

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 23 * February 2017



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>

Newsletters: <http://www.deltaclub.org/sparks.html>

W4BS

REPEATER SYSTEM

146.820^{-107.2} 147.360^{+107.2}

146.625^{-107.2} 443.200^{+107.2}

224.420^{-107.2}

144.390 Digipeater

This month's meeting begins at 7pm on February 14, 2017, 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 Tom Dichiara, AC5MR. Tom will tell us about HF mobile installations, including vehicle considerations, location of the radio, the pros and cons of types and locations of the antenna, and grounding and bonding of the vehicle. He will also discuss different matching techniques, wiring considerations, and other installation subjects. Tom is a Mississippi State University graduate with a BS in Physical Fitness Management. He earned the Technician license in 1995 and worked up to the Extra Class license in 1997. He was trustee for the KD5GVU repeater in Starkville, MS, for 10 years and was President or Vice President of the Starkville Club during that period. He worked to retirement as a Rural Carrier for the USPS for 26 years.

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 CSEs, 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 2017 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 email our VE Liaison, Jeff Krause, AJ4GY, or call at 901-301-6776.

Congratulations to those who passed exams during Delta's January, 2017, test session: new Technician Michele Zapf, KN4ACJ, and new General John Cunningham, W4MBF.

President's Corner

Submitted by Ken Laseter, KI4AOH

Ken's column is not yet available. Please check back later for an update.

Treasurer's Report

Submitted by Linda Laseter, KJ4CTX

DELTA AMATEUR RADIO CLUB

Monthly Treasurer's Report

For month ended January 31, 2017

Submitted by Linda Laseter KJ4CTX Treasurer

CHECKING ACCOUNT

BEGINNING BALANCE

BEGINNING BALANCE as of January 1, 2017	\$	<u>4,170.27</u>
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INCOME

Date	Description	Amount	
01/10/17	Membership dues 2017	\$ 110.00	
01/13/17	Griffin equipment sales	\$ 1,136.00	
01/13/17	DARC patches	\$ 60.00	
01/17/17	Membership dues 2017	\$ 150.00	
01/17/17	Membership dues 2017	\$ 540.00	
TOTAL INCOME		<u>\$ 1,996.00</u>	\$ 1,996.00

EXPENSES

Date	Check #	To	Description	Amount	
01/23/17	1405	Linda Laseter	Door prize - Jan	\$ (25.00)	
01/23/17	1406	Virginia Griffin	VOID	\$ -	
01/23/17	1407	Virginia Griffin	Equipment sales	\$ (932.80)	
TOTAL EXPENSES				<u>\$ (957.80)</u>	\$ (957.80)

ENDING BALANCE as of January 31, 2017	\$	<u>5,208.47</u>
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CERTIFICATES OF DEPOSIT

	Maturity Date	Balance as of	
Certificate of Deposit #1	10/10/2018	1/31/2017	\$ 10,437.72
Certificate of Deposit #2	10/19/2022	12/16/2016	\$ 10,000.00

TOTAL DARC CASH ASSETS	\$	<u><u>25,646.19</u></u>
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<p>Delta's 2017 Budget Submitted by Linda Laseter, KJ4CTX</p>
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DELTA AMATEUR RADIO CLUB
2017 PROPOSED BUDGET
Submitted by: Linda Laseter KJ4CTX Treasurer

PROJECTED DARC INCOME	2017 BUDGET
Donations (cash)	\$ 50.00
Consignment, Donated Gear	\$ -
Membership (Jan 1 thru Dec 31)	\$ 2,000.00
Club patches	\$ 10.00
Estate Sales	\$ 500.00
Advertisement	\$ 90.00
Huntsville Trip	\$ 2,500.00
TOTAL PROJECTED INCOME	\$ 5,150.00
PROJECTED DARC EXPENSES	2017 BUDGET
TN Annual Report	\$ (40.00)
Meeting Space (Donation)	\$ (200.00)
Training	\$ (250.00)
Meeting Refreshments	\$ (500.00)
Food - December Meeting	\$ (100.00)
Door Prizes	\$ (500.00)
P.O. Box - Annual rental	\$ (140.00)
Liability insurance	\$ (200.00)
Equipment Insurance	\$ (200.00)
Repeater Systems Upgrades	\$ (1,000.00)
SouthEastern Repeater Assn.	\$ (35.00)
Field Day	\$ (250.00)
DARC Board Discretionary Fund (awards, repeater upgrade, supplies etc.)	\$ (2,000.00)
Huntsville Trip	\$ (2,500.00)
Free Fest Donation	\$ (200.00)
PROJECTED TOTAL EXPENSES	\$ (8,115.00)
2017 Projected Net Operating Results (Income - Expenses)	\$ (2,965.00)
Checking Account Balance as 1/01/17	\$ 4,170.27
2017 Projected Net Operating Results (Income - Expenses)	\$ (2,965.00)
Projected Checking Account Balance as if 12/31/2017	\$ 1,205.27
Certificate of Deposit #1	\$ 10,405.23
Certificate of Deposit #2	\$ 10,000.00
PROJECTED DARC END OF YEAR ASSETS	\$ 21,610.50

This Month's Board Meeting Minutes

February 7, 2017 -- Submitted by Barri Munday, WB4SWP

Attendees: Bill Stevens, WC9S, Steve Frazier, KK4VPT, Dan Lasley, NE7JN, Ken Laseter, KI4AOH, Linda Laseter, KJ4CTX, Joe Lowenthal, WA4OVO, Scott Adams, KM4PMU. Barri Munday, WB4SWP, and Len Grice, W4MKS. Kevin Zent, K4KLZ, was absent.

Ken called the meeting to order at 7pm.

Linda opened with the Treasurer's report

Dan suggested if we take pictures of minor children for the newsletter, we should have the permission of the parents and a signed release.

Barri noted the Swamp Stompers event on January 15th was a great success.

Len announced that all new members and 2016 members who paid their 2017 dues have received their membership cards through email.

Joe told us the Extra class going on now is coming to an end. A Tech class is to begin on February 25th at EMHC ambulance company, although the venue is subject to change. Joe was given 10 Chick-fil-A cards as door prizes for the club. He also announced that he is checking on a bus for the August trip to the Huntsville hamfest. Joe is contemplating another Tech class in July or August before the trip to Huntsville.

Joe would like to nominate Austin Onek, KG4GKE, for PIO of the year through the ARRL due to his many communications about ham radio activities. Joe mentioned a Storm Spotter class at Lord of Life Lutheran Church on March 23rd at 7pm. The address is 6865 Poplar Pike, Memphis, TN 38117.

Scott discussed the all-important snacks for upcoming club meetings.

Bill reminded us about the Swap Meet on March 18th at the Delta Club meeting location from 9am-1pm and said we will serve coffee and donuts.

Minutes of Last Month's Club Meeting

January 10, 2017 – Submitted by Barri Munday, WB4SWP

Delta Club President Ken Laseter, KI4AOH, called the meeting to order at 7:00 pm and asked everyone to introduce themselves by name and call sign.

Certificates were awarded to those who missed December's meeting.

Joe Lowenthal, WA4OVO, announced an Extra class now in progress began last Saturday and will continue for six weeks. Eight students are in the class presently; they are meeting at EMHC ambulance company. There will be a Tech class scheduled for February 25th. Joe wants a minimum of 10 in the class, which will also meet at EMHC ambulance. Certificates were awarded to those who missed December's meeting.

Joe Lowenthal, WA4OVO, announced an Extra class now in progress began last Saturday and will go for 6 weeks. Eight students are in the class presently; they are meeting at EMHC ambulance. There will be a Tech class scheduled for February 25th. Joe wants a minimum of 10 in the class, which will also meet at EMHC ambulance company. There have been 651 ham licenses awarded under Joe's tutelage!

As a result of tonight's examinations, we have one new Technician and one new General. See page one for details.

Bill Stevens, WC9S, brought and set up the radio equipment up for sale on the tables around the room. The club has made \$800 on the Arkansas estate items.

Len Grice told us membership cards were mailed for anyone having paid 2017 club dues.

Ham Hilliard, W4GMM, moved to accept the meeting minutes as published in Sparks; seconded by Len Grice, W4MKS.

Ham Hilliard, W4GMM, moved to accept the Treasurer's report as published in Sparks; seconded by Ned Savage, KA4BLL.

The club's budget will be published in the next issue of Sparks.

Keith Barton, KT4EP, reminded us of the Swamp Stompers event on January 15th at Meeman Shelby Forest State Park. Volunteers are to meet at the store for breakfast at 6:30 am.

Kevin Zent, K4KLZ, put on a very impressive program.

Ham Hilliard moved to adjourn at 8:30 pm; second not recorded.

Last Month's Program

Submitted by Dan Lasley, NE7JN, contributions by Kevin Zent, K4KLZ

Delta's newly elected Director of Programs, Kevin Zent, K4KLZ, presented the first program of 2017.



Photo by Dan Lasley, NE7JN

Kevin grew up on a farm near Wolf Lake, IN, and from an early age discovered he enjoyed working on mechanical things such as tractors, farm machinery, motorcycles, and cars.

He joined the U.S. Navy in November, 1975, and trained as an aircraft Structural Mechanic specializing in hydraulics. His first shipboard posting was to the aircraft carrier USS Midway, which is now a [museum ship](#) docked in San Diego, CA.

On Kevin's first day onboard the USS Midway, a weak catapult launch resulted in the loss of an A7 Corsair and its pilot. *Freedom is **not** free!*

In 1979 Kevin transferred to the Naval Air Station in Millington, TN, and trained as an Anti-Submarine Warfare Technician. Another transfer took him to the USS Constellation based at NAS North Island, San Diego, CA.

Kevin designed, built and implemented the first acoustic data test set and established "one of the best organized work centers on the west coast," for which he received the Navy Achievement Medal in 1987.

After leaving the Navy in 1989, Kevin held a number of positions around the U.S. before returning to the Millington area.



Photo by Kevin Zent, K4KLZ

Kevin joined the ham community in December, 2015, by passing the Technician and General exams in the same testing session. As Delta's Director of Programs, Kevin is soliciting volunteers who would like to present a program. If you are interested, please contact [Kevin](#).

Thanks, Kevin, for an interesting presentation!

Amateur Hardware Update

Article and image submitted by James Butler, KB4LJV



Many times we build a circuit to signal us with an alarm. Small PC mounted buzzers are easy to use and work for lots of applications. The two types of buzzers are passive and active. The passive buzzer means you hook up power, but also have to hook up an off-on signal, usually from a computer to determine the frequency that it buzzes at. The active buzzer is easy in that you hook up power and it buzzes at a preset frequency. With the active buzzer and a battery you can have a cheap Morse code practice oscillator. Both types of buzzers are now in Ebay for under a dollar including shipping. These are great to experiment with on your projects. Do an Ebay search for "arduino buzzer" to see all styles.

Amateur Packet Update

Submitted by James Butler, KB4LJV

Many times we look for a way to supply power in emergencies. One technology that has improved is batteries. Small deep cycle lead acid batteries will work, but have acid that can spill and the batteries are heavy. AGM gel cell batteries will not spill, but are still heavy to move around. The newest technology is Lithium Ion Phosphate. These batteries store a lot of energy, offer high current, have long shelf life and are lightweight. One company that sells these is Bioenno Power. They have a large selection of different size batteries using this new technology. However, they are a little pricey. Joe, WA4OVO, bought one and says they are great. If you are looking for maximum power and minimum weight check these batteries out. Their web address is <https://www.bioennopower.com/>

HQ 101

Submitted by Dan Lasley, NE7JN

Jim Cissell, KI4I, "packed the house" for January's HQ-101 session! We had more attendees for this session than for any session since HQ-101 began in May of last year. Jim presented a hands-on introduction to CW and demonstrated to the group that they can hear the sounds of a letter, then copy the letter on a Morse code key without counting individual dits and dahs. The ability to recognize individual letters without counting dits and dahs is called "head copy" and is a skill all of us CW neophytes should master.

The HQ-101 session ended before everyone had a chance to practice copying and sending a few letters, so the group asked Jim to come back to February's HQ-101 session. Jim has graciously agreed to meet with us in our next session. Thanks, Jim, for Elmering us!



(Seated, L-R), Bob Van Keuren, KM4SEB, Jim Cissell, KI4I, Marc Stackhouse (signed up for the next Technician class), (standing, L-R), Glen Ellis, KK4LPG, Janice Shaner, KM4HZY, Linda Laseter, KJ4CTX, Richard Martin, K4DXF, Travis Gordon, KJ4PCC, and Jim Barnes, N4VOK. Not shown: Ken Laseter, KI4AOH. Photo by Dan Lasley, NE7JN.

In the above photo, Glen, KK4LPG, is a very accomplished QRP CW operator who holds a 1,000 miles per watt certificate. Travis, KJ4PCC, is relatively new to CW. At the risk of using a cliché, Travis hit the ground running; he famously began sending CW without having first learned all the letters! Travis, you are braver than I am, amigo!

Jim says Travis has mastered the letters, numbers, and pro signs (special characters such as period, question mark, etc.) and is up to about 15 words per minute. Thanks to Glen and Travis for their support of HQ-101 and we hope they can join us again in February.

Anyone who missed January's HQ-101 session is invited to the February session. It will be a continuation of January's HQ-101 and Jim will introduce A through E in Morse code.

Results of the 2017 Swamp Stompers Event

Submitted by Dan Lasley, NE7JN, contribution by Keith Barton, KT4EP

On Sunday, January 15, eleven hams met for a 6:30am breakfast at the [Shelby Forest General Store](#), then moved to their positions in Shelby Forest in preparation for the beginning of the race at 7:30am.



Pictured are (L-R) Sean Hailey, KM4CFN, Keith Barton, KT4EP, Dan Lasley, NE7JN, Steve Frazier, KK4VPT, Joe Wray, WD4GXI, Joe Lowenthal, WA4OVO, Ken Laseter, KI4AOH, Scott Adams, KM4PMU, Art Barnett, WA4PSS, and Miguel Martinez, KM4VQT. Roger Schlichter, WR4R, was elsewhere. Tom Dichiarra, AC5MR, couldn't make the breakfast but he and Roger participated in the event. Photo by Kristin Ammons.

Net control was at Poplar Tree Lake in the Ranger's station. Hams manned the Woodland Shelter, Red Loop, and Turnaround aid stations. Other hams, including event ramrod Keith, KT4EP, moved around to check on event status, deliver supplies, and related activities.

50K runners leaving the starting line. Notice the foggy conditions.



Photo by Dan Lasley, NE7JN



Runners arriving at the Woodland Shelter aid station.

Photo by Keith Barton, KT4EP



The Turnaround aid station enveloped in fog.

Photo by Keith Barton, KT4EP



In a pre-event email, race organizer Jim Holland said, "I expect the course to be muddy." Jim was right! I didn't see any runners who escaped lots of caked-on mud!

Photo by Keith Barton, KT4EP



Here is the 2017 Swamp Stompers' medal.

We thank Jim Holland for providing breakfast and lunch for the ham volunteers and for doing another great job of organizing the event; Keith Barton, KT4EP, for doing an excellent job of ramrodding the ham volunteers; Kristin Ammons for cooking another wonderful breakfast at the [Shelby Forest General Store](#); and Delta's Board of Directors and Repeater Trustee for the use of the 146.82 repeater during the event.

And, of course, thanks to the ham volunteers themselves.

Photo by Dan Lasley, NE7JN

Delta Ham License Training, 2016-2017

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 in 2017 from Delta Classes

0 Technician
0 General
0 Extra

If you are interested in attending a training class, send an email to [Joe Lowenthal](mailto:Joe.Lowenthal@delta-radio.org) with the desired class name in the subject line, along with your name, email address and cell phone number in the text.

The new [Technician question pool](#) is effective July 1, 2014, through June 30, 2018. You will need the [ARRL Ham Radio License Manual 3rd Edition](#) to study for the Technician exam.

The new [General question pool](#) is effective July 1, 2015, through June 30, 2019. You will need the [ARRL General Class License Manual 8th Edition](#) to study for the General exam.

The new [Extra question pool](#) is effective July 1, 2016, through June 30, 2020. You will need the [ARRL Extra Class License Manual 11th Edition](#) to study for the Extra exam.

2016 in Review

The past year was another good year for ham radio. There were 17 Technician, 17 General and 5 Extra Class licenses earned. We have to thank the instructors and Elmers for their time and talents: Joe WA4OVO, Ed KV4LF, Dean N2LAZ, Pat W4OQG, Paul KA9VAU, Jack KW4RH, Mike KW4RI, Len W4MKS, Michael KK4IOH, Bob KW4RJ, Tom N4LIA, Adrian N4EMO, Rick KJ4NWQ, Rick WA4NVM, and Keith KT4EP.

We must thank the VE team members who provided an opportunity for FCC testing: Jeff AJ4GY, Joe WA4OVO, Tom AC5MR, Ray AE0AE, Scott N2WMD, David KV4QI, Ken KI4AOH, Rosalinda WN2V, Steve W5VAA, Gary W5EMA, Ham W4GMM, Linda KJ4CTX, Bill WC9S, Tom KK4ZZZ, and Stacy KJ4MDA.

A thank you also to EMHC ambulance company and Germantown Police Department Training Division for their support in these classes by providing the class rooms.



Certificate of Appreciation for EMHC presented to O'Neal Ellis, EMHC Executive Director of Operations, by Joe Lowenthal, WA4OVO, Delta Club Director of Training with Clay Butts, EMHC Director of Education (left), and Joseph Chiarella, EMHC President.



Certificate of Appreciation for Germantown Police Department presented to Lt. Rob Jones by Joe, WA4OVO.

Current Classes

Extra Class 1-17: January 7, 2017, to February 18, 2017

Extra Class 1-17 is being held on six Saturdays from 9am to 1pm at EMHC ambulance company training room, 6872 Appling Farms Parkway from January 7th to February 18th. There was no class on January 28th due to the Jackson, MS, hamfest. There are seven enthusiastic students in the class: Scott Adams KM4PMU, Scott Butcher KM5SWO, Steve Frazier KK4VPT, Wyman Griffin KK4CBH, Janice Shaner KM4HZY, Nathan Turner KJ4GZB, and Curt Warhurst KM4MRT. The instructors are Joe Lowenthal WA4OVO, Dean Honadle N2LAZ, Ed Arndt KV4LF, Paul Roberts KA9VAU, and Pat Lane W4OQG. The Delta Club VE team headed by Jeff Krause AJ4GY will provide the testing.



Extra Class 1-17. Photo by Joe Lowenthal, WA4OVO.

Planned Classes

Tech Class 2-17: February 25 -- April 15, 2017

Tech Class 2-17 is scheduled to be held on six Saturdays from 9am to 1pm at EMHC ambulance company training room, 6872 Appling Farms Parkway, from February 25th to April 15th except for March 11th and April 8th (FreeFest). As of February 4th there are ten students enrolled in the class. If you are interested in attending this class, email [Joe](mailto:Joe@deltaclub.org) with subject line "Technician Class" and include your name, email address and cellphone number in the text.

Women in Radio

Submitted by Linda Laseter, KJ4CTX

Editor's note: we are continuing a new column about women with significant accomplishments in the art and science of radio. Each article is written by a woman and most of the writers are hams. YLs, please contribute more articles!

As we honor YLs in ham radio this year we would be remiss if we did not include Clara Reger, W2RUF and W8KYR. She was one of those notable operators whose story is not only interesting but inspiring. She received her call sign in 1933 at thirty-five and would go on to have a lengthy career as an operator as well as managing disaster communications following WWII.

In the 1930s it was rare to hear a female voice on the other end of the radio and to Clara it was a special treat, a gift of kinship through the radio and so she created her signature salutation "33" which means "love sealed with friendship." For Clara's dedication to radio communications and her accomplishments, a poem was written to honor her. You can read the poem in its [entirety](#) on the Young Ladies Radio League website. Portions of that poem are as follows:

Clara thought it mighty funny
Whether it be Miss or Mrs.
To end a perfect QSO
By sending "love and Kisses."

There's no real definition
But its meaning is known well.
It's how a YL says good evening
To another friend YL.



Clara was also known for her exceptional Morse code skills; she had the ability to copy in excess of 50 words per minute. In 1961 she received the outstanding ham award in NYS and would later receive the Edison Award (an award for innovation and achievement) for teaching a fourteen-year-old boy to send code with his feet because he had no arms. In the 1970s she started a code class for amateurs and spent much of her life teaching others how to become operators. It was considered a strict honor to receive one of her "RUF and Ready Award Certificates."

Her legacy is carried on by the Radio Association of Western NY (RAWNY) when they honor her by sponsoring the "W2RUF & Ready" Code Proficiency tests in June each year. Students who copy at least one perfect minute at 7.5 wpm or more receive a beautiful four-color certificate showing the date and speed achieved.

The Radio Room of the USS Little Rock CLG-4 (a retired U.S. Navy Guided Missile Light Cruiser berthed for public viewing in Buffalo, NY) was dedicated in 2002 in honor of Clara Reger, W2RUF.

Clara's key fell silent in 1980, but she will always be remembered by her many students and friends. We bid you "33" Clara Reger, a true YL pioneer in ham radio.

Linda Laseter, KJ4CTX, earned a degree in accounting and her Master's in Business Administration and worked in the medical field as an Administrator/Accountant for twenty plus years before retiring and becoming involved in ham radio with her husband Ken, KI4AOH. She earned her Technician and General licenses in 2008 and her Extra Class in early 2009. She is a member of ARRL and is an FCC Volunteer Examiner for both ARRL and WCARS. 2017 will be her fifth year to serve as the ham Communication Coordinator for the Memphis March of Dimes' March for Babies event. She is also a volunteer for the Shelby County Medical Reserve Corp and volunteers for many of Delta Club's sponsored events such as the St. Jude Marathon. In 2016 she was responsible for reactivating the YL Net, the startup of Ham Questions 101, as well as the YL luncheons. She says, "I am mainly the coordinator of these events and without the generous help and support of the other hams who participate, the YL Net and Ham Questions 101 events would not be possible. And of course without the YLs who join in the fun each month at the luncheons there would not be a luncheon." She is also serving her second year as Delta Club's Treasurer. When she is not volunteering for a ham function she enjoys making baby quilts which she donates through her quilting group to Methodist Le Bonheur Germantown and to the Regional Medical Center Neonatal Units.

Google Email Delivery Problems

Submitted by Dan Lasley, NE7JN

Some folks have asked why their email notification for the January meeting and the related issue of Sparks never arrived. I looked into each report; all reports had one feature in common: they went to a gmail.com address. Some January emails directed to gmail.com simply disappeared, others bounced back with a failure notice.

I can neither tell you why gmail.com is failing nor can I fix gmail.com's problems for you. You will have to contact Google, report the problem, and demand that they fix their delivery problems. A single contact to Google will come to naught, but the pressure of hundreds or thousands of customers will eventually force Google into action.

Delta's club meeting and Sparks emails typically go out on the first Thursday of the month. If you haven't received your notice by the evening of the next day, let [me](#) know. Thanks for your patience with Google's problems and don't let them tell you their problems are the fault of some other link in the email chain!

Don't Miss the March Swap Meet!

Submitted by Dan Lasley, NE7JN

Delta Amateur Radio Club will host a swap meet on Saturday, March 18, from 9am to 1pm at the club's meeting place, Ellendale Church of Christ, 7365 Highway 70 Memphis, TN. The swap meet is open to all hams and to anyone with an interest in amateur radio. We will have tables available if you wish to bring items for sale or trade. Turnout is always good, so the earlier you can join us, the better your chances of taking home something of value.

Delta Club members and friends Steve Smith, W5VAA, Rosalinda Melena, WN2V, and Ham Hilliard, W4GMM, from [Mid-South Amateur Radio Supply](#) are planning to attend. They will help you with antennas and mounts, coax, connectors, LDG antenna tuners, accessories and more. See their advertisement near the end of the newsletter.

Bill Stevens, WC9S, will have on display the estate sale items shown on the next page.

Admission is free, the tables are free, the coffee and donuts are free, the camaraderie is priceless!

Estate Sales

Submitted by Dan Lasley, NE7JN, contributions by Bill Stevens, WC9S

Bill Stevens, WC9S, will have the listed equipment available at the February Delta Club meeting. If you have questions about any of the equipment, please give Bill a call at 901-603-3448. Bill says most prices have been reduced! Don't wait too long and miss out on something you want.

Griffen KC5E Estate	Price	Comments
Ameritron 811 H Amplifier	\$650.00	Still in production
Ameritron ARB - 704	\$45.00	Still in production
Ameritron ATP - 102 Tuning Pluser	\$60.00	Still in production
ASA Low Pass Filter	\$15.00	
Astatic Speaker	\$10.00	
Bencher Straight Key	\$120.00	Still in production
Daiwa CS-201 Antenna Switch	\$20.00	New
Heil FS-3 Foot Switch	\$25.00	Still in production
Hy-Gain AV-620 6 band Vertical Antenna	\$250.00	
Icom IC - V8 HT with Charger	\$25.00	Needs Battery
Kenwood 281	\$110.00	
Kenwood HS-5 Headset	\$50.00	Still in production
Kenwood Remote VFO-555	\$10.00	
Kenwood SP-31 Speaker	\$30.00	
Key Straight	\$20.00	
MFJ 1118 DC Outlet	\$60.00	Still in production
MFJ 113 Clock	\$10.00	Still in production
MFJ 862 Watt Meter	\$50.00	Still in production
MFJ 862 Watt Meter	\$50.00	Still in production
MFJ 989D Versa Tuner V	\$300.00	Still in production
Misc. Wires		
Radio Shack Speakers	\$10.00	
SEC 1235M Power Supply 30 amp	\$90.00	Still in production
Yaesu DX - 1200	\$750.00	Still in production
Yaesu FT - 1000MP with hand mic	\$750.00	
Yaesu FT 920 with hand mic	\$600.00	
Yaesu MD - 100 Table Mic	\$100.00	Still in production
Rye KG4TKY Estate REDUCED PRICES !		
Tentec Orion II HF transceiver #566	\$1,600.00	
Tentec Antenna Tuner #238b	\$280.00	
Tentec External Speaker #307	\$60.00	All for \$1800.00
Tentec Power Supply #963	\$65.00	
TenTec Encoder/Keypad #302	\$60.00	
TenTec Desk Mic. By Heil	\$80.00	

Raspberry Pi Update Submitted by Hugh Wardlaw, WB4SLI

If you are considering a Raspberry Pi, you may have another option. ASUS has unveiled its Raspberry Pi competitor called the Tinker Board. It supports 4k video and has some other features. One consideration is the maturity of the Pi of five years and many discussion and support boards. It is pricey compared to the Pi. The suggested price is \$68 versus \$35 for a Pi 3. Below is a chart that shows how the two devices stack up. Now, you have one more option. Some definitions may be in order. GPU – Graphics Processing Unit, SoC System on Chip, GPIO – General Purpose Input Output.

Specifications	ASUS Tinker Board	Raspberry Pi 3 (Model B)
Processor	Quad core 1.8GHz ARM Cortex-A17	Quad core 1.2GHZ ARM Cortex A53
GPU	ARM Mali-T764	Broadcom Video Core IV
SoC	Rockchip RK3288	Broadcom BCM2837
Memory	2GB Dual channel LPDDR3	1 GB LPDDR2-900 SDRAM
Ethernet	Gigabit LAN	10/100Mbit/s Ethernet
WIFI	Wi-Fi 802.11 b/g/n	Wi-Fi 802.11 n
Bluetooth	Bluetooth 4.0 + EDR connectivity	Bluetooth 4.1 Classic & Bluetooth Low Energy
USB	4x USB 2.0	4x USB 2.0
Internal header GPIO	1x 40-pin header with 28 GPIO pins	1x 40-pin header
Audio Playback	Supports up to 192k/24bit sample rate	Supports up to 48K/16bit sample rate
Audio jack connection	3.5mm Audio jack	3.5mm analogue audio-video jack
Camera Port	MPI – CSI port	Camera Serial Interface (CSI)
Display Port	MPI – DSI	HD resolution Display Serial Interface (DSI)
HDMI	1x HDMI 2.0 supports 4K resolution	1x HDMI 2.0 supports Full HD
Storage	Micro SD port supports UHS-I	MicroSD
OS Support	Linux – Debian OS with KODI	Linux – Debian and OSMC with KODI
Power Consumption	5 Watts	4 Watts (Max)
Power Port	Micro USB	Micro USB

Editor's note: Thanks to Hugh for another in a series of articles on the Raspberry Pi and related small computers. Hugh also presented the November, 2016, [program](#); he explained what the Raspberry Pi is and how he uses it for entertainment and for ham radio operations.

YL News

Submitted by Linda Laseter, KJ4CTX

YL NET – 2017 has started off with a bang! Stacy, KJ4MDA, called the first YL Net of 2017 and set a YL Net record with 16 check-ins and 2 relays. Great job, Stacy! A great big thank you to all the YLs and OMs who continue to support us. We really appreciate you.

We would like to welcome Michele, KN4ACJ, to the YL Net and congratulate her on receiving her license this month (January, 2017). She joined us on the YL Net the same week she received her license. Glad you joined us and I hope you will continue to check-in with us on Saturday nights at 8:45 p.m. on the 146.820 repeater.

Let's continue to make 2017 a great year for the YL Net! Please join us for the fun and the learning experience.

YL LUNCHEON – We had a fun day at Rafferty's. There was plenty of conversation and lots of good food. Some YLs had ribs and sweet potatoes, others soup and salad, and one YL ordered a sandwich that was so thick it had to be eaten layer by layer.

Gale, KI4VDI, won this month's door prize: two nice ceramic bowls for heating and serving chili, soup, oatmeal or whatever might warm the tummy this winter.

Our ham topic of the day: remember to provide your call sign after you have completed a communication or after every ten minutes of communication. It is not necessary to provide your call sign after every comment during a discussion, but you must provide your call sign after ten minutes of communication or when you have completed your communication.

Our February luncheon is as follows:

11:30 a.m.
Saturday, February 18, 2017
Sweet Peas
5824 Stage Road
Bartlett, TN 38134

Come join us for some good ole southern style cookin' and a day of YL friendship.

33,
[Linda Laseter](#), KJ4CTX

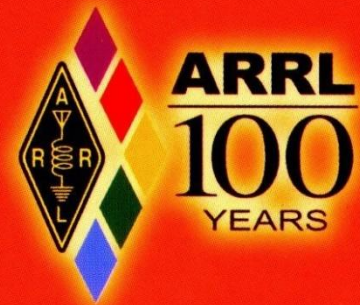
2014's W1AW/p event
Submitted by Dan Lasley, NE7JN

ARRL Centennial Station – March 19 – 25, 2014

W1AW/4



Ops: AC4G, AD4EB, AF4QB, AK4QU, K0EJ, K1GU, K3FH, K4AMQ, K4BP, K4DXV, K4DZR, K4EDI, K4IDK, K4LTA, K4OWR, K4RO, K4VIG, K4YRK, K5WHY, K5YS, KA4OTB, KB4JHU, KC8NNO, KD4VVC, KE4ETY, KF4LNX, KJ4BIX, KJ4TFU, KK4CGY, KK4IWN, KK4OVW, N1KI, N2BFD, N4BCD, N4DW, N4PL, N4UW, N4VV, N4ZZ, N8FF, N8UM, N9DGK, NA4C, NA4K, NI1Y, NM9U, NY4N, W4BCG, W4DTA, W4EEH, W4HZD, W4LWW, W4MSJ, W4NI, W4NZ, W4ODB, W4PV, W4TTM, W4UT, W4WRB, W8IFG, W9WI, WA4AA, WA4HFN, WA4NVM, WA4VGZ, WB4MDX, WB4YDL, WB4ZBI, WT4BT



Tennessee Week 1 – K1GU, Organizer – 35,940 QSOs

Recently the QSL bureau made their first delivery of QSL cards addressed to me. I received 64 cards, 60 of which were from the ARRL's W1AW/p one hundred year anniversary event held in 2014. As I was looking through the list of operators for the W1AW/4 activity in Tennessee, I discovered the call signs for Cathy Goodrich, Keith Miller, Damon Runion, and Rick Tillman.

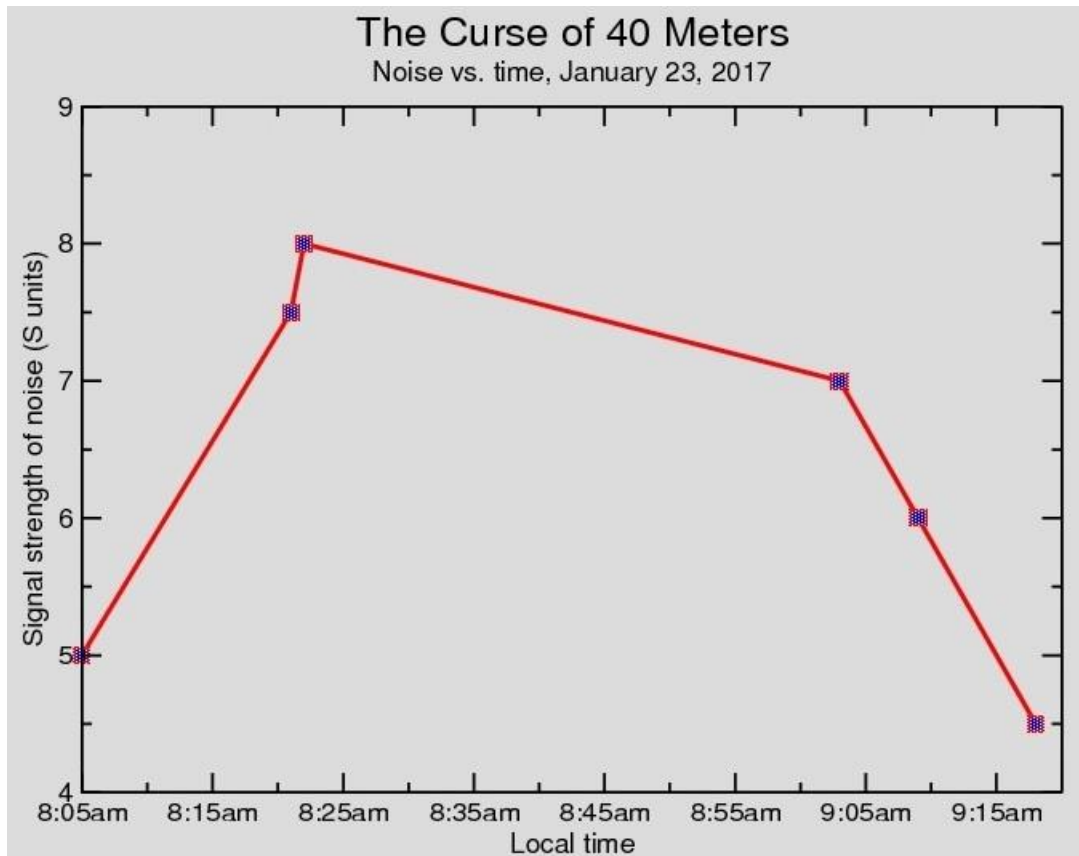
Ordinarily I take great pains to associate every ham's name with his or her call sign in Sparks. For once I'm going to make an exception! How many call signs of your friends and acquaintances can you find in this list?

Good luck and happy hunting!

HF Propagation, Part 5

Submitted by Dan Lasley, NE7JN

I've been on 40 meters nearly every morning for more than three years and I haven't yet figured out the source of various noises that are common across the band. The noise floor for my QTH is about S5 most mornings. Some mornings, however, the noise floor jumps rapidly to S7, S8, or even S9, stays at that level for some time, then gradually decays to a much lower figure. Here's a recent example on 7.203 MHz of the noise that I call "The Curse of 40 Meters":



In this example, the noise floor rose from S5 to S8 over a 15 minute period, slowly dropped to S7, then more rapidly dropped to S4.5 and bottomed out. In this particular instance, the S8 noise sounded just like the S5 noise but **louder**; there were no indications of any type of modulation.

In other parts of 40 meters you can find different types of noise. For example, around 7.154 MHz it's common to find noise that sounds as if someone were transmitting while holding a microphone out the window of a moving car. It's not obvious whether this noise has some kind of modulation, but this noise sounds significantly different from the noise source pictured above.

I'm guessing this noise is some weirdness in the ionosphere, but I'd be interested in [hearing](#) from anyone who has an opinion of the cause of "The Curse of 40 Meters." Stay tuned.

More 2016 Awards

Submission and photos by Dan Lasley, NE7JN

During the last meeting of the year, Delta recognizes club members who have made significant contributions to the club. Several members were not able to attend the December, 2016, meeting and so received awards at the January, 2017, meeting.



Ken Laseter, KI4AOH, presents the New Ham of the Year award to Len Grice, W4MKS, for his work as Delta's Public Information Officer and for his participation in club events. Len also received a Certificate of Appreciation in support of Amateur Radio training.



(L-R) Mike Sparks, KW4RI, receives a Certificate of Appreciation of his support of Amateur Radio training from Joe Lowenthal, WA4OVO.



David Campbell, KD4NOQ, Tom Butas, KM4AEM, and Kevin Zent, K4KLZ, receive certificates from Joe for their work as Net Control Operators on Delta's information net in 2016.

Odds-n-Ends

Submitted by Dan Lasley, NE7JN

Here's how to [rig any drone](#) to drop a line where you want it. This could be useful when setting up new wire antennas. Thanks to the ARRL Contest Update for January 11, 2017.

For folks who have a warm place in their hearts for vacuum tubes, check out this collection of about 8,400 pages of [vacuum tube data sheets](#)! (From Brad, AA1P, via QRP-L mailing list and the above mentioned ARRL Contest Update.)

Analog Devices has a [document](#) on the history of the op amp (operational amplifier); for those of you interested in WWII history, the document discusses the M9 gun director, the device which helped shoot down most of the V1s launched toward England in the waning days of the war.

Randy, K7AGE, shows how to [install Anderson powerpole connectors](#). K7AGE has been making ham radio videos for years and he's good at it! I watched the video and thoroughly enjoyed it.

The ARRL Letter for January 19, 2017, reports that "Radio amateurs in Nebraska will celebrate the state's 150th anniversary during the [Sesquicentennial Anniversary Celebration Week QSO Party](#), starting on Saturday, February 25, and continuing until Sunday, March 6." For those of you attempting WAS, this is an **excellent** opportunity to put some Nebraska QSOs in your logs and the event will confirm your QSO with a QSL card. I'm looking forward to this event; my only Nebraska confirmation is for 40 meters.

The ARRL Contest Update for January 25, 2017, has two items of interest. First, "when good coax goes bad, it's often due to water ingress. DX Engineering has published a [technical tip](#) showing how to use a combination of rubber splicing tape and vinyl tape to make weatherproof coax connectors."

Second, the Contest Update tells us about the availability of the fourth edition of the [Agilent Impedance Measurement Handbook](#).

Ira Flatow presents a [history of the transistor](#).

DX News

Submitted by Dan Lasley, NE7JN

This information is courtesy of the ARRL's DX news emails. *Lots of activity going on!*

NORWAY, LA. Special event stations LM80Q and LM80REX are QRV during all of 2017 to celebrate the birthdays of the Norwegian royal couple. Queen Sonja and King Harald V both turn 80 years old in 2017. QSL both calls via LA9VDA.

FINLAND, OH. During all of 2017, in celebration of the centenary of Finland's independence, Finnish radio amateurs are allowed to use the prefix OF in place of the usual OH. In addition, jubilee call sign OF100FI/portable district number will be activated by various Amateur Radio clubs throughout Finland. QSL via operators' instructions.

SLOVAK REPUBLIC, OM. Pavel, OM3CND will be QRV with special call OM685RADOLA during all of 2017 to mark the 685th anniversary of the town of Radol'a. QSL to home call.

DENMARK, OZ. During all of 2017 special event stations 5P90EDR, OV90EDR, OX90EDR, OZ90EDR, and OZ7D will be QRV to celebrate the founding of Eksperimenterende Danske Radioamatøere on August 15, 1927. Activity will be on the HF bands. Station OZ7D will be active using only JT-modes. QSL via operators' instructions.

SLOVENIA, S5. Members of the Radio Club Cerkno are QRV as S557E during all of 2017 to celebrate the club's 60th anniversary. QSL direct to S50A.

FEDERAL REPUBLIC OF GERMANY, DA. The DARC club from Herten is QRV during 2017 with special event call sign DK60HERTEN to celebrate its 60th anniversary. QSL via bureau.

HUNGARY, HA. Special event station HG17EYOF is QRV until August 31 to celebrate the European Youth Olympic Festival, an every-other-year event for youth athletes from 48 member countries, that is being held in Győr from July 23 to 29. QSL via operators' instructions.

CANADA, VE. Members of the Yukon Canam Contest Club are QRV with special event call sign XK150YUKON until March 1 to celebrate Canada's 150th state anniversary. QSL via KC1CWF.

MEXICO, XE. Members of the radio club Queretaro are QRV with special event call sign 6EOC until April 30 to commemorate the ratification of the Mexican Constitution 100 years ago. QSL via XE1EE.

SRI LANKA, 4S. Peter, DC0KK is QRV as 4S7KKG from Moragalla, IOTA AS-003, until April 1. Activity is on 20 to 10 meters using mainly CW with some digital modes. QSL to home call.

ANTARCTICA. Juan, LU4CJM is QRV as either LU1ZI or LU4CJM/Z from Carlini Base until the end of February. Activity is on 80, 40 and 20 meters. QSL via operator's instructions.

BULGARIA, LZ. Members from the Headquarters of the Thracian Rose Club are QRV as LZ73TRC during all of 2017. QSL via LZ1YE.

SOUTH SHETLAND ISLANDS. Members of the Peruano Radio Club of Peru are QRV as OA0MP from the Machu Picchu Antarctic Base on King George Island, IOTA AN-010, until March 31. Activity is mainly on 40 and 20 meters using SSB. QSL via OA4O.

MALTA, 9H. Special event station 9H2017EU is QRV until June 2017 to mark the 2017 Maltese European Union Presidency. QSL direct to 9H1SP.

GUADELOUPE, FG. Jean-Pierre, F6ITD is QRV as TO7D and FG/F6ITD from La Desirade Island, IOTA NA-102, until March 9. Activity is on 160 to 10 meters using CW, SSB and various digital modes. QSL to home call.

HONDURAS, HR. Jesse, KB2OBQ is QRV as KB2OBQ/HR1 from Tegucigalpa for the next few months. Activity is with QRP power on 40 and 20 meters. QSL via operator's instructions.

SLOVAK REPUBLIC, OM. Special event station OM42KYSUCE is QRV until the end of June 2017 during the context of the 42nd ARDF Kysuca Cup that will be held on June 16 to 18. QSL via OM3CND.

CANADA, VE. Members of the Eureka Amateur Radio Club station VY0ERC will be QRV from Eureka, Ellesmere Island, IOTA NA-008, beginning January 22 until early April 2017. Activity will be when conditions allow. QSL direct to MOOXO.

CAYMAN ISLANDS, ZF. Stan, K5GO will be QRV as ZF9CW from January 22 to February 23. Activity will be mainly on 160 meters, with a focus on the upcoming CQ World Wide 160 Meter CW and ARRL DX CW contests. QSL direct to home call.

MAURITANIA, 5T. Jean, ON8RA is QRV with the special call sign 5TOITU until December 31, and tentatively active during ITU events. Activity is on 80 to 10 meters using CW. QSL to home call.

FEDERAL REPUBLIC OF GERMANY, DA. Special event station DB20ENERGY is QRV until the end of 2017 to commemorate the 20th anniversary of the German company DB Energie. QSL via bureau.

CRETE, SV9. Keijo, OG55W and Raili, OH2NOD are QRV as SV9/OG55W and SV9/OH2NOD, respectively, from Rethymno, IOTA EU-015, until April 10. Activity is on the HF bands using CW, SSB and various digital modes. QSL via operators' instructions.

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, 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>.

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Board members beginning their positions in 2017 are listed in *italics*.

Public Service Events

If you are a coordinator for any of these events, please review the listed information. Please [email](#) corrections or additions.

2017 Date	Event	Contact Information
Jan. 15	Swamp Stompers 50K/25K Run	Keith Barton, KT4EP
May 6	March of Dimes March for Babies	Linda Laseter, KJ4CTX
TBD	Diabetes Tour de Cure	Pat Lane, W4OQG
Sep. TBD	2016 Bike MS: FedEx Rock-N-Roll	Darrell Sheffield, KK4D
Oct. TBD	Bluff City Blues 100 Ride	Danny Banks, KJ4FXZ
Dec. 2	St. Jude Marathon	Roger Schlichter, WR4R

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>

Other Notes of Possible Interest

Submitted by David Webb, KV4QI

It's Time to Renew Your 2017 Annual Memberships! Download the latest Delta Club [Membership Application Form](#). The 2017 membership renewal fee remains a very modest \$20 for an individual, with an additional \$5 fee for family membership. Thanks for Your Active Support of Delta Amateur Radio Club!

Memphis Area VHF/UHF Nets

Updated September, 2016

Name of Net	Freq. MHz	Tone	Local Time	Day of Week
Delta Club Information Net	146.820	- (107.2)	8:00p	Daily
YL Net	146.820	- (107.2)	8:45p	Sat
Mid-South Barefooted Bullfrog Net	146.535	[simplex]	7:30p	Daily
Secret Service Net	224.780	[no tone]	8:30p	Mon
Elmer Net	145.210	- (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 red.

TENNESSEE HF NETS

As of December, 2015

All times are Central Time

Net Name	Freq. MHz	Local Time	Day of Week
Tennessee CW Net	3.563	7:00p	Daily
Tennessee Slow CW Net	3.682	7:30p	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

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

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HF	Window Mount	BNC	450 & 300 Ohm
Wire	Swivel Ball	RCA	Rotor Cable

LDG Electronics	Accessories	Miscellaneous
Automatic Antenna Tuners	RF Chokes	Gordon West Books
Remote Tuners	Power Poles	Coax Seal
Brand Specific Antenna Tuners	Antenna Switches	Fuse Holders
Baluns	SWR/Power Meters	Remote Tuner Boxes
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W5VAA

Rosalinda
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W4GMM

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!

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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)



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

**Delta Amateur Radio Club
Sparks Advertising Order Form**

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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.

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Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	July 2017	Aug 2017	Sept 2017	Oct 2017	Nov 2017	Dec 2017