

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 70 * November 2021



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

We plan to meet this month **via “ZOOM” and in-person.**

This month's meeting begins at 7:00pm on November 9, 2021 at Ellendale Church of Christ, 7365 Highway 70 in Memphis, TN (1 ½ miles north of Highway 64 / Stage Road.

Topic: November 2021 Member Zoom Meeting

Time: Nov 9, 2021 07:00 PM Central Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/87420584271?pwd=anhFbXJOZTJNem0rbVpsWHc3OEhzQT09>

Meeting ID: 874 2058 4271

Passcode: 560710

Program: *“Election of Board of Directors for 2022” and “Anatomy of a CW QSO” by Dave Casler KE0OG if time permits.*

There will be on FCC Testing Tuesday night.

Announcements

FOUR-FORTY NET

The Delta Club has a new weekly net, the Four-Forty Net, which is on 443.700 with a +5 MHz offset and a PL tone of 107.2 Hz. The Four-Forty Net is every Friday at 8:30 pm after the Delta Club Information Net. Please join us to test out your 70 cm equipment and see how well we get into this W4BS repeater.

DARC 2022 BOARD OF DIRECTORS ELECTION

Election for the 2022 Board of Directors will be during the November meeting. If you are interested in serving as a Board Member please see a current Board Member for information.

Below is the list of nominations for the DARC 2022 Board of Directors (elected positions):

President: Mary Jean Hall KY4FB

Vice President: John Reiners KN4BVH

Secretary: Carolyn Horne KX4QF

Treasurer: Jim Martin KD4FUU

Director of Training: Joe Lowenthal WA4OVO

Director of Publications: Mike Harrison KM4MRW

Director of Programs: Steve Romagni W4DTA

Director of Meetings and Special Events: Scott Adams KM4PMU

President's Corner

Submitted by Steve Frazier, KK4VPT

I am pleased to say that for the November meeting we will be meeting in person and on Zoom. With the recent changes to the Covid-19 guidelines that are less restrictive for public gatherings, we felt we could go back to having meetings in person. Mask will not be required, but if you prefer to wear a mask to join us in person, you will be welcome to wear a mask. We understand that some members may still prefer to use Zoom to participate in the meeting, so we are offering that option too. In the past, our December meeting has mainly been a potluck dinner. At this time; we plan to get together in person in December, but I do not anticipate we will do a potluck. We can discuss plans for December at the November meeting and the board will make the final decision at the December board meeting.

As you may know, we have been working with the estate of silent key Karen Chancellor (AG4CC) to help them find a good home for her amateur radio equipment. While she focused mainly on CW and QPR, there is a variety of equipment we have to offer for sale. Rather than offer everything at once, we have decided to focus on the radios and associated equipment that made up the setups that Karen was using. Please check out the list included in this Sparks showing the items we will be offering first. All of the items have been tested to ensure they work and some come with the original box. For this estate sale, we made a lump sum payment instead of doing this as a consignment like we have done in the past. We made this payment based on what we planned as a fair resale price for the items. Because of this, we are going to stay at the price shown on the list before we will offer these items at other venues or start accepting offers at a lower price.

We will have the items on the list at the November meeting. If you are interested in item(s) on the list but will not be at the meeting in person, email me at sfrazier1@bellsouth.net or Joe Lowenthal at wa4ovo@gmail.com. You can also let us know on the Zoom meeting if you want anything on the list.

November is when we have our election for the Board of Directors for next year. We have nominees for all the positions and will vote on the ballot during the November meeting. The nominees are - President : Mary Jean Hall KY4FB, Vice President : John Reiners KN4BVH, Secretary : Carolyn Horne KX4QF, Treasurer : Jim Martin KD4FUU, Director of Training : Joe Lowenthal WA4OVO, Director of Publications : Mike Harrison KM4MRW, Director of Programs : Steve Romagni W4DTA, Director of Meetings and Special Events : Scott Adams KM4PMU.

I look forward to seeing you at the November meeting either in person or on Zoom.

73 to all -
Steve Frazier
KK4VPT

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 fee is \$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 the membership fee, to any in-person meeting. Please contact Jim Martin KD4FUU at kd4fuu@gmail.com with any questions or concerns regarding application submission and/or payment of annual dues.

LIFEGREEN CHECKING FOR BUSINESS
 October 1, 2021 through October 29, 2021

SUMMARY			
Beginning Balance	\$21,396.68	Minimum Daily Balance	\$18,578
Deposits & Credits	\$45.00 +	Average Monthly Statement Balance	\$20,419
Withdrawals	\$0.00 -		
Fees	\$0.00 -		
Automatic Transfers	\$0.00 +		
Checks	\$2,817.77 -		
Ending Balance	\$18,623.91		

DEPOSITS & CREDITS		
10/29	Deposit - Thank You	45.00

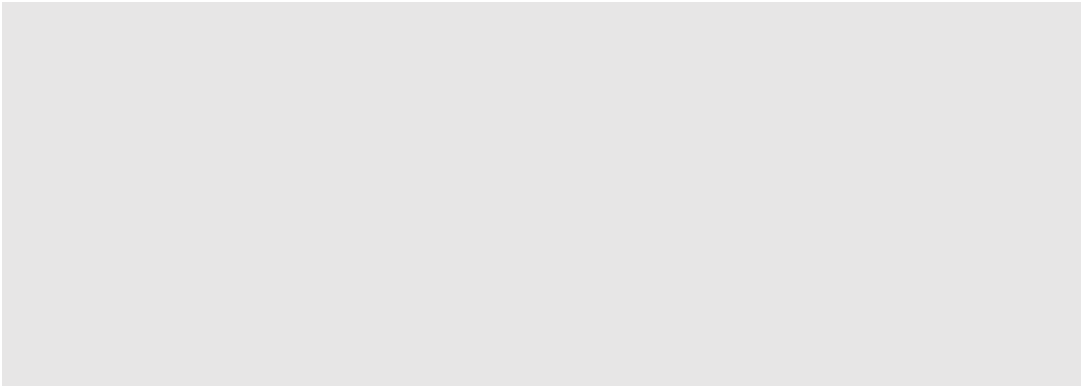
CHECKS					
Date	Check No.	Amount	Date	Check No.	Amount
10/08	1554	17.77	10/20	1555	2,800.00
				Total Checks	\$2,817.77

* Break In Check Number Sequence.

DAILY BALANCE SUMMARY					
Date	Balance	Date	Balance	Date	Balance
10/08	21,378.91	10/20	18,578.91	10/29	18,623.91

SMALL BUSINESS CD *0028

Available Balance	<u>INTEREST RATE</u>	<u>YTD INTEREST</u>	<u>INTEREST EARNED NOT PAID</u>
\$10,784.58	1.590 %	\$127.94	\$20.69
▼ View More Details			



Applications Received - Oct 2021

(1) New Membership(s) - Pro-Rated	\$25.00
(0) New Membership(s) - Fee Waived	\$0.00
(1) Membership Renewal(s)	\$20.00
Donations Received w/ Applications	\$0.00

Total Received	\$45.00
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Other Deposits

No Additional Deposits	\$0.00
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Total Deposits	\$45.00
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Debits/Payments

Check 1554 - Robert's Rules of Order Book	\$17.77
Check 1555 - Wallace Tower Specialists Co.	\$2,800.00

Total Payments	\$2,817.77
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DARC Board of Directors Meeting Minutes Submitted by Carolyn Horne, KX4QF

DARC Board of Directors Meeting Minutes for November 2, 2021

Attendees: Steve Frazier KK4VPT, Mary Jean Hall KY4FB, Carolyn Horne KX4QF, Joe Lowenthal WA4OVO, Ian Lucas KN4OEK, Ray Cole KX5RC, Scott Adams KM4PMU, Barry McDonald W5CJ and Len Grice W4MKS.

Absent: Jim Martin KD4FUU, Mike Harrison KM4MRW.

Guests: None.

The regular monthly meeting of the Delta Amateur Radio Club Board of Directors was held on Tuesday, November 2, 2021, at 6:30 PM on a Zoom video conference call, with the President serving as chair and the Secretary being present. President Steve Frazier KK4VPT called the meeting to order.

Steve Frazier discussed whether to have next week's Members Meeting only via Zoom or both in-person and via Zoom. The board determined that current conditions warrant having a hybrid meeting, both in-person and via Zoom. Joe Lowenthal confirmed with Bobby Stroud KD5BS that he would be available on site for streaming the meeting. Masks, though preferred, are not required.

The board discussed disbursement of Karen Chancellor's estate items. Joe Lowenthal shared a catalogue of the items with list and recommended prices. He discussed items which will be on display at the monthly meeting at the Ellendale Church of Christ. Members have first bids on the equipment. Those on Zoom may indicate their interest for an item via the Chat feature. The list of items up for sale will be in the November SPARKS. These items have been tested by club members and found to be in good working order. Since some of these items are of considerable value, the board recommends that members view the list in SPARKS and make financial preparations before bidding. If a reserve price is not met for an item, it will be offered for sale to members again in December. After that, items will be available to the public at Hamfests, flea markets, eHam.com, and the like.

Ian Lucas said we do not usually have a program at the November meeting, since elections of officers takes place, however there is something lined up on Mobile Antennas, in case we do have time for a program. Details will be in the SPARKS newsletter.

Mary Jean Hall asked Len Grice and Barry McDonald to confirm that they wanted to continue their positions on the board next year and they both said yes, they would continue.

Barry McDonald gave an update on the 146.82 repeater and Brunswick tower climb. He said a professional climber scaled the tower to both the 500 ft and 700 ft marks, where the Delta Club has equipment. He showed pictures taken by the climber, which revealed gaps in the Channel 30 waveguide and 18" hard line housing, which cause RF leakage to the surrounding cables, including ours. There was visible arcing which the climber caught on camera, and arcing burn marks on the housing. One issue affecting the 146.82 repeater transmit SWR was a loose cable connection, which the climber demonstrated on video and then tightened. After that he climbed up 200 more feet to examine the status of the equipment there. There is a 10 ft antenna with cable going through a box, and feedline coming down the tower into our room at the base. Joe Lowenthal said he would like to try that out on the MTEARS network, since the additional height could mean we have a functional connection. Barry McDonald said that staff on site informed him that repairs on the Channel 30 equipment would start in December. He said we do not need the climber to go up the tower a second time.

With the loose cable connection fixed, the 146.82 repeater is now active, and Joe Lowenthal successfully conducted the MedMERS Net on it this past week. The board agreed that the nightly DARC Information Net, currently held on the secondary 146.625 frequency, should move back to the primary 146.82 frequency, starting Wednesday, November 10, 2021.

Joe Lowenthal said 8 people from his recent Tech class passed their Tech exam, with 2 also passing their General. A General Class started November 1, with 12 students in attendance. Two more were absent with good reasons, so he expects 13 or 14 students in total. One student is from North Carolina, and another from California since the Delta Club is one of the only ones in the USA offering a General Class on Zoom during this period. Two more are from the Hernando group, 2 from the most recent Tech Class and a couple more from previous Tech Classes.

Scott Adams said that our food and snack supply is dwindling. There is coffee, bottled water and drinks available for the November meeting. Due to COVID restrictions there will be no food or snacks.

Carolyn Horne presented 3 new and renewed membership applications to the board. They were all accepted without objection. She suggested placing a notice in SPARKS about getting ARRL Scholarship applications for the next school year submitted to the ARRL this November and December. The board agreed that the notice would be posted. Joe Lowenthal said it is also posted on the ARRL website.

Steve Frazier said the traditional Christmas potluck in December will not be held this year due to COVID restrictions. Mary Jean Hall suggested having a meet and mingle for club members, with Karen Chancellor's estate equipment on display for perusal and bidding. Board members also suggested that people bring their own boxed dinners. Steve Frazier said there would not be a drawing for a door prize this year.

Len Grice made a motion to adjourn, Joe Lowenthal seconded the motion, and all agreed. Steve Frazier adjourned the meeting at 7:59 PM. The next regular Board of Directors meeting is scheduled for Tuesday, December 7, 2021, at 6:30 PM on Zoom.

Respectfully submitted by Carolyn Horne KX4QF, Secretary

Minutes of Last Month's Club Meeting
Submitted by Carolyn Horne, KX4QF

DARC Meeting Minutes for October 12, 2021

Call to Order and Opening Remarks

The regular monthly meeting of the Delta Amateur Radio Club was held on Tuesday, October 12, 2021, at 7:00 PM on a Zoom video conference call, with the President serving as chair and the Secretary being present. Club President Steve Frazier KK4VPT called the meeting to order and then welcomed everyone to the meeting. At least 45 members and guests were present for the meeting.

Minutes and Treasurer's Report

Ned Savage KA4BLL moved to "approve the Treasurer's Report and Minutes as published in Sparks." Richard Martin K4DXF seconded the motion. The motion was adopted by the club without objection.

Announcements

Joe Lowenthal WA4OVO said the Tech class test would be Monday October 18th with 10 – 13 students taking the exam. He said 3 people will not be testing at that time, 2 will test in Knoxville and 1 will test in Atoka. He said 6 have signed up for the General Class which will be either 5 or 6 classes starting November 1st through November 29th or

December 6th. Testing will be on the last night. Some students from the Tech Class will join the General Class as well. He said he will probably schedule an Extra Class starting the first part of January, but will wait until the first part of December to set it up. All classes are on Zoom except for the test sessions. If anyone is interested, they should send an email with the subject 'General Class' or 'Extra Class' with their name, callsign, email and cell to wa4ovo@gmail.com.

Joe said he was in touch with SK Karen Chancellor AG4CC's sister about purchasing her equipment. He asked the club members if they would rather purchase them outright for \$3000 or keep them on consignment, withholding a certain percentage of the sales based on number of months they had been on consignment. Since the equipment comprises in-demand and often used items, Joe brought forward a motion for the members to approve the purchase for \$3000. Mary Jean Hall KY4FB seconded the motion. Steve Frazier KK4VPT took a vote, and the members present voted in favor without objection. Steve said the equipment will be for sale in November or December 2021.

John Reiners KN4BVH gave an update on ARES to the club. There is an ARES meeting Tuesday, October 26th. He said the National Weather Service in Memphis is offering fall SKYWARN training. Click on www.weather.gov/meg to see the schedule and sign up. The classes will be virtual Go-To meetings.

Barry McDonald W5CJ gave an update on the 146.82 repeater. He said in the next few weeks he will have an update to give on that.

Mary Jean Hall KY4FB went through recent changes to the proposed By-Laws updates (explained in the Board of Directors meeting minutes in the September SPARKS issue). Steve Frazier KK4VPT asked if anyone had any questions, comments, or concerns. Hearing none, Mary Jean Hall made a motion to approve the proposed By-Laws updates. Barry McDonald W5CJ seconded the motion. The motion passed with all members present in favor.

Discussion / Program

This month's program is "End-Fed Half-Wave Antennas by Steve Dick K1RF". Tom Diciara AC5MR gave the presentation and showed us his home-built antennas based on Steve Dick K1RF's specifications and models. He showed us sweeps of the Ham frequencies using his antennas and all proved to be particularly good on the Ham bands.

Pat Lane W4OQG said he also uses the same type of antenna and is able to work the MARS frequencies with good SWR using a tuner.

Closing Remarks

Steve Frazier KK4VPT said that next month we will have elections for Board of Director officers. We do now have a name for all positions. The names and positions will be posted in this month's SPARKS. Positions changing hands are President, with Mary Jean Hall KY4FB nominated, Vice President, with John Reiners KN4BVH nominated, and Director of Programs, with Steve Romagni W4DTA nominated. If interested, you just need to be an active member and have participated in six out of the last twelve meetings. You can nominate yourself.

Mary Jean Hall KY4FB reminded the members that the Delta Club has started a 70cm net, the Four-Forty Net, on the 443.700 repeater located on the Brunswick Tower, with a +5MHz offset and a PL tone of 107.2 Hz. The Net meets every Friday night at 8:30 PM or right after the DARC Information Net if it runs past 8:30 PM.

Joe Lowenthal WA4OVO moved to adjourn the meeting. All were in favor. Delta Club President Steve Frazier KK4VPT adjourned the meeting at 8:21 PM.

The next Delta Amateur Radio Club meeting will be Tuesday, November 9, 2021, at 7:00 PM in-person and /or via Zoom. Check the current edition of SPARKS or the Delta Amateur Radio Club Facebook page just before the scheduled meeting time for more information on venue instructions or the Zoom link for the meeting.

Respectfully submitted by Carolyn Horne KX4QF, Secretary (2021)

Delta Ham License Training, 2021

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 will implement a \$35 application fee in 2021.

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 2021 from Delta Classes

34 Technician

8 General

4 Extra

Note:

Coming soon will be a \$35 FCC application fee for new hams, renewals, upgrades, etc except for address or email changes.

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

The current ARRL General Class License Manual is the Ninth Edition with question pool that became effective July 1, 2019 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.

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

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 sessions; one per week on a week night 6:15pm-9:30pm or Saturday day 9am-1pm.

The next Extra Class license class will probably start in early January 2022.

CURRENT CLASSES

General Class 6-21 – November 1 – December 6, 2021

A General license class is being held on six Monday nights between November 1st and December 6th from 6:15-9:30pm. The classes are on November 1,8,15,22,29, and December 6th. The first four or five classes will be via Zoom for the instructional sessions and in-person for the FCC exam session on November 29th or December 6th. There are 12 students in the class; one is from California and another is from North Carolina. The test session location will probably be at Ellendale Church of Christ, 7365 Hwy 70 (Summer Ave).

COMPLETED CLASSES

Tech Class 5-21 – September 20 – October 25, 2021

A Technician license class was held on six Monday nights between September 20th and October 25th from 6:15-9:30pm. There were 16 students in the first class. The classes were held on September 20, 27, October 4,11 via Zoom.

The FCC exam was offered on October 18th after a review of the question pool questions and answers. Congratulations to Randy Clements KO4UDH, Ben Fonville KO4UDI, Kristine Howell KO4UDJ, Dylan Martin KO4UDK, Gordon Stark KO4UDL, Dan Taylor KO4UDM, Jeff Blackwell KO4UDN and Jeffrey Foster KI5SEK. Extra congratulations to Kristine KO4UDJ and Ben Fonville KO4UDI for also upgrading to General. The FCC test session was at Ellendale Church of Christ, 7365 Hwy 70 (Summer Ave). Thanks to the Laurel VE team of Perry Hayes N4GJ, Steve Romagni W4DTA, Jelly Thompson N4HLT, Rick Tillman WA4NVM and Joe Lowenthal WA4NVM for providing the exam opportunity.

On October 25th there was an in-class equipment demonstration. Joe WA4OVO explained how to program radios for repeater operation, Rick WA4NVM showed Orbitron for satellite operations. He and Richard Martin K4DXF set up the satellite operations for an SO-50 pass. Rick Pellicciotti KJ4NWQ presented APRS and John Reiners KN4BVH informed the new hams about Shelby County ARES with an invite.



Class 5-21 Kristine KO4UDJ (seated) waiting to make SO-50 contact with the help of Rick WA4NVM and Richard K4DXF. Photo by Joe Lowenthal WA4OVO



Class 5-21 new hams learning about APRS from Rick KJ4NWQ Photo by Joe Lowenthal WA4OVO

Tech Class 4-21 – June 24 – August 12, 2021

A Technician license class was held on six Thursday nights between June 24th and August 12th from 6:15-9:30pm. The original seven students have dwindled to five in the class and one auditing. It became a Zoom class due to the increase of Covid with the FCC test session the only in-person class. The classes were held on June 24, July 1, 8, 22, 29 and August 12th.

The FCC exam was offered on July 29th at Ellendale Church of Christ, 7365 Hwy 70 (Summer Ave). Two students took the exam(s). Congratulations to Chris Hadley KO4SHG and Dennis Lee KO4SHH for earning their Technician licenses. Additional congratulations to Chris KO4SHG for also upgrading to General. Bill Walter N4ELF also tested and upgraded from General to Extra. Congratulations to Ross Butler KI5REG for earning his Technician license at the August 17th Delta Club test session.

The Delta Club VE Team of Jeff Krause AJ4GY, Perry Hayes N4GJ, Barry McDonald W5CJ, Bobby Stroud KD5BS and Tom Ungren KK4ZZZ were the VEs.

The instructors were Joe Lowenthal WA4OVO, Paul Roberts KA9VAU, Perry Hayes N4GJ, David Wilson KY4FH, John Reiners KN4BVH, and Pat Lane W4OQG. The equipment demonstrators were John Reiners KN4BVH, Rick Pellicciotti KJ4NWQ, Rick Tillman WA4NVM, and Joe Lowenthal WA4OVO.

Tech Class 2-21 – February 22 – April 5, 2021

A Technician license class was held one night a week via Zoom from February 22nd thru April 5th on Monday or Thursday nights. Twenty-two students started on the 22nd with 19 finishing the training. An in-person class was held on March 29th for review and opportunity for FCC exam at Ellendale Church of Christ, 7365 Hwy 70 (Summer Ave) in Bartlett.

Sixteen students tested and all passed.

Congratulations to Wallace Bell KO4OWD, Park Dodge AI5CY, Michael Engelken KI5PDQ, Arie McClanahan KI5PDR, Scott McDermott KO4OWE, Terrell Naylor KO4OWF, Craig Owen KO4OWG, Adam Shirley KO4OWH, Don Swindoll KO4OWI, Diane Thomas KO4OWJ, Anthony Tribo KO4OQK, and Bruce Swindoll KO4OWN. Additional congratulations to Michael KI5PDQ and Scott KO4OWE for upgrading to General. An extra congratulaton to Park AI5CY for running the table to Extra Class. Congratulations also to Ina Wiehl KY4GA for running the table to Extra Class at the Atoka TARS test session on March 15th. Congratulations to Mike Murell KO4QBT for earning his Technician and General licenses at the Olive Branch ARRL test session on April 20th.



Tech Class 2-21 test session left side Photo by Joe Lowenthal WA4OVO



Tech Class 2-21 test session right side Photo by Joe Lowenthal WA4OVO

Also, two CBU students tested. Congratulations to Jose Bonafasi KO4OWL and Will Clayton KF0EYO.

Additionally, nine year old Jacob White KO4OWN earned his Technician license.



Photo back left to right: 9 year old Jacob KO4OWN and proud grandpa Bob AI4GI;
front left to right: VEs Perry N4GJ, Bobby KD5BS, Jeff KJ4GY

Thanks to the Laurel VEC team of Joe WA4OVO, Perry N4GJ, Jeff AJ4GY, Barry W5CJ, Bobby KD5BS, Rick WA4NVM, and Eric WD5FTA for administering the FCC test session.

The instructors were Paul KA9VAU, Perry N4GJ, Len W4MKS, John KN4BVH, Barry W5CJ, Pat W4OQG, and Joe WA4OVO. The equipment demonstrators were Rick WA4NVM and Richard K4DXF on Satellite, Rick KJ4QNWQ on APRS, John KN4BVH on Digital, and Joe WA4OVO on Repeater Basics.

CBU Tech Review Class 3-21 – February 24, 2021

A Technician license review session was held in Dr. Eric Welch (WD5FTA)'s junior level Introduction to Unmanned Aerial Vehicle class for nine Christian Brother

University students on February 24th . Congratulations to Cesar Mireles KO4NFT, Allison Sorette KO4NFU, Brennan Griffin KO4NFV, Michael Longo KO4NFW, Jose Villa Hidalgo KO4NFX, Novy KO4NFY and Sean Williams KI5OEI, who earned their Technician licenses.

Thanks to the Laurel VEC Team of Barry W5CJ, Perry N4GJ, Jelly N4HLT, Rick WA4NVM, Eric WD5FTA and Joe WA4OVO for providing the FCC test session.

EXTRA Class 1-21 – January 4 – February 25, 2021

An Extra Class license class was held one night a week via Zoom from January 4th thru February 25th on Monday or Thursday nights from 6:15-9:30pm. The Zoom classes met on January 4, 14, 21, 25, February 1, 11 and tested a week late on the 25th due to snow on the 18th. The students were Carla KO4FVX, Ransom KO4FVZ, Russell KO4ASW, Jason KO4DOH, Mary Jean KN4FBL and David KN4BXI.

Congratulations to Mary Jean Hall KY4FB (formerly KN4FBL) and David Wilson KY4FH (formerly KN4BXI) who passed their Extra exam on the 25th.

The instructors were Joe WA4OVO, John KN4BVH, Dean N2LAZ , Barry W5CJ, Dave AD4Q, Paul KA9VAU and Pat W4OQG.

Thanks to the Delta Club ARRL VE Team of Jeff Krause AJ4GY, Stacy KJ4MDA, Warren KC7ND, Tom KK4ZZZ, Barry W5CJ and Joe WA4OVO for providing the FCC test session.

In addition to the Extra Class students testing, congratulations to Brian Kelly KO4KAO for upgrading to General. Also, the following earned their Technician licenses: Dan Currey KO4NGZ, Rob Currey KO4NHA, Wilson Langford KO4NHB, Ebben Raves KO4NHC, David Wolford KO4NHD, Garrett Robinson KO4NHE, and Steven Porter KO4NHF.

General Class 4-20 – October 26 – December 7, 2020

General Class 4-20 was held via Zoom with five students. It was held on five nights on Monday and Thursday nights from October 26th to December 7th from 6:15-9:30pm. The nights were Monday October 26, Monday November 2nd, Thursday November 12th, Monday 23rd and ARRL FCC testing Monday December 7th.

Congratulations to Ransom Bowen KO4FVZ and Elliot Pope KO4DER for upgrading to General on December 7th. Also, congratulations to Carla Andrews KO4FVX for

upgrading to General on December 21st at the Tipton County ARS (Atoka) test session. The others will test later. Congratulations to Kevin Kelly KO4KAO who earned his Technician license during the Delta Club test session.

Thanks to the ARRL VE Team of Jeff Krause AJ4GY, Warren Zimmer KC7ND, Tom Ungren KK4ZZZ, Dan Columbus AA4HV, Barry McDonald W5CJ and Joe Lowenthal WA4OVO for providing the test session.

The instructors were Perry N4GJ, Barry W5CJ, Paul KA9VAU, Len W4MKS, John KN4BVH, Pat W4OQG, and Joe WA4OVO.

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.

Karen Chancellor Equipment

PRICING of Equipment for 11/9/21 Meeting

<u>New</u>	<u>eBay or eHam</u>	<u>Sell Price</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Comments</u>
\$265	\$190	\$175	Antenna Analyzer	RigExpert	AA-55 Zoom	0.6-55 MHz, box w/instructions
\$220	--	\$150	Antenna, HF	Cameleon	CHA-Hybrid-Mini	
\$124		\$100	Antenna, HF, long wire	TN07	IMD-104	67ft black/ no case
\$400	428 350	\$300	Antenna, Loop	Cameleon	CHA-F Loop	
\$226	--	\$125	Battery 12V LiFEPO4	Renogy	LFP12-100	100 amp, no mfg date
\$226	--	\$125	Battery 12V LiFEPO4	Renogy	LFP12-100	100 amp, no mfg date
\$45	--	\$15	Battery12V	MightyMax	ML22-12	22 amp SLA
\$165	45 80	\$75	Power Supply	MFJ	MFJ-4225MV	
\$1,200	\$1,121	\$900	Transceiver HF	Icom	IC-7300	
\$1,417	\$499	\$900	Transceiver HF w/KXPD2 paddle, no mic, 43 ferrite, Kent keyer, & LDG RBA-4:1 Balun	Elecraft	KX2	Internal tuner, no battery
	600-750	\$700	Transceiver HF	Yaesu	FT891	w/ MFJ-939Y tuner
\$180	130	\$100	Tuner	MFJ	MFJ-939Y	w/ 1FT-891
\$1,300	\$1,075	\$1,100	Transceiver HF/VHF/UHF	Icom	IC-705	w/plastic stand
\$900	\$550	\$500	Transceiver HF/VHF/UHF	Yaesu	FT-817	w/Z-817 tuner
\$114	--	\$65	Tuner, portable, QRP	LDG	Z-817	w/FT-817 radio
\$80	\$101	\$50	Transceiver Tri-Band 220	Btech	UV-5X3	144/220/440 1500mAh battery
\$275	--	\$100	Transceiver VHF 144	Kenwood	TM-281	works
	\$120	\$50	Transceiver VHF/UHF	Yaesu	VX-5	w/ 19" whip/ no charger
\$27		\$20	Transceiver VHF/UHF	Baofeng	UV82L	w/charger, no manual in box

**Excerpt from Tennessee Section ARRL Update for November
Supplied by Carolyn Horne, KX4QF**

The ARRL Foundation Scholarship application period for the 2022-2023 academic year is open until December 31, 2021. For this academic year, 130 scholarships will be offered totaling \$900,000. Since only amateur radio operator students may apply, the chances of being selected for a scholarship are good. Since 1973, the ARRL Foundation, with the generosity of many donors and the hard work of a long line of dedicated Foundation Directors, has had a positive impact on the lives of many young amateur radio operator students. For more information, go to:

<https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.arrl.org%2Fscholarship-descriptions&data=04%7C01%7C%7C7cac6b58407f4214b29308d99d956ef5%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637714087404667496%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6Ik1haWwiLCJXVCi6Mn0%3D%7C1000&odata=MAKEnmkBLIiwjbsJIQRN8UHxJdhfE4qb5%2BcjgKjDn5o%3D&reserved=0>

**TN Auto License Plate Renewal
Supplied by Joe Lowenthal WA4OVO**

You can renew by mail with copy of ham license and copy of renewal notice postcard to
Shelby County Clerk
P.O. Box 3743
Memphis, TN 38173-0743

**Legacy CORES Registration System to be Retired
Supplied by Joe Lowenthal WA4OVO**

Here is a URL link that has graphics for the below text. I received it from the Laurel VEC.
2021-1031 - End of Legacy CORES.pdf

1. On Friday, 29 October 2021, the FCC published in the Federal Register a Report and Order (R&O) that requires entities and individuals doing business with the Commission to provide a valid email address when they register for FCC Registration Numbers (FRNs). Registrants are required to keep their information, including their e-mail address, current. The R&O is effective November 29, 2021.
2. After the rule revision goes into effect, the Office of the Managing Director (OMD) will announce by public notice the end date for access to legacy CORES.

3. Background

a. In 2000, the Commission established CORES, a web-based, password-protected, registration system that assigns a unique 10-digit FRN to a registrant for use when doing business with the FCC.

b. While initially voluntary, in 2001 the Commission established that individuals and entities were required to obtain FRNs and supply FRNs when doing business with the Commission. Email address information has not been previously required under the rule.

4. Key points

a. Although some individuals may lack resources or connectivity for a personal or home internet service, as compared to what was present at the time of the comment window for the 2010 NPRM, there is wide availability of free or low cost public internet access today. For example, users may access the internet for free in public libraries, and also in schools that offer internet connectivity for after-hours community use.

b. If there are entities and individuals that seek to do business with the Commission that lack access to internet service, they may need to use a proxy to register for an FRN with a valid email address, such as children seeking amateur radio licenses who rely on a parent or guardian to assist with the licensing process.

c. The public benefit of adopting this rule change, which will enable the Commission to retire legacy CORES and retain the new CORES to deliver enhanced features and security, outweighs the potential burdens that may be faced by a small subset of users to provide email address information. Because it helps authenticate the individuals who will be utilizing the Commission's information systems, the new CORES is a more secure tool for the Commission and external users through the use of personal username registration and email verification.

d. Requiring email address information as part of FRN registration and requiring users to keep up-to-date email addresses in CORES will enable the Commission to fully finalize its shift from U.S. Postal Service delivery to electronic delivery of notices and other correspondence related to CORES.

e. Therefore, retiring legacy CORES allows the Commission to operate more efficiently and effectively by freeing up the resources currently being used to maintain and operate two CORES systems, and by allowing the Commission to email CORES registrants CORES and FRN-related information rather than needing to send this information in mailed letters.

f. To streamline this transition and best prepare for any upcoming Commission business, new and current registrants are encouraged to use the modernized CORES as soon as possible. Because the modernized CORES has been available since 2016, users do not need to wait for legacy CORES to be retired or for the rule change announced here to go into effect to take this step.

g. Retiring legacy CORES will primarily impact three groups of CORES users. (1) First, users seeking to make changes related to their FRN will need to do so in the new CORES by associating with their FRN a user-specific identification (username) and password to continue

managing their FRN. (2) Second, any person or entity that does not yet have an FRN, but seeks to do business with the Commission, will use the new CORES to register. (3) Third, users that forget their password and seek to reset their password online will use the new CORES to reset their password.

5. Recommendations.

a. Direct teams to stop referring applicants to the legacy CORES registration website effective immediately.

(1) Let's get out front of this change now.

(2) Applicants who register via the legacy CORES website will eventually have to use the updated CORES website to get a password and if applicable, pay their application fees.

**FCC Auto-Registration Feature for
Exam Applicants to be Discontinued
Submitted By: Bob Vawter KW4RJ**

Auto-registration in the FCC Commission Registration System (CORES) amateur radio exam for candidates using a Social Security number was discontinued on May 20, 2021. Applicants must use an FCC Registration Number (**FRN**) for all license transactions with the FCC. Examinees must **register in CORES** and receive an FRN *before* exam day. Starting on May 20, electronic batch filed applications that do not include a candidate's FRN will be rejected. The Social Security/Licensee ID Field will be disabled. An **instructional video** provides step-by-step instructions on how to establish a CORES account, which is necessary for licensees to make administrative updates and download electronic license authorizations. After June 29, all filers **must provide an email address** on all applications. When an email is provided, applicants will receive an official electronic copy of their licenses once granted (allow incoming email from **authorizations@fcc.gov**). If no email is provided when filing on or after June 29, applications will be rejected. ARRL VEC suggests that those without access to email to use the email address of a family member or friend.

Licensees need to log in to the Universal Licensing System (ULS) to **download their authorizations**. The FCC no longer issues paper copies. — *Thanks to the FCC*

<http://www.arrl.org/news/fcc-auto-registration-feature-for-exam-applicants-to-be-discontinued>

New Helps with the Old

Submitted By: Bob Vawter KW4RJ

'Morse code' encodes a simple text into a sequence of dots, dashes/dits, and spaces. It is one of the earliest methods used to transmit messages in the form of audible or visual signals.

The Morse code method is primarily used in telecommunication and is famous amongst amateur radio operators. Now, if you want to translate Morse code on your Windows 11 PC, this article on "thewindowsclub.com" (all one word is surely going to help you).

In this post, from thewindowsclub.com they list some methods using which you can translate Morse code. Using the mentioned solutions, you can translate a plain text message to the respective Morse code. Also, you can convert a Morse code back to plain text. If you want, you can also play the sound of the Morse code as well as download the audio.

Just a "dash" of retro fun from thewindowsclub.com

WIA

73,
W4WTN

ARRL Benefits

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

- Your choice of a print magazine. Eligible US-based ARRL members can elect to receive QST, the official membership journal of ARRL or On the Air, aimed at helping new and emerging radio communicators get active and on the air.
- Digital access to all four ARRL publications -- QST, On the Air, and now QEX, covering topics related to radio communications experimentation, and National Contest Journal (NCJ), covering radio contesting.
- Access to ARRL's Technical Information Service to assist with technical problems and help with your projects.
- Free FCC license renewal and modification service.

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.

Packet Update

By: James Butler KB4LJV

When amateurs operate portable digital modes, picking an antenna is hard because we want a good radiating signal and a small size. One of the most portable styles is the magnetic loop. These antennas are a large wire loop and a capacitor tuned to resonance. These are directional and easy to set up. The downside to these is their narrow bandwidth which has to be tuned when changing frequencies. Cheaper versions of the loop antennas have a manual knob at the antenna for tuning. These tuning knobs typically have a reduction drive for more precise tuning. More expensive loops have a remote or automatic computer control to change tuning when you change frequencies. To learn more about loop antennas just do a search on Google.



James Butler
KB4LJV

Amateur Hardware Update

By: James Butler KB4LJV

When running our radios we rely on fuses for protection of our equipment. The way the fuses protect us is determined by the type, amp sizing, and physical layout to fit a fuse holder. The type is the speed the fuse blows based on current flow conditions. The sizing sets the current value rating of the fuse. The style determines what the fuse physical shape is so it will fit the fuse holder of the equipment. Over the years fuse styles have changed as new equipment is developed and sold. That means if you want to keep spare fuses around you need several amp sizes and styles. Fuses are sold in an assortment pack for reasonable prices on EBAY. These are normally sold in one style and varying amp sizes in a case. If you need to keep an assortment of fuses for replacement check out the offerings on EBAY. Do a search for “fuse assortment”.



James Butler
KB4LJV

**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 Linda KJ4CTX**

YL NET – Please join us each Saturday night at 8:45 p.m. on the **146.625 repeater** for the YL Net. We enjoy hearing from you. PLEASE NOTE – FREQUENCY CHANGE.

Logbook Of The World (LOTW) User Guide

If you are a new user or planning to use "Logbook of The World" (LoTW), Gary, ZL2IFB, has put together an easy step-by-step guide or should we say manual (about 33 pages with pictures) to help you use LoTW.

The PDF file is available for download at:
https://www.g4ifb.com/LoTW_New_User_Guide.pdf

73, W4WTN

New Repeater in West Memphis & Buy/sell Facebook Group

There is a new System Fusion repeater in West Memphis.

The frequency is 442.400 with a PL Tone of 107.2 for non System Fusion users.

Also, Marc says there is a Buy and Sell Facebook Group for the Memphis Metro Area. The link is:

www.facebook.com/groups/memphismetroareahamradioswapshop

73, Marc Gwin AG5QY

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 38184-2768

Please note that you must provide your name and call sign if you're requesting specific actions or personal follow-ups, and also be aware that any profane or mean-spirited comments will be unceremoniously discarded without consideration.

Delta Club Members Can Like Us/Follow Posts On Facebook!

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

2021 Board of Directors

President

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

Vice President

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

Secretary

Carolyn Horne KX4QF
KX4QF@arrl.net
901-737-7296

Treasurer

Jim Martin KD4FUU
KD4FUU@gmail.com
248-830-8179

Director of Training

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

Director of Publications

Mike Harrison, KM4MRW
mheagle85@gmail.com
731-609-1948

Co-Director of Programs

Ian Lucas KN4OEK
KN4OEK@gmail.com
901-828-6209

Co-Director of Programs

Ray Cole KX5RC
raycole@bellsouth.net
901-219-8468

Director of Meetings & Special Events

Scott Adams, KM4PMU
scottedadamsjr@hotmail.com
901-573-6280

Public Information Officer

Len Grice, W4MKS
W4MKS@arrl.net
901-522-6711

Immediate Past President

Ken Laseter, KI4AOH
KenLaseter@gmail.com
901-487-9103

Repeater Trustee

Barry McDonald W5CJ
W5CJ@ARRL.NET
901-853-0510

Upcoming Events

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

Tennessee Amateur Radio License Plate Submitted by Joe Lowenthal, WA4OVO

As of October 2018, all you need to renew your ham tag is to provide a copy of your FCC license with a copy of your last year's registration or a renewal notice, if you received one, and your payment. The State of Tennessee is again making Amateur Radio License Plates since reconstruction of the building that was demolished by the tornado in Nashville in February 2020. The link below is for information and instructions about Tennessee ham radio call sign Emergency/Safety automobile license plates: [Vehicle Titling & Registration \(tn.gov\)](#) The application can be found at this link: Application for Special Amateur Radio License Plates [in.pdf](https://www.tn.gov/content/dam/tn/revenue/documents/forms/titlereg/f1312601Fill-in.pdf)

Memphis Area VHF/UHF Nets

Name of Net	Freq. MHz	Offset/Tone	Local Time	Day of Week
Delta Club Information Net	146.820	- (107.2)	8:00p	Daily
YL Net	146.820	- (107.2)	8:45p	Sat
Four-Forty Net	443.700	+(107.2)	8:30p	Fri
Mid-South Bullfrog Net	146.535	[simplex]	7:30p	Daily
Elmer Net	444.175	+ (107.2)	9:00p	Sun
MedMERS Net	146.820	- (107.2)	12:00p	Wed
ARES Training Net	146.850	- (107.2)	9:00p	Thu
Sunday Super Niner Net	927.6125	- (146.2)	8:30p	Sun
TN Statewide DMR Net	Digital – DMR		8:00 p	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

BYLAWS

OF

DELTA AMATEUR RADIO CLUB, INC.

ARTICLE I – NAME

1.1NAME

1.1.1 The name of this organization shall be the Delta Amateur Radio Club, Inc. hereinafter referred to in these by-laws as “Delta Amateur Radio Club”, “DARC”, “Delta Club” or “Club”.

ARTICLE II – ORGANIZATION

2.1PURPOSE

Delta Amateur Radio Club is incorporated as a non-profit organization in accordance with the laws of the State of Tennessee for the purpose of promoting the advancement of amateur radio through its use in emergency situations in which normal lines of communication are disrupted or otherwise not feasible. To prepare to be of assistance in emergency situations, the DARC will participate in the following activities:

2.1.1 Encourage continued education and training for prospective and current amateur radio operators by providing opportunities for both academic and hands-on training.

2.1.2 Encourage research and experimentation with new and existing technologies in an effort to facilitate the advancement of the field of radio communications and the support of any literary or scientific undertaking promoting the advancement of the radio art.

2.1.3 Promote amateur radio by providing opportunities for fellowship among members and other interested persons for educational, civic, social, and recreational purposes.

2.1.4 Promote public awareness of amateur radio and its many contributions to public welfare.

2.1.5 Maintain licensed amateur radio stations for operation by its membership, in the name of its Trustee, when and where appropriate, under the rules of the Federal Communications Commission of the United States of America, hereinafter referred to as the FCC.

2.1.6 Exercise any and all general powers, whether herein enumerated or not, which a nonprofit corporation may or can exercise under the Constitution and Laws of the State of Tennessee that are not inconsistent with the purpose herein contained.

2.2 AFFILIATION

2.2.1 DARC is an affiliate of the American Radio Relay League “ARRL.”

2.3 NON-PROFIT CORPORATION

2.3.1 The Delta Amateur Radio Club is a non-profit corporation and shall not have or issue shares of stock. No dividend will be paid, and no part of the income of the corporation will be distributed to its members. The Club may pay members fair market value for goods or services provided to the Club, and the Board may reimburse members for authorized expenses. The Club may offer door prizes that are appropriated in the budget.

2.3.2 **LOANS TO MEMBERS:** The Delta Amateur Radio Club shall make no monetary loans to any of its members.

2.3.3 **RIGHTS AND INTERESTS IN ASSETS:** No member shall have any vested right, interest, or privilege in or to the assets, functions, or affairs of the DARC, or any right, interest,

or privilege which may be transferable or inheritable, or which will continue if their membership ceases.

2.4 AUTHORITY TO INDEMNIFY

2.4.1 The DARC does indemnify any directors, officers, incorporators, and employees of the DARC from any liability regarding the DARC and the affairs of the DARC, unless the person fraudulently and intentionally violated the law and/or maliciously conducted acts to damage and/or defraud the DARC, or as otherwise provided under applicable statute.

2.5 DISSOLUTION PROCEDURE

2.5.1 Upon dissolution of the Delta Amateur Radio Club, Inc., or the forfeiture of the DARC's Articles of Incorporation, the Board of Directors shall have the power to dispose of the assets of the DARC after paying or making provisions for payment of all liabilities of the DARC. The Board shall distribute or dispose of the assets of the DARC by transferring or conveying such assets, or the proceeds of the sale, to another corporation or organization which is organized and operated exclusively for charitable, educational, or scientific purposes. In the event the Board fails to or is unable to distribute such assets in accordance with the provisions of this Article, any DARC member may petition a court of appropriate jurisdiction to assume jurisdiction over the assets and accomplish a distribution in accordance with the intent and purpose of this section.

ARTICLE III – MEMBERSHIP

3.1 MEMBERSHIP APPLICATION

3.1.1 Membership in the DARC is open to all licensed amateur radio operators and to any other individuals with an interest in amateur radio without regard to race, creed, color, sex, sexual orientation, national origin, religion, disabilities, or any other grounds prohibited by state and/or federal law.

3.1.2 Any person wishing to join the DARC may apply for membership by submitting a completed membership application, along with any necessary dues, to the Secretary or Treasurer or by mailing their completed application and dues to the DARC mailing address.

3.1.3 All prospective membership applications must be approved by a majority of the Board of Directors at the earliest board meeting following the application for membership. Should a membership application be denied, the Board of Directors must make every attempt to notify the applicant of the denial, as well as the reason for the denial, within thirty (30) days of the denial.

3.1.4 Members in the DARC shall hold membership based on only one (1) of the available membership classifications, as defined in Section 3.2.

3.2 MEMBERSHIP CLASSIFICATIONS

DARC offers the following classifications of membership:

3.2.1 Individual Annual Member: Anyone holding a valid amateur radio operator's license that is issued or recognized by the FCC.

3.2.2 Non-Licensed Individual Annual Member: Non-Licensed membership is available to anyone interested in amateur radio communications and who does not hold a valid amateur radio license as specified in Section 3.2.1. Non-Licensed members may not vote or serve on the Board of Directors. Non-Licensed members may serve on committees.

3.2.3 Family Annual Member: Anyone meeting the conditions of Individual Membership or Non-Licensed Individual Membership and who shall reside at the same address as an existing Individual Annual Member in good standing of the DARC. At least one (1) member of the household shall be an Individual Annual Member of the DARC in order for any other member of the same household to apply for Family Annual Membership. Licensed family members shall have the same status as Individual Annual Members and unlicensed family members shall have the same status as Non-Licensed Annual Members.

3.2.4 Individual Life Member: This type of membership is no longer available, but those who were classified as such are entitled to all the privileges of Individual Annual Members.

3.2.5 Family Life Member: This type of membership is no longer available, but those who were classified as such are entitled to all the privileges of Family Annual Members.

3.2.6 Non-Licensed Life Member: This type of membership is no longer available, but those who were classified as such are entitled to all the privileges of Non-Licensed Individual Annual Members.

3.2.7 Honorary Life Member: Any person may be granted an honorary membership in the DARC by a majority affirmative vote of the membership present at any regular DARC meeting. Those who were classified as such are entitled to all the privileges of Individual Annual Members.

3.2.8 Change of Status: A membership classification is determined by the status of the amateur radio operator's license and may be subject to change during the course of the membership year, should the license status change during the membership year.

3.3 VOTING CLASSIFICATIONS

There shall be two classifications of voting rights consisting of:

3.3.1 Voting Member: All members who pay their annual dues (at the rate recommended by the Board and approved by the membership) and hold a current valid amateur radio operator license as specified in Section 3.2.1. Individual, Family, Individual Life, Family Life, or Honorary Life shall have one vote each in all matters.

3.3.2 Non-Voting Member: All members not holding a valid amateur radio operator license. This will generally be, but is not limited to, Non-Licensed Individual Annual Members and Family Annual Members who do not hold a valid amateur radio operator license as specified in Section 3.2.1.

3.4 MEMBERSHIP DUES

3.4.1 Membership dues, in an amount determined by the Board of Directors and approved by a majority of the voting membership present at the next regular membership meeting, shall be assessed annually and are payable during the renewal period of January 1 through March 1. Honorary Life Members shall be exempt from payment of DARC dues.

3.4.2 Prorating of Dues: Dues for new members that have not been a member during the preceding three years shall be prorated from the date of application based on a quarterly basis according to the following schedule:

<u>From</u>	<u>To</u>	<u>% of applicable dues</u>
Jan 1	Mar 31	100 %
Apr 1	Jun 30	75 %
Jul 1	Sep 30	50 %
Oct 1	Dec 31	25 %

3.4.3 Non-Payment of Dues: Non-payment of DARC annual membership dues shall be cause for loss of club membership and all associated privileges until said payments are brought up-to-date in accordance with these bylaws. Members removed for nonpayment of dues shall be reinstated to their previous membership status upon full payment of all applicable dues for the current fiscal year.

3.5 EXPULSION FROM MEMBERSHIP

3.5.1 Expulsion of a Member: Any member who willfully and knowingly violates any of the DARC's or ARRL's policies and procedures shall be liable for expulsion from the DARC. A member shall also be subject for expulsion from the DARC for willfully and knowingly violating the FCC rules, Part 97, which results in suspension or revocation of that member's FCC license or results in a finally adjudicated monetary forfeiture to the U.S. Government.

3.5.2 Process of Expulsion: The Board shall determine if there is sufficient evidence and if the infraction rises to the level that necessitates expulsion from the DARC. These matters shall be handled on a case-by-case basis and by simple majority vote of the Board.

3.5.3 If the Board votes to recommend to expel, the accused member must be notified of the accusation of misconduct by certified mail, return receipt requested.

3.5.4 The Board will report its recommendation to the DARC membership at the next membership meeting. The accused member will then be given an opportunity to present a rebuttal of the accusation against them. If the accused member does not present a rebuttal, the accused member's membership shall be terminated.

3.5.5 When the accused member has finished making their rebuttal, the members of the DARC, by a two-thirds majority vote of the quorum, may adopt the recommendations of the Board. If the Board's recommendations are not adopted, the accusation(s) of misconduct made against the accused member shall be declared null and void.

3.5.6 An Officer or Trustee must first be removed from his or her office before an expulsion proceeding can commence.

3.5.7 After final adjudication and completion of expulsion proceedings, any member, Officer, or appointee shall be removed from the membership rolls of the DARC. Upon expulsion from the DARC, any member, Officer, or appointee shall immediately turn over all records, assets, equipment, and information belonging to, or necessary for the continuing activities of the DARC. Once a member is expelled, re-admittance to DARC membership shall only occur upon a unanimous affirmative vote of the entire Board of Directors of the DARC.

ARTICLE IV – BOARD OF DIRECTORS

4.1 OFFICERS & BOARD OF DIRECTORS

4.1.1 The Officers of the Board of Directors shall be President, Vice-President, Secretary, Treasurer, Immediate Past President, Director of Programs, Director of Meetings and Special Events, Director of Publications, Director of Training, and the current Trustee of the W4BS club call. All officers shall have one vote in all matters on which the Board of Directors vote.

4.1.2 The President may appoint the following non-voting positions to serve on the Board of Directors concurrent with the President's term: Public Information Officer, Club Historian and Club Counsel. The appointed positions shall serve at the President's discretion.

4.1.3 The Board of Directors shall be composed of the DARC Officers and appointed positions.

4.2 TERM OF OFFICE

4.2.1 Board of Directors members described in these by-laws shall be elected annually at the regularly scheduled DARC meeting in November.

4.2.2 The DARC Officers shall take office on January 1 following the election and serve for one (1) year, or until their successor assumes their office.

4.3 CHAIRMAN OF BOARD

4.3.1 The President shall preside over all Board of Directors meetings unless otherwise specified in 5.2.3.

4.4 VOTING RIGHTS

4.4.1 All officers of the Board of Directors shall be entitled to vote on any matter properly brought before the Board of Directors unless otherwise prohibited within these by-laws.

4.5 DUTIES

4.5.1 The Board of Directors shall conduct all business of the DARC not otherwise delegated by the by-laws to the membership.

4.6 MEETINGS

4.6.1 The Board of Directors shall meet on the first Tuesday of each month. The Board of Directors may change the day of the meeting with prior notice.

4.6.2 All meetings of the Board of Directors will be open to all DARC members in good standing except as provided in Paragraph 4.6.3.

4.6.3 In cases where the Board of Directors is to discuss matters specified in Article IV Section 11, "Removal from Office," or Article III Section 5, "Expulsion from Membership," the Chairman shall have the authority to close, at their discretion, such meeting to anyone not a member of the Board of Directors for the duration of such discussion. This authority is given to the Chairman to allow for the protection of confidentiality and privacy of the DARC members involved.

4.6.4 The Board of Directors may consider matters that arise between meetings through electronic or other available means.

4.6.5 Quorum: A quorum shall consist of at least six (6) voting members of the Board. In the absence of a quorum, no action taken by the Board of Directors shall be valid.

4.7 REPORT OF MEETING

4.7.1 Following each Board of Directors meeting, the presiding Officer shall provide a report to the DARC membership in the Club newsletter and/or at the next regular DARC meeting. This report will include at a minimum a summary of any actions taken by the Board.

4.8 NOMINATIONS

4.8.1 A nominating committee consisting of three (3) members shall be appointed by the President at the regular August membership meeting. The nominating committee shall nominate a President, Vice President, Secretary, Treasurer, Director of Programs, Director of Meetings and Special Events, Director of Publications, and Director of Training. These names will be placed in nomination at the regular October membership meeting.

4.8.2 All nominees must be members of the DARC in good standing and possessing voting rights. To be nominated as an Officer of the DARC, nominees must have attended not less than 50% of the past twelve (12) meetings.

4.8.3 The presiding Officer at the regularly scheduled DARC meeting in October shall open the floor for nominations. Nominations will be taken from the floor for all elected Officers whose term expires on December 31. Once opened, the time period for nominations shall remain open through the November meeting elections. After any and all nominations have been received from the floor during the November DARC meeting, the presiding DARC Officer at the November meeting shall close the nominations. Elections shall immediately follow the closing of the nominations.

4.9 ELECTION PROCEDURES

4.9.1 The presiding DARC Officer shall supervise the election.

4.9.2 Balloting shall be by written ballot.

4.9.3 If there is only one candidate for an office, that candidate shall be declared elected by a majority voice vote of the members present. A candidate shall be elected to an office by a simple majority of licensed paid-up members in attendance at the regular annual November meeting.

4.9.4 If for any reason elections are not held in November, the election shall be held at the next regular membership meeting thereafter.

4.9.5 The DARC Secretary shall count written ballots cast at the election. The person receiving the highest number of votes for any office shall be declared elected. The secretary shall then inform the presiding DARC Officer and the members present at the election meeting of the results of the election. In the event of a tie an immediate run-off will be held.

4.9.6 The results shall be published in the next available issue of the DARC newsletter. They may also be published on the DARC's website and other DARC communications media.

4.9.7 The newly elected Board of Directors shall take office in accordance with these by-laws.

4.10 OFFICER VACANCY

4.10.1 Should any DARC office, except that of President, be vacated for any reason, that position shall be filled by any eligible DARC member who shall be voted upon and approved by a simple majority of the remaining Board. This person shall serve the remainder of the current term.

4.10.2 Should the office of President be vacated for any reason, the Vice-President shall assume the office and duties of President for the remainder of the term leaving the office of Vice-President vacant for filling by the Board as set forth in these by-laws.

4.11 REMOVAL FROM OFFICE

4.11.1 The Board of Directors may recommend the removal of any DARC Officer for any of the following reasons:

(a) Poor attendance, such as being late or absent for multiple board and/or general membership meetings without good reason.

(b) Failure to pay dues within the period in which dues are to be paid.

(c) Gross misconduct as determined by a majority of the Board in the performance of official duties.

(d) Behavior that brings discredit to themselves or to the DARC such as an FCC license suspension, or other civil or criminal action.

4.11.2 Any Officer removed from their position retains membership within the DARC unless expelled from the DARC. Should such expulsion from the DARC be deemed necessary, then expulsion shall be handled as specified in Article III Section 5, “Expulsion from Membership.”

4.12 PROCEDURES FOR REMOVAL

4.12.1 At the next Board of Directors meeting, the matter of removal from office of a DARC Officer must be taken up before any other business may be conducted. The Board members shall vote, except for the accused Officer, upon the removal action. A simple majority of the Board members present shall cause the motion to carry and the accused Officer shall be removed from office effective immediately.

4.12.2 Any vacancies resulting from this procedure shall be filled in accordance with Article IV Section 10, “Officer Vacancy.”

ARTICLE V – DUTIES OF BOARD OF DIRECTORS

5.1 PRESIDENT

5.1.1 The President shall preside at all DARC membership and board meetings and shall vote only in the case of a tie in which case he or she will cast the deciding vote.

5.1.2 The President shall conduct the meetings according to the rules adopted: enforce due observance of the Charter of Incorporation and the By-laws, and decide all questions of order.

5.1.3 The President shall sign all official documents adopted by the club and none other.

5.1.4 The President shall perform all customary duties pertaining to the office of President.

5.1.5 The President shall be an ex-officio member of all DARC committees.

5.1.6 The President may, from time to time, delegate to others the authority to act as DARC spokesperson or representative of the DARC but shall retain the ultimate authority to act as the primary spokesperson and representative of the DARC.

5.2 VICE PRESIDENT

5.2.1 The Vice President shall serve as membership chairman and solicit and encourage new members.

5.2.2 The Vice President shall assist the President in the performance of the President's duties.

5.2.3 The Vice President shall preside over all DARC functions in the stead of the President should the President not be able to do so.

5.3 SECRETARY

5.3.1 The Secretary shall maintain the official and accurate record of all DARC activities, including, but not limited to:

(a) Copies of all meeting minutes, to include general membership, and Board meetings.

(b) Originals or copies, as appropriate, of all correspondence relating to DARC business, regardless of the author thereof.

(c) A copy of all amateur radio licenses issued to the DARC through its License Trustees as herein provided.

(d) The current name, address, and telephone number of the DARC License Trustee of the various DARC radio systems.

(e) A current and accurate list of the DARC membership. This list may include call signs, email addresses, meeting attendance or other appropriate information that is determined to be needed for the completion of Club duties. This list shall be shared by the Secretary with other Board members to assist in their roles.

(f) Any other documents deemed appropriate by the DARC Board of Directors.

5.3.2 Documents having legal or historical significance shall be stored and protected in an appropriate manner.

5.3.3 No original documents in the custody of the Secretary may be transferred, assigned, or given to any other party without the express permission of the President. Should information be required, only photocopies shall be provided to the requestor.

5.3.4 The Secretary may write official correspondence for the DARC.

5.3.5 The Secretary shall, upon completion of their term of office, turn over all materials and documents to the incoming Secretary in a timely manner.

5.4 TREASURER

5.4.1 The Treasurer shall maintain a checking account in the name of the Delta Amateur Radio Club, Inc. for the deposit of funds and the normal disbursement of funds.

5.4.2 The Treasurer shall maintain and keep accurate, current, and detailed records of all financial transactions to which the DARC is a party.

5.4.3 The Treasurer shall pay no bills except regular reoccurring expenses and those authorized by the current budget. All other expenditures other than the ones stated must be approved by a vote of the general membership prior to making the expenditure.

5.4.4 The Treasurer may maintain an interest-bearing savings account or Certificate of Deposit(s) for the deposit of funds in excess of normal operating monies.

5.4.5 The Treasurer shall set up and maintain an effective system to track budget status and projected budget conditions to alert the Board to any potential financial shortfalls that may occur.

5.4.6 The Treasurer shall prepare a budget according to Article 9 Section 4 “Adoption of the Budget.”

5.4.7 The Treasurer shall provide, as requested, to the Board or the President, a detailed and complete listing of receipts, expenditures, receivables, and liabilities.

5.4.8 The Treasurer shall provide at each regular Board meeting an itemized statement of receipts and disbursements. Should any DARC member wish to inspect the financial records, a request may be made to the Treasurer during a meeting of the Board. No information concerning DARC financial status shall be given outside normal DARC channels without the express permission of the Board. No document shall leave the possession of the Treasurer without the express permission of the Board.

5.4.9 The Treasurer shall report at each regular membership meeting the receipts and disbursements for the prior month. An itemized statement of receipts and disbursements for the prior month shall be published in the DARC newsletter each month.

5.4.10 The Treasurer shall assist other authorized parties in a timely manner, as required, with any audits or reviews of DARC books, tax matters, incorporation, and any other issues that may arise. Questions regarding how to handle these items shall be directed to the Board.

5.4.11 The Treasurer shall file, in a timely manner, the necessary tax documents with the appropriate State and Federal agencies, as required by the corporation by-laws. Copies of these reports shall be maintained with other financial records.

5.4.12 The Treasurer shall, at the completion of the term of office, turn over all materials and information to the incoming Treasurer in a timely manner.

5.5 DIRECTOR OF PROGRAMS

5.5.1 The Director of Programs shall be responsible for scheduling all speakers at club meetings; be responsible for ensuring that any special equipment, if required, is on hand for the presentation; and is to work with the program guest(s) to make sure that everything is provided for the presentation.

5.6 DIRECTOR OF PUBLICATIONS

5.6.1 The Director of Publications shall be responsible for gathering, editing, and publishing of information for any club publications, including but not limited to the monthly DARC newsletter and the DARC website.

5.6.2 The Director of Publications, with assistance of the Secretary, shall maintain a DARC email list of members and nonmembers for the purpose of distributing the DARC newsletter and other information.

5.7 DIRECTOR OF TRAINING

5.7.1 The Director of Training shall coordinate any classes or special training sessions of the DARC.

5.7.2 The Director of Training will plan, coordinate, and work with the Public Information Officer and the Director of Publications to distribute any information to the public on any such training sessions.

5.7.3 The Director of Training is responsible for coordinating the Net Control Operators for DARC repeater nets. The Director may appoint a Net Manager to serve concurrent with the term of the Director.

5.8 DIRECTOR OF MEETINGS AND SPECIAL EVENTS

5.8.1 The Director of Meetings and Special Events shall be responsible for ensuring that the meeting room is available.

5.8.2 The Director is responsible for purchasing refreshments for each monthly membership meeting.

5.8.3 The Director is also responsible for securing any meeting facilities for any sit-down eating meetings or club picnics, or for any other requirement for any meeting facilities that might occur.

5.9 PUBLIC INFORMATION OFFICER

5.9.1 The Public Information Officer shall be appointed by the President to be responsible for generating publicity and recognition for all DARC functions and activities.

5.9.2 The Public Information Officer shall maintain an accurate and permanent record of their activities and at the completion of the term of office turn over all materials and information to the incoming Public Information Officer in a timely manner.

5.9.3 The Public Information Officer shall have no voting privileges on Board matters.

5.10 CLUB HISTORIAN

5.10.1 The Club Historian shall be appointed by the President to keep a record, both written and pictorial, of all club events.

5.10.2 All written and pictorial documents shall be maintained and turned over to the successor in a timely manner.

5.10.3 The Club Historian shall have no voting privileges on Board matters.

5.11 CLUB COUNSEL

5.11.1 The Club Counsel may be appointed by the President to advise the Board of Directors on any legal matters that might arise.

5.11.2 The Club Counsel shall have no voting privileges on Board matters.

5.12 W4BS TRUSTEE

5.12.1 The Trustee shall be appointed by the President and will be responsible for any use of the W4BS call.

5.12.2 The Trustee shall hold a valid Amateur Extra Class license or the current highest FCC amateur radio license.

5.12.3 The Trustee will hold the position on the Board with full voting privileges on Board matters until the President recommends a successor and the Board approves the recommendation.

ARTICLE VI – MEMBERSHIP MEETINGS

6.1 MEETINGS

6.1.1 The regular meeting of members shall be held on the second Tuesday of each month at a time and place specified by the Board of Directors. The Board of Directors may change the date, place, and/or time of the meeting to coincide with special programs or occasions and must notify the membership of the change via electronic mail (e-mail) at least one (1) day prior to the meeting date.

6.1.2 All DARC meetings and events may be recorded and published.

6.2 QUORUM

6.2.1 The members attending each meeting shall constitute a quorum for transaction of business: a majority rules.

6.3 SPECIAL MEETINGS

6.3.1 Special meetings may be called by the President at any time by a request of at least five members of the DARC. Notification shall be as outlined in Section 6.1.1.

6.4 ELECTRONIC MEETINGS

6.4.1 The Board of Directors may, in its sole discretion, determine that if any meeting of the members cannot be held in person, a meeting may instead be held through electronic or other available means.

Participation in a meeting held by electronic or other available means shall constitute presence in person at the meeting for all purposes, including quorum and voting.

ARTICLE VII – DARC COMMITTEES

7.1 COMMITTEES

7.1.1 All committees, both standing and interim, are expected to operate and to serve the DARC in a manner consistent with the stated purpose of the DARC as specified in Article I of these by-laws.

7.1.2 All committee chairpersons serve at the request and the pleasure of the DARC President.

7.1.3 Repeater Committee: The W4BS Trustee may appoint a committee, which shall be chaired by the W4BS Trustee.

ARTICLE VIII – CLUB LICENSE TRUSTEES

8.1 REQUIREMENTS

8.1.1 As required by Title 47, Part 97 of the FCC rules governing Amateur Radio, the DARC shall designate License Trustee(s) to hold the licenses necessary to fully operate the various DARC repeater systems. This Article is intended to supplement the FCC rules, and should it be determined that this Article is in conflict with FCC rules, the FCC rules will prevail.

8.2 QUALIFICATION

8.2.1 Each DARC License Trustee shall be a member in good standing of the DARC and shall maintain the highest-class license currently issued by the FCC.

8.3 TRUSTEES SELECTION

8.3.1 In the event a License Trustee of record no longer meets the requirements of this Article or the License Trustee is no longer willing or able to serve as License Trustee, the DARC

President shall select a new License Trustee. The DARC Board of Directors will ensure that all appropriate records are updated in accordance with FCC rules and regulations in force at the time of selection.

ARTICLE IX – FISCAL AFFAIRS

9.1 PERIOD OF FISCAL YEAR

9.1.1 The DARC fiscal year shall be from January 1 through December 31.

9.2 EXPENDITURES

9.2.1 The Board of Directors shall, by majority vote when a quorum is present, have the authority to authorize the expenditure of funds as outlined in the Club budget.

9.2.2 The Board of Directors has no authority to assume any debt on the Club's behalf.

9.3 DEPOSITORY

9.3.1 The Board of Directors shall select the depository of Club funds and shall determine the procedure of writing checks.

9.4 ADOPTION OF THE BUDGET

9.4.1 The Treasurer, with the help of the Board, shall prepare a proposed written budget for the upcoming calendar year by the December Board meeting.

9.4.2 At the January Board meeting, the status of the DARC funds and the financial transactions of the past year will be reviewed. At this meeting, the Board shall confirm a proposed written

budget for the current calendar year. The proposed budget shall be published in the February DARC newsletter.

9.4.3 This proposed budget will show the income and expenses for the past year as well as the expected income and expenses for the current year.

9.4.4 The proposed budget shall be voted upon by the membership present at the February general membership meeting. The budget will be considered adopted by a simple majority vote of those members present.

9.4.5 Should an unexpected event arise that would result in expenses exceeding the total budgeted expenditures, the Board can request to amend the budget during a regular or special membership meeting. The amended budget will be considered adopted by a simple majority vote of those members present.

9.5 BOARD DISCRETIONARY SPENDING AUTHORITY

9.5.1 The purpose of the Board Discretionary Spending Authority is to allow the DARC Board the ability to spend a limited amount of money as defined in Section 9.5.2, without any prior approval, as necessary to conduct the business of the DARC.

9.5.2 The specific amount of the Board discretionary account shall be reviewed and revised, as necessary, at least annually at the Board's January budget meeting and allocated in the approved fiscal year budget.

9.5.3 The Board may review the budget and reallocate funds among categories if it deems it appropriate, so long as the overall total budget is not changed.

ARTICLE X – PARLIAMENTARY AUTHORITY

10.1 PARLIAMENTARY AUTHORITY

10.1.1 The rules contained in "Robert's Rules of Order Newly Revised" shall govern in all cases to which they are applicable, and in which they are not inconsistent with these by-laws.

ARTICLE XI – AMENDMENTS TO THE BY-LAWS

11.1 AMENDMENT PROCEDURE

11.1.1 Any voting DARC member may submit a proposed amendment to these by-laws at any regular meeting of the DARC. Such proposals must be written, signed by five voting members of the DARC, and must be given to the DARC Officer presiding at the regular meeting, who shall in turn give it to the President.

11.1.2 At the next meeting of the Board of Directors, the President shall present the proposed amendment to the Board, which will then discuss it and recommend either adoption or rejection of the proposed amendment, including in the recommendation the reasons for adoption or rejection. A decision on a recommendation may be postponed until the next meeting of the Board if the Board feels that additional investigation is required.

11.1.3 At the first regular meeting of the DARC following the decisive meeting of the Board, the Officer presiding at the meeting shall present to the DARC the Board's recommendation on the proposed amendment to these by-laws. The only action the DARC may take at this time is to set a date, time, and place at which a vote on the proposed amendment shall occur.

11.1.4 The Secretary shall convey copies of the proposed amendment and supporting comments from its creators, and the Board's recommendations and comments on the proposed amendments to the DARC Director of Publications for incorporation into the next DARC newsletter. The newsletter shall also announce the date, time, and place of the vote on the submitted amendment. The same information shall also be given to the web site manager for incorporation onto the DARC web site and the DARC email list may be used to transmit the information by email. The meeting date for voting shall also be announced on all DARC nets prior to the voting meeting.

11.1.5 At the meeting of the DARC at which the vote on the proposed amendment shall occur, a two-thirds majority vote of the quorum present in favor of the proposed amendment is required to adopt the amendment.

11.2 TECHNICAL AMENDMENTS OF THE BYLAWS

11.2.1 The Board of Directors is authorized to correct article and section designations, punctuation, and cross-references and to make such other technical and conforming changes as may be necessary to reflect the intent of Delta Amateur Radio Club.

DELTA CLUB ADVERTISEMENTS

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)



Joe Miller
Owner

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