

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 60 * January 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 do plan to meet this month via "ZOOM."

Steve Frazier is inviting you to a scheduled Zoom meeting.

Topic: January 2021 Member Meeting

Time: Jan 12, 2021 07:00 PM Central Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/89593630036?pwd=LzVTMUl3MEh3M0FEWEVaRm1MZ25Sdz09>

Meeting ID: 895 9363 0036

Passcode: 480226

Program: *"Root Cause Identification and Corrective Action of the 82 Repeater Interference on the Brunswick Tower"* by Barry McDonald & Rick Tillman

For Ham License testing information: Contact Jeff Krause, AJ4GY at AJ4GY@comcast.net or call at 901-301-6776 for information.

Announcements

David Thomas KM4NYI, ARRL Tennessee Section Manager to speak at the Nashoba ARC Zoom meeting.

President's Corner
Submitted by Steve Frazier, KK4VPT

Good bye 2020 and Hello 2021!

I think it is safe to say we were all glad to see the end of 2020 and the beginning of 2021. Yes we know that things will not automatically change just because the calendar changed, but with every New Year there is the hope and anticipation that things will be better than the year that just ended.

One change that took place at the beginning of 2021 was the changes to the Delta Club Board of Directors. We have already had our first Directors meeting and after that first meeting, I can let you know that you can look forward to what each Director will do for the Delta Club in the coming year.

The beginning of each year is when most of you renew or start your membership with Delta Club. From the report during the Directors meeting, we have already received several applications and I want to thank those of you that have made the choice to be a member of Delta Club in 2021. If you would like to submit your application, you can check out <https://deltaclub.org/membership>. You may ask why we do not have a way to pay online. We have checked on this the last few years and been told we do not do enough transactions each year for this to be a practical option.

An encouraging sign that we may return to the normal we knew before 2020 is the fact that we will be supporting the 2021 Swamp Stomper 25k/50k on Saturday January 16. This is usually a small event for us and we are planning to keep the number of volunteers as small as possible due to Covid-19. We have the number of volunteers we need, but if you want to be added to the standby list, you can contact me at sfrazier1@bellsouth.net. We will be using the 146.82 repeater, so feel free to listen in during the event Saturday Jan 16 from 7:30am to about 4pm.

Speaking of the 146.82 repeater, our Trustee Barry McDonald (W5CJ) will have a very interesting update during the January Zoom meeting that will help you understand what has been causing the interference we have all had to endure over the last few months. Now that the "82" repeater is back to being one of the best repeaters in the area, please join us on the net each night at 8pm. This nightly net has been has always been a great way for us to keep in touch and up to date. The net is only possible because of each of our Net Control Operators - Thank You!

73

Steve Frazier
KK4VPT

Treasurer's Report

Submitted by David Jackson

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 Jim Martin KD4FUU at jamesgeorgemartin@gmail.com.

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					
December 1, 2020 through December 31, 2020					
SUMMARY					
Beginning Balance	\$25,177.53		Minimum Daily Balance		\$25,092
Deposits & Credits	\$350.00 +		Average Monthly Statement Balance		\$25,202
Withdrawals	\$0.00 -				
Fees	\$0.00 -				
Automatic Transfers	\$0.00 +				
Checks	\$395.00 -				
Ending Balance	\$25,132.53 ✓				
DEPOSITS & CREDITS					
12/07	Deposit - Thank You				25.00 ✓
12/14	Deposit - Thank You				75.00 ✓
12/21	Deposit - Thank You				150.00 ✓
12/28	Deposit - Thank You				60.00 ✓
12/30	Deposit - Thank You				40.00 ✓
				Total Deposits & Credits	\$350.00
CHECKS					
<u>Date</u>	<u>Check No.</u>	<u>Amount</u>	<u>Date</u>	<u>Check No.</u>	<u>Amount</u>
12/08	1543	95.00 ✓	12/29	1544	300.00 ✓
				Total Checks	\$395.00
* Break In Check Number Sequence.					
DAILY BALANCE SUMMARY					
<u>Date</u>	<u>Balance</u>	<u>Date</u>	<u>Balance</u>	<u>Date</u>	<u>Balance</u>
12/07	25,202.53	12/21	25,332.53	12/29	25,092.53
12/08	25,107.53	12/28	25,392.53	12/30	25,132.53
12/14	25,182.53				
SMALL BUSINESS CD *0028					
Available Balance	\$10,656.64	<u>INTEREST RATE</u>	1.590 %	<u>YTD INTEREST</u>	\$0.00
				<u>INTEREST EARNED NOT PAID</u>	\$7.41

DARC Board of Directors Meeting Minutes

Submitted by Carolyn Horne KX4QF

DARC Board of Directors Meeting Minutes for January 5, 2021

Attendees: Steve Frazier KK4VPT, Mary Jean Hall KN4FBL, Carolyn Horne KX4QF, Jim Martin KD4FUU, Joe Lowenthal WA4OVO, Mike Harrison KM4MRW, Ian Lucas KN4OEK, Ray Cole KX5RC, Scott Adams KM4PMU, and Barry McDonald W5CJ.

Absent: Len Grice W4MKS.

Guests: David Jackson KM4SEC and Rick Tillman WA4NVM.

The regular monthly meeting of the Delta Amateur Radio Club Board of Directors was held on Tuesday, January 5, 2021 at 6:30 p.m. on a Zoom video conference call, with the President serving as chair and the Secretary being present. One member was absent. Two guests were 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.

Barry McDonald and Rick Tillman gave a presentation on the Brunswick Tower channel 30 waveguide failure.

David Jackson read the Treasurer's Report. The motion to approve it unanimously passed. He requested a list of all current officers and their addresses for this year's reports. He is transferring the accounts to Jim Martin on Thursday. Steve Frazier said he would look at transferring cash above our budget needs into a CD sometime in February.

Ian Lucas and Ray Cole said Barry McDonald and Rick Tillman will be speaking on the Brunswick Tower waveguide failure affecting our repeaters and Ray Cole will discuss how to communicate with the ISS during the January Delta Club meeting.

Mary Jean Hall is working on updating our by-laws. She emailed a copy to each BOD member for review. This will be up for discussion in the February BOD meeting.

Carolyn Horne read the list of new and renewing members. All were confirmed without objection per the club's by-laws.

Mike Harrison said he would be updating the Club's website. Joe Lowenthal offered help on any revisions.

Joe Lowenthal held the first Extra class with 5 out of 6 attendees present. Classes are on Mondays and Thursdays via Zoom. He is updating training materials to be in sync with the new 12th edition of the Extra manual. A Tech class may be scheduled close to the end of February on weeknights.

The board discussed the club's participation in Swamp Stompers on January 16. Steve Frazier said he has a full list of participants and due to COVID restrictions is keeping our contingent small this year.

The board discussed consignment and estate sale items.

Steve Frazier adjourned the meeting at 7:50 p.m. The next Board of Directors meeting is scheduled for Tuesday, February 2, 2021 at 6:30 p.m. on Zoom.

Respectfully submitted by Carolyn Horne KX4QF, Secretary

Minutes of Last Month's Club Meeting

Submitted by Mary Jean Hall KN4FBL

DARC Meeting Minutes for December 8, 2020

Call to Order and Opening Remarks

The regular monthly meeting of the Delta Amateur Radio Club was held on Tuesday, December 8, 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 41 members and guests were present for the meeting.

Minutes and Treasurer's Report

Ian Lucas KN4OEK moved to "approve the minutes as published in Sparks." Ned Savage KA4BLL seconded the motion. The motion was unanimously adopted by the club.

Dan Wehner KN4FBJ moved to "approve the Treasurer's Report as published in Sparks." Ned Savage KA4BLL seconded the motion. The motion was unanimously adopted by the club.

Announcements

Joe Lowenthal WA4OVO said that two individuals in the General Class passed the test and upgraded to General.

Joe Lowenthal WA4OVO announced that an Extra Class is planned to start in January for six weeknights with in-person testing at the end. Four have signed up so far, but at least two more are needed to make a full class. Anyone interested should email Joe at wa4ovo@gmail.com with "Extra Class" in the subject line. The body of the email should include your name, call sign, phone and email address.

Rick Tillman WA4NVM informed the club that the Mid-South Amateur Radio Association, MARA, recently decided to donate money that is normally allotted for their annual Christmas dinner to LeBonheur Children's Hospital since the dinner was cancelled. He asked if that is something Delta Club members wanted to consider as well. Members discussed the idea of donating money to LeBonheur Children's Hospital, specifically the FedExFamilyHouse. Joe Lowenthal WA4OVO moved that Delta Club "donate \$100 to the FedExFamilyHouse." Barry McDonald W5CJ seconded the motion. The motion was unanimously adopted by the club.

Barry McDonald W5CJ said that the 146.820 repeater has been messing up more often lately. He reminded everyone that the Germantown repeater was available as a backup on the 146.625 frequency with a -600 offset and a PL tone of 107.2 Hz. He said that switching would serve as good practice for programming radios, too. If there is a night with bad interference, Net Control

would make the decision to switch frequencies. He said that he will work on procedures for switching and let everyone know.

Steve Frazier KK4VPT announced that the Swamp Stompers event has been scheduled for January 16, 2021. He will update the club as more information becomes available.

Discussion / Program

Anthony Luscre K8ZT, who is currently serving as the ARRL Ohio Section Youth Coordinator, was the guest speaker during the December Delta Club meeting. The program was “QSLing in an online world.” Websites discussed during the presentation can be found on www.deltaclub.org under the “Links” tab.

Closing Remarks

During closing remarks, Delta Club President Steve Frazier KK4VPT said, “It’s been a trying year with lots of challenges. As a group we’ve made it through a tough year.” He also thanked the Board of Directors members who finish their year(s) of service this month. The meeting adjourned at 8:23 p.m.

The next Delta Amateur Radio Club meeting will be Tuesday, January 12, 2021 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 (2020)

Delta Ham License Training, 2021

Submitted by Joe Lowenthal WA4OVO, DIRECTOR OF TRAINING

HAM LICENSE TRAINING for 2021

By Joe Lowenthal WA4OVO, Director of Training

Another year is in the books. I'm sure it has been challenging for all. We had four classes: the Extra Class was under normal circumstances. Then COVID 19 hit so we began the Zoom classes. As a result, our pass rate was somewhat lower than other years and those that did pass were not active. Hopefully, the New Year will bring more activity on the air.

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

8 General

4 Extra

Note:

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

The current ARRL General Class License Manual is the 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 Technician class will probably start in late February.

CURRENT CLASSES

EXTRA Class 1-21 – January 4 – February 11, 2021

An Extra Class license class is being held via Zoom from January 4th thru February 11th on Monday or Thursday nights from 6:15-9:30pm. The Zoom classes will meet on January 4, 14, 21, 25 and February 1st. The in-person FCC exam opportunity will be on February 11th. The students are Carla KO4FVX, Ransom KO4FVZ, Mike KM4MRW, Russell KO4ASW, Jason KN4DOH and David KN4BXI.

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

COMPLETED CLASSES

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.

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.

On August 13th the class met via Zoom for some of the equipment demonstrations. Rick Tillman WA4NVM gave a very informative instruction on satellite operations. Rick Pellicciotti KJ4NWQ informed the class on APRS. Joe WA4OVO presented more detailed information on Repeater Basics. The HF Wire Antennas by Pat W4OQG and programming handhelds has been deferred until we can meet. 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.

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 week

days. 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
Photo by Joe Lowenthal WA4OVO

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.



CBU Tech Review Class

Photo by Joe Lowenthal WA4OVO

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.

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.

VE FCC Test Session Held in October

For a second month in a row the Delta Club has offered FCC Amateur Radio examinations. Our ARRL VE Liaison Jeff Krause AJ4GY held a session at 10am on Saturday October 10th on the first floor at Ellendale Church of Christ. Three took their tests and three passed. Congratulations to Phillip Mahnken WA2JXD for upgrading to Extra. Congratulations to Kent Brown KO4HOB for upgrading to General and Michael Payne KO4IID for earning his Technician and General licenses.



VE Test Session on
October 10, 2020
Photo by Joe Lowenthal
WA4OVO

Thanks to the VE team
of Jeff AJ4GY, James
KM4USQ, TJ W4BNT,
Dan W4DTA and Joe
WA4OVO.

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.

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 146.820 repeater for the YL Net. We enjoy hearing from you.

An Easy, Inexpensive (Free) Method for Remote Rig Control
Submitted by Hugh Wardlaw WB4SLI

If you have had as much fun (if you are a masochist) as I have trying to accomplish Remote Rig Control then you may be interested to another approach to accomplishing this with little outlay of cash. If you have already setup flrig and fldigi then you are 1/3 done. This information is independent of VHF, UHF, or HF operation.

As you may guess flrig is the cornerstone of the setup. If you have flrig setup then go to the Voice portion of the document. Flrig is to be installed on the computer directly attached to the transceiver. W1HKJ has written freeware for rig control and digital operation. To install flrig then go to <https://sourceforge.net/projects/fldigi/files/> you will be presented with a list of files. The one in which we are interested now is flrig. Click on flrig to see your different flavors. On my Windows computer I selected flrig-(version)-setup.exe. Download the file and execute it. This will install flrig.

Launch flrig and select the config / setup / transceiver. Select your rig from the dropdown list. Set the serial port through which you will connect to the rig. Set the Baud Rate. On the 7000's it is 19,200 bps. Set the stop bits. My rigs that I use are Icom 7000 series for HF. I can issue a command to operate PTT so I select PTT via CAT command. You may need to select other means to accomplish PTT. The 7000's have built-in USB audio so I selected USB audio. I recommend using a separate USB sound card, if your rig has no internal USB sound card. So that you will not be potentially sending the beeps and other sounds associated with the O/S and Apps. Select Init to apply your selections to the software. It may take a minute.

VOICE

Well you have yourself needing a way to place your voice into the rig remotely. I have had the best success using IP-Sound. Note: this software needs to be on both the server (rig control) computer and the client (remote) computer. First, we need to download the software by going to <http://www.iw5edi.com/software/ip-sound>. Go to the end of the fifth paragraph where Simone is describing the software. Click on IPS-0.57A to download. Follow the instructions to download.

Go to your downloads folder via File Explorer and right click on IPS-v0.57a-Finale and select Extract All. You will be presented with the contents of folder IPS-v0.57a-Finale. There will be a pdf doc file and an IP-Sound-v0.57a-Setup.exe file in the folder. Double-click on the IP-Sound-v0.57a-Setup.exe file to install the software.

Launch IP-Sound and once it is loaded on the client computer right click on the black area of the screen to setup connection to the server (rig controlling) computer. You can use either the network name or the IP address of the other computer to establish connection.

REMOTE CONTROL

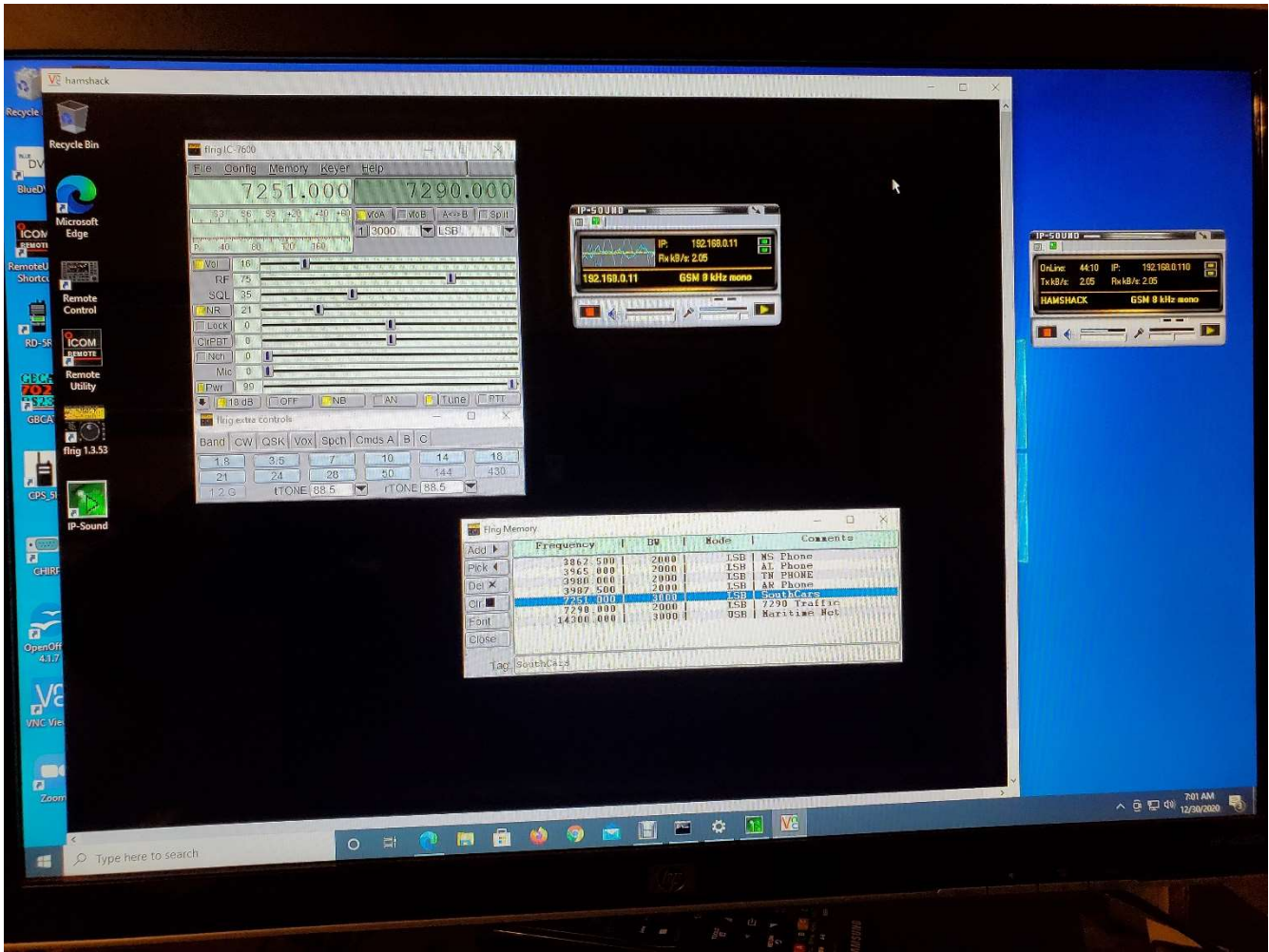
I use TightVNC to control the flrig software remotely. Go to <https://www.tightvnc.com/> to download the software. This software needs to be on both the client and the server. You will be presented with 64-bit and 32-bit installers. To determine which flavor of Windows you are using click the Start logo and select Setup. Select System and scroll down to About. To the right you will see a lot of information. Look for the Device Specifications Section and look at the line that says System type. It will there say whether you have a 64-bit or 32-bit O/S. Download and install the appropriate version.

Select Start and scroll down to the TightVNC folder. On the server computer click on the folder and select TightVNC server offline setup. If you want password protection of the computer (which I recommend) select the Administration folder and select control operations with a password. Set both types of passwords to something simple that you can remember.

OPERATION

On the server you will need to start flrig and connect to the rig. You should start IP-Sound and TightVNC Server.

On the client start IP_Sound and TightVNC Viewer. Using IP-Sound, in the black box right click on the server and select connect. If everything is setup properly you should hear the transceiver. In TightVNC connect to the server. With this you can control flrig. Familiarize yourself with the controls. You can set modes such as LSB, USB, and FM for voice modes. The PTT button is in the lower right corner. It is click on click off. Next to PTT is the Tuner button. My 7600 has a built-in tuner so that I can kick the tuner as I change bands. If you have one of the LDG tuners specifically supporting your rig (like my 7200) then you should be able to kick the tuner.



The shot above is the display on my client computer the blue area is the client computer's desktop while the black area is the server computer's desktop.

Fox Hunting with Software-defined Radio

Fox hunting, or direction finding, is a favorite pastime in the ham radio community where radio operators attempt to triangulate the position of a radio transmission.

While it may have required a large amount of expensive equipment in the past, like most ham radio operations the advent of software-defined radio (SDR) has helped revolutionize this aspect of the hobby as well. [Aaron] shows us how to make use of SDR for direction finding using his custom SDR-based Linux distribution called DragonOS.

We have mentioned DragonOS before, but every iteration seems to add new features. This time it includes implementation of a software package called DF-Aggregator. The software (from [ckoval7]), along with the rest of DragonOS, is loaded onto a set of (typically at least three) networked Raspberry Pis. The networked computers can communicate information about the radio waves they receive, and make direction finding another capable feature found in this distribution.

[Aaron] has a few videos showing the process of setting this up and using it, and all of the software is available for attempting something like this on your own. While the future of ham radio as a hobby does remain in doubt, projects like this which bring classic ham activities to the SDR realm really go a long way to reviving it.

<https://hackaday.com/2020/12/26/fox-hunting-with-software-defined-radio/>

73,
W4WTN

Which power supply do I use for my ham radio? by Ria Jairam N2RJ

In this video, **Ria Jairam N2RJ** talks about power supplies, both linear and switching and the different types available

00:00 pre intro
00:15 intro
00:37 You got a radio as a gift?
00:56 Powering handheld radios
02:01 Why 13.8V?
06:55 Powering VHF/UHF FM radios (50W)
08:17 Powering HF radios (100W)
10:40 Switchmode vs linear power supplies
15:42 Wrapup

Watch which power supply do I use for my ham radio?

<https://youtu.be/dc82nPML5GQ>

Ria Jairam N2RJ

<https://www.youtube.com/c/RiaJairam/videos>

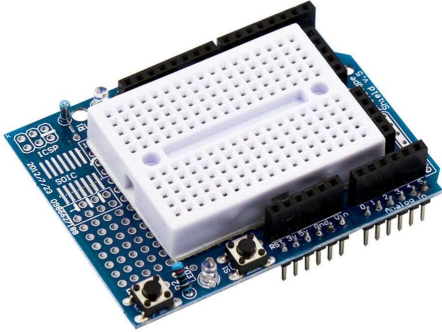
<https://twitter.com/RiaJairam>

73,
W4WTN

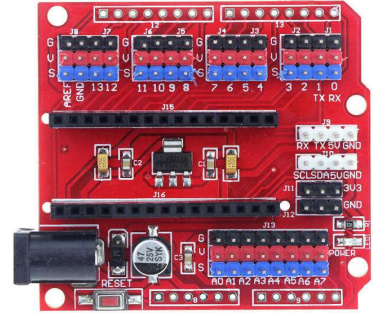
Amateur Hardware Update

Submitted by James Butler, KB4LJV

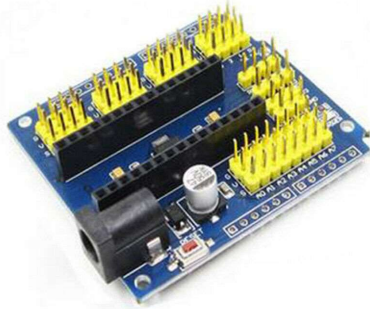
BREADBOARD



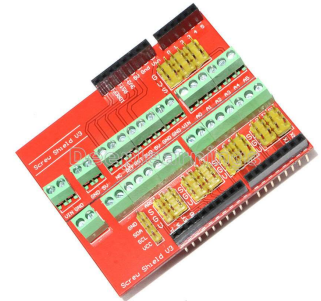
One of the small single board computers we use to build projects is the Arduino. This small computer is cheap and easy to work with. Making connections to the board uses pins located on the board. A useful accessory for this is the Arduino expansion board. These boards allow you mount your Arduino and make wiring connections for easier experimenting. These boards create additional wiring connections for



each pin which helps in wiring. These expansion boards are available for the R3 Arduino boards and the Arduino Nano boards. Connections on these boards add additional pins. Some of these boards have screw type terminal strips to make the connections. Expansion Boards are also available with plug in sockets so you can try out different circuits easily. These are sold on Ebay with a price under five dollars. Do an Ebay search for “Arduino expansion board” to



see what they have available.



Amateur Packet Update

Submitted by James Butler, KB4LJV

Radio operation means you need your antenna to match your 50 ohm radio impedance. One new kit that is available for this is the TennaDipper II. This unit connects to your antenna and allows you to adjust the antenna for the frequency you want to operate on. The unit operates without a radio and generates no QRM on the band. This kit is offered by Pacific Antenna. It has an LED readout for frequency along with a tuned LED indicator. The unit runs on a nine volt battery which makes it portable. The kit cost is under fifty dollars and makes a nice addition for tuning antennas.



The website is <https://www.qrpkits.com/tennadipperII.html>

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

Arecibo Dish

The 1,000 foot (307m) Arecibo Dish in Puerto Rico, used for Amateur Radio Moonbounce (EME) communications and ionospheric experiments, is to be decommissioned

On Space News Jeff Foust @jeff_foust writes:

National Science Foundation announced Nov. 19 it will perform a “controlled decommissioning” of the giant radio telescope at the Arecibo Observatory in Puerto Rico, citing recent damage that made it unsafe to operate or even repair.

In a call with reporters, NSF officials said two broken cables used to support a 900-ton platform suspended over the telescope’s 305-meter main dish put the entire structure at risk of collapse. One cable slipped out of its socket in August, falling to the dish below and damaging it, while the second broke Nov. 6.

Both cables are attached to the same tower, one of three surrounding the main dish. “The engineers have advised us that the break of one more cable will result in an uncontrolled collapse of the structure,” said Ralph Gaume, director of the NSF’s Division of Astronomical Sciences, referring to cables attached to that same tower. That would result in the platform crashing down to the main dish and potentially toppling one or more of the towers.

The giant dish-shaped radio telescope was unlike any other: It sent messages to the stars, listened to the tick-tock of distant pulsars, helped keep Earth safe from asteroids, taught generations of students how to be astronomers, and so much more. This is a major loss.

To me, Dr. Tony Phillips, the loss is personal. I lived and worked at the observatory for more than 5 years in the 1990s while it was still operated by Cornell University. I ran around the dish thousands of times, logged hundreds of hours of observing time, climbed the cat walks and drove Jeeps across the jungle floor beneath the main antenna. The telescope’s raw power attracted astronomers from around the world, including many Nobel Laureates; collaborating with them was a life-shaping experience. There may never be another telescope with the same mix of research chops and tropical personality. Good-bye, old friend.

Read the full Space News story at

<https://spacenews.com/nsf-to-decommission-arecibo-radio-telescope/>

Arecibo ionosphere HF radio modification campaign

<http://www.southgatearc.org/news/2017/july/arecibo-ionosphere-hf-radio-modification-campaign.htm>

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

RadioShack to be reborn

The good news is that as of today RadioShack has officially been purchased by Retail Ecommerce Ventures (REV), giving the troubled company a new lease on life. The downside, at least for folks like us, is that there are no immediate plans to return the iconic electronics retailer to its brick-and-mortar roots.

As the name implies, REV specializes in online retail, having previously revamped the Internet presence of other bankrupt businesses such as Pier 1 Imports and Dressbarn.

While the press release doesn't outright preclude the possibility of new physical RadioShack locations, it's clear that REV believes the future of retail isn't to be found in your local strip mall. As the US mulls further lockdowns in response to the continuing COVID-19 pandemic, it's hard to disagree. There will be millions of bored kids and adults looking for something to do during the long winter nights, and an electronic kit or two shipped to their door might be just the thing.

Read the full story

<https://hackaday.com/2020/11/19/radioshack-to-be-reborn-as-online-first-retailer/>

FCC Headquarters Relocates

FCC Headquarters has moved. The new address is 45 L St. NE, Washington, DC 20554. The change is effective immediately. The FCC announced plans to move last spring, but the transition was delayed by the COVID-19 pandemic.

The FCC, like many federal agencies, has its own zip code, so there will be no disruption in mail delivery sent by USPS to the former address. The FCC still prohibits the delivery of hand-carried documents, and all COVID-19 restrictions or instructions regarding access to FCC facilities remain in place at the new location.

“The FCC continues to balance its efforts to be accessible to the public with the need for heightened security and health and safety measures and encourages the use of the Commission’s Electronic Comment Filing System (ECFS) to facilitate the filing of applications and other documents when possible,” the FCC said in an October 15 Public Notice.

Due to the pandemic, the move was accomplished by professional movers without the presence of any employees, all of whom had been working from home. An attempt was made during the summer to let employees back into headquarters for a day to pack up their offices and remove personal belongings, but that plan had to be scrapped after several employees tested positive for COVID-19.

Most FCC staff continue to work from home and are not expected to be physically present in their new offices before next June.

In anticipation of the planned move, the FCC last spring also announced the adoption of a new FCC seal. The redesign is the product of an agency-wide contest that solicited proposals from employees and contractors. The revised design incorporates several elements: communications technologies; four stars on the outer seal border, drawing from the legacy of the predecessor Federal Radio Commission (FRC) seal, retaining the three-wire dipole supported by two towers; 18 stars on the shield, recognizing the current number of bureaus and offices; and the eagle and shield, identifying the FCC as a federal government agency.

Official use of the new seal was to begin following completion of the FCC’s move from The Portals to its new location on L Street NE.

<http://www.arrl.org/news/fcc-headquarters-relocates>

73, W4WTN

Update on FCC Amateur Application Fees

The FCC has agreed to \$35 for application fees. Here is link to ARRL article about it from Jan 7th newsletter

<https://mail.google.com/mail/u/0/#label/ARRL/FMfcgxwKkRDqczGqgKkHDnQJzQTfdqKrcompose=DmwnWrRpdLfHvwZFWnsvVKLbLVNbGBRpdVQFbWJJVnJZQDDbqKhSBPRlrJXWnPjWJWmdvxLRhkRL>

Arizona Congresswoman Introduces National Amateur Radio Operators Day Resolution

US Representative Debbie Lesko of Arizona has introduced a resolution designating April 18, 2021, as National Amateur Radio Operators Day, to recognize the important contributions of amateur radio operators.

“Amateur radio operators are critical in times of crisis and our communities are safer thanks to their dedication to sharing important information with the public,” Lesko said. She was approached to introduce the resolution by 12-year-old Raymond, N7KCB, from Peoria, Arizona.

“I started Long Distance Responders so I can help prepare the community for emergencies with amateur radio,” said Raymond. “There might be a price for a radio, but the ability and knowledge to help someone is truly priceless.”

As Lesko’s resolution notes, World Amateur Radio Day (WARD) is celebrated annually on April 18 to commemorate the founding of the International Amateur Radio Union (IARU) in 1925, and she said her resolution recognizes the amateur radio community with a national day in the United States in 2021. The resolution cites the Amateur Radio Emergency Service (ARES®) for providing “invaluable emergency communications services following recent natural disasters, including but not limited to helping coordinate disaster relief efforts following Hurricanes Katrina, Wilma, and Maria and other extreme weather disasters.”

<http://www.arrl.org/news/arizona-congresswoman-introduces-national-amateur-radio-operators-day-resolution>

73,
W4WTN

How to install a PL259 on RG58 coax

In this video Ria Jairman N2RJ explains how to install a PL259 on RG58 coax and looks at Wifi connectors, SMA and TNC F connectors and why we use them in ham radio

Subscribe to learn more about ham radio and electronics! New videos 2-3x/week.

00:00 - Pre-intro

00:30 - Intro graphic

00:40 - Introduction and shout-outs

01:36 - Installing RG-58 on PL259

03:37 - Wifi antenna connectors and polarity

10:43 - F connector in ham radio

16:54 - Next topic preview

17:23 - End card

Watch Ham radio coaxial connectors - RG58, SMA, TNC, F

<https://youtu.be/NcQezNfVHu4>

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>.

2021 Board of Directors

President

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

Vice President

Mary Jean Hall KN4FBL
kn4fbl@gmail.com
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

Public Service Events

Swamp Stompers is scheduled for Saturday, January 16, 2021.

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/f1312601Fill-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

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	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

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 lennicholson@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.

For Sale: Ringo Ranger VHF antenna. 6 db gain! Well used, but still works great. About 12 feet long. I have the complete antenna and I printed a set of instructions for set up and tuning.

\$25 contact Bob Vawter KW4RJ at vawter.bob@gmail.com

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