## DELTA AMATEUR RADIO CLUB

# **SPARKS**

P.O. Box 750482

Memphis, Tennessee 38175-0482

Volume 19

December 2013



## Welcome to the Delta Amateur Radio Club

Visit our home on the web at: http://www.deltaclub.org

## W4BS

REPEATER SYSTEM

146.820<sup>-107.2</sup> 147.360<sup>-107.2</sup> 224.420 443.200

#### **NEXT CLUB MEETING**

DATE: December 10, 2013 (2<sup>nd</sup> Tuesday of each month)

PLACE: Ellendale Church Of Christ, 7365 Highway 70

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

**TIME:** 7:00 PM

PROGRAM: "Christmas Pot Luck Dinner and Awards Presentations"

REMINDER: December is our annual Pot-Luck dinner meeting. Please remember to bring a covered dish. ALSO, remember, there will be NO TESTING IN DECEMBER.

For more VE testing information, please contact:

Bill Stevens, WC9S, VE Liaison Phone: 901-603-3448

Email: wc9s@att.net

Congratulations to Russell Stine III KJ4VGK and Jim Dailey KF5ZDK for earning their Technician license at the November 12<sup>th</sup> Delta Club test session. Congratulations also to Jim Sheets KJ4VGL for earning Technician and upgrading to General.

#### PRESIDENT'S CORNER

By: Rosalinda Melena WN2V

Happy December to all!

As we enter the holiday season, I look forward to the club's annual pot-luck December "eating meeting" and wrapping up my final year as club president. My three year term was, at times, challenging but overall a

great experience. I'm encouraged by the incoming president's enthusiasm and anticipate great things for the club.

During my term, I've been honored by the support of the club's members, educated by several great "Elmers" and humbled by the friendships I've made.

I don't have the words to express my appreciation to Richard Martin / K4DXF, Rick Tillman / WA4NVM, Tom Raggett / KJ4LMH, David Gilbert / AJ4LV and David Campbell / KD4NOQ...you-guys are the absolute best. Providing invaluable insight and keeping me informed was Bill Stevens / WC9S, our repeater trustee. No one could have done a better job. Dearest of all, my "OM", Steve / W5VAA, without his understanding I couldn't have done the three years without turning completely grey. "88s" to you all.

Finally, a heartfelt thank you for the opportunity to serve the club and the chance to meet so many area radio operators. Have a happy holiday season. Be blessed. Be safe!

TREASURER'S REPORT
Submitted By: Rick Tillman WA4NVM

Beginning Balance	as of November 1, 2013		\$7,049.39
	Expenses		
D. Gilbert	Meeting Treats		\$38.41
	November Prize		\$200.00
US Postal	2014 Delta Club box		\$128.00
		Total Expense	\$366.41
		SubTotal	\$6,682.98
	Income		
Membership Dues	Year 2013		\$7.50
Membership Dues	Year 2014		\$250.00
Tickets	November Drawing		\$650.00
Patch			\$5.00
		Total Income	\$912.50

Ending Balance	as of November 30, 201	3 \$7,595.48
		Submitted by Rick Tillman WA4NVM
Certificate of Deposit #1	Balance	\$10,188.10
Certificate of Deposit #2	Balance	\$5,000.00
Total DARC Assets	Balance	\$22,783.58

#### **BOARD MEETING MINUTES**

November 5, 2013 - Presented by: Tom Raggett KJ4LMH Secretary

- 1. Present-- Steve Smith, Rosalinda Melena, David Gilbert, Bill Stevens, Joe Lowenthal, Tom Raggett, David Campbell, Richard Martin, Rick Tillman
- 2. Election—Ballots will be distributed to the members as they sign in. It was noted that only paid and lifetime members will be allowed to vote.
- 3. Jackets—Information is being gathered for the President's and club member jackets.
- 4. "For Sale" page on the website—It was decided by the full Board that the page will be deleted.
- 5. Prize drawing—It was discussed about how to handle the drawing during the November meeting.
- 6. Programs—David Campbell is working on programs for January and February. Did not have the programs booked at the time of the Board meeting.
- 7. Training—Tech class just started and is being taught at the EMHC ambulance headquarters. New Tech class will begin on January 6 at the Baptist Women's Hospital. Many thanks to Tom Fox for creating an instructor manual to be used for the Extra classes.
- 8. Net Control Duties—Mike McLoughlin presented a proposal detailing the duties of the nightly net control operators. The proposal was deferred and no definite time frame for completion.
- 9. Repeater—Bill Stevens reported that he had corrected the information on the SERA website regarding the DARC repeater W4BS. Bill also reported that the repeater license expired on November 2, and he had renewed it. There was a request to use our repeater name for a contest not related to our club. It was determined that our repeater belongs to the club and is a club call sign. Since the contest was not a club event, it was voted to deny the request. Bill Stevens will communicate to the individual.
- 10. Youth Villages Marathon—Bill Stevens asked if the club would be interested in providing the communications for the marathon to be held on March 2, 2014. Bill will continue to gather information and report to the Board at a later date.
- 11. Surplus Equipment—The club received an email regarding some surplus equipment for sale. Bill Stevens will investigate further and communicate how the club will handle the equipment.
- 12. Meeting adjourned

#### GENERAL CLUB MEETING MINUTES

December 12, 2013 - Presented by: Tom Raggett KJ4LMH

- 1. Present Rosalinda Melena called the meeting to order and introductions were held.
- 2. Minutes of meetings—Proposal to accept minutes as published in SPARKS. Ham Hilliard made motion to accept, Jim Cissell seconded. Motion passed.
- 3. Treasury Report—Proposal to accept Treasury Report with one change. The request was to show the additional CD that we have on file. The report was approved as amended. Ham Hilliard made motion to accept, Bill Covington seconded.
- 4. Testing—Bill Stevens reported 2 new Techs and 2 new Generals. Bill made announcement that the club has some surplus fire extinguishers that are available for a \$30 donation to Cert Plus.
- 5. Training—Tech class is in progress with 20 students. New Tech class planned for January.
- 6. Elections—There were no write-in candidates. Ham Hilliard made the motion to accept the list of officer candidates by acclamation, Steve Smith seconded. Motion passed.
- 7. St. Jude Marathon—Still looking for volunteers. At least 2 more are needed. Contact Roger, WR4R.
- 8. Drawing for Prizes—Everyone enjoyed drawing.
- 9. Adjourn—Ham Hilliard made motion to adjourn, Bill Covington seconded.

#### AMATEUR PACKET UPDATE

By: James Butler - KB4LJV

Many new projects that we develop use microprocessors in their design. They have become cheap and they are easier to program. Two of the most popular Microprocessors are the Arduino series and the Picaxe microprocessors. The ARRL has printed a new book about using these processors for ham radio projects. The book called "Ham Radio for Arduino and Picaxe" shows how to program these chips for lots of ham radio projects. The Picaxe chips are as cheap as \$3.00 and the Arduino complete boards are less than \$20.00. These microprocessors are easy to program and design. The ARRL book makes a nice addition to your technical book collection. Check it out on the ARRL bookstore at <a href="http://www.arrl.org/">http://www.arrl.org/</a>

#### AMATEUR HARDWARE UPDATE

By: James Butler - KB4LJV

Many times we run our equipment on batteries. The problem we have is as the battery is used its voltage will drop. Some radios do not like to run on this lower voltage and will quit working properly or just shut down. With today's technology using the LM2577 integrated circuit we can buy a complete step up DC-DC up-converter on a pc board. These are made in China and are available on Ebay. The board has a connection

for input voltage and output voltage. An on-board variable resistor sets the output voltage to be maintained. I set mine to 13.2 volts and used a female cigarette lighter plug to connect to radios. Now with any input from 3 to 13 volts DC the output stays at 13.2 volts with 1 percent regulation. The switching up-converter is 92 percent efficient and can handle up to 3 amps if you use a heat sink. I mounted mine in a surplus case with digital meter and a switch to select input and output voltage levels to monitor. The circuit works great and is very cheap to buy. I got my up-converter for \$2.35 with free shipping. Check Ebay for availability and pricing. Do a search for "LM2577 step up power converter".



#### 2013 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 2013 from Delta Classes

42 Technician 27 General 7 Extra

New to the Basic Electronics Class is information on a Google website created by Alan Proffitt AE5RX.

#### **CLASSES IN PROGRESS**

Tech Class 5-13 – November 4 – December 9, 2013

Tech Class 5-13 is being held on 6 Monday nights from 6:15-9:30pm from November 4<sup>th</sup> through December 9<sup>th</sup> at EMHC ambulance services' office at 6972 Appling Farms Parkway Suite 110, Memphis. Nineteen students attended the first class.

Joe Lowenthal WA4OVO and Pat Lane W4OQG are the instructors. Rick Tillman WA4NVM, Geoff Wilson KV4LE and Dan Lesley NE7JN are the Elmers in attendance.

The FCC exam was given on December 2<sup>nd</sup>. Eighteen students took their Technician and all 18 passed. Congratulations to Chris Byrd KK4VPR, Bill Flanigan KK4VPS, Steve Frazier KK4VPT, Ed Itkin KK4VPU, Kim Koratsky KK4VPV, Toby Long KK4VPW, Chuck McNab KK4VPX, Jack Moody KK4VPY, Dean Plessala KF5ZJH, Sue Plessala KF5ZJI, Michelle Rosamond KF5ZJJ, Todd Rosamond KF5ZJK, Mike Sparks KK4VPZ, Doug Spoerre KK4VQB, Jan Spoerre KK4VQA, Lindburgh Templeton KK4VQC, Rosemary Templeton KK4VQD, and Shawn Wolowicz KK4VQE. An additional congratulation goes to Jack Moody KK4VPY for earning his General Class license also.



Tech Class 5-13

Photo by Joe Lowenthal WA4OVO

Thanks to the WCARS VEC Team of Win Guin W2GLJ, Bill Stevens WC9S, Rick Tillman WA4NVM, Jeff Krause AJ4GY, Stacy Krause KJ4MDA, David Gilbert AJ4LV, and Joe Lowenthal WA4OVO.

The 6<sup>th</sup> night of class will be on Repeater Basics, Delta Club Net check-in, Echolink, D-STAR, HF, MARS, satellite contact and PSK31.

#### **CLASSES PLANNED**

#### General Class 1-14 – January 4 – February 15, 2014

A General class is in the planning stages if at least 10 Technicians sign up to take the class. It will be on 6 Saturdays starting January 4<sup>th</sup> through February 15<sup>th</sup> from 9am-1pm except January 25<sup>th</sup> (which is the Jackson MS hamfest). The location will be at EMHC ambulance offices' at 6972 Appling Farms Parkway Suite 110. If you are interested, send an email by December 15, 2013 to Joe Lowenthal at <u>wa4ovo@arrl.net</u> with General Class in the subject line and name, email address, and cellphone number in the text. See the Future Classes General Class below for the text to be used.

#### Extra Class 2-14 – February 22 – April 5, 2014

An Extra Class is in the planning stages if at least 6 Generals sign up to take the class on 6 Saturdays starting February 22nd from 9am-1pm to start late February if the General Class is held, or January 4<sup>th</sup> if there is no General class. The location will be at EMHC ambulance offices' at 6972 Appling Farms Parkway Suite 110. If you are interested, send an email to Joe Lowenthal at <a href="way4ovo@arrl.net">way4ovo@arrl.net</a> with Extra Class in the subject line and name, email address and cellphone number in the text. See the Future Classes Extra Class below for the text to be used.

#### **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@arrl.net 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 <a href="www.deltaclub.org">www.deltaclub.org</a> 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.

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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 questions and answer Technical Class License question pool. Barnes & Noble Booksellers may have this manual. You can purchase it online from <a href="www.msars.com">www.msars.com</a>, <a href="www.msars.com">www.arrl.org/catalog</a> or on 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 <a href="http://www.ncvec.org/page.php?id=356">http://www.ncvec.org/page.php?id=356</a>. Testing for this question pool started July 1, 2010.

Practice tests are highly recommended. The <a href="www.qrz.com">www.qrz.com</a> website is free. To access the sample tests, go to <a href="www.qrz.com">www.qrz.com</a>. From the QRZ home page click on RESOURCES in the blue band on the top right. Then click on 2010 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 396 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. The following are some other ham radio practice exam sites:

- o www.aa9pw.com
- o http://kb0mga.net/exams
- o <u>http://copaseticflow.blogspot.com/2010/06/technician-class-practice-test-gadget.html</u>
- o www.qrz.com
- o 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 <a href="wa4ovo@arrl.net">wa4ovo@arrl.net</a> with subject line "General Class." Or you can go to the Delta Club web page <a href="www.deltaclub.org">www.deltaclub.org</a>; 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 901-628-4318. A new question pool became effective July 1, 2011. The new textbook is *The ARRL General Class License Manual, Seventh Edition, item #8119, ISBN 978-0-87259-811-9*. 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**

Basic Electronics is geared toward bridging the gap between the General and Extra Class licenses. There will not be a Basic Electronics class in the classroom anymore since there is so much on the internet. However, Alan Proffitt AE5RX has created a Google website for basic electronics for the Delta Club with useful links. Click on <a href="https://sites.google.com/site/darcelectronics/my-forms">https://sites.google.com/site/darcelectronics/my-forms</a> and then click on syllabus.docx at the bottom of the list. Alan, alan.proffitt@comcast.net, will Elmer anyone who would like help or refer them to another

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Elmer. 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 <a href="http://jacquesricher.com/NEETS/">http://jacquesricher.com/NEETS/</a>.

#### **Extra Class**

If you are interested in an Extra Class, please pre-register by going to the Delta Club web page <a href="www.deltaclub.org">www.deltaclub.org</a>; 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 <a href="www4ovo@arrl.net">wa4ovo@arrl.net</a> or call at 901-628-4318. 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 4-13 – July 8 – August 12, 2013 General Class 3-13 – April 1 – May 6, 2013 Tech Class 4-11 Revisited Tech Class 2-13 – February 11 – March 18, 2013 Extra Class 1-13 – January 12 – February 23, 2013 Troop 225 Merit Badge Class – February 9, 2013

#### 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

#### 2013 BOARD OF DIRECTORS

President: Vice-President: Secretary:

Rosalinda Melena – WN2V Richard Martin – K4DXF Tom Raggett – KJ4LMH 901-921-4474 901-372-3722 901-517-0492

wntwov@gmail.com k4dxf@att.net kj4lmh@gmail.com

Treasurer: Director of Training: Director of Publications:

Rick Tillman – WA4NVM Joe Lowenthal – WA4OVO Kenneth Laseter – KI4AOH 901-268-7047 901-628-4318 901-853-0400

901-268-7047 901-628-4318 901-853-0400 wa4nvm@comcast.net wa4ovo@yahoo.com kmlaseter@laseterinc.com

Director of Programs: Director of Meetings & Special Events:

David Campbell – KD4NOQ David Gilbert – AJ4LV

David Campbell – KD4NOQ David Gilbert – AJ4LV 901-388-6166 aj4lv@hotmail.com kd4nog@arrl.net

Delta Amateur Radio Club

December 2013 Sparks

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## **PUBLIC SERVICE EVENTS --- 2013/2014**

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  $\underline{kmlaseter@laseterinc.com}$ .

DATE	EVENT	COORDINATOR	CONTACT INFO.
January 2014 19 <sup>th</sup>	Swamp Stompers.	Danny– KJ4FXZ	kj4fxz@arrl.net
February 201 8 <sup>th</sup>	14 Boy Scout Merit Badge University.	Ken – KI4AOH	kmlaseter@laseterinc.com
<b>April 2014 26</b> <sup>th</sup>	March for Babies (March of Dimes).	Linda – KJ4CTX	<u>llaseter@laseterinc.com</u>
26 <sup>th</sup>	Tour de Cure	Denise – KJ5DG	kj5dg.denise@gmail.com
<b>May 2013</b> 19 <sup>th</sup>	Memphis in May Triathlon.	Ned - KA4BLL	ka4bll@arrl.net
September 20 7 <sup>th</sup> and 8 <sup>th</sup>	MS 150 Bike Ride	Darrell - KK4D	kk4d@xipline.com
<b>December 20</b> 7 <sup>Th</sup>	13 St. Jude Marathon	Roger – WR4R	wr4r@bellsouth.net

## MEMPHIS AREA VHF/UHF NETS

Net Name	Freq. MHz	<b>Local Time</b>	Day	
Mid-South Barefooted Bullfrog net	146.	535	7:30p	Daily
<b>Delta Club Traffic and Information No</b>	et 146.	820 - (107.2)	8:00p	Daily
Secret Service Net	224.	780 -	8:30p	M
Elmer Net	147.0	30 + (107.2)	9:00p	M
The Short Winded Net	146.8	350 -	8:30p	Tu
MedMERS Net	146.7	'30 - (107.2)	12:00p	W
Six Meter Tech Net	53.0	1 -	8:30p	$\mathbf{W}$
The 440 Net	443.2	200 + (107.2)	9:00p	$\mathbf{W}$
Collierville CERT Net	444.1	25 + (107.2)	7:00p	W
TAC 2 Net	224.4	20 -	8:30p	Th
ARES Training Net	146.8	880 - (107.2)	9:00p	Th

## TENNESSEE HF NETS

Net Name	Freq. MHz	<b>Local Time</b>	Day	
T. CWAY		2.562	7.00	D '1
Tennessee CW Net		3.563	7:00p	Daily
Tennessee Slow CW Net		3.682	7:30p	T-Su
Tennessee Early Morn Phone Net		3.980	5:40a	M-F
Tennessee Morning Phone Net		3.980	6:45a	M-F
Tennessee Evening Phone Net		3.980	6:30p	T-Su
CUSEC (Center for United States Earthquake	e Consortium)	3.810	As needed	
CUSEC (Center for United States Earthquake	e Consortium)	7.180	As needed	

## DELTA CLUB 146.82 NET PREAMBLE (Rev. 2)

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 pleases 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 Tom, KJ4LMH at 517-0492. For training information contact Joe WA4OVO at 628-4318.
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 CLOSEDCLEAR

#### **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)  $\overset{\mathbf{S}_{avage}}{\overset{\mathbf{Ile}}{C}_{ompany}}$ 

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#### ADVERTISEMENT ORDER FORM

	Delta Amateur Sparks Advertisii		
			Date:
		Name:	
Call Sign:	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											
FULL PAGE		H	ALF PAC	ЭE	1/4 PAGE		BUSINESS CARD		ARD		
\$50.00 for 3 Months 7" w X 8 ½" h				<b>\$25.00</b> or 3 Monti or W X 4"			\$15.00 or 3 Mont 2" w X 4			\$10.00 or 3 Mont 2" w X 2	
Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2013	2013	2013	2013	2013	2013	2014	2014	2014	2014	2014	2014



## **DELTA AMATEUR RADIO CLUB**

P.O. Box 3428, TN 38184-2 768





Call sign	License Exp. D	ate/	/	_ New Member	·R	Renewal
License Class (Check One	e)NOV	TECH	TECH +	GEN	ADV _	EXTRA
Last Name	First N	lame		ARRL M	ember	Yes No
Address	· · · · · · · · · · · · · · · · · · ·	······································		Birthday-N	Month	Day
City			State	Zip+4	·	+
Area Code	_ Home Phone		E	Email		
	This me	mbership cur	rent through	December 201	3	
This membership	current through Dec	cember 2014				
	DIVIDUAL MEMBE OR FAMILY MEMB	ERSHIP ADD	0)* _ (\$5.00) _ ATION _ TOTAL _	\$ \$ \$ \$		
* Individual dues will be <b>p</b> (-100% (\$30.00), April to J(\$7.50).			• \	,,		,
Family membership is five or unlicensed family memb					udes any	immediate licensed
Please provide family men	nber information be	low <b>ONLY</b> if yo	ou are applying	g for a family m	embershi	p.
Name (First, Middle, I	_ast) Call sign	(if licensed)	Lic. Class	Lic. Exp. Da	ate	Birthdate: (Mo/Day
1						
2						
3						
4	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
	CLUB USE ONL	Y, PLEASE D	O NOT WRI	TE BELOW 1	THIS LIN	NE
***** ***********		**** *******	******	*****	*****	******
PROCESSED BY SECF	RETARY				DATE _	
PROCESSED BY TREA						
PROCESSED BY DISTI						