 6:00 P.M. A copy of your license and CSCE is required. For V. E. Information contact Bill, WC9S at 603-3448. For membership information contact Bill, WC9S at 603-3448. For training information contact Joe WA4OVO at 683-2701.

Are there any additional announcements?

We will now take late check-ins from anywhere in the alphabet ALPHA through ZULU please come now and spread them out.

Is there anything that this station or the net can do for anyone before we close?

This is _____________ now closing this session of the DELTA AMATEUR RADIO CLUB'S Traffic and information net and would like to thank all _______stations for checking in tonight. And would like to ask that everyone to check in tomorrow night at the same time.
GOODNIGHT AND 73: THE NET IS NOW CLOSED.____________CLEAR
DELTA CLUB ADVERTISEMENTS

See Advertisement Order Form for Instructions.

DELTA AMATEUR RADIO CLUB
P.O. Box 342768
Memphis, TN 38134-2768

DARC Meeting: Second Tuesday of every month at Ellendale Church of Christ
7365 Hwy 70, Bartlett TN

W4BS REPEATER SYSTEM
146.82 - 147.36+ (107.2Hz tone)
224.42 - 443.20+ (107.2Hz tone)

Savage Tile Company
Installers of commercial & residential ceramic, quarry, marble & slate tiles
(901) 365-9607 or Fax (901) 365-1992
5579 Federal Avenue
Memphis, TN 38118-7918

Ned Savage 35 YEARS of EXPERIENCE
## Delta Amateur Radio Club

**Sparks Advertising Order Form**

- **Date:** ________________
- **Name:** ____________________________
- **Call Sign:** __________  Phone: __________ Phone: Email: ____________________________

### TO PLACE AN ORDER

1. Mark the box below indicating the ad size you are purchasing and the three (3) months you want your ad to appear in Sparks.
2. Submit this completed order form, your camera ready ad, and your check payable to Delta Amateur Radio Club (DARC) to Kenneth Laseter KI4AOH via mail at 684 Oasis Cove, Cordova, TN 38018 or give it to him at the monthly Delta Club meeting. Camera ready means that the ad you submit is exactly as you want it to appear in your ad and fits within the dimensions specified below. Ads may be submitted in gif or jpg format or submitted as a hard copy and we will scan and place your ad for you.
3. Your ad order 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>SPARKS ADVERTISING</th>
<th>FULL PAGE</th>
<th>HALF PAGE</th>
<th>¼ PAGE</th>
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