

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 55 * August 2020



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 do plan to meet this month via “ZOOM.”

Topic: August Delta Club Member Meeting

Time: Aug 11, 2020 07:00 PM Central Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/83423985164?pwd=aWxycjJ1bmw2UmtlSERtRGNOaGtTZz09>

Meeting ID: 834 2398 5164

Passcode: 970935

Program: **ARRL information given by Joe WA4OVO**

TESTING SESSIONS are also CANCELLED.

Contact Jeff Krause, AJ4GY at AJ4GY@comcast.net or call at 901-301-6776 for information.

President's Corner

Submitted by Steve Frazier, KK4VPT

Normally for the August Sparks I would be saying that I am looking forward to my Denver's biscuits and talks with fellow members on the bus ride down to the Huntsville Hamfest. But this is 2020 and as you may have heard, things are not normal. This is the fifth month we have had to make the decision to not meet in person and during the Board of Directors meeting last week we discussed the fact that we may not be able to meet in person the rest of this year. We will make that decision each month based on both the current situation in the community and the Delta Club's member's needs.

We will be having another Zoom meeting for August. The information to join the meeting is above on the Sparks page and we will be sending out an email with the meeting information. For this month, Joe Lowenthal WA4OVO will share information about ARRL. Assuming we will need to do a Zoom meeting for September, we think it would be interesting to have you share with everyone what you have been working on in your shack this year. During any of our Zoom meetings please feel free to share or use this time to ask for help or advice.

As 2020 is winding down, that means we are getting closer to our Board of Directors election in November. We are already working on a few options, but also want our input. If you are interested in being involved in this important part of being a member of the Delta Club, please contact me or any other Board member. There is a requirement to attend 6 meetings in the last 12 months to be an officer and we are counting the Zoom meetings to meet this requirement.

Keep in touch as often as you can by checking in on the net every night on the 146.82 repeater at 8pm. And don't forget to say thanks to the net control operator that night who is one of many that make the nightly net possible.

73 to all
Steve Frazier
KK4VPT

Treasurer's Report

Submitted by David Jackson KM4SEC

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

Membership for one is \$20 or family is \$25. You can fill out the form online and email to David Jackson KM4SEC. davidjackson@bellsouth.net

If you prefer you can print the form and bring the completed form, along with the membership fee to any meeting.

LIFEGREEN CHECKING FOR BUSINESS
July 1, 2020 through July 31, 2020

SUMMARY			
Beginning Balance	\$25,110.58	Minimum Daily Balance	\$25,110
Deposits & Credits	\$200.00 +	Average Monthly Statement Balance	\$25,205
Withdrawals	\$0.00 -		
Fees	\$0.00 -		
Automatic Transfers	\$0.00 +		
Checks	\$0.00 -		
Ending Balance	\$25,310.58		

DEPOSITS & CREDITS			
07/13	Deposit - Thank You		100.00
07/17	Deposit - Thank You		65.00
07/30	Deposit - Thank You		35.00
Total Deposits & Credits			\$200.00

DAILY BALANCE SUMMARY					
Date	Balance	Date	Balance	Date	Balance
07/13	25,210.58	07/17	25,275.58	07/30	25,310.58

8/1/2020

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DELTA AMATEUR RADIO CLUB

SMALL BUSINESS CD *0028

Available Balance	INTEREST RATE	YTD INTEREST	INTEREST EARNED NOT PAID
\$10,572.26	1.590 %	\$83.73	\$20.68

Activity



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DARC Board of Directors Meeting Minutes

Submitted by Mary Jean Hall KN4FBL

DARC Board of Directors Meeting Minutes for August 4, 2020

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

Absent: N/A

The regular monthly meeting of the Delta Amateur Radio Club Board of Directors was held on Tuesday, August 4, 2020 at 6:30 p.m. 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. Due to the COVID-19 Pandemic, the board met online to abide by state and local guidelines.

The board reviewed and voted on the memberships per the club's bylaws.

The board discussed the plans for the August Delta Club regular meeting and decided to host the meeting virtually given the cases and health concerns.

Given the Covid-19 Pandemic, the board discussed options for how to hold the November Delta Club elections if the club is not able to meet in person. Mary Jean Hall read excerpts from the DARC bylaws and proposed two options: 1. Treat the online November meeting as a regular meeting and vote accordingly, taking a roll call vote if needed; 2. Wait until the next in-person meeting following the November scheduled meeting, and then hold the election at the first in-person meeting. She proposed voting online during the November meeting since we have been treating the Zoom meetings as official meetings anyway. The board discussed it further but decided to wait on a decision until closer to time.

Ian Lucas shared his ideas for upcoming meeting programs and requested suggestions for content that is geared toward virtual meetings. The board members discussed several options for program content that could be adjusted for a presentation online.

David Jackson read the Treasurer's Report.

The board discussed the ARRL equipment insurance list.

Joe Lowenthal said there was a good turnout at the testing session for the Technician class students. Ten students passed, with two making General. He described the extra precautions that were taken for the students to be able to test safely, which included spacing out each student around the gym with each one having his or her own table.

Joe Lowenthal said that, at the moment, no other classes have been planned. However, the next class that would likely be a General class around November.

Barry McDonald updated the board on the status of the 146.820 repeater. A few weeks ago, he went out to the repeater site with Wes Fay KA4UEC to fine-tune the cavities. All seems to be in working order now, but he encouraged anyone who may have repeater concerns to let him know.

Bob Vawter said that he has been happy with using Hubspot to send out the Sparks newsletters. Joe Lowenthal reminded the board that Rittermail emails are now obsolete. (Note: Should anyone have a Ritter Mail email address on file with Delta Club, please email Secretary Mary Jean Hall at kn4fbl@gmail.com with a new email address.)

Mary Jean Hall moved to accept the Treasurer's Report. Joe Lowenthal seconded the motion. The motion unanimously passed.

Mary Jean Hall moved to accept the Secretary's Minutes from the previous Board of Directors meeting. Barry McDonald seconded the motion. The motion unanimously passed.

Ian Lucas moved to adjourn. Barry McDonald seconded the motion. The motion unanimously passed.

Steve F. adjourned the meeting at 7:41 p.m. The next Board of Directors meeting is scheduled for Tuesday, September 1, 2020 at 6:30 p.m. at Ellendale Church of Christ. Should it not be possible to meet in person, the board meeting will be held online through Zoom.

Respectfully submitted by Mary Jean Hall KN4FBL, Secretary

Minutes of Last Month's Club Meeting
Submitted by Mary Jean Hall KN4FBL

DARC Meeting Minutes for July 14, 2020

Call to Order and Opening Remarks

The regular monthly meeting of the Delta Amateur Radio Club was held on Tuesday, July 14, 2020 at 7:00 p.m. 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. Due to the COVID-19 Pandemic, the club met online to abide by state and local guidelines. At least 55 members and guests were present for the meeting.

Steve Frazier KK4VPT reminded the club members to check their emails to make sure they have received the Sparks newsletter and membership cards. If not, he said that you can get in touch with Mary Jean Hall, DARC Secretary, to make sure we have your current email address on file.

Minutes and Treasurer's Report

Len Grice W4MKS moved to "approve the Treasurer's Report and previous meeting's minutes as published in Sparks." Ian Lucas KN4OEK seconded the motion. The motion was unanimously adopted by the club.

Announcements

Joe Lowenthal WA4OVO updated the club on the progress of the current Technician class. He plans to have the antenna and feed line class on June 23.

Joe Lowenthal WA4OVO said that he talked with a clerk at the Shelby County TN Clerk's Office. Apparently, they are currently not able to process any new specialty license plate tags, which include the amateur radio emergency tags. This is apparently because the building where they are initially made was damaged during the Middle Tennessee tornado earlier this year.

Barry McDonald W5CJ updated the members on the status of the 146.820 repeater. He is keeping an eye on everything, but so far it seems to be better and in working order.

Discussion / Program

Ian Lucas KN4OEK presented the program on amateur radio events, including local activities that operators may participate in to use their amateur radio skills.

After the presentation, Steve Frazier KK4VPT requested ideas for future program topics. The club members discussed a few options for possible program topics.

Steve Frazier KK4VPT reminded that, for those who participated in the recent event, ARRL Field Day contact logs are due in a few weeks. Joe Lowenthal WA4OVO said that anyone submitting contact logs should be sure to list it under “Delta Amateur Radio Club Memphis” for the club to get credit.

Closing Remarks

The meeting adjourned at 8:14 p.m.

The next Delta Amateur Radio Club meeting will be Tuesday, August 11, 2020 at 7:00 p.m. If the meeting is held in person, it will be at the Ellendale Church of Christ. If it is not possible to meet in person, the meeting will be held online, likely 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 where/how the meeting will be held.

Respectfully submitted by Mary Jean Hall KN4FBL, Secretary

HAM LICENSE TRAINING for 2020

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.

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 2020 from Delta Classes

20 Technician

5 General

4 Extra

Note:

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.

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

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

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 General class will probably start in early November.

The next Amateur Extra class will probably start in early January.

CURRENT CLASSES

Tech Class 3-20 – June 25 – August 13, 2020

Tech Class 3-20 is being held starting June 25th on six Thursday nights from 6:15-9:30pm on a combination of Zoom online and planned in person classes. There are twelve students in the class. One of the students is eight years old. Both of his parents are in the class. The classes are being held on June 25, July 2, 9, 23, 30 and August 13. The Zoom classes continued thru the July 23rd class. The Laurel FCC test session was held in the gym at Germantown United Methodist Church, 2323 West Street, using social distancing.



Tech Class 3-20 Test Session

Photo by Rick Tillman WA4NVM

Congratulations to Carla Andrews KO4FVX, Ryan Bednar KO4FVY, Ransom Bowen KO4FVZ, David Harkleroad KO4FWB, Phillip Green II KO4FWC, Brian Richards KO4FWD, Cynthia Spain KO4FWE, and Philip Thomas KO4FWF for obtaining their Technician licenses. Additional congratulations to Ryan KO4FVY and Cynthia KO4FWE for also upgrading to General. Thanks to Joe WA4OVO, Perry N4GJ, Barry W5CJ, Jelly N4HLT and Rick WA4NVM for providing the Laurel VEC test session.

Laurel VEs Jelly N4HLT, Joe WA4OVO, Perry N4GJ, Barry W5CJ with photographer Rick WA4NVM.



The instructors were Joe Lowenthal WA4OVO, Paul Roberts KA9VAU, Len Grice W4MKS, Perry Hayes N4GJ, John Reiners KN4BVH, and Pat Lane W4OQG.

The equipment demonstrations are to be Repeater Basics by Joe WA4OVO, HF Wire Antennas by Pat W4OQG, Satellite contacts by Rick Tillman WA4NVM and Richard Martin K4DXF, and APRS by Rick Pellicciotti KJ4NWQ. John KN4BVH provided FM digital instructions on DMR, Fusion, and D-STAR during an earlier class. Barry W5CJ provided earlier demonstrations on Echolink and information on Allstar.

SCHEDULED CLASSES

None

COMPLETED CLASSES

General Class on Zoom – March 24 – April 10, 2020

Working with K1ZG in Massachusetts, I helped provide instruction with an online General license class on the Zoom platform. This General class was offered to the Tech Class 2-20 students. One student did participate from 1-2:30pm on weekdays. Students were from Massachusetts, upstate New York, Indiana, Texas and Tennessee. Barry W5CJ and Ed KV4LF were also instructors.

When FCC testing resumes, we will see how well the students retained their learning. Congratulations to Kyle KD2TCA for upgrading on April 3rd at a drive-thru test session. Congratulations to Debra Johnson from the Tech 2-20 for earning her General as noted below.

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

Tech Class 2-20 was held from February 22nd to March 21st on four Saturdays except March 14th from 9am to 1pm. The first three sessions were at the Memphis Police Department Appling Farms Station precinct, 6850 Appling Farms Pkwy. Due to the coronavirus the last instructional class was held online on GoToMeeting. While the order for 10 or less people in a meeting was active, we had arranged to have the Laurel VE team provide testing at a student's shop with only five students testing at a time. However, the Safer at Home order cancelled those plans. Congratulations to Jennifer Boardman KX4YG for Tech, General and Extra; Deborah Johnson KO4DEP for Tech and General; and Thomas Clark KO4DEQ, Elliot Pope KO4DER and Marc Tester KO4DES for Tech. Thanks to the Tipton County ARS VE team led by Bob AI4GI with Ronny WA4RW and Bill KI4BIY for offering the test session. On July 30th with Tech Class 3-20 testing Michael Ehrhardt KO4FWA earned this Technician license.

Congratulations to Chris Smallwood for earning his Technician license on May 18th at the Tipton ARC test session. FCC testing for the others will be in the future after the Safer at Home declaration is lifted.



Tech Class 2-20 on first day of class. Photo by Joe Lowenthal WA4OVO

The instructors were Paul Roberts KA9VAU, Pat Lane W4OQG, John Reiners KN4BVH, Perry Hayes N4GY, Len Grice W4MKS, and Joe Lowenthal WA4OVO. There were no demonstrations for this class. Joe WA4OVO did cover the Repeater Basics at the end of the fourth class.

Extra Class 1-20 – January 4 – February 15, 2020

Extra Class 1-20 began on January 4th with six students for six Saturdays from 9am to 1pm at Memphis Police Department Neighborhood Watch training room at Appling Farms Station,

6850 Appling Farms Blvd. Congratulations to Bobby Stroud KK5PAC for upgrading early to Extra at the Jackson MS Capital City Hamfest on January 25th. Congrats to Brett Johnston KN4SMV for upgrading at the February 11th Delta Club test session. Congrats to Jim Harris KF5TPT for upgrading at the Olive Branch ARRL exam session on February 19th.



Dean Honadle N2LAZ demonstration left hand rule for Extra Class 1-20
Joe Lowenthal WA4OVO

Photo by

The instructors were Joe WA4OVO, Paul KA9VAU, Dean N2LAZ, Barry W5CJ, Dave AD4Q, David W4DWW and Pat W4OQG. The FCC testing was available on February 15th by the Delta Club ARRL VE team led by Jeff Krause AJ4GY.

Tech Review for CBU – February 5, 2020

A Tech Review class was held on February 5th for five Christian Brothers University students in the Engineering Department upper division elective course, Introduction to Unmanned Aerial Systems. Dr. Eric Welch WD5FTA requires the students to earn their FCC Technician license for this course.



All five passed with great scores. Congratulations to Judit Aubets Macia KO4BPP, Josue Bohorquez KO4BPHammontree KO4BPT, Oscar Mendoza KI5ICD, and Samuel Ruleman KO4BPS.

The Laurel VEC team provided the FCC exam session. The VEs were Bill Stevens WC9S, Barry McDonald W5CJ, Len Grice W4MKS, Jelly Thompson N4HLT, Eric Welch WD5FTA, and Joe Lowenthal WA4OVO.

Photo by Joe Lowenthal WA4OVO



**CBU Introduction to Unmanned Aerial Systems Tech Class with professor Dr. Welch WD4FTA on left and instructor Joe Lowenthal WA4OVO on right.
Photo by Eric Welch WD4FTA**

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

General Class 4-19 was held on six Thursday nights from November 7th thru December 19th from 6:15-9:30pm. The 11 students began with eight completing the class. The location was at the Germantown Police Department training room, 1930 South Germantown Road.

Congratulations to Rodney KN4WGV, Robert KN4KFL, Mike KM4MRW, Bobby KK5PAC and Robert KN4RBW who upgraded to General at the class test session. Congratulations of

Russell Rutledge KO4ASW who earned his Technician and General licenses. Congratulations to Shawn KN4WKF for upgrading at Delta Club test session on March 10, 2020.

The instructors were Joe WA4OVO, Barry W5CJ, Paul KA9VAU, Len W4MKS, John KN4BVH and Pat W4OQG. The Delta Club ARRL VE Team tested on December 19th. Thanks to the VE team of Jeff AJ4GY, Stacy KJ4MDA, Barry W5CJ, Tom KK4ZZZ, Warren KC7ND and Joe WA4OVO for providing the testing opportunity.



Perry Hayes N4GJ introducing the aura of digital modes. Photo by Joe Lowenthal WA4OVO



General Class 4-19 ARRL FCC Test Session Photo by Joe Lowenthal WA4OVO

7.

General for CBU - November 20, 2019

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

Tech Review for CBU - October 30, 2019

A Tech Review class was held on October 30th for eight Christian Brothers University students in the Engineering Department upper division elective course, Unmanned Aerial Systems Design. Dr. Eric Welch WD5FTA requires the students to earn their FCC Technician and General Class licenses for this course. There are 11 students in the class with three who had earned their Tech license last February in the Intro class.

All eight students earned their Technician license and five upgraded to General. Congratulations to Mat Donnelly KN4ZNI, John Clark KN4ZNJ, Nicholas Ireland KN4ZNK, Jonathan Looney KI5GZS, Pablo Marin KN4ZNM and Zhaoliang Ni KN4ZNN who earned their Technician licenses. Congratulations to Riggs Markham KN4ZNL and Zach Yancy KN4ZNO who earned Tech and also upgraded to General. Congratulations to Josue Becerra KN4SQK, Ian Dover KN4SQQ and Bryce Whitfield KI5DLE who upgraded to General.

Dr. Welch WD5FTA is the Department Chair of Electrical and Computer Engineering. The Laurel VE Team of Dr. Welch WD5FTA, Joe Lowenthal WA4OVO, Bill Stevens WC9S, Barry McDonald W5CJ and Perry Hayes N4GJ administered the FCC test session.

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

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

Congratulations to Rodney Adams KN4WGV, Daniel Brieck KN4WGW, Robert Broom KN4WGX, David Cary KN4WGY, Jim Dollar KN4WZ, Joshua Foster KN4WHA, Vicky Gamber KN4WHB, Lauren Martin KN4WHC, Matthew Massey KI5FYA, Jonathan Pesce KN4WHD, and ShawnThomas KN4WKF who earned their Technician licenses.

Congratulations also to Robert Broom and David Cary who also earned their General licenses, as well as, Mary Jean Hall KN4FBL who upgraded to General. Six more of the students tried for General but did not pass.

The instructors were Joe WA4OVO, Paul KA9VAU, Pat W4OQG, John KN4BVH, Perry N4GJ, and Len W4MKS. Barry W5CJ presented Echolink and Allstar information. John KN4BVH demoed DMR with information on D-Star and Fusion. On Monday, August 12th there was equipment demonstrations. Joe WA4OVO and John KN4BVH provided repeater basics and a CHIRP demo. The students checked into the Delta Net. Rick WA4NVM and Richard K4DXF made a live SO-50 satellite contact while Rick KJ4NWQ informed on APRS. Pat

W4OQG showed off the non-FM side of ham radio with his Kenwood TS-2000 HF SSB setup with a long wire and talked about MARS.



Tech Class 3-19

Photo by Joe Lowenthal WA4OVO

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

Tech Class 2-19 – February 21-March 28, 2019

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

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

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

Tech Review for CBU February 20, 2019

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

Extra Class 1-19, January 5 – February 16, 2019

Extra Class 1-19 began on January 5th through February 16th excluding January 26th (Jackson MS Hamfest) on six Saturdays from 9am-1pm at the Memphis Police Department Northeast Precinct, Appling Farms Station, at 6850 Appling Farms Parkway. Nine students began with seven completing the class.

Congratulations to Steve Evans KM4VYA, Carolyn Horne KX4QF, Jerry Kirkscey KX4QE, Robert Murry KN4OEF, and Bob Waters KN4PDW for earning their Extra Class license at the class ARRL FCC test session. Congratulations to Jim Martin KD4FUU who upgraded at the Delta Club test session on April 9th. The Delta Club VE Team of Jeff Krause AJ4GY, Joe Lowenthal WA4OVO, Barry McDonald W5CJ, Bill Stevens WC9S, and David Webb KV4QI provided the FCC test session on February 16th.

HOW TO PRINT YOUR FCC LICENSE

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

HQ 101

Submitted by Ham Hilliard W4GMM

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

Ham 101 is on hold due to COVID-19. We will resume when the club resumes their meeting. If you would like to have something covered then e-mail me at w4gmm@bellsouth.net.

ARMED FORCES DAY 2020

Joint services have postponed the Crossband test until Fall due to Covid=19.

FALL, 2020 is the date of this years Armed Forces Day Cross Band Communication Test. Due to the current restrictions I have not been able to recruit operators. WE will operate at NSA Mid-South at the MARS building N-100. We will operate from 1200z Saturday until 0100z Sunday. 6am till 8pm local time.

This would be a great time for those that are interested in HF but don't have the room or equipment to get some on airtime. We will be operating two stations most of the day. If you can come for just an hour or two, we would welcome the help. We will be joining with other stations operating from military locations. This is an important test as it gives the military knowledge that in an emergency it can enlist the help of Ham Radio operators across the country. It is not a contest except for bragging rights among the military stations. Anyone interested may contact W4GMM at w4gmm@bellsouth.net.

YL News

submitted by Linda KJ4CTX

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

Amateur Hardware Update

Submitted by James Butler, KB4LJV

One of the most popular radios for amateurs is the Handie Talkie. Baofeng has come out with a new model based on the popular UV-5R handie. I am a big fan of these because they are cheap and they work well. The newest unit is the UV-5R III which is a triband unit. The Baofeng puts out 4 to 5 watts on 2 meter and 440 MHz. This unit also covers the 220 MHz band with a 1 watt output. The unit ships with two antennas, One covers 2 meter and 440 while the other covers 2 meter and 220 MHz band. For about \$10.00 you can buy a triband antenna for the radio so you do not have to change antennas. It has a three color display, 128 memory slots, FM radio receive, and out of band scanner functions. The radio comes with a 1800 MA rechargeable battery, drop in charger, and a external speaker microphone unit. The best part is the price. You can get these on Ebay from an American dealer with 2 year warranty for under \$30.00 with free shipping. Do a search on Ebay for “UV-5R triband”.

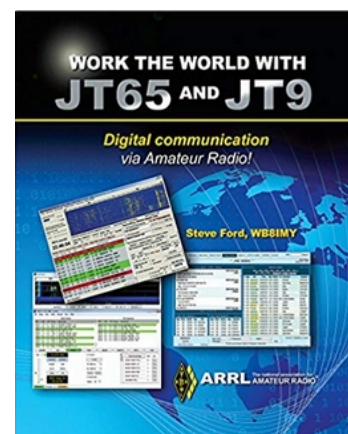


James Butler
KB4LJV

Amateur Packet Update

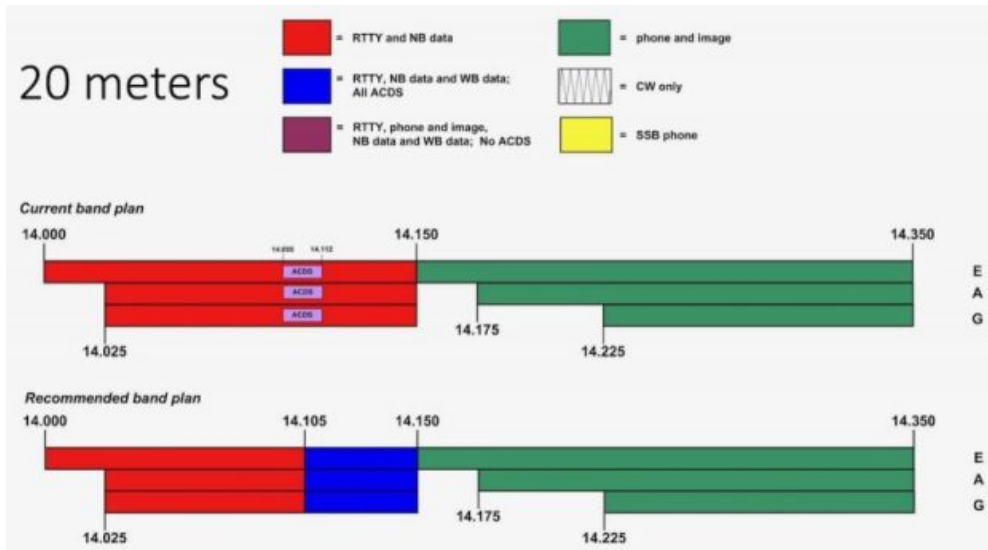
Submitted by James Butler, KB4LJV

The ARRL has many publications to allow amateurs to learn about hardware and software used in ham radio. One of the new books they have is “Work the World with JT65 and JT9 “. These new digital modes allow amateurs to work the world without high power or running a large antenna. Using these modes amateurs have earned the ARRL Century Club award with 5 watts and indoor antennas. The book shows how to assemble a station and setup software for the best performance. The book also shows how to make contacts, test your station, and study HF propagation around the globe. The book explains these digital protocols and how they work. It even has a section on tricks and tips. If you are looking to get into working these modes the book makes a great starter guide. You can get it at the ARRL bookstore. The web address is <http://www.arrl.org/shop/Work-the-World-with-JT65-and-JT9/>



New Technician HF Privileges Defined

New Technician HF Privileges Defined: ARRL board accepts final recommendations of the Band



Planning Committee
Posted date: July 31,

2020in: News

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During this session, the [ARRL] Board took the following actions:

Accepted the final recommendations of the Band Planning Committee. Committee chair and ARRL First Vice President Mike Raisbeck, K1TWF,

introduced the motion to adopt the plan. An earlier draft of the plan was introduced at the Board's in-person January meeting. After the January Board meeting, the Committee received and considered hundreds of comments from interested amateurs. The final band plan can be viewed on the ARRL website.

The new plan only applies to the HF band and makes no changes to 160 and 60 meters. A couple other notes from the accepted plan:

No changes to CW allocations throughout all amateur bands

RTTY and all other narrowband, non-ACDS modes permitted wherever data modes are allowed

As you read through the changes, keep in mind that the new plan addresses expanded Technician HF privileges and also re-defines ACDS (Automatically Controlled Digital Stations) allocations among other modifications.

Technicians will be happy to note they'll have new phone and image privileges on 80 meters (3,900 – 4,000 kHz), 40 meters (7,225 – 7,300), and 15 meters (21,350 – 21,450 kHz).

Click here to download a PDF of the accepted (final) proposed band plan.

Source:ARRL NEWS via <https://swling.com>

Repeater Offset explained

What is a repeater offset and how does it work?

Every week I run a net for new and returning amateurs. A variety of people join in with varying degrees of skill, knowledge and number of birthdays.

One of the regular things I say during that net is that if I'm not acknowledging you, it's because I cannot hear you. I then start a spiel about repeater offsets and give some examples, but what is it really and how does it work?

As you might recall, a repeater is a radio, generally located somewhere useful, like on a hill or tall building, that offers the ability to talk to other amateurs who are not within range of your radio.

For bands like 2m, 70cm and 23cm, generally speaking, contacts are line-of-sight. If you're standing on a hill, you can talk to more people because your line of sight is further away.

This is also why you can talk to the International Space Station with a hand-held, since it's in your line-of-sight, at least some of the time.

A repeater acts as a line-of-sight extender. If it can see both you and another station, it can act as a bridge between you.

How it does this is pretty simple. A repeater listens to your signal and transmits that to the other station. It uses two separate frequencies to make this happen. A receive and a transmit frequency, or more precisely an input and an output frequency. To remember which is which, you can think of a repeater as a giant megaphone, you talk into it and sound comes out. Said differently, think of a repeater as a device that takes an input from one station and makes an output for everyone to listen to.

To actually use a repeater, your radio needs to be setup to transmit on the repeater input and it needs to receive on the repeater output. This means that when you transmit, the repeater can hear you and when you're listening, you can hear the repeater.

To achieve this, you can set your radio up using repeater mode. It uses a thing called an offset to set the difference between the input and output frequencies.

To find out what the offset is, you take the repeater input frequency and subtract the repeater output. If you've set-up your radio correctly you're tuned and listening to the repeater output. When you hit the Push to Talk or PTT, you'll transmit on the input frequency and when you let go, you're back to receiving on the output frequency.

One final roadblock might be that your local repeater has a tone lock. If it does, the repeater will ignore you even if you have all the frequencies correct. This tone is generally published by the repeater owner or your local regulator. You can also check a website called repeaterbook.com to see many of the world's repeaters and their specific settings.

Now, I should point out that while repeater offsets are standardised, they're not the same across bands, across the world, or even within a country or city. Depending on where you are, what the density of repeaters is and what band you're on, the offset number and direction will change.

It's even possible that you have a variety of offsets on the same band in the same city. This means that you cannot just pick a standard offset for your radio but most modern radios will have a method to deal with this.

It's easy to get this wrong.

Setting up your radio for using a repeater is deceptively simple. Three things to look out for when it's not working. You have the input and output reversed, the offset is wrong, or there's a tone blocking your transmission.

I'm Onno VK6FLAB

Tokyo Tsushin Kogyo of Japan

Ham Radio History: 1954 Texas Instruments introduces first all-transistor AM broadcast band receiver; Tokyo Tsushin Kogyo of Japan picks it up, changes its company name to **Sony**

<https://www.sony.net/SonyInfo/CorporateInfo/History/company/>

Radio Amateur Takes Part in Historic First Commercial Human Spaceflight to ISS

Bob Behnken, KE5GGX, was one of two NASA astronauts who made spaceflight history over the weekend. Behnken and Doug Hurley were the first astronauts since the 1970s to make a water landing, after their Crew Dragon capsule splashed down in the Gulf of Mexico on Sunday. On May 30, the pair made history as the first live crew to be launched into space in a commercial vehicle, for a stay on the International Space Station (ISS), marking the return of human spaceflight to US soil for the first time in nearly a decade.

A SpaceX Falcon 9 vehicle carried the crew into orbit from Cape Canaveral. The so-called “Demo-2” was the last major test for SpaceX’s human spaceflight system, to be certified by NASA for operational crew missions to and from the ISS. Four huge parachutes carried the Crew Dragon capsule to a safe splashdown near Pensacola, Florida, on Sunday, August 1.

“On behalf of the SpaceX and NASA teams, welcome back to planet Earth,” SpaceX Engineer Michael Heiman radioed to the crew after their landing. “And thanks for flying SpaceX.”

NASA Administrator Jim Bridenstine proclaimed that the US was entering a new era of human spaceflight, noting that NASA was no longer the only option for US space travel. “We are going to be a customer,” he said. NASA has contracted with two companies — SpaceX and Boeing — to ferry astronaut crews to and from the ISS.

While part of the space station crew for 2 months, Behnken and Astronaut Chris Cassidy, KF5KDR, the sole American on board when their Endeavour capsule docked, carried out four spacewalks to install new batteries on the ISS.

The SpaceX Crew Dragon vehicle was designed for short-term missions, and Behnken and Hurley’s mission had only been expected to last a week. As a result, Behnken did not receive Amateur Radio on the International Space Station (ARISS) training on the radio gear in the Russian sector. NASA subsequently decided to monitor the mission and make a decision on how long the Crew Dragon would stay. Cassidy fielded all ARISS school contacts.

<http://www.arrl.org/news/radio-amateur-takes-part-in-historic-first-commercial-human-spaceflight-to-iss>

73, W4WTN

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>.

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President

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

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rtvk@hotmail.com
901-853-0303

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kn4fbl@gmail.com
901-356-1475

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davidjkson@bellsouth.net
901-487-3016

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

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Bob Vawter, KW4RJ
vawter.bob@gmail.com
901-438-4563

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

Director of Meetings & Special Events

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

Repeater Trustee

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

Public Information Officer

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

Immediate Past President

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

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

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

Public Service Events

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

2020 Date	Event	Contact Information
Jan. 18	Swamp Stompers 50K/25K Run	Ken Laseter KI4AOH
May 12	MARS contacts POSTPONED UNTIL THE FALL	
June 27-28	Field Day @ Ellendale Church of Christ	
Sep 12-13	MS-150 Bike Ride	Darrell Sheffield KK4D
Oct 10	Bluff City Blues Bike Ride	Ken Laseter KI4AOH

Hamfests in the Southeast Area

2020

January 24-25	Capitol City Hamfest in Jackson, MS
February 7-9	HamCation 2019 in Orlando, FL
February 16	LCARC's 2020 Winterfest in Hoxie, AR
March 6 - 7	BirmingHamfest 2019 in Birmingham, AL
March 14	MTARS Hamfest Tullahoma, TN
March 28	Ides of March Hamfest in Union City, TN - CANCELLED
March 28 - 29	April Fool Hamfest in Corinth, MS- CANCELLED
April 11	Memphis FreeFest in Bartlett, TN - CANCELLED
May 15 - 17	Hamvention in Xenia, OH - CANCELLED
July 25	Greater Nashville & Middle TN HamQuest – CANCELLED
August 22 - 23	Huntsville Hamfest in Huntsville, AL – CANCELLED
October 16 - 17	Hamfest Chattanooga in Chattanooga, TN

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

<https://www.tn.gov/revenue/title-and-registration/license-plates/available-license-plates/emergency-safety.html>

The application can be found at this link:

<https://www.tn.gov/content/dam/tn/revenue/documents/forms/titlereg/fl312601Fill-in.pdf>

The following link from the Tennessee Department of Revenue

<https://www.tn.gov/revenue/title-and-registration/license-plates/available-license-plates/emergency-safety.html> has the Amateur Radio auto tag information.

Memphis Area VHF/UHF Nets

Updated January, 2018

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
Mid-South Bullfrog Net	146.535	[simplex]	7:30p	Daily
Elmer Net	145.210	- (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

As of January 2019
All times are Central Time

Net Name	Freq. MHz	Local Time	Day of Week
Tennessee CW Net	3.563	7:00p	Daily
Tennessee Slow CW Net	3.682	7:30p	Tue-Sun
Tennessee Alternate Phone Net	7.238		As needed
CUSEC	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 & 6:30 PM

Saturday - 8:00 AM & 6:30 PM

Sunday - 8:00 AM only

Holidays - 8:00 AM only

Used equipment for sale

Please ONLY contact the person offering the equipment.

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

1. Alinco VHF/UHF Twin Band DR 735 (new in the box)
2. Alinco EDS 30 (new in the box)
3. 2 Speakers Kit HSN4039 (new in the box)
4. Kenwood THK 20A 144 mhz FM Transceiver (new in the box)
5. Galaxy Blue Light Digital Frequency Counter (new in the box)
6. Kenwood Charger (new)

If anyone is interested, please email me lelnicholson@gmail.com or call me @ 901-413-6096 Lel Nicholson

If you have new members just starting out as Ham operators and could use some sections of Rohn Tower, I have some that I am willing to part with. They have been out of use for many years and at 79 years of age, I have no Revival plans for them. Currently stored at ground level. Not too pretty but I do have the top cap.

Respond to Earl Barker, 5940 Bishop Dale Dr, Memphis, Tn 38141-6954

Contact via USPS only until further info is exchanged.

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

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