

# SPARKS

P.O. Box 342768 \* Memphis, Tennessee 38134-2768 \* Volume 99 \* April 2024



**Delta Amateur Radio Club (DARC)**

**Sparks Newsletter**

**Website: <http://deltaclub.org>**

**Facebook:**

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

## **W4BS**

### **REPEATER SYSTEM**

146.820 <sup>-107.2</sup>	147.360 <sup>+107.2</sup>
146.625 <sup>-107.2</sup>	443.200 <sup>+107.2</sup>
224.420 <sup>-107.2</sup>	443.700 <sup>+107.2*</sup>
144.390 Digipeater	<b>*Fusion</b>

This month's meeting will be **IN PERSON ONLY** at 7 pm on Tuesday, April 9, 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.

### **Programs:**

- MARS Crossband Exercise by Ham Hilliard W4GMM
- Programming Radios via Software by John Reiners KN4BVH

**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](mailto:KW4RJ@ARRL.net)

## Announcements

### **HAM RADIO 101**

This month's HAM 101 topic will be WIRE Antennas. Discussions of Dipoles, Random wire, Double Bazookas, Horizontal Loop, All Band Dipole, Balanced Terminated Folded Dipole and NVIS Skywave Antenna. Join us at 5:30 in room B202 next to the testing room.

### **HUNTSVILLE HAMFEST BUS TRIP - AUGUST 17, 2024**

DARC is sponsoring a 50-passenger bus trip to go to the Huntsville Hamfest on Saturday, August 17, 2024. The fare is \$99 if paid by July 31st and \$120 after July 31st. A spouse or child living at the same address can accompany a full fare rider for \$75. The fare includes the \$15 hamfest entry ticket. There will be biscuit sandwiches, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back. Reservations will be taken starting in May.

### **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 is text.

The next **Technician** license class will probably start in late June or early July.

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

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

### **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**

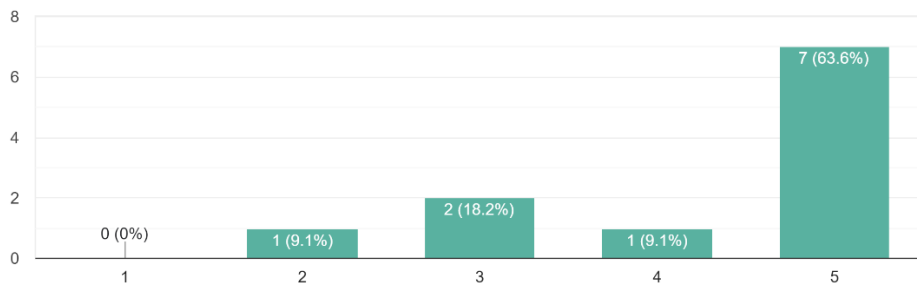
The YL Net is every Saturday at 8:45 pm on the 146.820 W4BS repeater, which has a PL tone of 107.2 Hz. The secondary frequency is on the 443.700 W4BS repeater, which has a +5 MHz offset and a PL Tone of 107.2 Hz.

### **March Membership Meeting Signal Report**

I wanted to share the “Signal Report” from the March meeting. We had 66 people on the sign in sheet and 11 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 last month below.  
Thank you.

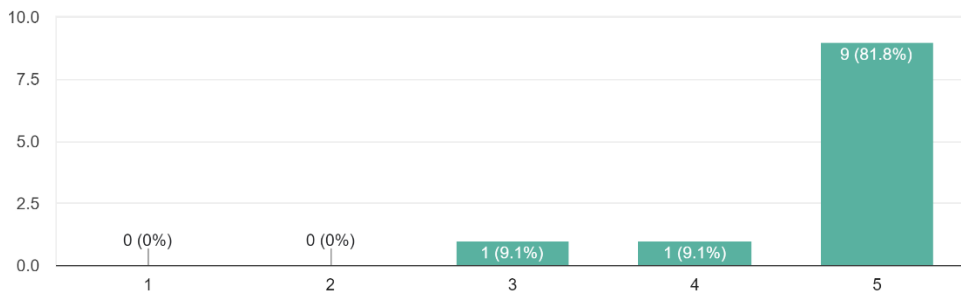
How satisfied were you with the event?

11 responses

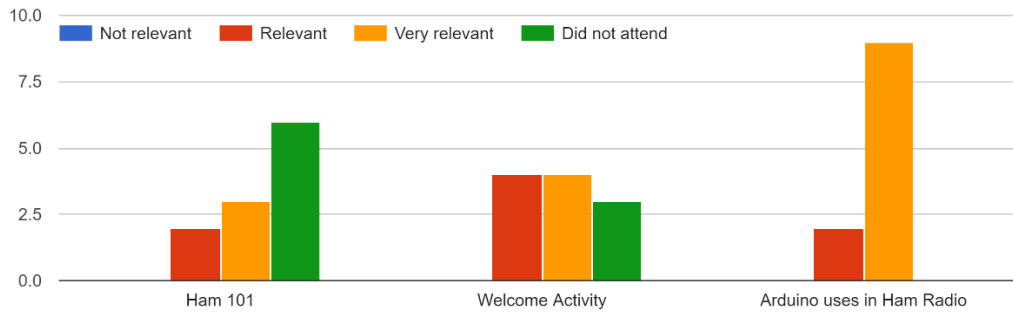


How relevant and helpful do you think it was to our hobby?

11 responses



Which sessions did you find most relevant?



**President's Corner**  
Submitted by Joe Plunk, NS4E

I would pose a question to you our Member reading this: What would you like to do with your Amateur Radio hobby? I recently had an opportunity to talk to a brand new Amateur Radio Licensee and ask them some interesting questions. I wanted to share some thoughts with you, our membership based on my conversation.

I had the opportunity to speak to this licensee shortly after they had achieved their Technician license. I posed this question to the new license holder: What do you want to do with Amateur Radio? I have to confess that the question caused the conversation to pause as they thought about what they wanted to do with the hobby. The answer came back as “I am not sure as I am just getting into it.” I took the opportunity to discuss the many aspects of our hobby. I encouraged them to attend FreeFest and see what the hobby could do. They did! And not only did they attend but they upgraded to General. I encouraged them to attend our upcoming field day on June 22-23rd. I also encouraged them to attend the Huntsville bus trip August 17th. I also encouraged them to attend the Delta Club meetings to learn from the programs and to interact with our members. I also encouraged them to attend the Ham 101 sessions before the membership meetings.

So, in response to the question What would you like to do with your Amateur Radio License I would encourage you our member to become involved with another person and share the hobby! After engaging with them and showing them the hobby, ask them to come to the club and join in with us to find an entire additional level of fun and camaraderie.

**Treasurer's Report**  
Submitted by Jim Martin, KD4FUU

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**

Blank applications are also available at club meetings. If you prefer, you can print and bring the completed form, along with applicable membership fees, to any in-person meeting. Please contact Jim Martin, KD4FUU at [treasurer@deltaclub.org](mailto:treasurer@deltaclub.org) with any questions or concerns regarding application submission and/or payment of annual dues.

**LIFEGREEN CHECKING FOR BUSINESS**  
March 1, 2024 through March 29, 2024

SUMMARY			
<b>Beginning Balance</b>	<b>\$20,645.60</b>	Minimum Daily Balance	\$20,640
Deposits & Credits	\$680.00 +	Average Monthly Statement Balance	\$20,664
Withdrawals	\$5.00 -		
Fees	\$0.00 -		
Automatic Transfers	\$0.00 +		
Checks	\$0.00 -		
<b>Ending Balance</b>	<b>\$21,320.60</b>		

DEPOSITS & CREDITS		
03/29	Deposit - Thank You	680.00

WITHDRAWALS		
03/05	Returned Deposit Item # of Itm(S) 0001	5.00

DAILY BALANCE SUMMARY			
<u>Date</u>	<u>Balance</u>	<u>Date</u>	<u>Balance</u>
03/05	20,640.60	03/29	21,320.60

<b>Applications Received - March 2024</b>		
(0) New Membership(s) - Pro-Rated Dues		\$0.00
(1) New Membership(s) - Dues Waived		\$0.00
(4) New Membership(s) - Individual		\$80.00
(0) New Membership(s) - Family		\$0.00
(5) Membership Renewal(s) - Individual		\$100.00
(0) Membership Renewal(s) - Family		\$0.00
(1) Donations Received		\$500.00
	<b>Total Dues Received</b>	<b>\$680.00</b>
<b>Other Deposits &amp; Credits</b>		
(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
	<b>Total Other Deposits</b>	<b>\$0.00</b>
	<b>Total Deposits</b>	<b>\$680.00</b>
<b>Withdrawals</b>		
Returned Item - ARRL commission - Deposit from 2/29/2024 - Second attempt to deposit returned again.		\$5.00
	<b>Total Withdrawals</b>	<b>\$5.00</b>
<b>Checks</b>		
	<b>Total Payments</b>	<b>\$0.00</b>

## 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	\$25.60
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	
<a href="#">▲ Hide More Details</a>			

## 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	\$44.20
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	
<a href="#">▲ Hide More Details</a>			

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

**Minutes of the Delta Amateur Radio Club Board of Directors Meeting  
March 12, 2024**

Present: Ty McMahan KX4MQ, Joe Plunk NS4E, Perry Hayes N4GJ, Jim Martin KD4FUU, John Reiners KN4BVH, Joe Lowenthal WA4OVO, Mike Harrison KM4MRW, Mary Jean Hall KY4FB

Absent: Mike Luman KQ4FMB

Vice-President Joe Plunk, NS4E, convened a Board of Directors Meeting at 8:15pm. The President and Secretary were present.

Joe Plunk asked Secretary Perry Hayes, N4GJ, if there was a quorum. Perry Hayes said there was a quorum.

Director of Programs John Reiners, KN4BVH moved to censure President Ty McMahan, KX4MQ for gross misconduct as determined by a majority of the Board of Directors in performance of his official duties. The motion was seconded by Treasurer Jim Martin, KD4FUU.

Immediate Past President Mary Jean Hall, KY4FB, called the previous question and there was a second by Director of Publications Mike Harrison, KM4MRW.

Vice-President Joe Plunk asked for a roll call vote on the previous question:

Vice-President Joe Plunk, NS4E - yes  
Secretary Perry Hayes, N4GJ - yes  
Director of Programs John Reiners, KN4BVH - yes  
Immediate Past President Mary Jean Hall, KY4FB - yes  
Director of Publications Mike Harrison, KN4MRW - yes  
Director of Training Joe Lowenthal, WA4OVO - yes  
Treasurer Jim Martin, KD4FUU - yes

Yes 7 - No 0. The motion passed.

Vice-President Joe Plunk called for a roll call vote on the motion to censure President Ty McMahan for gross misconduct as determined by a majority of the Board of Directors.



Vice-President Joe Plunk, NS4E - yes  
Secretary Perry Hayes, N4GJ - yes  
Director of Programs John Reiners, KN4BVH - yes  
Immediate Past President Mary Jean Hall, KY4FB - yes  
Director of Publications Mike Harrison, KN4MRW - yes  
Director of Training Joe Lowenthal, WA4OVO - yes  
Treasurer Jim Martin, KD4FUU - yes

Yes 7 - No 0. The motion passed.

Director of Programs John Reiners moved to remove President Ty McMahan as President of the Delta Amateur Radio Club. The motion was seconded by Treasurer Jim Martin, KD4FUU.

Vice-President Joe Plunk asked if there was any discussion.

Immediate Past President Mary Jean Hall called the previous question. Second by Treasurer Jim Martin.

President Ty McMahan asked for a point of interest. President Ty McMahan asked what he was being accused of. Vice-President Joe Plunk said that the motion was properly seconded and that the point of interest would be addressed after the vote on the motion.

Vice-President Joe Plunk, NS4E asked for a roll call vote on the previous question.

Vice-President Joe Plunk, NS4E - yes  
Secretary Perry Hayes, N4GJ - yes  
Director of Programs John Reiners, KN4BVH - yes  
Immediate Past President Mary Jean Hall, KY4FB - yes  
Director of Publications Mike Harrison, KN4MRW - yes  
Director of Training Joe Lowenthal, WA4OVO - yes  
Treasurer Jim Martin, KD4FUU - yes

Yes 7 - No 0. The motion passed.

Vice-President Joe Plunk called for a roll call vote on the motion to remove Ty McMahan as President of the Delta Amateur Radio Club.

Vice-President Joe Plunk, NS4E - yes  
Secretary Perry Hayes, N4GJ - yes  
Director of Programs John Reiners, KN4BVH - yes

Immediate Past President Mary Jean Hall, KY4FB - yes  
Director of Publications Mike Harrison, KN4MRW - yes  
Director of Training Joe Lowenthal, WA4OVO - yes  
Treasurer Jim Martin, KD4FUU - yes

Yes 7 - No 0. The motion passed.

President Joe Plunk addressed Ty McMahan point of interest. President Joe Plunk said that the gross misconduct was in relation to the way the former President engaged legal counsel without prior proper Board approval and the letter that was served on the former Director of Repeaters (Repeater Trustee). Ty McMahan asked where that was in the bylaws and said that was a standard duty of a president. President Joe Plunk said that was not the determination of the Board, and it was the determination of the Board that it was gross misconduct.

John Reiners moved to adjourn. Second by Mary Jean Hall.

President Joe Plunk called for a roll call vote on the motion to adjourn.

President Joe Plunk, NS4E - yes  
Secretary Perry Hayes, N4GJ - yes  
Director of Programs John Reiners, KN4BVH - yes  
Immediate Past President Mary Jean Hall, KY4FB - yes  
Director of Publications Mike Harrison, KN4MRW - yes  
Director of Training Joe Lowenthal, WA4OVO - yes  
Treasurer Jim Martin, KD4FUU - yes

Yes 7 - No 0. The motion passed.

President Joe Plunk, NS4E adjourned the meeting at 8:20pm.

Respectfully submitted,

Perry Hayes, N4GJ  
Secretary

## **Minutes of the Delta Amateur Radio Club Board of Directors Meeting - March 17, 2024**

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

Absent: None

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

The Delta Amateur Radio Club Board of Directors (BOD) met on March 17, 2024, via a ZOOM video conference call. The President and Secretary were present. President Joe Plunk, NS4E, called the meeting to order at 3:08pm

Secretary Perry Hayes, N4GJ, called the roll and declared a quorum.

### New Business

President Joe Plunk reminded everyone not to discuss the specifics of the censure and removal of the past president in a public forum. When discussing the issue with members, it is important that we stay with the facts.

President Joe Plunk moved to appoint Scott Adams, KM4PMU, as Director of Meetings and Special Events. The motion was seconded by Director of Programs John Reiners, KN4BVH. The motion passed unanimously.

Secretary Perry Hayes presented the minutes of the BOD meeting on March 12th. President Joe Plunk asked for a motion to approve the minutes, and to formally accept them at the next BOD meeting. Director of Publications Mike Harrison, KM4MRW, moved to approve the minutes, as amended. There was a second by John Reiners. The motion passed without opposition.

There was a discussion about sending an email to the membership, to discuss the BOD's censure and removal of the former president - as well as the membership's vote to affirm the decision.

There was a discussion about mentioning the open positions on the BOD in the email: Vice-President, Club Call Trustee and Public Information Officer (PIO).

President Joe Plunk asked Treasurer Jim Martin, KD4FUU, about the status of the Club's bank accounts. Jim Martin said that the former president will be removed as an authorized signatory. There was also a discussion about the new requirement that the club's checks have two signatures.

President Joe Plunk said he would like the club to make its required 2024 filing with the Tennessee Secretary of State as early as possible.

President Joe Plunk moved to appoint Immediate Past President Mary Jean Hall, KY4FB, to head a new Bylaws Committee. The committee will study and recommend possible changes to the club bylaws. The motion was seconded by Mike Harrison. The motion passed without opposition. Mary Jean said that she would be asking a parliamentarian some specific questions about the bylaws.

President Joe Plunk asked Director of Training Joe Lowenthal, WA4OVO, to look into the possibility of carrying insurance to cover the club for errors and omissions.

President Joe Plunk asked everyone on the BOD to begin using Google Workspace.

President Joe Plunk asked Joe Lowenthal to secure written instructions on how to change the time announcement on the 146.820 repeater. There was a discussion about completing the transfer from the former Club Call Trustee to a new Club Call Trustee.

Director of Programs John Reiners, KN4BVH, discussed the programs for the April membership meeting.

There was a discussion about Field Day. There was a question about whether the regular Field Day location will be available this year. It was pointed out that the Nashoba Amateur Radio Club normally coordinates this with the City of Germantown and the Germantown Fire Department.

President Joe Plunk and Director of Publications Mike Harrison talked about updating the club's website and the information about the club on the ARRL website.

President Joe Plunk said that he had deleted the deltaclub.org accounts for the BOD members who had resigned. Joe Plunk unlocked the president@deltaclub.org account, and the BOD viewed the contents.

President Joe Plunk said it may be necessary to purchase an amplifier for the 443.700 repeater. He is still investigating.

President Joe Plunk said he would like to have a demonstration of the HamClubOnline software suite for the BOD. He believes that the software will be very beneficial.

Joe Lowenthal made a motion to adjourn, which was seconded by Mike Harrison. The motion passed unanimously.

President Joe Plunk, NS4E, adjourned the meeting at 4:44pm.

The next regular 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 Delta Amateur Radio Club Board of Directors Meeting - April 2, 2024**

Present: Joe Plunk NS4E, Perry Hayes N4GJ, Jim Martin KD4FUU, Joe Lowenthal WA4OVO, John Reiners KN4BVH, Scott Adams KM4PMU, Mike Harrison KM4MRW

Absent: Mary Jean Hall KY4FB, Ty McMahan KX4MQ

Guests: Dan Fleek AA4DF, Steve Frazier KK4VPT

The Delta Amateur Radio Club Board of Directors (BOD) met on April 2, 2024, via a ZOOM video conference call. The President and Secretary were present. President Joe Plunk, NS4E, called the meeting to order at 6:01pm

Secretary Perry Hayes, N4GJ, called the roll and declared a quorum.

President Joe Plunk, NS4E, welcomed the BOD members, and thanked them for their efforts.

Joe Plunk nominated Dan Fleek, AA4DF, as Club Call Trustee. Director of Training Joe Lowenthal, WA4OVO, moved to accept the nomination. The motion was seconded by Director of Programs John Reiners, KN4BVH. The motion passed unanimously.

Joe Plunk and Club Call Trustee Dan Fleek, AA4DF, talked for a few minutes about their visit to the 146.82 / 443.700 repeater site.

Secretary Perry Hayes presented the minutes of the BOD meeting on March 12th. Treasurer Jim Martin, KD4FUU, moved to accept the minutes. The motion was seconded by Director of Training Joe Lowenthal, WA4OVO. The motion passed without opposition.

Perry Hayes presented the minutes of the BOD meeting on March 17th. John Reiners moved to accept the minutes. The motion was seconded by Director of Meetings and Special Events Scott Adams, KM4PMU. The motion passed unanimously.

Perry Hayes presented the membership applications that had been received during the previous month, and moved that they be accepted. Joe Lowenthal seconded the motion. The motion passed without opposition.

Perry Hayes presented the correspondence received during the previous month. The correspondence was an email from Tom Butas, KM4AEM. Tom wrote the President and Secretary on behalf of the Nashoba Amateur Radio Club (NARC). NARC requested permission to hold a monthly net on the 146.625 repeater. NARC said that they would give credit to the Delta Club at the end of the proposed net.

There was a discussion about the request by NARC. The response was positive. There was a request that the net be required to yield to the National Weather Service, in the event of severe weather. Several BOD members wanted Delta Club to be recognized at the beginning and end of the net. Several members also wanted to see a copy of the proposed preamble.

Joe Plunk made a motion to approve NARC's request, with the understanding that Delta Club would be credited at the beginning and end of the net, and that the BOD would have an opportunity to review the preamble. The motion was seconded by John Reiners. The motion passed unanimously. Joe Plunk said he would respond to Tom Butas.

Treasurer Jim Martin, KD4FUU, presented the Treasurer's report.

Jim Martin said that the Club received a letter from the law firm of Dinklespiel, Rasmussen & Mink, PLLC. Jim opened the letter while he was on camera. The letter was a bill for professional services provided by attorney Peter Baskind. The amount of the bill was \$455. Baskind claimed 1.3 hours of work at the rate of \$350 per hour. The bill said the legal work involved a "Board Dispute - McDonald" and the drafting of a letter.

There was a discussion about how the past president hired this law firm, and encumbered the club financially, without consulting the BOD. BOD members said this behavior must never happen again. There was a discussion about the cost of these legal services being very high, in light of the amount of money the Club generates each year in membership fees. There was an agreement that the Club needed to pay the bill, even though the BOD disagreed with the past president's actions.

Joe Lowenthal moved to pay the legal bill. John Reiners seconded the motion. The motion passed without opposition. Joe Plunk asked that the record show that the bill would be paid from the BOD's discretionary funds.

Director of Programs John Reiners discussed the programs for the April membership meeting. John also mentioned ideas that he had for future programs. John discussed some thoughts he had about getting more local hams on the air. Joe Plunk told the BOD that he and John Reiners wanted to have two programs presented at the membership meeting each month, instead of three.

Club Call Trustee Dan Fleek, AA4DF, made a presentation about his visit to the 146.82 / 443.700 repeater site. Dan presented some photographs, as well as notes and calculations he had made. There was a discussion about the performance of these repeaters, and equipment that would be needed to get them into better working order.

Dan said that the 146.820 repeater is performing well. He said that the 443.700 was in need of maintenance. He recommended that priority be given to maintenance on the 443.700 repeater. He discussed some equipment and material that he would like to purchase to improve the performance of the 443.700 machine. It is expected that the cost of this equipment and material will be close to the amount budgeted for repeater maintenance in 2024.

Joe Plunk moved that the BOD approve Dan Fleek's seeking of estimates for the purchase of the equipment and material. The motion was seconded by Director of Publications Mike Harrison, KM4MRW. The motion passed unanimously.

President Joe Plunk said that Bylaws Committee Chair Mary Jean Hall, KY4FB, is working hard to research the Club bylaws and to fill out the committee. The Committee has no report.

Treasurer Jim Martin said that he visited Regions Bank to remove the past president as a signatory on the Club's accounts. Jim said that the annual report, the first part of the Club's yearly filings with the Tennessee Department of State, had been submitted. Jim said that the Exemption Report for Charitable Organizations is due in June, and he is working on that report for 2024, as well as some previous years.

President Joe Plunk said that Mary Jean Hall has been studying the Club bylaws, and consulting with a parliamentarian. It is Mary Jean's opinion that she is not the Immediate Past President of Delta Club, or a member of the BOD. It is her opinion that Ty McMahan, KX4MQ, is the Immediate Past President of Delta Club, and a member of the BOD. Joe Plunk said that he invited Ty to tonight's meeting, and will invite him to future BOD meetings.

Director of Training Joe Lowenthal said he had asked three insurance providers for bids on Directors and Officers coverage for the Club. There has been no response yet.

President Joe Plunk asked Director of Publications Mike Harrison to update the Club website with current names and biographies of the BOD members. Mike said he would make those updates.

Joe Plunk showed the BOD members various aspects of the Club's Google Workspace. Joe asked the members to utilize this resource.

Joe Plunk discussed Memphis FreeFest, which will be held this Saturday. Joe Lowenthal said Delta Club would not have a table at FreeFest, because the Immediate Past President stopped the Club's sale of equipment.

Director of Training Joe Lowenthal discussed the bus trip to the 2024 Huntsville Hamfest. Joe presented several financial scenarios, based upon the fare, costs and number of people who participate. There was a discussion about the appropriate fare for the bus trip, and there was a consensus that \$99 would be an appropriate amount - \$75 for second household participant.

Joe Lowenthal said he has contacted Fred Miller of NARC and Jelly Thompson of Germantown Fire Department. There is construction that may affect the use of the regular Field Day site, Germantown Municipal Park. Joe will provide additional information, as it becomes available.

President Joe Plunk reminded the BOD that the positions of Vice-President and PIO are vacant. Joe encouraged everyone to be thinking about good people to fill these positions.

Secretary Perry Hayes had nothing else to report.

Immediate Past President Ty McMahan was not present, and made no report.

Director of Programs John Reiners had nothing else to report.

Director of Meetings and Special Events Scott Adams, KM4PMU, said that he may need to purchase additional refreshments.

Director of Training Joe Lowenthal said that the latest Technician Class License Class has ended. A new Technician Class License Class may begin in late June or July.

Club Call Trustee Dan Fleek had nothing else to report.



President Joe Plunk said he wanted to defer discussions about HamClubOnline and a redesign of the Delta Club logo to a future meeting.

Joe Lowenthal made a motion to adjourn, which was seconded by Jim Martin. The motion passed without opposition.

President Joe Plunk, NS4E, adjourned the meeting at 8:31pm.

The next regular meeting of the Delta Amateur Radio Club Board of Directors is scheduled for Tuesday, May 7, 2024.

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 March 12, 2024

The March 2024 meeting of the Delta Amateur Radio Club was held on Tuesday, March 12, 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 66 members and visitors in attendance.

President Ty McMahan, KX4MQ, welcomed everyone to the meeting, and encouraged everyone to fill out a *Signal Report* survey and a raffle ticket. Ty said that the repeater committee had visited the 146.820 / 443.700 repeater site, and it would take a while for them to compile a report.

Director of Programs John Reiners, KN4BVH, welcomed the evening's speaker, Glen Popiel, KW5GP. Glen is the author of the ARRL's "Arduino for Ham Radio" book series. He is a contributor for *QST* magazine, and a popular speaker at Dayton Hamvention and other national amateur radio events. Glen's latest book is "Arduino for Radio Amateur Applications" published by elektor.

Glen discussed Arduino microcontrollers, components and other equipment that would be helpful to hams getting started with Arduino. He recommended websites such as Sparkfun,

Adafruit, Banggood, Instructables and Arduino.cc for tutorials and components. He said that a temperature-controlled soldering iron and multimeter would be necessary when beginning with Arduino, and that an oscilloscope and logic analyzer would be very helpful down the road.

Glen covered products like the Phase Dock Workbench, Dr.Duino and ESP-32. He provided a list of recommended parts, such as resistors, capacitors, diodes, transistors, voltage regulators, LEDs, potentiometers, switches, modules, wire and sensors.

Glen discussed some very interesting projects that have been created by himself and others. He encouraged everyone to find interesting projects and start building.

Following the presentation, Vice-President Joe Plunk, NS4E, convened a meeting of the Delta Club Board of Directors (BOD).

After the BOD meeting, Ty McMahan announced that he had been removed from the office of President.

President Joe Plunk, NS4E, thanked Ty McMahan for his service, but said that all of the BOD members in attendance (1 was absent) were unified, and determined that the removal of the President was necessary. The decision was not taken lightly. Joe said that any club member was welcome to talk with a BOD member for more information about why this action was necessary and why the decision was made.

President Joe Plunk asked all of the BOD members present to come to the front of the room and offer some thoughts on the BOD's decision. Following their comments, Joe asked everyone to support the club and to embrace the changes that are going forward this year. He said that we are not abandoning the change that has begun, we are not abandoning the upkeep of our repeaters and we are not abandoning the fun and exciting things that are planned. We are still going to do all of these things, but we are going to be polite and respectful to one another.

Dan Wehner, KN4FBJ, asked if the club should ratify the action made by the BOD. Ham Hilliard, W4GMM, made a motion that the membership vote to affirm or disaffirm the board's action. The motion was seconded by Ned Savage, KA4BLL. The motion passed with all but three members voting to affirm the action of the BOD.

Several club members made comments about the decision of the BOD.

Ham Hilliard announced that Ham 101 would resume at the April club meeting. The topic will be wire antennas.

In old business, President Joe Plunk asked the club to approve the minutes of the BOD and Club meetings for February. Ham Hilliard moved that the Club approve the minutes as published in *Sparks*. There was a second by Len Grice, W4MKS. The motion passed unanimously.

President Joe Plunk then addressed the 2024 Budget. The budget process had been tabled at the February Club meeting. The BOD adjusted the Budget and published it in the March issue of *Sparks*.

Treasurer Jim Martin, KD4FUU, discussed the main changes to the budget, which involved adjustments to the line items for repeater system upgrades and refreshments. If additional funds are needed to upgrade the club repeaters, Jim said that the BOD will bring the matter back to the membership.

Dan Wehner asked about possible expenses surrounding the change of the club's repeater trustee. There was a discussion and President Joe Plunk stated that any costs would likely come from the BOD's discretionary funds. Joe Lowenthal said that the cost would be \$35.

Ham Hilliard made a motion to take the Budget off of the table. The motion was seconded by Richard Martin, K4DXF. The motion passed unanimously. There was no discussion. Ham Hilliard made a motion to approve the Budget as discussed at the meeting. The motion was seconded by Ned Savage. The motion passed without opposition.

In new business, President Joe Plunk asked for a motion to approve the minutes and Treasurer's report, as published in the March issue of *Sparks*. Ham Hilliard made a motion to approve the minutes and Treasurer's report. There was a second by Len Grice. The motion passed unanimously.

President Joe Plunk asked everyone to complete a *Signal Report* survey. Joe asked everyone to encourage their friends and neighbors to join the club. He mentioned that we have already had a large number of new memberships and renewals this year.

Director of Training Joe Lowenthal, WA4OVO, said that Technician Class License Class 2-24 was underway with 14 students. The class will conclude March 23rd. One student has already tested, and has passed the Technician and General Exams.

Director of Programs John Reiners, KN4BVH, said that he was working on programs for future meetings. One of the topics will be the RFinder radio.

Secretary Perry Hayes, N4GJ, had nothing to report.

Director of Publications Mike Harrison, KM4MRW, said that he was working on updates to the website.

Immediate Past-President Mary Jean Hall, KN4FB, had nothing to report.

President Joe Plunk reminded everyone that Memphis FreeFest 2024 will be held on Saturday, April 6th at the Bartlett Station Municipal Center, 5868 Stage Road. Field Day is scheduled for June 22-23. The bus trip to the Huntsville Hamfest will be on Saturday, August 17th.

Joe Plunk said that the Club was looking for someone to serve on the Board of Directors as Public Information Officer (PIO). Any interested parties should contact him.

Ham Hilliard made a motion to adjourn, which was seconded by John Reiners. The motion passed unanimously. President Joe Plunk adjourned the meeting at 8:55pm.

The next regular meeting of the Delta Amateur Radio Club will be held at 7:00pm on Tuesday, April 9th 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](mailto: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*

11 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 **Technician** license class will probably start in late June or early July.

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

None

## PREVIOUS CLASSES

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

A hybrid Technician license class was held on five Thursday nights on February 22, 29, March 7, 14, 21 from 6:15-9:30pm and one Saturday March 23<sup>rd</sup> from 9:00am-1:00PM. The first four classes were via Zoom. The 5<sup>th</sup> in-person class was a review of the question pool and opportunity to take the FCC exam. The two in-person classes were at the MPD Appling Farms Precinct. Eleven students and one audit finished the class.

Congratulations to Dan Strahl KQ4PTW for testing early at TARS/Atoka meeting and his Technician and General licenses Congratulations to Kunal Ashok KQ4QFI, Chuck Baker KQ4QFJ, Jason Beaver KQ4QFK, Tyler Henley KQ4TFL, Avery Knowlton KQ3QEZ, Cindy Knowlton KQ4QFM, Steffanie Roland KQ4QFR, Srinivas Sompalli KQ4QGM, and Neil Taylor KQ4QGL.



Tech Class 2-24 testing



Rick WA4NVM and Richard K4DXF on JO-97 Satellite demo

The instructors were 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 sixth in-person class was 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.



Rick KJ4NWQ on APRS demo



John KN4BVH on Digital Basics

The equipment demonstration team was Rick Tillman WA4NVM and Richard Martin K4DXF on satellites, Rick Pellicciotti KJ4NWQ on APRS, John Reiners KN4BVH on FM digital radio basics, and Joe Lowenthal WA4OVO on analog repeater basics and Echolink.

### **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 3<sup>rd</sup> 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 6<sup>th</sup> to December 11<sup>th</sup> 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 11<sup>th</sup> at 7pm at Semmes-Murphrey Clinic.

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





## 2024 Field Day

By: John Reiners, KN4BVH

With FreeFest behind us this year, it's now time to focus our attention on Field Day. The 2024 ARRL Field day starts June 22<sup>nd</sup> at 1:00pm Central time and ends June 23<sup>rd</sup> Central time. This year's theme is "Be Radio Active". While we don't have all of the details together just yet, we are talking about some fun activities during Field Day. As usual we will have a GOTA (Get On The Air) station so those that don't have HF operating privileges will be able to operate on HF bands. We are also planning a fox hunt this year and may have some sort of kit building session to build a simple CW Key or other simple electronic device. As always we are looking for operators to volunteer to operate stations, so if you are interested in participating, please reach out any of the board members and I am certain we can get you pointed in the right direction.

Thanks, and 73,

John KN4BVH

## Packet Update

By: James Butler, KB4LJV

One tool many amateurs use is a soldering iron. Having a stand to hold and dispense solder makes it easier to do repair work. Solder stands have a hanger to hold the solder spool and an arm to feed the solder through to make it easy to dispense. These are usually made of metal and should last a lifetime if you take care of them. Companies even make dual solder stands that hold 2 different styles of solder. Some solder stands also include a way to hold the soldering iron on the same stand. If you need a way to dispense you solder easily, check out all the styles on Ebay. Do a search for "SOLDER STAND".

James Butler  
KB4LJV



# Amateur Hardware Update

By: James Butler, KB4LJV

Many amateurs experiment with Raspberry PI or Arduino microprocessor boards. Many projects need a display to show information on a screen. One of the newest displays is the OLED display. This screen is very vivid and can be purchased in different colors or a full multicolor version. OLED is superior to the older LCD displays because they light up individual pixels as opposed to having a backlight like the LCD screens do. The OLED displays are available in different sizes. The smallest OLED displays are about an inch square. These displays have an I2C interface which allows for a direct connection to the Raspberry PI or Arduino. Software drivers for the displays are available for downloading on the internet. The smaller OLED displays can be purchased for less than \$1.00. If you need a display for your project check out these OLED displays. On Ebay you can do a search for “OLED DISPLAY”.

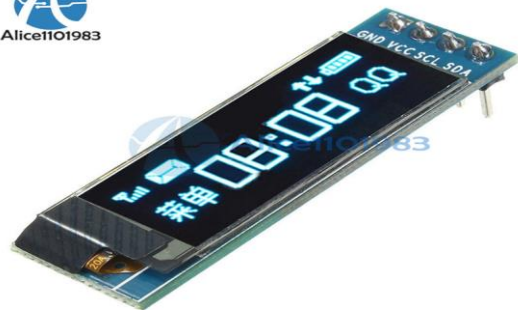
James Butler  
KB4LJV



4Pin / 7Pin  
2.42" OLED Display



Alice1101983



## 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](http://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**

Joe Plunk, NS4E  
[NS4E@access-tech.com](mailto:NS4E@access-tech.com)  
901-491-2755

### **Vice President**

OPEN

### **Secretary**

Perry Hayes, N4GJ  
[pshayes@gmail.com](mailto:pshayes@gmail.com)  
901-626-2279

### **Treasurer**

Jim Martin, KD4FUU  
[KD4FUU@gmail.com](mailto:KD4FUU@gmail.com)  
248-830-8179

### **Director of Training**

Joe Lowenthal, WA4OVO  
[wa4ovo@gmail.com](mailto:wa4ovo@gmail.com)  
901-628-4318

### **Director of Publications**

Mike Harrison, KM4MRW  
[mheagle85@gmail.com](mailto:mheagle85@gmail.com)  
731-609-1948

### **Director of Programs**

John Reiners, KN4BVH  
[KN4BVH@comcast.net](mailto:KN4BVH@comcast.net)  
901-541-0310

### **Director of Meetings & Special Events**

Scott Adams, KM4PMU  
[scottedadamsjr@hotmail.com](mailto:scottedadamsjr@hotmail.com)  
901-573-6280

### **Public Information Officer**

OPEN

### **Immediate Past President**

Ty McMahan, KX4MQ  
[KX4MQ@icloud.com](mailto:KX4MQ@icloud.com)  
901-833-7119

### **Repeater Trustee**

Dan Fleek, AA4DF  
[AA4DF@arrl.net](mailto:AA4DF@arrl.net)  
901-491-3192

## Upcoming Events

ARRL Field Day - June 22<sup>nd</sup> at 1:00pm Central time and ends June 23<sup>rd</sup> Central time.

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

## Memphis Area VHF/UHF Nets

<b>Name of Net</b>	<b>Frequency (MHz)</b>	<b>Offset/Tone</b>	<b>Local Time</b>	<b>Day of Week</b>
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)	8:45p	Saturday
YL Info Net (Secondary)	443.7	+(107.2)	8:45p	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
OBARC 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 (Center for United States Earthquake Consortium)	7.180		As needed

### 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)



Chick-fil-A Paragon Place  
6282 Poplar Avenue  
At Poplar and Massey  
Memphis, TN 38119  
W - 901.766.1875  
C - 901.230.3043  
Joe.Miller@cfafranchisee.com  
[chick-fil-a.com](http://chick-fil-a.com)

**Joe Miller**  
Owner