

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 98 * March 2024



Delta Amateur Radio Club (DARC)

Sparks Newsletter

Website: <http://deltaclub.org>

Facebook:

<https://www.facebook.com/darcmem>

W4BS

REPEATER SYSTEM

146.820 ^{-107.2}	147.360 ^{+107.2}
146.625 ^{-107.2}	443.200 ^{+107.2}
224.420 ^{-107.2}	443.700 ^{+107.2*}
144.390 Digipeater	*Fusion

This month's meeting will be **IN PERSON ONLY** at 7 pm on Tuesday, March 12, 2024.

The meeting will be held at Mid-America Theological Seminary located at 2095 Appling Rd, Memphis, TN 38016. See the Delta Club webpage at: <http://www.deltaclub.org> for detailed instructions on how to find the correct entrance. Parking is in the back of the south end of the building. The meeting will be in the Betty Howard Special Events Room.

There will be FCC Testing Tuesday in Room B201.

Program: "More Arduino" by Glen Popiel, KW5GP

VE TESTING: Don't forget the monthly ARRL Volunteer Examiner testing session prior to in-person meetings. Registration begins at 5:30 PM and testing begins by 6:00 PM. Please remember to bring two (2) forms of identification, at least one a photo ID, and copies of any existing licenses or CSCE's you might have. Please be on time for registration, as you will not be allowed to enter the testing session after 6:00 PM. This is to allow our volunteer VE team to finish in time to attend the club meeting. Candidates **MUST** have an FCC Federal Registration Number (FRN) **BEFORE** coming to the testing session. For more VE testing, or FCC FRN information, please contact:

Bob Vawter, KW4RJ, VE Liaison

Phone: 901-438-4563

Email: KW4RJ@ARRL.net

Announcements

HAM RADIO 101

STARTING WITH THE MARCH MEETING WE WILL BE TEACHING HAM 101. IT WILL BE UPSTAIRS NEXT TO THE TESTING ROOM STARTING AT 5:30 AND WILL END AT 7:00. THE FIRST MEETING WILL BE TO SCHEDULE SUBJECTS OF INTEREST. ALL ARE WELCOME, NEW TO THE HOBBY OR EXPERIENCED NEEDING TO LEARN MORE ABOUT THE HOBBY.

POSSIBLE TOPICS FOR DISCUSSION

- WIRE ANTENNAS
- EMERGENCY ANTENNAS
- DIPOLE VERSES VERTICAL ANTENNAS
- J-POLE ANTENNAS
- BALUNS & SWR
- PROPAGATION
- HAM BANDS AND FREQUENCIES
- REPEATERS
- HF INSTALLATIONS AND RADIOS
- ANTENNA TUNERS AUTO & MANUAL
- ANTENNA ANALYZERS & WATT METERS

THERE ARE MANY MORE TOPICS COME AND LET US KNOW WHAT YOU WOULD LIKE TO HAVE DISCUSSED.

MARA FreeFest (Bartlett, TN) – April 6th

The annual MARA FreeFest will be held April 6th at Bartlett Station Municipal Center, 5868 Stage Rd, Bartlett, TN. Admission to FreeFest is free. Door prize tickets will be for sale at the meeting by Rick Tillman, WA4NVM and Joe Lowenthal, WA4OVO. All door prize ticket sales go to LeBonheur Children's Hospital. Price for 1 sheet (6 tickets) is \$5 or 5 sheets for \$20.

Delta Club Training

All classes will be 3-1/4 to 4 hours long for six or seven sessions; one per week on a week night 6:15pm-9:30pm or Saturday day 9am-1pm. If interested in a class, send an email to wa4ovo@gmail.com with Subject line: Tech, General or Extra Class and name, email address and cellphone number in text.

The next **General** license class will probably start in early November 2024.

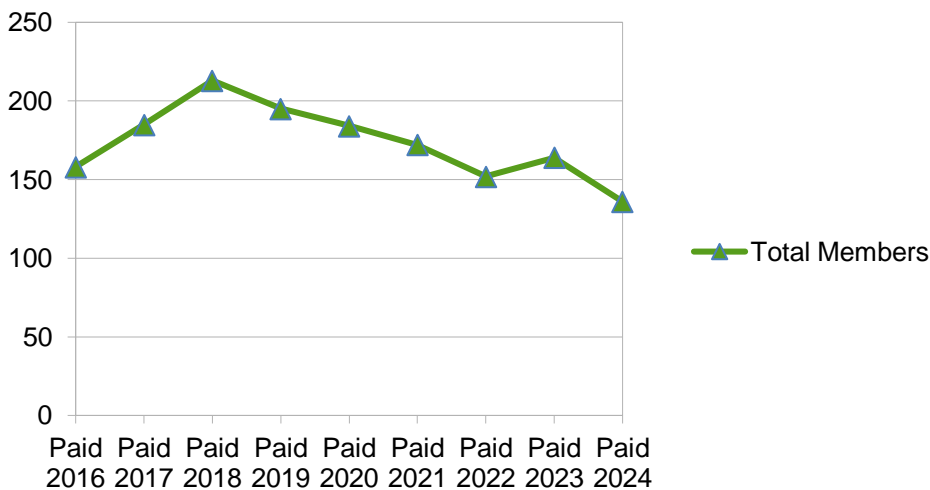
The next **Extra** license class will probably start in early January 2025.

A Quick note about our Membership (update)

Last month I brought you, our members, some numbers and a graph. I received some feedback regarding that graph so I wanted to provide to you the actual numbers that I was graphing. Additionally, I did find an error in one of my formulas and the graph was off as a result. A

quick reminder, the data goes back to 2016 and was pulled from club records carries forward to 2024. Additionally, the 2024 numbers are not complete!

We can still ask our friends to join us in the adventure for 2024!



The graph is a plot of the club’s paid membership from 2016 to the current numbers for 2024. The actual numbers are in the table below. I want you our members to know the numbers and to see them. I do apologize if the numbers as presented last month with the formula error were confusing. Hopefully, the numbers below will make the picture clearer.

I would like to call you to

make the highest deposit into the club by asking your friends to join us. Remember, our club allows non-licensed and licensed people to join. What better way to get your friends involved in the hobby you love. Ask them to join our club and to attend our events. Who knows we may just end up hooking them into our great hobby.

	Total Members	Life Members	New Members	Renewing Members	
Paid 2016	158	54		104	
Paid 2017	185	55	30	100	
Paid 2018	213	56	38	119	
Paid 2019	195	56	36	103	
Paid 2020	184	56	29	99	
Paid 2021	172	56	21	95	
Paid 2022	152	56	19	77	
Paid 2023	164	56	23	85	
Paid 2024	136	56	6	74	Not a complete year

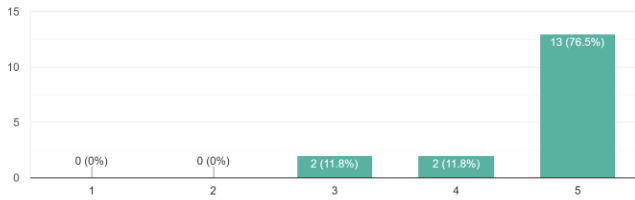
Joe Plunk, NS4E
 Vice President, Delta Amateur Radio Club

February Membership Meeting Signal Report

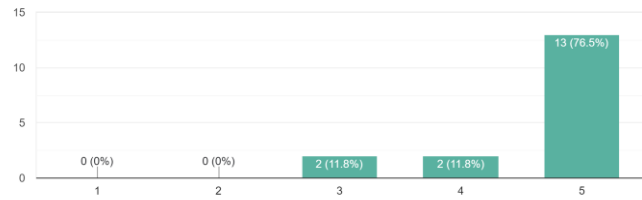
I wanted to share the “Signal Report” from the February meeting. We had 69 people on the sign in sheet and 17 surveys submitted. The results are shown below. Based on the survey data the programs were well received. Thank you for filling out the survey and giving the club leadership feedback on how things are going. We want to hear from the membership, both good and bad. It gives us the opportunity to hear from you and respond. Our surveys allow us to quickly respond to things that are liked and things that are not liked. If we are doing something

that is not getting good feedback we are committed to changing it and making it better. Please enjoy the results from February below.
Thank you.

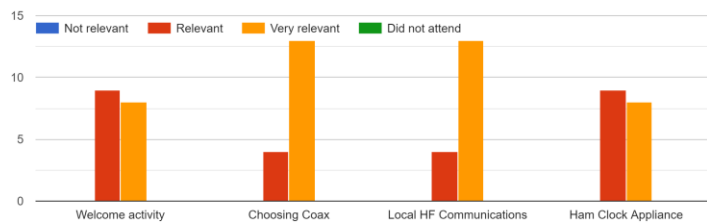
How satisfied were you with the event?
17 responses



How relevant and helpful do you think it was to our hobby?
17 responses



Which sessions did you find most relevant?



ARRL Dues Increase

ARRL Dues went up from \$49 to \$59 per year on January 1, 2024. There is a discount for 3 year renewals. You can renew your membership any time and the term will be added to the current expiration date. If you renew your ARRL membership through the club, the club will receive \$5. Complete the ARRL application and make checks payable to Delta Amateur Radio Club.

YL Net

The YL Net is every Saturday at 8:45 pm on the 146.820 W4BS repeater, which has a PL tone of 107.2 Hz. The secondary frequency is on the 443.700 W4BS repeater, which has a +5 MHz offset and a PL Tone of 107.2 Hz.

President's Corner
Submitted by Ty McMahan, KX4MQ

Your club needs.....YOU!

It's March and we have 2 open positions on the board. Come ask me how YOU can help your club.

First, is the Special Events and Meetings coordinator. This person is responsible for having a committee of folks to help with refreshments at each meeting. It's also a role responsible for field days in winter and summer. This is an organized person that wants to help improve our meetings and special events.

Second, is the Public Information Officer. This person is primarily concerned with putting out info about the club on FaceBook and other social media platforms. This is a role for a person that is savvy with social media and is willing to work to promote the club and club image for all events. This is a fun role that helps us promote all things Delta Club.

If you have a passion for the Delta Club, come talk to the president and we will discuss how to best get you plugged into the inner workings of the club.

P.S. A big thanks to the new repeater Committee for doing an insanely great job measuring, cleaning up, and improving the Delta Club 146.820 and 443.700 repeaters. Thanks for your gargantuan efforts. Everyone please thank Mike Lumen, Joe Tamboli, Adam Chomyk, and Joe Duke! We'll show more info at the upcoming meetings. More exciting things in local ham radio are yet to come!

73,
Ty McMahan, KX4MQ
President

Treasurer's Report

Submitted by Jim Martin, KD4FUU

A new year is upon us! Please renew your membership right away, so you won't forget about it! The membership application may be downloaded from our website (for both renewals *and* new members) at:

<https://deltaclub.org/membership>

Annual membership dues are \$20 per individual or \$25 per family. Completed applications and payment may be mailed to:

Delta Amateur Radio Club
PO Box 342768
Memphis, TN 38184-2768

If you prefer, you can print and bring the completed form, along with applicable membership fees, to any in-person meeting. Feel free to contact Jim Martin KD4FUU at treasurer@deltaclub.org with any questions or concerns regarding application submission and/or payment of annual dues.

LIFEGREEN CHECKING FOR BUSINESS
 February 1, 2024 through February 29, 2024

SUMMARY			
Beginning Balance	\$20,476.29	Minimum Daily Balance	\$20,356
Deposits & Credits	\$465.00 +	Average Monthly Statement Balance	\$20,395
Withdrawals	\$0.00 -		
Fees	\$0.00 -		
Automatic Transfers	\$0.00 +		
Checks	\$295.69 -		
Ending Balance	\$20,645.60		

DEPOSITS & CREDITS			
02/08	Deposit - Thank You		50.00
02/29	Deposit - Thank You		5.00
02/29	Deposit - Thank You		285.00
02/29	Deposit - Thank You		125.00
Total Deposits & Credits			\$465.00

CHECKS					
Date	Check No.	Amount	Date	Check No.	Amount
02/08	1617	170.00	02/29	1618	125.69
Total Checks					\$295.69

* Break In Check Number Sequence.

DAILY BALANCE SUMMARY			
Date	Balance	Date	Balance
02/08	20,356.29	02/29	20,645.60

Applications Received - February 2024		
(0) New Membership(s) - Pro-Rated Dues		\$0.00
(0) New Membership(s) - Dues Waived		\$0.00
(1) New Membership(s) - Individual		\$20.00
(0) New Membership(s) - Family		\$0.00
(17) Membership Renewal(s) - Individual		\$340.00
(2) Membership Renewal(s) - Family		\$50.00
(1) Donations Received		\$50.00
	Total Dues Received	\$460.00
Other Deposits & Credits		
(0) ARRL Club Commission - New Members (\$15.00)		\$0.00
(0) ARRL Club Commission - Renewals (\$5.00)		\$0.00
ARRL Affiliated Club - Individual Membership Fees		\$0.00
Returned Item - ARRL commission - Deposit from 12/27/2023 Presented to bank again on 2/29/2024		\$5.00
	Total Other Deposits	\$5.00
	Total Deposits	\$465.00
Withdrawals		
	Total Withdrawals	\$0.00
Checks		
Check #1617 - Joe Lowenthal - Reimbursement for purchase of 20Ah LiFePO4 battery for DARC prize donation to FreeFest 2024		\$170.00
Check #1618 - Scott Adams - Reimbursement for purchase of club refreshments		\$125.69
	Total Payments	\$295.69

SMALL BUSINESS CD *8481

Available Balance	<u>INTEREST RATE</u>	<u>YTD INTEREST</u>	<u>INTEREST EARNED NOT PAID</u>
\$5,172.66	5.020 %	\$64.93	\$5.68
SHOW ACCOUNT NUMBER *8481			
ISSUE DATE	LAST INTEREST AMOUNT PAID	PREVIOUS YEAR INTEREST	
10/28/2022	\$64.93	\$107.73	
ISSUE VALUE	DATE LAST INTEREST PAID	MATURITY DATE	
\$5,000.00	2/25/2024	1/22/2025	
▲ Hide More Details			

SMALL BUSINESS CD *8503

Available Balance	<u>INTEREST RATE</u>	<u>YTD INTEREST</u>	<u>INTEREST EARNED NOT PAID</u>
\$11,311.39	2.230 %	\$63.34	\$24.84
SHOW ACCOUNT NUMBER *8503			
ISSUE DATE	LAST INTEREST AMOUNT PAID	PREVIOUS YEAR INTEREST	
10/28/2022	\$63.34	\$248.05	
ISSUE VALUE	DATE LAST INTEREST PAID	MATURITY DATE	
\$11,000.00	1/28/2024	11/26/2024	
▲ Hide More Details			

2024 Budget Proposal	2023 Proposed	2023 Actual	2024 Proposed
Donations (cash)	50.00	400.00	50.00
Consignment Donated Gear	0.00	0.00	0.00
Membership (Jan. thru Dec.)	2,000.00	1,640.00	2,000.00
ARRL Affiliated Club Commissions	0.00	155.00	0.00
Club Patches	0.00	0.00	0.00
Estate Sale	1,500.00	5,882.65	1,500.00
Advertisement	0.00	0.00	0.00
Huntsville Trip	2,500.00	1,857.00	2,500.00
Donations - Huntsville Hamfest Bus Scholarship 2023	0.00	746.00	0.00
Donations - Huntsville Hamfest Bus Scholarship 2024	0.00	0.00	200.00
Total Estimated Income:	6,050.00		6,250.00
Total Actual Income:		10,680.65	
Tn. Annual Report	-120.00	-20.95	-120.00
Meeting Space Donation	-300.00	-500.00	-300.00
Training	-50.00	-50.00	-50.00
Meeting Refreshments	-500.00	-754.43	-800.00
Food (Dec. Meeting)	-100.00	-64.98	-100.00
Door Prize	-500.00	-461.80	-500.00
PO Box (Annual Rental)	-312.00	-312.00	-332.00
Equipment Insurance	-236.00	-235.48	-236.00
Club Liability Insurance	-200.00	-200.00	-200.00
Repeater System Upgrades	-1,000.00	-4,010.45	-2,000.00
SouthEastern Repeater Assn.	-35.00	-35.00	-35.00
Field Day	-250.00	-227.65	-250.00
DARC Board Discretionary Fund	-1,000.00	-1,305.95	-1,000.00
Huntsville Trip	-3,000.00	-2,758.78	-3,000.00
Free Fest Donations	-200.00	0.00	-200.00
Projected Total Expenses	-7,803.00		-9,123.00
Actual Total Expenses		-10,937.47	
Projected Net Operating Results (income-expenses)			
Checking Acct:	20,112.52		21,696.94
CD #8481	5,025.01		5,107.73
CD #8503	11,062.00		11,248.05
Total	36,199.53		38,052.72

DARC Board of Directors Meeting Minutes
Submitted by Perry Hayes, N4GJ

Minutes of the Delta Amateur Radio Club Board of Directors Priority Emergency Meeting - February 19, 2024

Present: Ty McMahan KX4MQ, Joe Plunk NS4E, Perry Hayes N4GJ, Jim Martin KD4FUU, John Reiners KN4BVH, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Scott Adams KM4PMU Matt Ryan W2MJR

Absent: Mary Jean Hall KY4FB, Mike Harrison KM4MRW

Guest: Stave Frazier KK4VPT, Mike Luman KQ4FMB

A Priority Emergency Meeting of the Delta Amateur Radio Club Board of Directors was held on Monday, February 19, 2024 on a Zoom conference call. The President served as chair and the Secretary was present. President Ty McMahan KX4MQ called the meeting to order at 6:34pm.

Director of Programs John Reiners KN4BVH announced that there would be one presenter at the March Membership meeting, and he would present all of the tracks.

President Ty McMahan presented a publication from the State of Tennessee entitled “What Every Board Member Should Know.” The publication was about the duties of officers in not-for-profit corporations.

Ty McMahan talked in detail about the fiduciary duties of officers in the club, and how that term extended beyond financial matters.

Ty McMahan discussed the difference between board members and officers. He said that under our current bylaws, for instance, Public Information Officer Matt Ryan did not have a vote – Ty wanted this to change. Ty said that he wanted to reduce the number of voting members on the Board to 5 persons.

President Ty McMahan announced that he wanted to replace Repeater Trustee Barry McDonald W5CJ, and asked Barry McDonald to resign. Ty made a motion which was seconded by Vice-President Joe Plunk NS4E. There was no support for this motion from the other voting members of the Board.

Public Information Officer Matt Ryan W2MJR said that the Club bylaws gave the President the right to appoint the Repeater Trustee. President Ty McMahan asked Matt Ryan to discuss a letter which he had written to President Ty McMahan and Vice-President Joe Plunk.

Matt Ryan W2MJR discussed his knowledge and experience with repeaters. Matt outlined in detail the problems he noted on the 146.82 repeater. He felt that there were administrative and technical failures with the operation of the club repeaters, and that the Repeater Trustee was unwilling or unable to perform his duties.

Matt Ryan discussed the existence of a test which showed a possible short in the heliax feedline of the 146.82 repeater. He said that photographs were shown to him, which show a very high SWR on the TX and RX.

There was a long discussion by Ty McMahan and Matt Ryan about Barry McDonald, and why he should resign as Repeater Trustee.

Repeater Trustee Barry McDonald W5CJ resigned.

President Ty McMahan presented Mike Luman KQ4FMB as a nominee for Repeater Trustee. There was a discussion about Mike Luman's experience and qualifications for the position.

Ty McMahan moved to accept Mike Luman KQ4FMB as Repeater Trustee, which was seconded by Joe Plunk NS4E. The motion passed unanimously.

Ty McMahan said the Club needed to form a Business Committee to work on the club's finances.

Vice-President Joe Plunk NS4E made a motion to adjourn, which was seconded by President Ty McMahan. The motion passed unanimously.

The meeting was adjourned at 8:30pm.

Respectfully submitted,

Perry Hayes, N4GJ
Secretary

Delta Amateur Radio Club Board of Directors Minutes - March 5, 2024

Present: Ty McMahan KX4MQ, Joe Plunk NS4E, Perry Hayes N4GJ, Jim Martin KD4FUU, John Reiners KN4BVH, Joe Lowenthal WA4OVO, Scott Adams KM4PMU, Mike Luman KQ4FMB, Matt Ryan W2MJR

Absent: Mike Harrison KM4MRW, Mary Jean Hall KY4FB

Guests: Steve Frazier KK4VPT, Joe Tamboli KG4CZH

The regular monthly meeting of the Delta Amateur Radio Club Board of Directors (BOD) was held on Tuesday, March 5 at 6:48pm on a Zoom conference call, with the President serving as chair and the Secretary being present. President Ty McMahan KX4MQ called the meeting to order.

Vice-President Joe Plunk, NS4E, said that 17 of the 69 persons present at the February membership meeting responded to the *Signal Report* survey and the results were favorable for the programs. Joe thanked Joe Lowenthal, WA4OVO, for sending him copies of the training rosters for past Delta Club amateur radio license classes. Joe Plunk said he would be offering a demo of HamClubOnline later in the meeting, or afterwards.

Treasurer Jim Martin, KD4FUU, said he had not had any input on the proposed budget for 2024. Jim reported that he had submitted a Form 990N to the IRS for the 2023 tax year, and a filing would be due to the State of Tennessee on April 1st. Jim said he would like to move documents related to the club finances onto GSuite. Jim also recommended that the club open a savings account.

Jim Martin made a motion that the signature of the Treasurer and 1 additional club officer be required on all Club checks issued in the future. The motion was seconded by Joe Lowenthal. The motion passed without opposition.

President Ty McMahan said that he wanted to stop all non-essential financial transactions immediately, such as estate sales. John Reiners KN4BVH noted that estate sales had brought in around \$6,000 to the club in the past year, and were helping to keep the club solvent.

Ty McMahan said he had spoken with a lawyer, Peter Baskind, because former Repeater Trustee Barry McDonald W5CJ did not accept a FedEx letter asking for the return of materials and equipment related to the club's repeaters.

John Reiners noted that Barry McDonald had only resigned 12 days earlier, and that he and others would have been happy to talk to Barry McDonald about returning the items.

Matt Ryan W2MJR said he had also spoken informally with a friend that is an attorney.

Jim Martin asked Ty McMahan if expenses for the club were incurred when Ty consulted an attorney. Ty McMahan said that expenses were incurred.

Perry Hayes N4GJ said he was concerned about board members consulting with attorneys regarding club matters and generating fees without discussing this with the board. He made a motion that board members not consult with attorneys, CPAs, or other professionals about club business, and incurring fees, without board approval. The motion was seconded by Scott Adams KM4PMU.

There was a discussion about the way that matters regarding Barry McDonald were handled. Many members were upset about the way Barry McDonald was treated. Perry Hayes asked President Ty McMahan who constituted the "Executive Team" that sent the FedEx letter to Barry McDonald. Ty said the Executive Team consisted of himself and Vice-President Joe Plunk NS4E. Perry said that the board should have discussed the situation regarding Barry McDonald. President Ty McMahan said he would discuss such matters with the board in the future.

Vice-President Joe Plunk called for a vote on Perry Hayes' motion. It passed unanimously.

Treasurer Jim Martin presented the Treasurer's Report.

Joe Plunk moved to accept the Treasurer's Report, seconded by John Reiners. The motion passed unanimously.

A conversation began about the budget.

The conversation moved quickly to the topic of the 146.82 and 443.700 repeaters. The Board discussed a letter written by Matt Ryan, wherein he expressed concern about potential problems with these repeaters. Questions were raised about the sources of the information regarding the repeaters. Matt Ryan said the information came from pictures that had been made at the repeater site during a previous site visit. Repeater Trustee Mike Luman, KQ4FMB, stated that he believed the measurements shown in the photographs, but wanted to verify them. John Reiners said that there was no verification before the measurements presented in the letter were used as a reason to remove Barry McDonald as Repeater Trustee.

The members discussed how much money should be budgeted for repeater repairs in the 2024 budget. Many figures were suggested by various members, low and high. Several members

suggested turning off these repeaters, if they were operating as badly as the numbers in the pictures suggested.

Adjustments to other budget categories were discussed. Joe Plunk asked if the fee for the bus trip to the Huntsville Hamfest should be raised, to lower the cost for the club. Ty McMahan suggested that door prizes be eliminated.

The Board finally decided to wait and finalize the budget after a team visited the repeater site over the weekend to take measurements. An amount of \$5,000 was penciled-in, with a footnote that the amount may need to be much higher.

Perry Hayes asked that the membership be told that Jim Martin was not responsible for the delays in presenting the budget.

Mike Luman moved to accept the proposed budget, pending the results of the repeater tests. The motion was seconded by John Reiners. It passed unanimously.

Scott Adams KM4PMU, Director of Meetings and Special Events, resigned, effective immediately. Scott said he would return the snacks, coolers and other club equipment in his possession at the March Membership Meeting.

Secretary Perry Hayes, N4GJ, read the month's correspondence, which was a letter from Club member and former Board member Carolyn Horne, KX4QF. Carolyn was shocked at the treatment of Barry McDonald at the recent Priority Board Meeting. She was also concerned about the divisive tone on the Board.

Perry Hayes presented the new and renewal membership applications that had been received in February. Joe Plunk moved to accept all of the applications, and the motion was seconded by Jim Martin. The motion passed unanimously.

It was announced that 69 people attended the February Membership meeting.

Director of Programs John Reiners, KN4BVH announced the program for the March Membership meeting.

Director of Training, Joe Lowenthal, WA4OVO, announced that the current Technician Class License Class is going well. There are 15 students and 3 classes remaining. Joe also said that he delivered the battery that the Club purchased as a door prize for Memphis FreeFest to Rick Tillman.

Public Information Officer Matt Ryan, W2MJR, said that the club's postings on Facebook and YouTube have been successful, and that the video content is very popular. Matt said that he has shut down the club's account on X (formerly Twitter), due to low activity and a fear of inappropriate postings.

Director of Publications, Mike Harrison, KM4MRW, did not have anything to report.

Immediate Past President, Mary Jean Hall, KY4FB, did not have anything to report.

President Ty McMahan, KX4MQ, reported that a Repeater Committee had been formed, and the transition from Barry McDonald to Mike Luman as Repeater Trustee was ongoing.

Another Board Meeting to finalize the budget was targeted for Sunday, March 10th.

Joe Plunk moved to adjourn the meeting and Jim Martin seconded the motion. The motion passed unanimously.

The meeting was adjourned at 10:45pm. The next regular monthly meeting of the Delta Amateur Radio Club Board of Directors is scheduled for Tuesday, April 2, 2024.

Respectfully submitted,

Perry Hayes, N4GJ
Secretary

Minutes of the Special Meeting of the Delta Amateur Radio Club Board of Directors – March 10, 2024

Present: Joe Plunk NS4E, Perry Hayes N4GJ, Jim Martin KD4FUU, John Reiners KN4BVH, Joe Lowenthal WA4OVO, Mike Harrison KM4MRW, Mary Jean Hall KY4FB

Absent: Ty McMahan KX4MQ, Mike Luman KQ4FMB

Guests: Scott Adams KM4PMU, Steve Frazier KK4VPT, Ken Laseter KI4AOH

A special meeting of the Delta Amateur Radio Club Board of Directors (BOD) was held on Sunday, March 10 at 3:03pm on a Zoom conference call, with the Vice-President serving as chair and the Secretary being present. Vice-President Joe Plunk NS4E called the meeting to order.

Director of Programs, John Reiners KN4BVH, called for a special meeting to determine the amount to be listed for Repeater Maintenance in the proposed Delta Club budget for 2024.

Director of Training Joe Lowenthal WA4OVO moved that the asterisk and footnote that had been placed by this item during the March 5, 2024 Board of Directors meeting be removed. The motion was seconded by Mike Harrison KM4MRW.

There was a discussion regarding the amount of money that would be needed to fund repeater maintenance in 2024. Vice-President Joe Plunk NS4E did not want to speak for the Repeater Committee, but he felt that the Club would need to spend money in 2024 for equipment modifications and additions. Joe Plunk felt that it would not be necessary to spend an extreme amount of money, as was discussed at the BOD meeting on March 5th.

Immediate Past President Mary Jean Hall KY4FB stated that an average number would be proper for the proposed budget. If the amount needed to repair the repeaters exceeded the budgeted amount, the BOD could always go to the membership for approval.

Treasurer Jim Martin KD4FUU said that he would prefer to set the amount at \$1,000, until the Repeater Committee made its report.

A unanimous vote ended debate on the issue. A vote was taken on Joe Lowenthal's motion, which also passed unanimously.

There was a discussion about whether the \$5,000 line item for Repeater Maintenance in the proposed budget should be changed. Joe Plunk recommended that the amount stay at \$5,000.

Joe Lowenthal suggested that the amount be reduced to \$1,000. Joe Plunk responded that the amount needed would be at least \$2,000.

Joe Lowenthal moved that the amount be set at \$2,000, which was seconded by Jim Martin KD4FUU. The motion passed with one nay vote.

John Reiners asked Joe Plunk if the 146.82 and 443.700 repeaters were in good enough shape to be used without damage. Joe Plunk said that the Repeater Committee did not know at this time. Joe Plunk said the Repeater Committee needed more time to compile their report.

Steve Frazier KK4VPT noted that a timeline should be created which states when the Repeater Committee will visit and test all of the Club's repeaters. Steve said that the former Repeater Trustee was let go because he did not perform these inspections every month.

Mary Jean Hall stated that the BOD had been yelled at by Ty McMahan for not having a proposed budget in place last December. Mary Jean said that the budget should have a general figure and that the membership could be consulted after the Repeater Committee files its report.

Secretary Perry Hayes N4GJ noted that the entire BOD had agreed to meet on March 10th and decide on a figure for repeater maintenance at the last BOD meeting.

Director of Publications Mike Harrison KM4MRW said the March issue of *Sparks* may not be published until Monday evening.

John Reiners had no further business at this time. John made a motion to adjourn, which was seconded by Joe Lowenthal. The motion passed unanimously.

Vice-President Joe Plunk NS4E adjourned the meeting at 3:33pm.

Respectfully submitted,

Perry Hayes, N4GJ
Secretary

Minutes of Last Month's Club Meeting

Submitted by Perry Hayes, N4GJ

Minutes of the Delta Amateur Radio Club Membership Meeting – February 13, 2024

The February 2024 Meeting of the Delta Amateur Radio Club was held on Tuesday, February 13, 2024, at the Mid-America Baptist Theological Seminary. The President served as the chair and the Secretary was present. Club President Ty McMahan KX4MQ called the meeting to order at 7:00pm. There were 69 members and visitors in attendance.

Dan Price WA4RHK gave a presentation on Local HF Communications. Dan recommended using loop antennas for this purpose. Dan discussed the advantage of using loop antennas over other designs, such as dipoles. Dan discussed how loop antennas can be constructed, and how the polarization can change, depending on the feed point that is selected. Dan recommended that interested persons look up loop antennas in the ARRL Antenna Book.

The business portion of the meeting began at 7:20pm.

Vice-President Joe Plunk, NS4E, said that 19 of the 50 people who attended the January meeting completed the *Signal Report* survey. Results were favorable. Joe encouraged everyone to renew their club membership.

Mike Luman KQ4FMB moved to table discussion of the 2024 Budget until the March meeting. The motion was seconded by Public Information Officer Matt Ryan W2MJR. Joe Lowenthal WA4OVO voiced opposition. The motion passed.

Director of Training Joe Lowenthal, WA4OVO, said that the Extra Class License Class would be testing on Saturday. A Technician Class License Class is scheduled to begin on February 22nd, and 16 people have registered.

Rick Tillman WA4NVM announced that the MARA Memphis FreeFest would be held on April 6th. You may contact Rick to purchase raffle tickets. MARA President Dennis Foster KJ4BDU was recognized.

Public Information Officer Matt Ryan W2MJR announced that the 146.82 repeater had a cracking sound on the output and a 70 or 75 Hz tone could be heard.

Ham Hilliard W4GMM gave a presentation on coax cable. He showed a coax attenuation chart, and explained the best types of coax for different amateur radio applications. Ham demonstrated a set of cable prep tools, which prepare the coax for the fitting of connectors.

Ham also discussed Anderson PowerPole connectors, and showed pictures of a power distribution project he had completed.

Ham announced that HAM 101 would return at the March Membership Meeting. The class will be held at 5:30pm in Room B202.

Rick Kanschat N0KYN gave a presentation on the Inovato Quadra HamPC. Rick demonstrated HamClock, which is a program available on the device. HamClock is a low-cost alternative to other clock and map devices, such as the Geochron Atlas. Rick showed how HamClock's display could be customized to show a variety of information of use to ham radio operators.

The device is capable of running other ham radio-oriented applications, as well as apps intended for a more general audience. The Quadra sells for around \$49, and is available at inovato.com.

Ham Hilliard W4GMM made a motion to adjourn, which was seconded by Jim Martin KD4FUU.

The next Meeting of the Delta Amateur Radio Club will be held on Tuesday, March 13, 2024, at the Mid-America Baptist Theological Seminary.

Respectfully submitted,

Perry Hayes N4GJ
Secretary

Delta Ham License Training, 2024

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. The FCC implemented a \$35 Administration Fee on April 19, 2022.

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 2024 from Delta Classes

1 Technician

1 General

3 Extra

Note:

As of April 19, 2022 there is a \$35 FCC application fee for new hams, renewals, Vanity callsigns, etc except for license upgrade, systematic callsign issue, name, address or email changes. This is in addition to the \$15 ARRL VEC FCC exam fee.

The new Technician ARRL Ham Radio License Manual is the Fifth Edition with question pool that becomes effective July 1, 2022 for four years.

The current ARRL General Class License Manual is the Tenth Edition with question pool that became effective July 1, 2023 for four years.

The current ARRL Extra Class License Manual is the Twelfth Edition with question pool that became effective July 1, 2020 for four years. *This question pool will expire on June 30, 2023,*

As of late 2019, expired Amateur Radio license holders can get their license back by taking the current Technician exam and show proof of their previous license class. A previous Advanced Class licensee will only be able to get a General Class license.

PROPOSED CLASSES

All classes will be 3-1/4 to 4 hours long for six or seven sessions; one per week on a week night 6:15pm-9:30pm or Saturday day 9am-1pm.

If interested in a class, send an email to wa4ovo@gmail.com with Subject line: Tech, General or Extra Class and name, email address and cellphone number is text.

The next **General** license class will probably start in early November 2024.
The next **Extra** license class will probably start in early January 2025.

CURRENT CLASSES

Tech Class 2-24 – February 22 – March 23, 2024

A hybrid Technician license class is being held on five Thursday nights on February 22, 29, March 7, 14, 21 from 6:15-9:30pm and one Saturday March 23rd from 9:00am-1:00PM. The first four classes are to be via Zoom. The 5th in-person class will be a review of the question pool and opportunity to take the FCC exam. The sixth in-person class will be equipment demonstrations on analog repeater basics, Amateur Packet Reporting System (APRS), satellite operations and possible contact, and basic FM digital concepts of D-STAR, Fusion, DMR and Echolink operations.

There are 14 students and one audit in the class.

The instructors are Paul Roberts KA4X, Park Dodge AI5CY, Paul Broom KY4MX, John Reiners KN4BVH, Perry Hayes N4GJ, Steve Frazier KK4VPT, Carolyn Horne KX4QF and Joe Lowenthal WA4OVO.

The equipment demonstration team is Rick Tillman WA4NVM on satellites, Rick Pellicciotti KJ4NWQ on APRS, John Reiners KN4BVH on FM digital radio basics, and Joe Lowenthal WA4OVO on analog repeater basics.

PREVIOUS CLASSES

Extra Class 1-24 – January 6 – February 17, 2024

An Extra Class license class is being held on six Saturdays on January 6, 13, 20, 27, February 10 & 17. (The February 3rd date is the Jackson MS hamfest.) There will be five Zoom instructional periods with the sixth one an in-person opportunity to take the FCC exam on the last date. The eight students are Robert KN4OEP, Reggie KJ4FER, Ric KK4SZO, Stacy KJ4MDA, Loy KQ4LPM, Stuart KQ4KIH, Jay KJ5CFY and Jeff KQ4KII.

The instructors are Joe WA4OVO, John KN4BVH, Joe NS4E, David KY4FH, Barry W5CJ, Dave AD4Q, Park AI5CY, Paul KA4X, Carolyn KX4QF and Bobby KD5BS.

The Delta Club ARRL VE team will provide the FCC exam session.

General Class 4-23 – November 6 – December 11, 2023

An in-person General Class license class was held on five Monday nights from 6:15-9:30pm from November 6th to December 11th at Semmes-Murphey Clinic training room, 6305 Humphreys Blvd, Memphis 38120. The dates were November 6, 13, 27, December 4 and 11. The first four classes were instructional with the fifth class the opportunity to take the FCC exam.

There were eight students in the class-Jeff KQ4KKS, Sean KQ4KNI, James KQ4GGX, Jack KN4FDK, Bill KQ4DTS, Loy KQ4LPM, Jay KJ5CFY, and Julian KO4ZPS.



General Class 4-23



Photos by Joe Lowenthal WA4OVO

The instructors were Park AI5CY, Steve KK4VPT, Perry N4GJ, Carolyn KX4QF, Ken KI4AOH, Barry W5CJ, Joe NS4E, John KN4VBH, Paul KA4X and Joe WA4OVO.

The Delta ARRL VE Team headed by Bob KW4RJ provided the FCC test session on Monday, December 11th at 7pm at Semmes-Murphey Clinic.

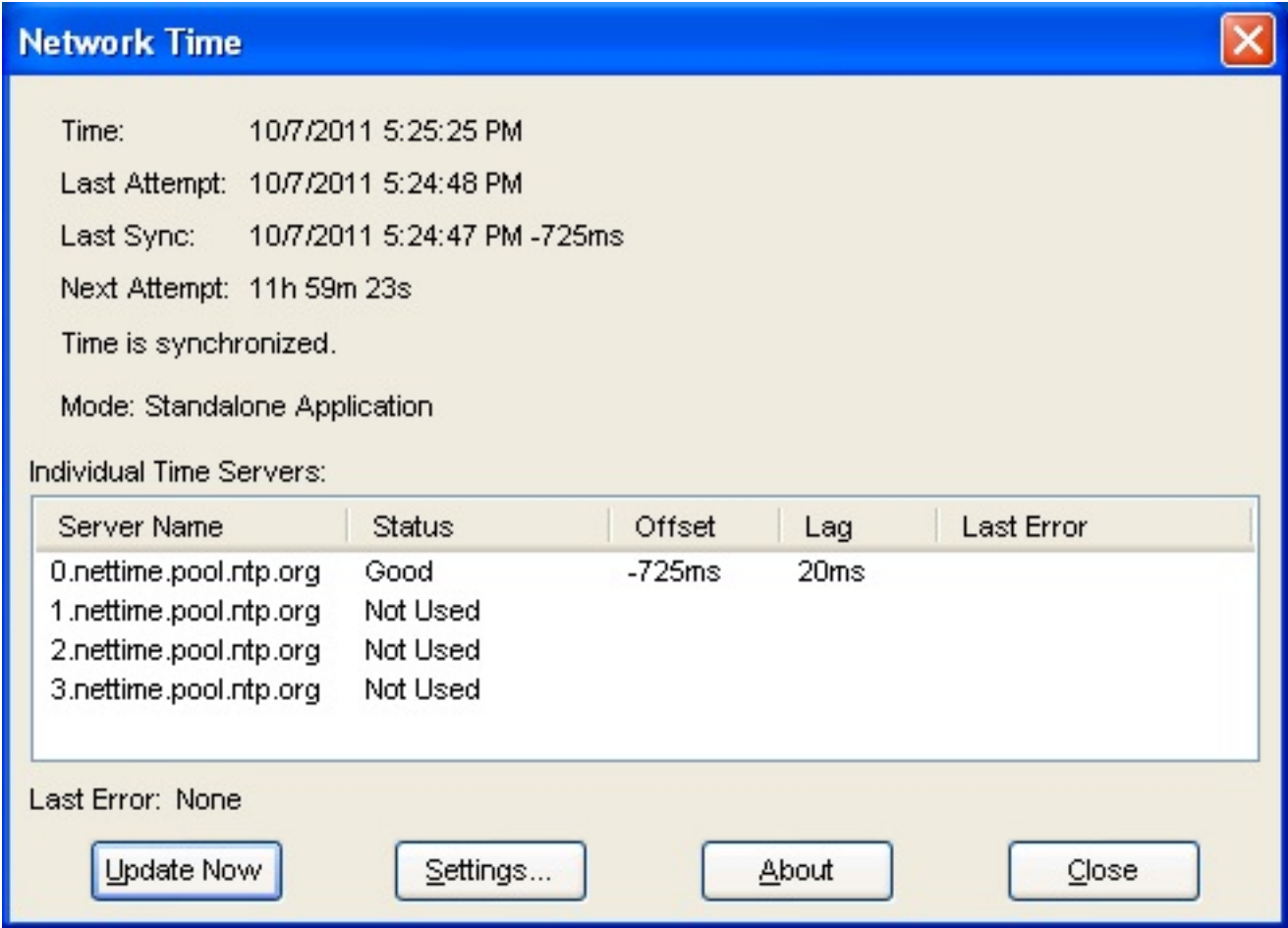
General Class 4-23 FCC Test Session
Photo by Joe Plunk NS4E



Packet Update
By: James Butler, KB4LJV

One of the newest and most popular digital modes on HF is FT8. This mode is very efficient. With 5 watts you can work the world. You watch who is on and hit the connect button and the computer generates a standard QSO for you. FT8 also needs one more important item to work properly. All transmissions on the air as far as sending and receiving are controlled by time. The FT8 program uses the clock in your computer to decide when to transmit and when to receive. The time must be very accurate for FT8 to work properly. The standard clock in your computer is not accurate enough. The good news is that there is computer software that goes to precise time sites on the internet that will constantly correct you computer clock so FT8 will work properly. The one I use is “netTime”. I set mine up to load when I start my computer. I also set mine to go on the internet to their site to update my clock every 15 minutes. The download is free and works well with FT8. Their website is <https://www.timesynctool.com/>

James Butler
KB4LJV

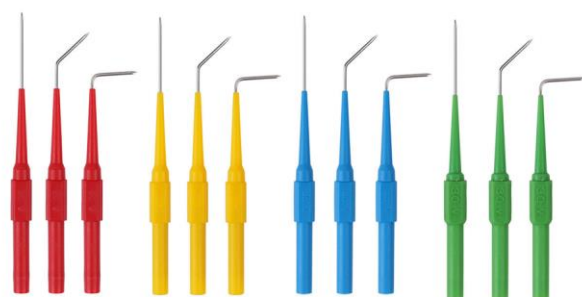
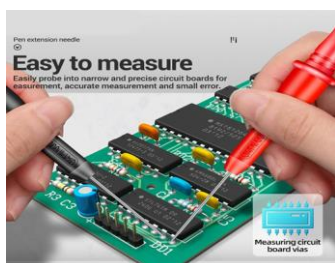


Amateur Hardware Update

By: James Butler, KB4LJV

Another tool we can use for servicing our equipment is the “BACK PROBE”. The back probe is a small long needle that can penetrate the insulation on a wire to get a signal. It can be pushed into the back of a wiring harness connector to monitor a signal on a pin of the connector. The pin can also be used as a precision probe on a circuit board to look at test points that are very small and in a crowded location. Back probes also come in different colors. The proper needle shape is used depending on the connector you are trying to measure. Sets of the back probes have multiple needles of different shapes and wires to hook to you test equipment. Back probes can be a lifesaver in allowing signal to be checked out in hard to get at places. You can buy a couple of needle probes or a large set which includes any different ones. On Ebay large sets can be purchased for under 20 dollars. On Ebay do a search for “BACK PROBE”.

James Butler
KB4LJV



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 and Print your License.

INDIVIDUAL EMAIL ADDRESS IN QRZ
Submitted by Joe Lowenthal, WA4OVO

Consider going to QRZ.COM and log in. Then enter your email address on their QRZ page so other hams can contact you vial email rather snail mail. Anyone looking for email addresses has to log in to QRZ to be able to see the ham's email address.

ARRL Benefits

ARRL amateur radio community. When you renew, a few of the benefits you will enjoy are:

- Digital access to all four ARRL publications -- QST, On the Air, and QEX. QST is the official membership journal of ARRL or On the Air aimed at helping new and emerging radio communicators get active and on the air, QEX covering topics related to radio communications experimentation, and National Contest Journal (NCJ), covering radio contesting.
- Access to ARRLs Technical Information Service to assist with technical problems and help with your projects.

To secure these amazing members-only benefits and many more in the coming year, visit www.arrl.org/join/WE1 to renew or call us toll-free at: 1-888-277-5289 (US Only) , Monday Friday, 8 a.m. to 5 p.m. ET. International members call (860) 594-0338. **If you join or renew through Delta Club, the club receives a commission. For new ARRL members or expired membership over 2 years there is a \$15 commission; for renewals a \$5 commission** ARRL Application.pdf

ARRL MEMBERSHIP COMMISSIONS Submitted by Joe Lowenthal, WA4OVO

In 2022 ARRL revised their membership commissions to ARRL clubs that process individual ARRL memberships through the club. The club can receive \$15 for new memberships or renewals of past ARRL memberships over two years old. Current renewals generate a \$5 commission. Current ARRL members can renew/extend their ARRL membership at any time. If you renew early, your ARRL membership is extended for the renewal period from the expiration of your current ARRL membership. The club only gets \$5 for each renewal application no matter how many years being renewed.

Here is a link to the ARRL membership renewal form.

[ARRL-Membership-Application.pdf](#)

Fill it out and bring a check made payable to Delta Amateur Radio Club to the meeting or mail your check to the Delta Amateur Radio Club at PO Box 342768, Bartlett TN 38134-2768. Or, you can pay Jim Martin KD4FUU in cash at a meeting. Even though credit card information is on the application, the Delta Club does not want to have access to credit cards so we will not accept an application with a credit card information for payment.

Also, here is a link to the Delta Club Membership Application:

[application-15-3.pdf \(wsimg.com\)](#)

**Amateur Radio Emergency Service (ARES)
Emergency Coordinator (EC) - John Reiners, KN4BVH**

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

**YL News
Submitted by Mary Jean Hall, KY4FB**

The YL Net is every Saturday at 8:45 pm on the 146.820 W4BS repeater, which has a PL tone of 107.2 Hz. The secondary frequency is on the 443.700 W4BS repeater, which has a +5 MHz offset and a PL Tone of 107.2 Hz.

Each YL Net has a designated “general discussion” section, which is a great time for hams of all experience levels to discuss various topics ranging from ham radio to gardening and then some! You do not have to be a YL to check in on the YL Net - everyone is welcome!

Sparks Newsletter and 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 38134-2768

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>.

2024 Board of Directors

President

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KX4MQ@icloud.com
901-833-7119

Vice President

Joe Plunk, NS4E
NS4E@access-tech.com
901-491-2755

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Director of Publications

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mheagle85@gmail.com
731-609-1948

Director of Programs

John Reiners, KN4BVH
KN4BVH@comcast.net
901-541-0310

Director of Meetings & Special Events

OPEN

Public Information Officer

OPEN

Immediate Past President

Mary Jean Hall, KY4FB
ky4fb@arrl.net
901-356-1475

Repeater Trustee

Mike Luman, KQ4FMB

Upcoming Events

FreeFest (Bartlett, TN) – April 6th

For more information go to <http://hamcalendar.com/>

Memphis Area VHF/UHF Nets

Name of Net	Frequency (MHz)	Offset/Tone	Local Time	Day of Week
Mid-South Bullfrog Net	146.535	[simplex]	7:30p	Daily
Delta Club Info Net (Primary)	146.82	- (107.2)	8:00p	Daily
Delta Club Info Net (Secondary)	443.7	+(107.2)	8:00p	Daily
YL Info Net (Primary)	146.82	- (107.2)	8:00p	Saturday
YL Info Net (Secondary)	443.7	+(107.2)	8:00p	Saturday
Crittenden ARO	147.15	+ (107.2)	7:30p	Sunday
Sunday Super Niner Net	927.6125	- (146.2)	8:30p	Sunday
Elmer Net	444.175	+ (107.2)	9:00p	Sunday
Desoto County EMA	146.91	+ (107.2)	8:30p	Monday
MedMERS Net	146.82	- (107.2)	12:00p	Wednesday
Tipton ARS	145.49	+ (100.0)	7:30p	Thursday
Crittenden ARO	442.4	+ (107.2)	8:00p	Thursday
Olive Branch ARC	147.255	+ (79.9)	8:30p	Thursday
Linked	444.7	+ (107.2)	8:30p	Thursday
ARES Training Net	146.85	- (107.2)	9:00p	Thursday
TN Statewide DMR Net	Digital – DMR		8:00p	Friday
Four-Forty Net	443.7	+(107.2)	8:30p	Friday

TENNESSEE HF NETS

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	3.810		As needed
CUSEC	7.180		As needed

(Center for United States Earthquake Consortium)

3980 kHz – Tennessee Phone Net

Mon-Fri - 5:40 AM, 6:45 AM & **5:30 PM** (5:30 pm beginning Nov. 9 evening)
 Saturday - 8:00 AM & 5:30 PM
 Sunday - 8:00 AM only
 Holidays - 8:00 AM only

DELTA CLUB ADVERTISEMENTS



Hamsource
Quality Accessories for the Shack and Field

John Kalotai, N1OLO
 Owner

456 Long Hill Avenue
 Shelton, CT 06484

203-556-8700

john@hamsource.com
<http://www.hamsource.com>

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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 6282 Poplar Avenue
 At Poplar and Massey
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 C - 901.230.3043
 Joe.Miller@cfafranchisee.com
chick-fil-a.com

Joe Miller
 Owner

