DELTA AMATEUR RADIO CLUB founded 1961

Memphis, Tennessee 38134-2768 P.O. Box 342768 Volume 21 July 2015



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

W4BS

REPEATER SYSTEM

 $146.820^{\text{-}107.2}$ $147.360^{\text{-}107.2}$ $146.625^{\text{-}107.2}$ 443.200-107.2 224.420

CLUB MEETINGS (7:00 PM, 2nd Tuesday of each month)

July 14, 2015 **NEXT DATE:**

Ellendale Church Of Christ, 7365 Highway 70 **PLACE:**

Memphis, TN (1½ miles north of Hwy. 64 – Stage Road)

PROGRAM: ElectroMagnetic Pulse (EMP)

Presented by Joe Sanders, km4jxs

FCC Amateur Radio License Testing: Don't forget 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 (2) forms of identification, at least one a photo ID, and copies of any existing licenses or CSCE's you might have. You need to know your FCC Registration Number (FRN) if one has been issued. Please be on time for registration; this is to allow our Volunteer Examiner (VE) team to finish in time to attend the club meeting. 2015 test fee is \$15 (cash or check). Effective July 1, 2015, 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

Congratulations to successful candidates at our June club meeting night test session: Jeffrey Walls, wa4lls (Extra); Christopher Stafford, km4jxr (General); James Egbert, km4lef and Bryan James, kg5hzx (Technician).

PRESIDENT'S CORNER

Submitted by: Joe Wray, wd4gxi Photos provided by Randy Wilder, wb4lhd – President of Tri-State Repeater Association

I hope everyone enjoyed Field day. It was pretty hectic up till start time but then as usual everything fell into place. Joe did a very good job finalizing the GOTA station and running it. I think it was a big hit. We had a number of new and prospective Hams operating, including Channel 3 reporter Elise Preston who also made a contact. We had CW, SSB, and Satellite stations and the biggest surprise of all was the band opening on 6 meters Sunday morning. It hung in there till the final minute. Speaking of Channel 3, we really had some great news coverage of our field day. I hope everyone got to see it. Check out page 9 for more info. All in all it was great food fun and fellowship.

Well next month is Huntsville Hamfest, Aug 15 and 16. If you have not been, it is a great show. DARC has a fantastic deal with the bus ride, drinks, snacks, and tickets for the show. You still have time to get your reservations in. I am out of town right now but will see you at the July meeting. Don't forget to check in to the nightly net. I hope everyone had a wonderful and safe 4th



WREG-TV reporter Elise Preston Gets On The Air



Jackson Perkins age 10, making contacts assisted by Joe Lowenthal, wa4ovo

Don't forget to check into the net when you can. I hope to see you at the meeting Tuesday July 14th! 73, Joe Wray

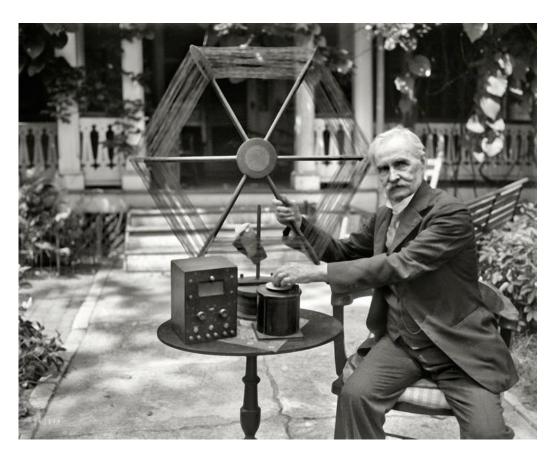
CLUB SERVICE OPPORTUNITY - VOLUNTEER(S) NEEDED

Submitted by David Webb, kv4qi

You may not be aware, but Delta Club has a very favorable balance sheet largely due to the generous donations of radios and related equipment and supplies from estates of retiring or Silent Key amateur radio operators. In years past, the work involved with retrieval, evaluation, storage, and sale of this equipment has been largely headed up by Bill Stevens, wc9s. (On behalf of all club members, the Editor again thanks Bill and the many other DARC volunteers who have provided their assistance in work parties taking down towers, clearing out Ham shacks, stocking swap meet tables, etc.)

Bill has notified the DARC Board of Directors that he'd like to pass the mantle of leadership in this area of activity to one or more members of the club who are willing to carry this vital work forward into the future.

If you're willing to step up, Bill's more than willing to share his knowledge and insights with you. Send an EMAIL to wc9s@att.net and see if you've got what it takes to help "trash or cash" magic work on behalf of Delta Club.





TREASURER'S REPORT

Submitted by: Rick Tillman, wa4nvm

Beginning Balance	as of 6/1/2015		\$11,758.36
	Expenses		
Yaesu	Fusion Repeater		\$500.00
		Total Expense	\$500.00
		SubTotal	\$11,258.36
	Income		
Membership Dues			\$95.00
Year 2015 November Drawing Ticket Sales	3		\$120.00
Bus Trip 2015			\$390.00
Donation			\$5.00
DARC Club Patch			\$5.00
		Total Income	\$615.00
En die e Deleves	as of 6/30/2015		¢44 972 26
Ending Balance		Submitted by Rick Tillma	\$11,873.36 an WA4NVM
Certificate of Deposit #1	Balance		\$10,280.23
Certificate of Deposit #2	Balance		\$5,025.00

Balance

Total DARC Assets

\$27,178.59

BOARD MEETING MINUTES

7:00p – July 7, 2015 - Submitted by: Barri Munday, wb4swp

Officers and Directors Present: Barri Munday, wb4swp – Rick Tillman, wa4nvm – Joe Lowenthal, wa4ovo - Jim Cissell, ki4i - Jim Sheats, kk4vgl - David Webb, kv4qi – Bill Stevens, wc9s.

- 1. Meeting called to order by B. Munday.
- 2. Treasurer's Report presented by R.Tillman. Motion to approve by J.Sheats, seconded by B.Stevens. Report approved by acclamation.
- 3. J.Cissell confirmed that Jul2015 presentation would be made by Joe Sanders, km4jxs on the subject of Electromagnetic Pulse (EMP) energy.
- 4. There was additional discussion on the subject of prize selection and acquisition process for the upcoming November raffle event. No decisions finalized board members to revisit ideas and suggestions at future meeting.
- 5. J.Lowenthal reported that 22 tickets have been sold to date for the Hunstville bus trip. Noted that students in the upcoming Tech Class could purchase tickets for \$60.
- 6. J.Lowenthal reported that Technician class running July 9 through August 13th reached maximum enrollment with 15 individuals.
- 7. Move to adjourn made by B.Stevens and seconded by J.Sheats. Meeting was adjourned at approximately 7:45p

GENERAL CLUB MEETING MINUTES

June 9, 2015 - Submitted by: Barri Munday, wb4swp

- 1. March meeting minutes Ham Hilliard, w4gmm made motion to approve the minutes as published in the Sparks Newsletter & Bill Covington, kc4sxt seconded. Minutes approved by member acclamation.
- 2. Treasurer's report H. Hilliard made motion to approve and (*unrecorded member*) seconded. Report approved by member acclamation.
- 3. Joe Lowenthal, wa4ovo advised that a new Technician Class would begin on July 9th for 6 weeks at EMHC Ambulance Training Room from 6:15p-9:30p; also noted that Howard (Jelly) Thompson, n4hlt would likely offer a General Class in the latter part of August through the Nashoba Amateur Radio Club.
- 4. Bill Stevens, wc9s asked for help with donated estate items he has stored at his house.
- 5. Noted that members interested in being on the 2016 Board of Directors should identify themselves as candidates for replacement of outgoing Board Members.
- 6. Pat Lane, w4oqg thanked everyone who participated in the Tour de Cure event on 5/30/2015.
- 7. Noted that local HamWan group would meet next Wednesday at Baptist Hospital in Collierville.
- 8. Noted that Navy MARS was being disbanded, and that existing members could join remaining MARS organizations.
- 9. Jeff Krause, aj4gy reported on June test candidate success with 1 Extra, 1 General, and 2 Technician class licenses attained.
- 10. Michael Knight, kk4ioh gave a presentation on plans for the 2015 Field Day event.
- 11. Four donated batteries were given away as door prizes for meeting attendees.
- 12. H. Hilliard made motion to adjourn; J. Krause seconded. Club membership confirmed their agreement through an orderly departure at approximately 8:30p.

HUNTSVILLE BUS TRIP

Submitted by: Joe Lowenthal, wa4ovo

The Delta Club is sponsoring a 50-passenger bus trip to the Huntsville Hamfest on August 15th. There is a graduated scale fare for the bus trip. The fare is \$65 if paid by end of July, and \$75 if paid in August. There are no refunds if you cannot go; however, you can sell your reservation to someone else. The fare includes the \$8 Hamfest entry ticket. There will be 2 biscuit sandwiches per person, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back. During the Hamfest you can rest on the bus and/or drop off your purchases since the bus will be backed up to the loading dock for easy access. Cash or checks will be accepted for payment. Make checks payable to Delta Amateur Radio Club. You can pay Rick WA4NVM at a meeting or 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. Please indicate whether you want to board the bus at Ellendale or Germantown, and your choice of breakfast biscuits, plain, bacon or ham.

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 15th. A second pickup point will be at Germantown Baptist Church, 9450 Poplar Avenue at Johnson Road in Germantown at approximately 6:30am. 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.

The pickup point at Germantown Baptist Church will be on the east side of the church (toward Collierville) just north of the baseball diamonds and south of the gym (called the CORE) between the gym and the baseball diamonds to the front.



Enjoy the scenery and save some \$greenery\$

Ride the bus door to door, enjoy on-board snacks, have a comfortable place to sit and rest during the Hamfest, and use roomy baggage bays to haul purchases back to Memphis!

AMATEUR PACKET UPDATE

Submitted by: James Butler, kb4ljv

Powerwerx now offers a Powerwerx brand of mobile radios. The DB-750X is a dual band FM radio for 2meters and 440 MHZ. It operates at 50 watts VHF and 40 watts UHF power. It has single receive or a dual receive with monitoring on both bands including two channels on one band at the same time. The unit is under \$300.00 . Powerwerx also has the matching 30 amp desktop 12 volt DC supply. They also offer a nice bracket that mounts to the power supply and converted the DB-750X for base station use. To check out this equipment look at the Powerwerx website. The URL address is http://www.powerwerx.com/two-way-radios/mobile-radio-base-station-enclosure.html

AMATEUR HARDWARE UPDATE

Photo and Article Submitted by: James Butler, kb4ljv

Amateurs are using the Arduino microprocessor board for ham radio projects. The ARRL has books on them and the aftermarket companies have come up with add-on accessories. To make Arduino portable there is a \$7.00 hand held translucent case. There are also displays that can be added for showing information in your programs. Here is a picture of my Arduino in the case with a blue back-lighted LCD screen ready to be programmed. If you want Arduino accessories at a great price, just go to Ebay and search Arduino.



ARRL Field Day 2015

Submitted by: Joe Lowenthal, wa4ovo

Field Day in Memphis had a glorious weekend weather-wise; much better than Flood Day last year. The temps were in the low 80's on Saturday and 86 on Sunday. I want to thank everyone who helped with the GOTA station, especially those hams who got on HF for the first time. We had great media coverage by WREG. Thanks to Austen Onek, kg4gke - for his announcements during the weather segments Saturday. Here is the link to their coverage on the 10:00 news Sunday night:

http://wreg.com/2015/06/28/radio-operators-take-part-in-national-preparedness-exercise/



Barry Pilkinton, km4ksn - pictured on left, brought a FedEx communications van with an Icom 7200 radio and battery power for the GOTA station. We used a 230 foot long wire for the antenna.

HAM LICENSE TRAINING 2015

Submitted by: Joe Lowenthal, wa4ovo

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 to Date in 2015 from Delta Classes
7 Technician
4 General
6 Extra

CLASSES SCHEDULED

Tech Class 4-15 will be held on six Thursday nights from **July 9th through August 13th** at EMHC ambulance company training room, 6972 Appling Farms Parkway. If you are interested, send an email to Joe Lowenthal at wa4ovo@gmail.com with Tech Class in the subject line and your name, email address and cellphone number in the message body. See the Future Classes for the text to be used.

FUTURE CLASSES - TECHNICIAN CLASS

Special Note: Our recent training classes have resulted in positive feedback from students regarding the inclass viewing of some very well-done on line training materials offered by Mr. Dave Cassler – ke0og to accompany the ARRL training manuals we use. This free resource is available at URL http://dcasler.com/ham-radio/training/ Videos are also posted on YouTube – search "ke0og" for links. All students are encouraged to use this supplemental resource in conjunction with their DARC training opportunities.

If you are interested in the first amateur license class, Technician, please let us know by sending an email to wa4ovo@arrl.net with subject line **Tech Class** and give your name, email address, and a contact phone number (preferably a cell number). Or you can go to the Delta Club webpage www.deltaclub.org click on Training Classes; then click on Technician Class to send an email, or call at 901-628-4318. 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 Third Edition (effective July 1, 2014)*, <u>ARRL Order #0222, ISBN 978-1-62595-015-0</u>, is strongly suggested, as well as study of the 426 question and answer Technical Class License question pool.

You can purchase it online from www.msars.com, http://www.arrl.org/shop/ARRL-Ham-Radio-License-Manual-3rd-Edition/ on Amazon.com or possibly Barnes & Noble booksellers.

The new Technician question pool which became effective July 1, 2014 can be seen at http://ncvec.org/page.php?id=362. The question pool is in the blue section in the back of the license manual. Practice tests are highly recommended. The www.qrz.com website is free. To access the current 2014-2018 sample tests, go to www.qrz.com. From the QRZ home page click on **RESOURCES** in the blue band on the top right. Then click on 2014 Technician Exam Practice Test. When you start answering the questions, it will show you if you answered correctly or not with **CORRECT!** or **SORRY BUT THAT ANSWER IS NOT CORRECT**. Statistics are kept below the test question at **This Quiz** with the number of questions answered

correctly and the percentage correct. Also shown is the number of questions answered correctly from the 426 questions of the question pool. It keeps track of your correct answers on subsequent tests. Below the **This Quiz** line is **Questions In This Test**, that is a list of the 35 question numbers of the current test. If answered correctly, the question number radio button turns green. If answered incorrectly, it turns red.

There are a number of other free sample-test sites on the internet. Here are some of the ham radio practice exam sites:

- www.hamstudy.org
- www.aa9pw.com
- http://kb0mga.net/exams
- www.qrz.com
- http://www.hamradioclass.org

FUTURE CLASSES - GENERAL CLASS

If you are interested in a General License class, please let us know by sending an email to wa4ovo@arrl.net with subject line **General Class**. Or you can go to the Delta Club web page www.deltaclub.org; click on Training Classes; then click on General Class to send me an email with your name, callsign, email address and contact phone, preferably cell number, or call at 901-628-4318. The current question pool became effective July 1, 2015. The new study guide is *The ARRL General Class License Manual*, *Eighth Edition*ARRL product #0307, ISBN 978-1-62595-030-7. URL for new product options is found at http://www.arrl.org/shop/ARRL-General-Class-License-Manual-8th-Edition/ You will be notified by email or phone when the class is set if you have sent an email.

BASIC ELECTRONICS – Internet Training Only

Basic Electronics is geared toward bridging the gap between the General and Extra Class licenses. Alan Proffitt, ae5rx - has created a Google website for basic electronics for the Delta Club with useful links. Click on https://sites.google.com/site/darcelectronics/my-forms and then click on syllabus.docx at the bottom of the list. One site inside this Google site is the US Navy Electricity and Electronics Testing Site (NEETS). There are 24 modules with excellent information. If you want to go directly to it, go to http://jacquesricher.com/NEETS/. Alan will assist anyone who would like additional help or refer them to another Elmer (please contact alan.proffitt@comcast.net).

FUTURE CLASSES - EXTRA CLASS

If you are interested in an Extra Class, please pre-register by going to the Delta Club web page www.deltaclub.org; click on Training Classes; then click on Extra Class to send an email with your name, callsign, email address and contact phone, preferably cell number, to Joe Lowenthal, wa4ovo, at wa4ovo@arrl.net or call at 901-628-4318. You will be notified by email or phone when the class is set. Classes are usually held on Saturdays from 9am-1pm for 6 or 7 weeks in January and February. The text is The ARRL Extra Class License Manual 10th Edition, ARRL Order #5170, ISBN 978-0-87259-517-0.

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

Licenses Earned in 2014 from Delta Classes
25 Technician
12 General
6 Extra

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

Alternative EMAIL address to generically offer Board your suggestions, ask questions, 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! https://www.facebook.com/darcmem

2015 BOARD OF DIRECTORS

President: Vice-President: Secretary:

Joe Wray wd4gxi Michael Knight kk4ioh Barri Munday – wb4swp 901-246-6113 901-832-8636 901-756-5259 wrayjoe@yahoo.com kk4ioh@arrl.net annbarrimunday@att.net

<u>wrayjoe@yanoo.com</u> <u>kk4ion@arri.net</u> <u>annbarrimunday@att.net</u>

Treasurer:Director of Training:Director of Publications:Rick Tillman – wa4nvmJoe Lowenthal – wa4ovoDavid W. Webb – kv4qi901-268-7047901-628-4318901-465-8315

<u>wa4nvm@comcast.net</u> <u>wa4ovo@yahoo.com</u> <u>dwebb1518@gmail.com</u>

Director of Programs: Director of Meetings & Special Events:

 Jim Cissell – ki4i
 Jim Sheats – kk4vgl

 901-326-5544
 901-756-0031

 james4296@aol.com
 jdsheats@bellsouth.net

Repeater Trustee: Immediate Past President:
Bill Stevens – wc9s Rosalinda Melena – wn2v

Bill Stevens – wc9s Rosalinda Melena – wn2 wc9s@att.net

Board members beginning their service in 2015 are listed in red.

HAMFESTS OF LOCAL INTEREST

DATES EVENT LOCATION

URL LINK

August 2015 15th & 16th

Huntsville Hamfest http://www.hamfest.org/

Huntsville, AL

From July 4, 1776 to current day – we remember and offer thanks to patriots in all walks of life who have paid the price to ensure life, liberty, and the pursuit of happiness in the United States of America and countless nations around the world!

Freedom is never free.

FUTURE PUBLIC SERVICE EVENTS

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 dwebb1518@gmail.com.

DATE EVENT	PUBLIC SERVICE EVENT	CONTACT INFORMATION
Sept. 12-13, 2015	MS 150 Bike Ride Landers Center in Southaven to Gold Strike Casino in Tunica and back on 2 nd day	Darrell Sheffield, kk4d darrell.sheffield@memphistn.gov
October 3, 2015	Bluff City Blues Ride Starts on Mud Island and goes thru Shelby Forest	Danny Banks, kj4fxz kj4fxz@arrl.net
December 5, 2015	St. Jude Marathon 26.2 mile run from downtown Memphis	Roger Schlicter, wr4r wr4r@bellsouth.net
January 2016	SwampStomper 50k/25k Run thru Meeman Shelby Forest	Mike McLoughlin, kk4mcl canada67@comcast.net
April 2016	March for Babies (March of Dimes) 4 mile walk around Memphis Botanical Gardens	Linda Laseter, kj4ctx lindalaseter@gmail.com
June 4, 2016	Diabetes Tour de Cure Start on Mud Island and ride thru Shelby Forest	Pat Lane, w4oqg w4oqg@bellsouth.net

TENNESSEE HAM RADIO LICENSE PLATE

Submitted by: Joe Lowenthal, wa4ovo

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

http://www.tn.gov/revenue/vehicle/licenseplates/emergency/emergsaftey.shtml
The application is at www.tn.gov/revenue/forms/titlereg/f1312601Fill-in.pdf

OTHER UPCOMING EVENTS

Hams - Please Make Sure Your Membership "Current" Is On!

Download the new and improved .pdf Delta Club Membership Application Form from the web at http://www.deltaclub.org/application-15-3.pdf

Thanks for Your Active Support of Delta Amateur Radio Club Membership Matters!

NOTES OF POSSIBLE INTEREST

Not only does Rick Tillman, wa4nvm - do a great job of tracking the finances of Delta Amateur Radio Club, but he's got a suggested info resource that may satisfy your desire for an interesting "DIY" tech project at bargain basement prices! Check out what's up with a money-saving Tin Can Waveguide WiFi Antenna build at URL

http://www.turnpoint.net/wireless/cantennahowto.html



MEMPHIS AREA VHF/UHF NETS

Name of Net	Freq. MHz	Tone	Local Time	Day of Week	
Delta Club Information Net	146.820	- (107.2)	8:00p	Daily	
Mid-South Barefooted Bullfrog Net	146.535		7:30p	Daily	
Secret Service Net	224.780		8:30p	Mon	
Elmer Net	444.175	+ (107.2)	9:00p	Mon	
The Short Winded Net	146.850	- (107.2)	8:30p	Tue	
MedMERS Net	146.820	- (107.2)	12:00p	Wed	
CERTPlus Net	443.200	+ (107.2)	8:30p	Wed	
ARES Training Net	146.880	- (107.2)	9:00p	Thu	
Super Sunday Niner Net	927.6125	- (146.2)	8:30p	Sun	

Delta Club sponsored Nets are shown in bold/dark blue font style

TENNESSEE HF NETS

Net Name	Freq. MHz	Local Time	Day of Week
T. C.W.N.	2.562	7.00	D '1
Tennessee CW Net	3.563	7:00p	Daily
Tennessee Slow CW Net	3.682	7:30p	Tue-Sun
Tennessee Early Morn Phone Net	3.980	5:40a	Mon-Fri
Tennessee Morning Phone Net	3.980	6:45a	Mon-Fri
Tennessee Evening Phone Net	3.980	6:30p	Tue-Sun
Tennessee Alternate Phone Net	7.238		As needed
CUSEC (Center for United States Earthquake Consortium)	3.810		As needed
CUSEC (Center for United States Earthquake Consortium)	7.180		As needed

DELTA CLUB ADVERTISEMENTS

See Advertisement Order Form for Instructions.



Mid-South Amateur Radio Supply Serving the Mid-South's Ham Radio Operators...

Locally Owned

Located in Bartlett, Tennessee tel 901.371.9700 fax 901.266.3174 SALES@MSARS.COM WWW.MSARS.COM

*Authorized LDG Dealer

Antennas (HF, UHF and VHF) -Base, HT, Mobile and Wire

Bulk Cable - Ladder Line 300 & 450 ohm and Rotor

Bulk Coax - RG-8U Mini, RG-58A/U and RG-213U

Connectors -UHF, SMA, BNC and 'N'

Full Line of Antenna Tuners*

Patch Cables, Antenna Wire and Insulators

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

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)	Ben Richhart Sales and Service Director Chick-fil-A at Paragon Place 6282 Poplar Avenue Memphis, TN 38119 Phone: 901-766-1875 Fax: 901-766-1878 E-mail: ben@cfaparagonplace.com
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	This ad 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, your camera ready ad, via email at dwebb1518@gmail.com
 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											
FU	FULL PAGE HALF PAGE			¹ / ₄ PAGE			BUSINESS CARD				
	## FULL PAGE ## HALF PAGE \$50.00		\$15.00 for 3 Months 3 ½" w X 4" h		\$10.00 for 3 Months 3 ½ " w X 2" h						
Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec