This month's meeting begins at 6:30 pm on December 10, 2019, at Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Highway 64 (Stage Road)).

Program:  Christmas Banquet!  Ham will be provided. Please bring side dishes and / or desserts.  Note the 6:30 TIME!

Delta Club FCC testing sessions are held monthly except December.  Registration begins at 5:30 PM; testing begins by 6:00 PM.  Please bring a photo ID and another form of identification, copies of existing licenses or CSCEs, and your FCC Registration Number (FRN) if one has been issued.  Please be on time for registration to allow our Volunteer Examiner (VE) team to complete their work prior to the club meeting.  The 2019 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 at AJ4GY@comcast.net or call at 901-301-6776.

NOTE:  Jeff is looking for a VE Liaison replacement.  If you are interested, please contact JEFF @ AJ4GY@comcast.net or 901-301-6776.

New and upgraded hams from the 11/12/19 VE test:
James Ham KN4ZES, Tech to General;  Floyd Yancey KN4ZLL, General to Extra;
Peter Gee KN4ZET, Tech to General
NO TESTING at the DECEMBER meeting.
December may be the end of the calendar year; but as we all know, it is also the beginning of the busy holiday season. With all the activities you have going on during December, I hope you are able to join us for the December pot luck dinner. The dinner will be Tues Dec.10 starting at 6:30pm instead of the usual 7pm start time. The club will provide baked ham (of course) and it is always interesting to see the wide variety of items that the members bring to share. Scott has said that he has plenty of sodas, so please refrain from bringing sodas.

We don't slow down in January. Our first event of the year will be providing communications for the Swamp Stomper 50k/25k. This year the event till be on SATURDAY Jan. 18, 2020. This is usually on Sunday, so don't be caught off guard. We usually use the 146.82 repeater for this and will be testing to see if this will still provide the required coverage if we are still using the current alternate location for the repeater. If needed we have other options available, so we should be able to provide support again this year.

We have already received several membership forms and dues for 2020 and we appreciate your support. While you are able to do so any time, this is a good time of the year for you to consider renewing your membership or joining as a new member.

Don't forget to check into the net that we have every night at 8pm on the 146.82 repeater. The only night we don't have the net is the 2nd Tuesday of the month and that is when we look forward to seeing you at the monthly meeting.

73
Steve Frazier
KK4VPT
Please RENEW your Delta membership right away, so you won’t forget about it! Download the new member or renewal form: https://img1.wsimg.com/blobby/go/58124ffd-d6ca-4502-9af3-7fa04c033729/downloads/application-15-3.pdf?ver=1574454355059

Membership for one is $20 or family is $25. You can fill out the form online and email to David Jackson KM4SEC. davidjkson@bellsouth.net
If you prefer you can print the form and bring the completed form, along with the membership fee to any meeting.

11/30/2019

Checking Account:
Beginning balance: $13,593.02
Deposits: 2
11/06/2019: $2,560.00 (equipment sales)
11/15/2019: $190.00 (2020 memberships):
Total: $2,750.00
Balance: $16,343.02
Checks: 2
11/19/2019: ($204.00) (2020 PO box rental)
11/29/2019: ($96.05) (deposit books)
Total: ($300.05)
Ending Balance: $16,042.97
Petty Cash: $50.00
CD-0028: interest rate: 1.590%. Maturity date: 10/19/2022. Balance: $10,447.03
CD-8041: interest rate: 2.230%. Maturity date: 01/14/2020. Balance: $10,905.83
December 3, 2019, submitted by Mary Jean Hall KN4FBL

Attendees: Steve Frazier KK4VPT, Bob Van Keuren KM4SEB, Mary Jean Hall KN4FBL, David Jackson KM4SEC, Joe Lowenthal WA4OVO, Bob Vawter KW4RJ, Ian Lucas KN4OEK, Scott Adams KM4PMU, Barry McDonald W5CJ and Len Grice W4MKS.
Absent: N/A

Steve F. called the meeting to order at 6:33 p.m. at the Ellendale Church of Christ.

David J. read the Treasurer’s Report. The board then discussed the proposed 2020 budget, as well as a few changes. The board discussed the certificate of deposit that is maturing in January. Given the recent 146.820 repeater issues, the board leaned towards not rolling the CD over yet, at least until those issues have been resolved. David will further research our options and let everyone know at the January meeting. The board unanimously approved the Treasurer’s Report.

Joe L. proposed donating a Lithium Iron Phosphate battery (approx. $200 value) to the Memphis FreeFest for Delta club’s contribution instead of $200 cash. The board discussed a few options to consider in lieu of the cash and will decide what to donate at a later meeting.

Barry M. informed the board about the progress of fixing the 146.820 repeater. For the time being, the repeater is currently located at Methodist North and the 147.360 repeater is shut down.

Ian L. informed everyone about possibilities for upcoming programs. The board members then discussed logistics for setting up the December potluck meeting.

Joe L. said that 11 students are in the current General Class. An Extra Class is planned to start January 4, 2020 and last through February 15. It will be offered every Saturday, 9 a.m. – 1 p.m., with the exception of January 25 and be offered at the Germantown Police Department Training Room. Five students have already signed up. The board then discussed possible options to expand training to other organizations and universities to help additional people get their amateur radio licenses.

The board discussed the review of memberships per the club’s bylaws.
Bob V. said that the Delta Club website has successfully been switched over to GoDaddy for the new server.

Ian L. made a motion to adjourn. Without objection, Steve F. adjourned the meeting at 8:02 p.m. The next Board of Directors meeting is scheduled for Tuesday, January 7, 2020 at 6:30 p.m. at Ellendale Church of Christ.
DARC Meeting Minutes for November 12, 2019

Call to Order and Opening Remarks
Club President Steve Frazier KK4VPT called the meeting to order at 6:59 p.m. at the Ellendale Church of Christ and welcomed everyone to the meeting. Everyone then introduced themselves by name and call sign. 49 members and two guests were present for the meeting.

Secretary’s and Treasurer’s Reports
Ham Hilliard W4GMM moved to approve the previous meeting’s minutes and the Treasurer’s Report as published in Sparks. Bill Covington KC4SXT rose to a Point of Order and said that the November Board of Directors minutes listed the date of “2020” for awards and not “2019.” Ham Hillard W4GMM then made the motion to approve the previous meeting’s minutes and the Treasurer’s Report as amended with the correction. Bill Covington KC4SXT seconded the motion. The minutes, as amended, and the Treasurer’s Report were unanimously approved by the club.

YL News
Linda Laseter KJ4CTX said that the YLs are sponsoring an 11-year-old boy through the Fayette County Carl Perkins Center for the Prevention of Child Abuse this year for Christmas. She told the club about the situation and encouraged the club members to donate in order to assist with purchasing toys, clothes and other supplies for the child and his family.

Training
Joe Lowenthal WA4OVO said that ten students are in the current General Class. An Extra Class is planned to start January 4, 2020 and last through February 15. It will be offered every Saturday, 9 a.m. – 1 p.m., with the exception of January 25 and be offered at the Germantown Police Department Training Room.

Repeater
Barry McDonald W5CJ informed the club about the progress of fixing the 146.820 repeater. For the time being, the repeater is currently located at Methodist North and the 147.360 repeater is shut down. According to Barry, the biggest advantage to having the 82 repeater 500 feet up in the air is also a disadvantage since we are limited with who has the ability to climb up to fix it. He will continue to work diligently on this issue and keep the club updated with the progress.
HAM 101
Ham Hilliard W4GMM said that Ham 101 will not meet in December due to the potluck. Ideas for the January Ham 101 can be emailed to him at W4GMM@bellsouth.net. Starting again in 2020, Ham 101 is at 5:30 p.m. before the Delta Amateur Radio Club meeting upstairs in the Ellendale Church of Christ Fellowship Hall.

VE Testing
Jeff Krause AJ4GY announced that there will not be VE testing before the December meeting due to the potluck. Joe Lowenthal WA4OVO said that there will be testing on December 19 at the Germantown Police Department Training Room as part of the current class. Anyone wishing to test at that time needs to email him at WA4OVO@gmail.com.

Announcements
Steve Frazier KK4VPT encouraged members to share any ideas for 2020 programs or HAM 101 with the board. Mary Jean Hall KN4FBL let everyone know that, as of the applications submitted through the previous month’s meeting, everyone should have their membership cards emailed. Anyone who doesn’t have the email should let her know (KN4FBL@gmail.com).

Joe Lowenthal WA4OVO recommended that the December potluck start at 6:30 p.m. instead of 7 p.m. With no objection, the December meeting and potluck will start at 6:30 p.m. Steve Frazier KK4VPT said that the club will furnish two hams and everyone can bring a side dish or dessert.

Steve Frazier KK4VPT took a moment to recognize the Veterans in the club by eras served. He thanked all of them for their service.

Election
Steve Frazier KK4VPT reminded everyone that it was election night and everyone on the board was willing to serve another year. Ham Hillard W4GMM moved to accept the nominating committee’s recommendation by acclamation. Bill Covington KC4SXT seconded the motion, and the club unanimously approved the nominated board members.
Here are the re-elected board members serving Delta Club for the 2020 year:
President – Steve Frazier KK4VPT
Vice President – Bob Van Keuren KM4SEB
Secretary – Mary Jean Hall KN4FBL
Treasurer – David Jackson KM4SEC
Director of Training – Joe Lowenthal WA4OVO
Director of Publications – Bob Vawter KW4RJ
Director of Programs – Ian Lucas KN4OEK
Director of Meetings and Special Events – Scott Adams KM4PMU

Break/Presentation - Drawings
Steve Frazier KK4VPT called for a break from 7:28 p.m. to 7:41 p.m. Members must be present to win the smaller items. The larger two items need to be picked up by the December meeting or new winners will be drawn at the December meeting.

The following members won prizes:
Barry McDonald W5CJ – Tactical flashlight
Dan Wehner KN4FBJ – Radio
Bob Vawter KW4RJ – Tactical flashlight
Gail Tisdale KI4VDI – Radio
Richard Martin K4DXF – Tactical flashlight
Ken Laseter KI4AOH – Tactical flashlight
Jim Martin KD4FUU – Tactical flashlight
Richard Martin K4DXF – J-Pole antenna
Rick Tillman WA4NVM – Tactical flashlight
John Volmer KN4LCV – Tactical flashlight
Tom Thibeault KN4SLP – Tactical flashlight
Ray Miler AA4UK – 15 amp hour Lithium Iron Phosphate battery with charger*
Tom Ernst N4LIA – Solar panels*

*Note: The two main prizes, battery and solar panels, must be picked up in person by the December meeting or a new drawing will occur. Should a new drawing occur at the December meeting, the winner must be present to win.

Closing Remarks
Ham Hillard W4GMM made a motion to adjourn. Jeff Krause AJ4GY seconded the motion. With no objection, Steve Frazier KK4VPT adjourned the meeting at 7:54 p.m. The next Delta Amateur Radio Club meeting will be Tuesday, December 10, 2019 at 6:30 p.m. at the Ellendale Church of Christ.
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.

If you want to take a class, send an email to Joe at wa4ovo@gmail.com with the class name; ie, Tech Class, General Class, or Extra Class, on the Subject line and name, callsign if you have one, email address, and cellphone number in the text.

Licenses Earned in 2019 from Delta Classes

38 Technician
13 General
6 Extra

Note:
The current Technician ARRL Ham Radio License Manual Fourth Edition with question pool that became effective July 1, 2018 for four years. This is the new question pool.

The current ARRL General Class License Manual is the Eighth Edition with question pool that became effective July 1, 2015 for four years.

The current ARRL Extra Class License Manual is the Eleventh Edition with question pool that became effective July 1, 2016 for four years.

As of September 3, 2015 there is no longer any charge for Vanity callsigns.

If you know anyone interested in a class, send an email to wa4ovo@gmail.com with the Subject Line for the class they want and name, email address and cellphone number in the text. If a ham, add callsign to the text.

PROPOSED CLASSES

All classes will be 3-1/4 to 4 hours long for six sessions; one per week on a week night or Saturday day.

SCHEDULED CLASSES

Tech Class 2-20 – February 22 – April 4, 2020

Tech Class 2-20 is proposed to start February 22nd on six Saturdays except March 14th from 9am to 1pm if there are ten students registered by February 6th. Location is to be determined.
Extra Class 1-20 – January 4 – February 15, 2020

Extra Class 1-20 is proposed to start January 4\textsuperscript{th} on six Saturdays from 9am to 1pm if there are six students registered by December 20\textsuperscript{th}. Currently there are five students registered. There will NOT be a class on January 25\textsuperscript{th} which is the Jackson MS hamfest date. To register, send an email to Joe with the Subject: Extra Class and name, callsign, cellphone number and email address in the text to wa4ovo@gmail.com.

The instructors are Joe WA4OVO, Paul KA9VAU, Dean N2LAZ, Barry W5CJ, Dave AD4Q, David W4DWW and Pat W4OQG.

CURRENT CLASSES

General Class 4-19 – November 7 – December 19, 2019

General Class 4-19 is being held on six Thursday nights from November 7\textsuperscript{th} thru December 19\textsuperscript{th} from 6:15-9:30pm The 11 students in the class are Rodney KN4WGV, Robert KN4KFL, Michelle KN4OEG, Jack KN4FDK, Brian KN4TME, Mike KM4MRW, Thomas KN4TMF, Mark KN4TMO, Bobby KK5PAC, Shawn KN4WKF and Robert KN4RBW. The location is at the Germantown Police Department training room, 1930 South Germantown Road.
Perry Hayes N4GJ introducing the aura of digital modes. Photo by Joe WA4OVO

The instructors are Joe WA4OVO, Barry W5CJ, Paul KA9VAU, Len W4MKS, John KN4BVH and Pat W4OQG. The Delta Club ARRL VE Team led by Jeff AJ4GY will provide the opportunity for testing on December 19th.

General for CBU - November 20, 2019
A General test session was held on November 20th for six Christian Brothers University students in the Engineering Department upper division elective course, Unmanned Aerial Systems Design. Congratulations to Matthew Donnelly KN4ZNI, Nicholas Ireland KN4ZNK and Zhaoliang Ni KN4ZNN for upgrading to General.

Tech Review for CBU - October 30, 2019
A Tech Review class was held on October 30th for eight Christian Brothers University students in the Engineering Department upper division elective course, Unmanned Aerial Systems Design. Dr. Eric Welch WD5FTA requires the students to earn their FCC Technician and General Class licenses for this course. There are 11 students in the class with three who had earned their Tech license last February in the Intro class. All eight students earned their Technician license and five upgraded to General. Congratulations to Mat Donnelly KN4ZNI, John Clark KN4ZNJ, Nicholas Ireland KN4ZNK, Jonathan Looney KI5GZS, Pablo Marin KN4ZNM and Zhaoliang Ni KN4ZNN who earned their Technician licenses. Congratulations to Riggs Markham KN4ZNL and Zach Yancy KN4ZNO who earned Tech and also upgraded to General. Congratulations to Josue
Becerra KN4SQK, Ian Dover KN4SQQ and Bryce Whitfield KI5DLE who upgraded to General.
Dr. Welch WD5FTA is the Department Chair of Electrical and Computer Engineering. The Laurel VE Team of Dr. Welch WD5FTA, Joe Lowenthal WA4OVO, Bill Stevens WC9S, Barry McDonald W5CJ and Perry Hayes N4GJ administered the FCC test session.

**Tech Class 3-19 – July 8 - August 12, 2019**

Tech Class 3-19 was held on six Monday nights from July 8th thru August 12th from 6:15-9:30pm. The location was at the Germantown Police Department training room, 1930 South Germantown Road. Eleven students originally registered for the class, two more became students, and two resigned. So, eleven students completed the class. There was one ham who audited the class.

![Entrance at Germantown Police Department for Tech Class 3-19. Photo by Joe WA4OVO](image)

Congratulations to Rodney Adams KN4WGV, Daniel Brieck KN4WGW, Robert Broom KN4WGX, David Cary KN4WGY, Jim Dollar KN4WGZ, Joshua Foster KN4WHA, Vicky Gamber KN4WHB, Lauren Martin KN4WHC, Matthew Massey KI5FYA, Jonathan Pesce KN4WHD, and Shawn Thomas KN4WKF who earned their Technician licenses. Congratulations also to Robert Broom and David Cary who also earned their General licenses, as well as, Mary Jean Hall KN4FBL who upgraded to General. Six more of the students tried for General but did not pass.

The instructors were Joe WA4OVO, Paul KA9VAU, Pat W4OOG, John KN4BVH, Perry N4GJ, and Len W4MKS. Barry W5CJ presented Echolink and Allstar information. John
KN4BVH demoed DMR with information on D-Star and Fusion. On Monday, August 12th there was equipment demonstrations. Joe WA4OVO and John KN4BVH provided repeater basics and a CHIRP demo. The students checked into the Delta Net. Rick WA4NVM and Richard K4DXF made a live SO-50 satellite contact while Rick KJ4NWQ informed on APRS. Pat W4OQG showed off the non-FM side of ham radio with his Kenwood TS-200O HF SSB setup with a long wire and talked about MARS.

Tech Class 3-19 Photo by Joe Lowenthal WA4OVO

The Laurel VE team of Joe WA4OVO, Bill WC9S, Jelly N4HLT, David W4DWW, Karen AG4CC, Barry W5CJ, Len W4MKS and Perry N4GJ administered the 20 exams.

Tech Class 2-19 – February 21-March 28, 2019
Tech Class 2-19 was held on six Thursday nights from February 21 thru March 28th. The location was the Germantown Police Department training room, 1930 South Germantown Road. Sixteen students signed up for the class with thirteen attending the first class and a self-study Tech auditing the class. Eight students earned their ham radio licenses.

Congratulations to Chuck Chow KN4TMR, Al Dyer KN4TMQ, Brian Hagood KN4TME, Andrew Humphreys KN4TMG, Thomas Humphreys KN4TMF, Bryan Parker KN4TMH, Mark Parrish KN4TMO, and Bob Stroud KI5DWP who earned their Technician licenses. Chuck also earned his General Class license. Since the class Chuck has upgraded to
Extra as KX4RE. Congratulations to Tom Thibeault KN4SLP who audited the class and upgraded to General. Two others will test at a later date. Thanks to the Laurel VEC team of Bill WC9S, Barry W5CJ, David KV4QI, Len W4MKS and Joe WA4OVO for providing the FCC test session.

Demonstrations were given on March 28th. John KN4BVH previewed DMR, Fusion, and Echolink. Joe WA4OVO instructed on programming FM radios and APRS while Pat W4OQG showed off HF and long wire antenna. Rick WA4NVM and Richard K4DXF made a satellite contact.

Tech Review for CBU  February 20, 2019
A Tech Review class was held on February 20th for 11 Christian Brothers University students in the second Engineering Department upper division elective course, Introduction to Unmanned Aerial Systems. All 11 students earned their Technician license. The students were either Electrical, Mechanical or Computer Engineering majors. Dr. Eric Welch WD5FTA is the professor. He is Department Chair of Electrical and Computer Engineering. The Laurel VE Team of Dr. Welch WD5FTA, Joe Lowenthal WA4OVO, Bill Stevens WC9S, Barry McDonald W5CJ and Len Grice W4MKS administered the FCC test session.

Extra Class 1-19  January 5 – February 16, 2019
Extra Class 1-19 began on January 5th through February 16th excluding January 26th (Jackson MS Hamfest) on six Saturdays from 9am-1pm at the Memphis Police Department Northeast Precinct, Appling Farms Station, at 6850 Appling Farms Parkway. Nine students began with seven completing the class. Congratulations to Steve Evans KM4VYA, Carolyn Horne KX4QF, Jerry Kirkscey KX4QE, Robert Murry KN4OEF, and Bob Waters KN4PDW for earning their Extra Class license at the class ARRL FCC test session. Congratulations to Jim Martin KD4FUU who upgraded at the Delta Club test session on April 9th. The Delta Club VE Team of Jeff Krause AJ4GY, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Bill Stevens WC9S, and David Webb KV4QI provided the FCC test session on February 16th.

General Class 4-18  November 1 – December 13, 2018
General Class 4-18 was held from 6:15-9:30 on six Thursday nights from November 1st to December 13th excluding November 22nd at EMHC Ambulance Company training room, 6972 Appling Farms Parkway. Fourteen students began the class. Ten students finished the class with six upgrading to General Class.
Congratulations to Steve Beale KM4AEO, Carrie Blackwell KN4LCU, Bill Johnsen KM4VXW, Jim Martin KD4FUU, Robert Murry KN4OEF, and Bob Waters KN4PDW. I'm sure the other four will get their upgrade soon. Also testing during the class test session, congratulations to William Womble KI4CRC for earning his Technician license and Rick Armstrong KN4IKP and Carolyn Horne KN4QNV for upgrading to General.

The instructors were Joe Lowenthal WA4OVO, Pat Lane W4OQG, Len Grice W4MKS, Barry McDonald W5CJ, Perry Hayes N4PSH and John Reiners KN4BVH. The Delta Club VE team led by Jeff Krause AJ4GY provided the FCC testing session at 7pm on December 13th. Thanks also to Ham W4GMM, Stacy Krause KJ4MDA, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Bill Stevens WC9S and Tom Ungren KK4ZZZ

HOW TO PRINT YOUR FCC LICENSE

1. Go to https://wireless2.fcc.gov/UlsEntry/licManager/login.jsp
2. Enter your FCC Federal Registration Number (FRN) and Password
   a. If you do not know your FRN, go to Search box and click on License
      Click on Amateur; Enter your callsign in Callsign box;
      Your FRN is in center of page after your name
      (If you do not know your Password, click on Contact Tech Support after Forgot your Password)
3. In When My Licenses screen comes up, click on Now in the green line reading “Change your paper authorization preferences here, or download your official electronic authorizations now”
4. In Under Download Authorizations screen, highlight your callsign in the My Authorization area at the bottom left.
5. Click on ADD to right of the highlighted callsign.
6. Highlight your callsign in Authorization to Download and then click on Download on bottom right of screen.
7. If pop-ups are blocked, click on Allow One
8. Click Open at bottom.
9. Print your License.
USE OF CELLPHONE WHILE DRIVING

As of July 1st, it is against the law to hold a cellphone while driving. However, amateur (ham) radio is exempted per the below paragraph 1(a)3 of State of Tennessee House Bill 164. It might be wise to carry a copy of this document and a copy of your amateur radio license in case you get stopped by police and they are not aware of the exemption.

"Wireless telecommunications device" means a cellular telephone, a portable telephone, a text-messaging device, a personal digital assistant, a stand-alone computer, a global positioning system receiver, or substantially similar portable wireless device that is used to initiate or receive communication, information, or data. "Wireless telecommunications device" does not include a radio, citizens band radio, citizens band radio hybrid, commercial two-way radio communication device or its functional equivalent, subscription-based emergency communication device, prescribed medical device, amateur or ham radio device, or in-vehicle security, navigation, autonomous technology or remote diagnostics system.

https://www.handsfreetn.com/files/pc0412.pdf?fbclid=IwAR3vZvmm5nPLyCeZg1gqUkgL0EalnPBut3sX9XSUpYpyFArnYNu3fNbtU

Here are the two weather service websites I spoke of in the ARES meeting.
preview.weather.gov/edd
https://www.arcgis.com/apps/MapSeries/index.html?appid=5dfbf1be13b74f1097a93cd954a3c4f8

Joe WA4OVO
HQ 101 is for new hams, old hams, and hams that want to know more about their hobby. This class is for you and I need to know what you want to learn about, so if you have a subject you are curious about let me know and if there is enough interest I will offer it one month. Email me at w4gmm@bellsouth.net.

HAM 101 WILL NOT BE MEETING IN DECEMBER…. WE WILL RESUME MEETINGS AT 5:30 PM IN JANUARY.

Ham 101 meetings are upstairs above the Delta club meeting hall beginning at 5:30 pm just before the Delta club meeting.

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**YL News**
submitted by Linda KJ4CTX

December 2019

**YL NET –**

Please join us each Saturday night at 8:45 p.m. on the 146.820 repeater for the YL Net. We enjoy hearing from you.

**YL LUNCHEON –** The YL’s have been busy during the month of November. We met on the 9th of November in Oakland and headed to Somerville to the craft show at the Methodist church. There were many lovely items for sale, but the silent auction seemed to call to a few of the YL’s. Mary Jean KN4FBL won her bid on two Nutcracker collectibles. Needless to say, she was excited to be able to add them to her collection. From there we headed to the Carl Perkins Center for Abused Children for a tour. The center is set up very nicely and privately for the children. There are play areas, interview areas and a nice conference room. After the tour we met in the conference room and choose a child we would sponsor for Christmas. This year they needed sponsors for roughly 70 children so we were glad we could help and hope to do so again next year. THANK YOU to all the OM’s and YL’s who generously contributed to this worthwhile cause. Thanks to your generosity our young boy will have a wonderful Christmas! Yesterday December 5th we delivered three large black bags stuffed with shoes, shirts, pants, a nice coat, books, puzzles, LEGOS and more.
Next we were off to lunch at Olympic Steak and Pizza in Oakland. Some of us ordered from the menu and others headed for their wonderful buffet. The food was good and we enjoyed relaxing after the hectic morning. In all the excitement we forgot to bring in the gifts for our annual drawing but no problem...Mary Jean was kind enough to pull the lucky winners for us afterward. Betsy KD4KOM won a very nice gift basket, Gale KI4VDI also won a nice basket, Linda won an earring and necklace set, and Sylvia won the door prize (which we cannot reveal what it is because unfortunately we have not been able to deliver it to her yet).

Pictured left to right: Betsy KD4KOM, Mary Jean KN4FBL, Gale Ki4VDI, and Linda KJ4CTX

The Carl Perkins Center’s Festival of Trees will be in Oakland this weekend and next weekend. They are located in the Chickasaw Ridge Shopping Center across from and to the right of Walmart. Friday 5:00 p.m. to 8:00 p.m. and Saturday and Sunday 1:00 p.m. to 8:00 p.m. This year they have 64 beautiful decorated Christmas Trees. If you are out for a drive on Saturday or Sunday this would be a nice event to visit. Admission is free and you are welcome to vote on your favorite tree by placing a dollar or more in the voting box. All proceeds go to benefit the children at Carl Perkins Center. The YL’s are considering decorating and providing a Christmas Tree next year in the Center’s Festival of Trees Christmas Event. These are both very worthwhile causes and would love to see more of the YL’s join in next year. Shopping and decorating is always fun!

Merry Christmas and Happy New Year to everyone!

Linda  
KJ4CTX
One of the new technologies we use now is Bluetooth. This allows transmission of audio for short ranges between devices. Universal Bluetooth transmitters and receivers have now hit the market to allow Bluetooth operation with older devices. This means we can hook up our radios and enjoy Bluetooth operation. Examples include wireless headphones or portable wireless speakers around the house to monitor radio activity. The units for transmitter or receive operation sell for less than 5 dollars on eBay. They are easy to set up and offer a range of 30 ft or more. I hooked up mine to a set of headphones and they worked all around the house. The units have rechargeable batteries or plug into a USB port for power. To see all the Bluetooth adapters for sale do a search on eBay for “Bluetooth transmitter receiver”.

When running Morse code Paddle selection is always a personal decision. The weight, action, size, and adjustability are all taken into consideration. N3ZN Morse code keys also offers another option. The option is the overall distance between the paddles. N3ZN calls this option “OTO” which stands for outside to outside dimension of the finger pieces. On his different paddles he offers dimensions of 1/2”, 3/4”, 3/8”, or 5/8”. This allows you to select the distance you want for your comfort. He suggests you measure a paddle you like to run to decide what spacing you want to order. Some of his keys do not offer this option. To find out more about N3ZN keys and options check out his website. The web address is https://www.n3znkeys.com/
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**

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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**2020 Board of Directors**

**President**
Steve Frazier, KK4VPT
sfrazier1@bellsouth.net
901-218-6385

**Vice President**
Bob Van KeurenKM4SEB
rtvk@hotmail.com
901-853-0303

**Secretary**
Mary Jean Hall KN4FBL
kn4fbl@gmail.com
901-356-1475

**Treasurer**
David Jackson KM4SEC
davidjackson@bellsouth.net
901-487-3016

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Joe Lowenthal, WA4OVO
wa4ovo@gmail.com
901-628-4318

**Director of Publications**
Bob Vawter, KW4RJ
vawter.bob@gmail.com
901-438-4563

**Director of Programs**
Ian Lucas KN4OEK
KN4OEK@gmail.com
901-828-6209

**Director of Meetings & Special Events**
Scott Adams, KM4PMU
scottedadamsjr@hotmail.com
901-573-6280

**Repeater Trustee**
Barry McDonald W5CJ
W5CJ@ARRL.NET
901-853-0510

**Public Information Officer**
Len Grice, W4MKS
W4MKS@arrl.net
901-522-6711

**Immediate Past President**
Ken Laseter, KI4AOH
KenLaseter@gmail.com
901-487-9103

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If you are interested in joining Shelby County ARES, complete an application at www.tnares.com. Click (do not pull down) on INFORMATION on the top right of the page. Then, go to TN ARES Membership and Appointment Application Forms and then click on ARES Membership Application: FSD-98. Complete the form and click on Submit at the bottom. You should get an acknowledgement soon after submitting.

Public Service Events

If you are a coordinator for any of these events, please review the listed information. Please email corrections or additions to vawter.bob@gmail.com.

<table>
<thead>
<tr>
<th>2020 Date</th>
<th>Event</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 18</td>
<td>Swamp Stompers 50K/25K Run</td>
<td>Ken Laseter KI4AOH</td>
</tr>
<tr>
<td>May 12</td>
<td>MARS contacts</td>
<td></td>
</tr>
<tr>
<td>June 27-28</td>
<td>Field Day @ Morgan Woods Park, G’town</td>
<td>Darrell Sheffield KK4D</td>
</tr>
<tr>
<td>Sep 7-8</td>
<td>MS-150 Bike Ride</td>
<td>Ken Laseter KI4AOH</td>
</tr>
<tr>
<td>Oct 3</td>
<td>Bluff City Blues Bike Ride</td>
<td></td>
</tr>
</tbody>
</table>

Hamfests in the Southeast Area

**2020**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 24-25</td>
<td>Capitol City Hamfest in Jackson, MS</td>
</tr>
<tr>
<td>February 7-9</td>
<td>HamCation 2019 in Orlando, FL</td>
</tr>
<tr>
<td>February 16</td>
<td>LCARC’s 2020 Winterfest in Hoxie, AR</td>
</tr>
<tr>
<td>March 6 - 7</td>
<td>BirmingHamfest 2019 in Birmingham, AL</td>
</tr>
<tr>
<td>March 14</td>
<td>MTARS Hamfest Tullahoma, TN</td>
</tr>
<tr>
<td>March 28</td>
<td>Ides of March Hamfest in Union City, TN</td>
</tr>
<tr>
<td>March 28 - 29</td>
<td>April Fool Hamfest in Corinth, MS</td>
</tr>
<tr>
<td>April 11</td>
<td>Memphis FreeFest in Bartlett, TN</td>
</tr>
<tr>
<td>May 15 - 17</td>
<td>Hamvention in Xenia, OH</td>
</tr>
<tr>
<td>July 25</td>
<td>Greater Nashville &amp; Middle TN HamQuest in Lebanon, TN</td>
</tr>
<tr>
<td>August 22 - 23</td>
<td>Huntsville Hamfest in Huntsville, AL</td>
</tr>
<tr>
<td>October 16 - 17</td>
<td>Hamfest Chattanooga in Chattanooga, TN</td>
</tr>
</tbody>
</table>
• As of October 2018 all you need to renew your ham tag is to provide a copy of your FCC license with a copy of your last year’s registration or a renewal notice, if you received one, and your payment.

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

The application can be found at this link:
   https://www.tn.gov/content/dam/tn/revenue/documents/forms/titlereg/f1312601Fill-in.pdf

The following link from the Tennessee Department of Revenue

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**Memphis Area VHF/UHF Nets**

Updated January, 2018

<table>
<thead>
<tr>
<th>Name of Net</th>
<th>Freq. MHz</th>
<th>Offset/Tone</th>
<th>Local Time</th>
<th>Day of Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta Club Information Net</td>
<td>146.820</td>
<td>-(107.2)</td>
<td>8:00p</td>
<td>Daily</td>
</tr>
<tr>
<td>YL Net</td>
<td>146.820</td>
<td>-(107.2)</td>
<td>8:45p</td>
<td>Sat</td>
</tr>
<tr>
<td>Mid-South Bullfrog Net</td>
<td>146.535</td>
<td>[simplex]</td>
<td>7:30p</td>
<td>Daily</td>
</tr>
<tr>
<td>Elmer Net</td>
<td>145.210</td>
<td>-(107.2)</td>
<td>9:00p</td>
<td>Sun</td>
</tr>
<tr>
<td>MedMERS Net</td>
<td>146.820</td>
<td>-(107.2)</td>
<td>12:00p</td>
<td>Wed</td>
</tr>
<tr>
<td>ARES Training Net</td>
<td>146.850</td>
<td>-(107.2)</td>
<td>9:00p</td>
<td>Thu</td>
</tr>
<tr>
<td>Sunday Super Niner Net</td>
<td>927.6125</td>
<td>-(146.2)</td>
<td>8:30p</td>
<td>Sun</td>
</tr>
</tbody>
</table>
### TENNESSEE HF NETS

As of January 2019
All times are Central Time

<table>
<thead>
<tr>
<th>Net Name</th>
<th>Freq. MHz</th>
<th>Local Time</th>
<th>Day of Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee CW Net</td>
<td>3.563</td>
<td>7:00p</td>
<td>Daily</td>
</tr>
<tr>
<td>Tennessee Slow CW Net</td>
<td>3.682</td>
<td>7:30p</td>
<td>Tue-Sun</td>
</tr>
<tr>
<td>Tennessee Alternate Phone Net</td>
<td>7.238</td>
<td></td>
<td>As needed</td>
</tr>
<tr>
<td>CUSEC</td>
<td>3.810</td>
<td></td>
<td>As needed</td>
</tr>
<tr>
<td>CUSEC</td>
<td>7.180</td>
<td></td>
<td>As needed</td>
</tr>
</tbody>
</table>

(Center for United States Earthquake Consortium)

### 3980 kHz – Tennessee 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
If you would like to advertise equipment you have for sale, please email Bob. My email address is vawter.bob@gmail.com.

Lel Nicholson
If you're interested please give me a call @ 901 46096.
Alinco vhf/uhf twin band Dr 735 (new in the box) $260
Alinco EDS 30 (new in the box $45)
2 speakers kit HSN4039 pictures 1 and 2 (new in the box) $40
Kenwood THK20 (new in the box) $115
Galaxy Blue light digital frequency counter (new in the box) $40
Kenwood charger (new) $25

Ray Parks
WB4ZHI

Interested mainly in getting his 95’ tower taken down; willing to pay someone
Also has some ham equipment for sale.
When you contact him be sure and tell him you are with Delta club.

PARKS, RAYMOND M
2625 GALAXIE
MEMPHIS, TN 38134-4623

raymphs@bellsouth.net
DELTA CLUB ADVERTISEMENTS

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

CURRENTLY STOCKING

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

LDG Electronics

<table>
<thead>
<tr>
<th>Automatic Antenna Tuners</th>
<th>Accessories</th>
<th>Miscellaneous</th>
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</thead>
<tbody>
<tr>
<td>RF Chokes</td>
<td>Gordon West Books</td>
<td></td>
</tr>
<tr>
<td>Remote Tuners</td>
<td>Power Poles</td>
<td>Coax Seal</td>
</tr>
<tr>
<td>Brand Specific Antenna Tuners</td>
<td>Antenna Switches</td>
<td>Fuse Holders</td>
</tr>
<tr>
<td>Baluns</td>
<td>SWR/Power Meters</td>
<td>Remote Tuner Boxes</td>
</tr>
<tr>
<td>Ununs</td>
<td>Mic Holders</td>
<td>Dog Bone Insulators</td>
</tr>
</tbody>
</table>

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

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

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)

Chick-fil-A Paragon Place
6282 Poplar Avenue
At Poplar and Massey
Memphis, TN 38119
W - 901.766.1185
C - 901.230.3043
Joe.Miller@cfachainhead.com
chick-fil-a.com

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