

SPARKS

P.O. Box 342768 * Memphis, Tennessee 38134-2768 * Volume 23 * November 2017



Welcome to the Delta Amateur Radio Club

Visit our home on the web at: <http://delta.bobvawter.com>

EMAIL: darc4you@gmail.com

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

Newsletters: <http://delta.bobvawter.com/Sparks/>

W4BS

REPEATER SYSTEM

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

This month's meeting begins at 7pm on November 14, 2017, at Ellendale Church of Christ, 7365 Highway 70 Memphis, TN (1 ½ miles north of Highway 64 (Stage Road)).

In this month's program we welcome our own Joe Sanders, KM4JXS, who will give us an introduction to solar powered ham radios. Joe became interested in solar power as a source for ham radios in 2014. He has experimented mostly with powering a mobile Handy Talkie Go Box. Joe will be giving an overview of what it takes to interface solar panels to an HT. Joe has been a video producer in the Memphis area for 30 years. He has had a wide variety of TV and video assignments working with ABC, NBC, CBS, PBS, and other companies and individuals. Joe has a degree in Computer Engineering, earned a Private Pilot's License, and served in the U.S. Nuclear Submarine Navy as a Sonar Tech for 8 years. He has served as a church deacon and treasurer, and enjoys working with video, photography, ham radio, and electronics.

Delta Club FCC testing sessions are held monthly except December. Registration begins at 5:30 PM; testing begins by 6:00 PM. Please bring a photo ID and another form of identification, copies of existing licenses or CSCEs, and your FCC Registration Number (FRN) if one has been issued. Please be on time for registration to allow our Volunteer Examiner (VE) team to complete their work prior to the club meeting. The 2017 test fee is \$15 (cash or check). Individuals receiving their initial FCC license grant at a Delta Club test session or through a Delta Club training class will receive a complimentary individual club membership for the remainder of the current calendar year when they also show proof of ARRL membership. For more information, please email our VE Liaison, Jeff Krause, AJ4GY, or call at 901-301-6776.

Congratulations to those who passed exams during Delta's October, 2017, test session: new Technician Luke Wilkins, KN4GMO, new General Dan Wehner, KN4FBJ, and new Extra Rick McConville, WB9TCB.

Voting in November!
Submitted by Dan Lasley, NE7JN

During the November Delta Club meeting we will elect members of the Board of Directors for calendar year 2018. Here are the board positions and the members running for those positions:

President	Steve Frazier, KK4VPT
Vice President	Bob Van Keuren, KM4SEB
Secretary	Steve Evans, KM4VYA
Treasurer	Linda Laseter, KJ4CTX
Director of Training	Joe Lowenthal, WA4OVO
Director of Publications	Bob Vawter, KW4RJ
Director of Meetings & Special Events ...	Scott Adams, KM4PMU
Director of Programs	Kevin Zent, K4KLZ

If you would like to run for one of these positions, please contact [me](#) as soon as possible. To be considered for a position, you must be a member of the club and you must have attended at least six meetings beginning with the November, 2016, meeting.

President's Corner

Submitted by Ken Laseter, KI4AOH

Hope everyone survived Halloween and have plenty of candy left for your future dining pleasure, and extra pounds. November looks busy again this year. We have our election of officers at our meeting next Tuesday evening. It's not too late to get your name, or a friend's name, on the ballot. Just give me a call at 901-853-0400 or email [me](#). Come and join us for fellowship and our annual election of officers. Linda has purchased several nice prizes that will be given away again this year. So, bring your lucky whatever and join us for some fun.

Veteran's Day is coming up on Saturday the 11th. A day we show our appreciation to those who have served in the military, taken time away from their families, fought in conflicts and wars, and many paying the ultimate sacrifice with their lives, so that we can enjoy the freedoms we have. Join with me on Veteran's Day and take a few moments to remember them and what they have done for us.

Also, don't forget that Thanksgiving is Thursday, the 23rd. I wish each and every one of you, and your loved ones, a happy and safe Thanksgiving.

We still need more volunteers for the St. Jude Marathon! Please check your calendar and if at all possible, volunteer for this worthwhile event. Contact [Roger Schlichter, WR4R](#), and let him know you want to help. This is the largest event we support each year. So, do it now, send Roger an email and hop aboard, we always have fun working this event. I'll see you there!

As always, please don't forget to check into the Delta Club information net on the 146.820 repeater at 8:00 pm each evening, and when you check-in, make sure to thank the net control operator for taking time from their family and busy schedule to call the net for us. They are some our most valuable assets!

If you have not renewed your club membership for 2018, now is the time. Linda, KJ4CTX, will be glad to accept your renewal application and cash, check or money order, either at a club meeting or via snail mail.

See you at the meeting Tuesday night!

73

Kenneth Laseter
KI4AOH

Treasurer's Report

Submitted by Linda Laseter, KJ4CTX

DELTA AMATEUR RADIO CLUB

Monthly Treasurer's Report

For month ended October 31, 2017

Submitted by Linda Laseter Treasurer

CHECKING ACCOUNT

BEGINNING BALANCE

BEGINNING BALANCE as of October 1, 2017	\$3,327.61
--	-------------------

INCOME

Date		Amount
10/06/17	Membership 2017	\$ 20.00
TOTAL INCOME		<u>\$ 20.00</u> \$ 20.00

EXPENSES

Date	Check #	To	Description	Amount
10/24/17	1434	ARRL Develop	Ham Aid Fund	\$ (100.00)
TOTAL EXPENSES				<u>\$ (100.00)</u> \$ (100.00)

ENDING BALANCE as of October 31, 2017	\$ 3,247.61
--	--------------------

CERTIFICATES OF DEPOSIT

	Maturity Date	Balance as of	
Certificate of Deposit #1	10/10/2018	10/13/2017	\$ 10,534.98
Certificate of Deposit #2	10/19/2022	8/27/2017	\$ 10,120.05

TOTAL DARC CASH ASSETS	<u>\$ 23,902.64</u>
-------------------------------	----------------------------

This Month's Board Meeting Minutes

November 7, 2017, submitted by Barri Munday, WB4SWP

Attendees: Steve Frazier, KK4VPT, Scott Adams, KM4PMU, Bill Stevens, WC9S, Dan Lasley, NE7JN, Ken Laseter, KI4AOH, Linda Laseter, KJ4CTX, Len Grice, W4MKS, and Barri Munday, WB4SWP. Absent: Kevin Zent, K4KLZ. Bill Stevens, WC9S, and Joe Lowenthal, WA4OVO.

Ken Laseter called the meeting to order at 7:00pm.

Linda presented the Treasurers report and told us door prizes have been purchased for the November and December meetings.

One of the directors reported that six people showed up for the Joe's first General class.

Scott began the discussion regarding December's Christmas party. We will again have two hams, beverages, plus dishes supplied by the attendees.

The meeting adjourned at 7:35 PM, followed by an informal discussion of Delta's contributions to 2018 FreeFest.

Minutes of Last Month's Club Meeting
October 10, 2017 – Submitted by Barri Munday, WB4SWP

Club president Ken Laseter, KI4AOH, called the meeting to order at 7:05 PM.

Introductions were made by name and call sign.

Everyone was reminded to sign in and put a ticket in the bucket.

Ham Hilliard, W4GMM, moved to accept the previous meeting minutes as recorded in Sparks, seconded by Bill Stevens, WC9S; the minutes were approved by acclamation.

Ham moved to accept the Treasurer's report as recorded in Sparks, seconded by Ned Savage, KA4BLL; the report was approved by acclamation.

Jeff Krause, AJ4GY, reported that tonight's VE testing produced one new Technician, one new General, and one new Extra; see page one for details.

Sixteen people attended tonight's HQ 101. Ham Hilliard, W4GMM, covered station grounding and vertical antennas vs. horizontal dipoles.

Janice Shaner, KX4BB, told us that the YL net is one year old and she encouraged YLs to check in to the net.

Dennis Foster, KJ4BDU, talked about FreeFest on April 14, 2018. Committees have been formed to get it going, but will need volunteers for various tasks such as food, tickets, talk-in, etc.

Joe Lowenthal, WA4OVO, mentioned the emergency exercise on November 2-6 through the Health Department.

Ham talked about the upcoming national DOD exercise.

Election for board members will be held in November; see Sparks for the slate of candidates. Members can also nominate someone for a board position from the floor.

If you want to participate in the December 2nd St. Jude Marathon, all that is needed is an HT. Contact Roger Schlichter, WR4R, to volunteer.

Kevin Zent, K4KLZ, introduced Tom Butas, KM4AEM. Tom's presentation was "My Ham Shack."

The meeting adjourned at 8:05 PM.

Last Month's Program

Submitted by Dan Lasley, NE7JN, contributions by Tom Butas, KM4AEM



Last month's program was by our own Tom Butas, KM4AEM, who told us about the planning and challenges of his new ham shack.



He began his radio career back in CB days in the early 1970s. Shown here is Tom's old Lafayette CB radio. Tom was also an avid SWL listener and

AM DX'er and served as award chairman for the International Radio Club of America in the early 1980s.



His best friend from high school, Mike Newell, WB4HUC, was a novice at the time and they recently met at the 2017 Huntsville Hamfest for the first time in more than 40 years.



One of Tom's first challenges at the site of his new QTH was a dreaded power line, something you don't want to see near a ham shack! Tom reports, however, that the power line causes no interference.



In this photo, the dark gray PVC pipe conveys coax from the attic to an antenna outside the house. Note the coil of coax near the top of the pipe. This coil will be routed down an interior wall and into the new ham shack.

Due to a metallic coating in the roofing materials, Tom had some challenges with placing his 2M/440 MHz vertical in his attic. See his [New Ham Shack](#) presentation for details.

Thanks to Tom for a very interesting presentation and for his permission to post his presentation on [Delta's web site](#).

October HQ 101

Submitted by Dan Lasley, NE7JN

Ham Hilliard, W4GMM, presented the October HQ 101 discussion. He covered station grounding and vertical antennas vs. horizontal dipoles. Please join us at 6pm on meeting night for November's HQ 101. Ham will cover setting up an HF station and DX operations.

I've had a request for HQ 101 to cover WinLink. If you have other ham-related activities you'd like to learn about, let [me](#) know.



(Standing, L-R) Glen Ellis, K4KKQ, Ham Hilliard, W4GMM, Bob Walter, KN4GJG, Steve Frazier, KK4VPT, Janet Wehner, KN4FBI, Tom Dichiaro, AC5MR, Harold Crouch, KC9SZC, Bob Van Keuren, KM4SEB. (Seated, L-R) Janice Shaner, KX4BB, David Jackson, KM4SEC. Not shown: Jim Barnes, N4VOK. Photo by Dan Lasley, NE7JN.

Note: we will not have an HQ 101 session at the December meeting. HQ 101 will resume with the January 9, 2018, Delta Club meeting.

Amateur Hardware Update

Article and image submitted by James Butler, KB4LJV

Many times the circuits we build require coils. Coils are simple in that the value is determined by diameter, number of turns, and whether it is air core or some other material. New LC meters let you wind a coil and check the value compared to the formula. I found a coil winding tool on Ebay that lets you wind small coils. Pick the diameter you want and wind your magnet wire on it to make the coil.

It only does small coils for smaller values but at a price of about \$1.50 and free shipping. It is a great deal. If you wind coils, check this out on Ebay. Do a search for "vape coil winder."



Editor's note: James says the numbers represent the coil diameter in millimeters. Nice work as always, James!

Amateur Packet Update

Submitted by James Butler, KB4LJV

The ARRL publishes the Amateur Radio Handbook each year. Of course it has lots of good information and is updated every year. This is a big book with lots of page. Luckily they offer it in a CD ROM version that is bundled with the hardcopy. It is the same book in electronic format. It uses Adobe reader to access the disk. This makes it easy to access ham radio information from your computer.

Another advantage is the ability to do a search for a subject through the book, just another way ARRL has made it easier to look up Amateur Radio Information. Go to the [ARRL website](#) to order.

Delta Ham License Training, 2017

Submitted by Joe Lowenthal, WA4OVO

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.

Licenses Earned in 2017 from Delta Classes

18 Technician
2 General
6 Extra

If you are interested in attending a training class, send an email to [Joe Lowenthal](mailto:Joe.Lowenthal@deltaclub.org) with the desired class name in the subject line, along with your name, email address and cell phone number in the text.

The new [Technician question pool](#) is effective July 1, 2014, through June 30, 2018. You will need the [ARRL Ham Radio License Manual 3rd Edition](#) to study for the Technician exam.

The new [General question pool](#) is effective July 1, 2015, through June 30, 2019. You will need the [ARRL General Class License Manual 8th Edition](#) to study for the General exam.

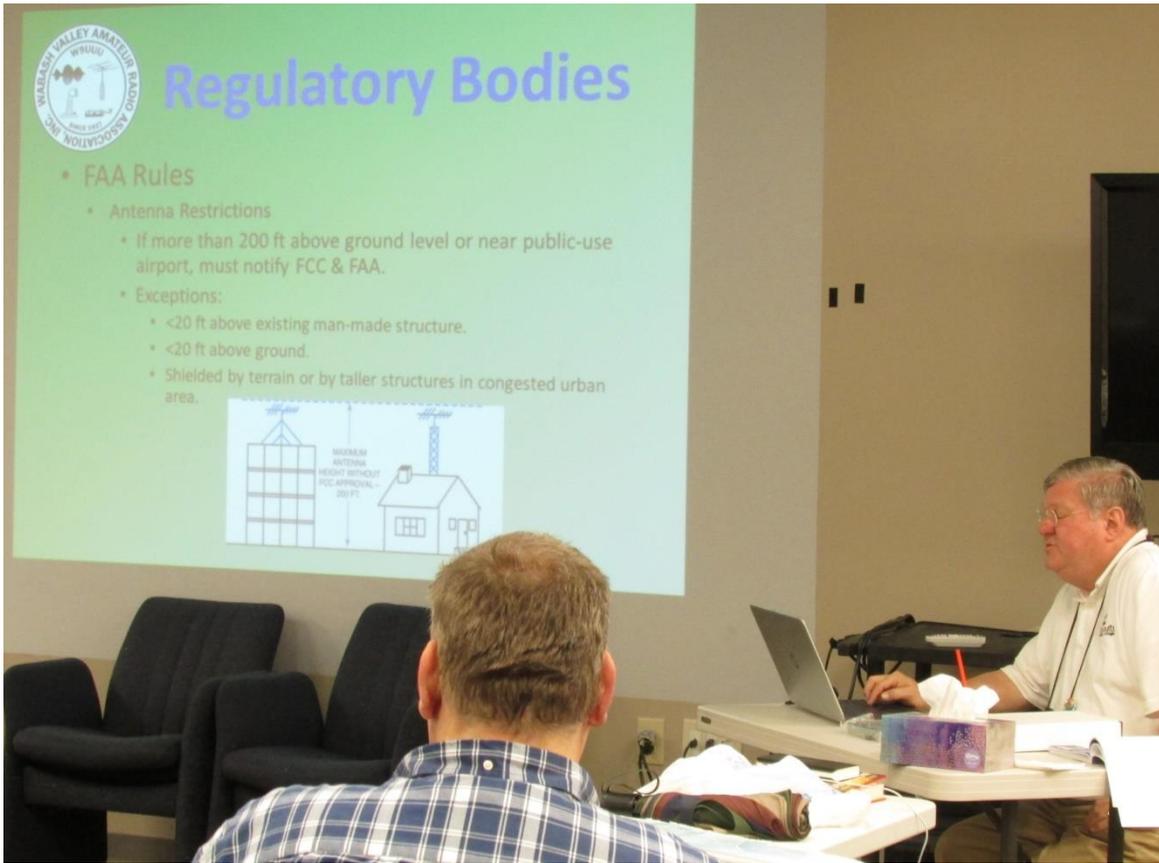
The new [Extra question pool](#) is effective July 1, 2016, through June 30, 2020. You will need the [ARRL Extra Class License Manual 11th Edition](#) to study for the Extra exam.

Planned Classes

General Class 4-17 will be held on six Monday nights from 6:15-9:30pm at EMHC ambulance company training room, 6972 Appling Farms Pkwy. There are seven students currently enrolled in the class. The FCC exam will be given on the last night of class, December 11th by the Delta Club ARRL VE team. The instructors are Joe Lowenthal, WA4OVO, Keith Barton, KT4EP, Len Grice, W4MKS, and Pat Lane, W4OQG.

An Extra class will be held if 6 or more General Class hams sign up for the class by December 20th. If class is held, it will be held on six Saturdays from 9am to 1pm at EMHC ambulance company training room, 6972 Appling Farms Pkwy. There will not be a class on January 27th due to the Jackson, MS, hamfest. If you are interested, send an email with your name, call, email address and cellphone number to [Joe](mailto:Joe.Lowenthal@deltaclub.org) with subject line: Extra Class.

Technician Class 2-18 is being planned between March 3rd and April 7th on six Saturdays if there are ten students. If there are not enough students for the Extra Class, we will move the Tech class to January 13th. If you know someone interested, have them send an email with Subject line: Tech Class and name, email address, and cellphone number in text to [Joe](mailto:Joe.Lowenthal@deltaclub.org).



Len Grice, W4MKS, leading students on FCC rules and regulations.

Photo by Keith Barton, KT4EKP.



General Class 4-17. Photo by Keith Barton, KT4EP.

2017 Veterans Day

Submitted by Dan Lasley, NE7JN

This month we honor Veteran's Day, November 11, as a reminder of the more than [1,354,664 men and women](#) who gave their lives to preserve our freedoms and our way of life.

Consider one such combat loss: [Wikipedia](#) tells us the following obituary appeared in *The Washington Star*, Sunday, December 15, 1918.

"Lieut. G. V. Seibold Killed in Action

Battling Aviator, Recently Cited for Bravery in France, is War Victim.

Lieut. George Vaughn Seibold, battling aviator, cited for bravery in action some time ago, lost his life in a fight in the air August 26, last. His father, George G. Seibold ... has been officially notified of his son's death by the War Department. Lieut. Seibold was a member of the 148th U. S. Aero Squadron. He was first reported missing in action, though a number of circumstances led to the fear that he had been killed. Hope was sustained until now, however, by the failure to receive definite word."



Lt. Seibold's mother, Grace Seibold, had been performing community work for returning servicemen by visiting them in hospitals in the Washington, D.C., area. After learning of her son's death in combat, Mrs. Seibold "organized a group consisting solely of ... mothers [who had lost sons in the war], with the purpose of not only comforting each other, but giving loving care to hospitalized veterans confined in government hospitals far from home. The organization was named after the Gold Star that families hung in their windows in honor of the deceased veteran."

[American Gold Star Mothers](#), thus established in June, 1928, continues through the current day "... to concentrate on providing emotional support to its members, doing volunteer work with veterans in general and veterans' hospitals in particular, and generally fostering a sense of patriotism and respect for members of the Armed Forces."

Perhaps the best known American Gold Star Mother was Aletta Sullivan, whose five sons perished when their ship, the USS *Juneau*, was sunk by a Japanese submarine during the Naval Battle of Guadalcanal in November, 1942.

Many of us have family or friends who went to America's wars and did not return. This year let's do more than pause for a moment, say a prayer, or say a heart-felt thank you to a veteran who did his or her duty.

This year on Sunday, November 12, let's boycott any sporting event whose spoiled, hideously overpaid players refuse to respect our flag, our country, our veterans. They can be disrespectful on their own time; let's tell them we won't accept their disrespect at a moment of national unity during the national anthem.

When you affect their paychecks, they will get your message.



Here is a formation you won't find in the National Football League.

As a rule, I don't run images without an attribution; I'm making an exception here.

Thanks to Tom Dichiara, AC5MR, for the image and thanks to whoever took this image.

I wish there were a phrase stronger than "thank you" for the twenty fallen shown here. Thank you for helping preserve our freedoms!



A ham friend recently pointed out that during deer season, American hunters constitute the fifth largest army in the world! Let's honor the vets who have given their all for us by never allowing politicians to strip us of any of our Constitutionally protected rights!

Send politicians a message they won't soon forget. And while you're at it, let them know many of those they represent favor congressional term limits.

By [Vikrum/CC-BY-SA-2.0](#).

Shelby County Emergency Preparedness Drill, October 11, 2017

By Bob Vawter, KW4RJ

Our assignments had been made by **Tina McElravey**, Shelby County Health Office administrator. We gathered in the Shelby County Agricenter on Walnut Grove Road. Most of us got there around 7:30 am and enjoyed a delicious pastry and drink. The “patient” volunteers were lined all the way out the door waiting to get signed in and then waiting again for the chance to be professionally “made up” to look like the injured. Each of the “patients” was given a symptomology sheet that described the patient injury and or state of mind. This process took 2-3 hours for about 300 volunteers.



Shelby County MRC members, “Hams” were ready to go after checking radios and getting instructions. We were to accompany each group of “patients” to each hospital in the Memphis area, including Desoto. Each of us was given one hospital assignment, while a few had two hospitals. We were to report to net control (Pat Lane) upon leaving the Agricenter, arriving at the hospital, checking the hospital ham radio, leaving the hospital and arriving back at the Agricenter where volunteers were treated to lunch.



My assignment was LeBonheur, and when we arrived at the west side of the hospital as instructed, we found the street blocked by Memphis city street crews working on the water main! Guess that was just like the real thing! After making the block, we unloaded our “patients” into an auditorium, then

they were taken, 6 at a time, around to emergency area. Upon questioning this, I found out that there was no place for our bus to pull into their emergency area without blocking the “real” emergency area! I was told that during a real



the
bus

emergency, Poplar Ave. would be closed to the emergency. They had a triage area set up outside with tarps showing "immediate," "urgent," "wait," and "morgue." Nurses came out with wheel chairs and took "patients" to appropriate areas to be treated. I had 19 people on my bus from teenagers to older adults. I asked to check the emergency ham (vhf-uhf) radios at the facility, and I was taken to the 7th floor to a room marked "emergency



communications" where I found a very nice setup of HF, VHF, UHF radios, computer and phone system. I was able to check into net control from their setup with no problem. As we were preparing to leave I was taken a head count and found the we had 17 of of 19. I just assumed at that time that the two were on the way, but when the LeBonheur driver told me all were accounted for, I said, "no, I'm missing two." Upon checking again and with other volunteers, I found that I was indeed missing two teen aged girls. The driver got on his radio and after

a few tense minutes, the teenagers were found. They had been taken to a room by themselves because their symptomology sheets said "wait for parents." Ha! The docs and nurses were following protocol. We got everyone all together and headed back to the Agricenter, arriving about 1:15 pm.



W5KUB's Amateur Radio Roundtable

Submitted by Dan Lasley, NE7JN, contributions (including photographs)
by Tom Medlin, W5KUB

Every Tuesday night at 8:00 p.m. Central Time, Tom Medlin, W5KUB, presents a [live ham show](#) I've watched Tom's presentations a number of times over the last few years and Tom has dramatically expanded the show, both in terms of locations covered and in the number of his co-hosts. I asked Tom several questions to familiarize the ham community with Tom's work.

Q.: How did the Amateur Radio Roundtable get started?

A.: We started streaming ham radio events about 17 years ago. We would stream our 500 mile drive to Dayton live and viewers around the world tuned in. This was years before TV stations started streaming live from their vehicles. Initially started it as an experiment for some close friends to take part in, it quickly expanded to viewers everywhere.

Q.: How many hamfests do you cover each year?

A.: We do about three ham fests per year, including Dayton (which we covered for 17 years), Huntsville, Memphis, and some other special events like Field Day. We have also done some special all day live webcast (seminars) for Icom on subjects like D-Star. During a single show like Dayton, we had over 50,000 unique viewers tune in from over 150 countries. Our goal was to virtually allow people to be a part of a hamfest if they could not go. There are many people out there who may be ill, no money, can't get off work, too young to go, etc., so we want to make it as real as possible to them. Each year during these events we give away about \$10,000 in prizes to our viewers. We have created software we call hambot that randomly picks names; if you acknowledge you are there when called, you get the prize. We give away prizes like antenna analyzers, HTs, D-Star radios, automatic antenna tuners, reels of coax cable, microphones, head sets, and much more. You can see prizes at the w5kub.com website. Just click on an event like Hamvention.

Two years ago our webcast won the Special Achievement Award from the Dayton Hamvention after they looked at entries from all over the world. We were picked for what we do to promote ham radio.

Q.: Tell us about some of your co-hosts and guests, including astronaut Doug Wheelock and Martin Jue, K5FLU, the founder and president of MFJ, who is also a regular cohost as of mid-October.

A.: I have co-hosts on the show, including Katie Allen, WY7YL, Dave Casler, KE0OG, Emmett Hohensee, WOQH (the chief engineer of Radiowavz), Riley Hollingsworth, K4ZDH (retired chief enforcer of the FCC), my good friend astronaut Doug Wheelock, KF5BOC, and we have just added Martin F. Jue, K5FLU, the founder and president of MFJ Enterprises, to our team to co-host our shows.

I met Doug about five years ago when I talked to him in the International Space station 30 times (three of those contacts were from my truck driving home from work). I offered Doug famous Memphis BBQ and he jumped on it. So I fedexed him BBQ for his first meal back on earth. Ever since then, Doug has joined our hamfest events for the past five years. I also had him come to Memphis last year and stay at my home, and we had a lunch at Corkey's Bar-B-Q. We invited all the satellite guys here that had worked him.

Q.: How do you find your guests?

A.: It's not hard finding guests now. They come to us so we always have something for the show.

Q.: How has the Amateur Radio Roundtable changed over the years?

A.: Our show is very interactive with our viewers. We open the phone lines and chat room so viewers can communicate with us in real time and ask questions. At the end of each show we go into an informal part of the show called "hangout" where a viewer can click on a link with their browser and it will automatically put him on the show with 10 other guests. Its like all of us are sitting around the coffee table and talking about anything and everything.

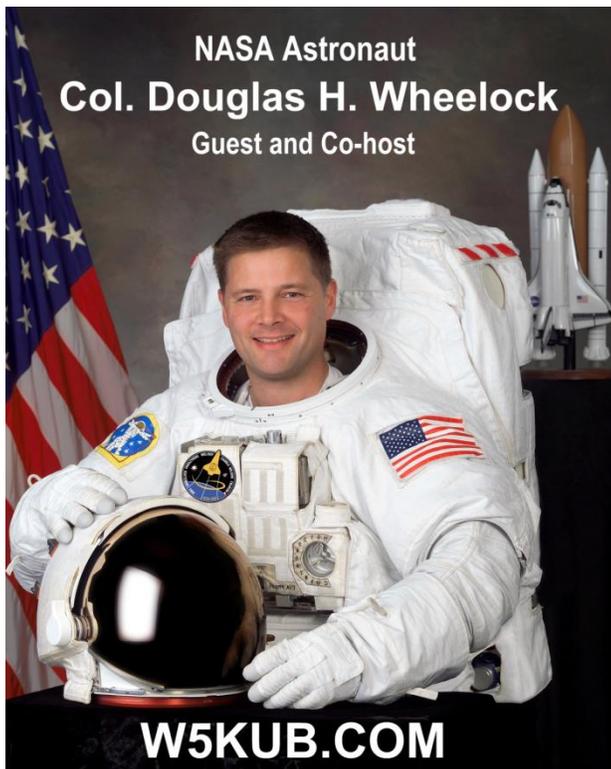
About three years ago I decided to go to a weekly webcast because there was so much interest and we had so many followers. We try to do things like no one else has done. For example, on our show on three Tuesday nights in a row, I had a direct connection to the Heard Island Dxpediton in Antarctica. We asked the people to go outside in the snow and we could see the pengiuns and even a volcano in the background! This took a year in planning and using satellite phones. I have had special shows from Russia with the help of my astronaut friend, Doug Wheelock, who was the director of NASA in Russia last year. We were the only ones who had boots on the ground and live reporting from the earthquake at Nepal a couple years ago. We were also called out to Hollywood a couple years ago to do a special webcast from the ABC studio stages of the hit show "Last Man Standing" with Tim Allen. I got to meet Tim and convinced him to let us break the news on our show that he had his ham license.

Tom concluded my questions by saying, "In addition to our weekly show being on the internet (video like a tv show) we also simulcast our audio of the show on world famous internation shortwave station WBCQ on 5130 Khz. All our shows are recorded and can be watched anytime. You can find them by going to w5kub.com and click on archives, or just go to [youtube](https://www.youtube.com) and look for our W5KUB channel. Please join our W5KUB video facebook group at <https://www.facebook.com/groups/w5kub>."

Thanks to Tom for his Amateur Radio Roundtable and for the information he provided for this article. Best of luck, Tom, on your future endeavors. This is very cool stuff!



Katie Allen, WY7YL (in Halloween costume), and Tom Medlin, W5KUB, hosting the [October 31, 2017](#), Amateur Radio Roundtable.



Astronaut Doug Wheelock, KF5BOC, is also a co-host for Amateur Radio Roundtable and has joined Tom in his hamfest events for the past five years.



Newest co-host, Martin Jue, K5FLU.

Updates to Last Month's Sparks

Submitted by Dan Lasley, NE7JN

Last month's [Sparks](#) mentioned a homebrew SSB rig by Walter Legan, KA4KXX. Walter's rig now offers CW; the local 40 meter group can copy his six watts of CW from 672 miles away!

In last month's "MS 150 Public Service Event" article, I failed to mention Pat Lane, W4OQG, as a net control operator. Sorry, Pat, my error!

Last month's Sparks also mentioned HamClock, an amazing design by Elwood Downey, WBOOEW. Here is an email update from Elwood: "Due to popular demand, and a certain amount of whining, I have decided to offer pre-programmed Adafruit HUZDAH boards. I am charging \$24 each plus a fixed shipping charge of \$6. I will do them in batches so please allow 2-3 weeks for delivery. You can order using PayPal (or any credit card) by clicking the button on the [HamClock web page](#)."

My article said that Elwood's HamClock is based on the Raspberry Pi; that's not correct. HamClock operates as if it were an Arduino, but the underlying processor is an [Espressif Systems ESP8266](#) microcontroller rather than the [Atmel ATmega8](#) microcontroller which powered the original Arduino.

Even given a newer, faster microcontroller with more resources, I'm not sure how Elwood squeezed so much functionality into the HamClock!

To learn more about the ESP8266:

- [manufacturer's](#) web page
- ESP32's [Wi-Fi Range Extended to 10 km](#) with a Directional Antenna (the ESP32 is the successor to the ESP8266). This article uses the Friis equation to estimate the strength of received signals.
- [Building a Web Server](#) with Adafruit Huzzah (requires a free login)
- The [Internet of Things](#) with ESP8266
- ESP8266 Community [Forum](#)
- Welcome to ESP8266 Arduino Core's [documentation!](#)
- [Meet the ESP8266](#) by Craig Lindley

YL News

Submitted by Linda Laseter, KJ4CTX, photos by Dan Lasley, NE7JN

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

We have had some interesting topics come up on the YL Net in the past, but last night's YL net operator, Janice, KX4BB, introduced a couple of trivia questions that we had several hams respond to. First trivia question of the night was which state has the most hams per 1000 population. You had four choices 1) California, 2) Alaska, 3) Florida and 4) Arizona. Some hams guessed California and some guessed Florida, but no one guessed Alaska which was the correct answer. The second trivia question of the night was "Which of the following items would you need to build your own receiver?" 1) Safety pin, 2) cereal box, 3) salt box, or 4) all of the above. This time the OM's were spot on with "all of the above".

Good job Janice! Hope you come up with more trivia questions. Not only are they fun but we learn from the trivia as well.

Thanks to all who check-in each week. We appreciate your support and enjoy hearing from you.

YL LUNCHEON – We had a good turn-out for our October luncheon. If you missed this luncheon you missed a good program and some excellent food. We are planning our next program luncheon and menu for the first of the year. We hope you will be able to join us.

Kate, KJ4KUL, presented a program on things to do to keep safe in today's environment. She provided us with several good tips for personal safety and ways to be mindful of your surroundings. "Awareness is an important first step to safety." Don't pull in your driveway if you think someone might be following you; drive on by and make several turns; put your turn signal on and watch to see if the person following you does the same; then do not turn and see if they turn on their signal as well but then continue to follow you. If you think they are following you, call 911 as you drive. If you need to call 911 you do not need to listen to all their instructions....just hit "0" for the Operator as soon as the recording starts. Another safety hint is lock your car doors as soon as you get in to prevent someone from suddenly opening your door before you know they are there. These are just a few of the high lights from the program.

Several of the YLs teamed up with our Elmer volunteers and cleared up some more of their ham radio questions. We also had a round table where several YLs and OMs were practicing and reviewing their CW skills.

We would like thank Jim, KI4I, Tom, AC5MR, Dan, NE7JN, Pat W4OQG, Ervin, KU4K, Rick, WB9TCB, and Ken, KI4AOH, for volunteering as Elmers and patiently answering all of the YLs questions at the luncheon. We really appreciate you guys.

Congratulations to Suzy, KM4FHS, who won the October drawing for the door prize, a nice ceramic chip and dip plate adorned with a little green frog as the dip bowl.

Our November luncheon will be:

O'Charley's

11:30 a.m. Saturday, November 18, 2017

2844 New Brunswick Road (east of Wolfchase and turn right onto Brunswick)

Memphis, TN 38133



(Above, left) Kate, KJ4KUL, presenting her talk on YL safety. (Above, right) The YL cleanup crew in action: (L-R) Gale, KI4VDI, Linda, KJ4CTX, and Betsy, KD4KOM.



(L-R) Ann, WB4FAA, Janice, KX4BB, Jim, KI4I, Pat, W4OQG, (partially hidden) Ervin, KU4K, and Tom, AC5MR, at the CW table. Janice is sending CW with a Heathkit keyer.

Editor's note: Thank you, YLs, for inviting us to your event and for providing an excellent meal! The OMs had a great time and would be more than happy to join your group again.

Kidde Product Safety Recall

Submitted by Dan Lasley, NE7JN

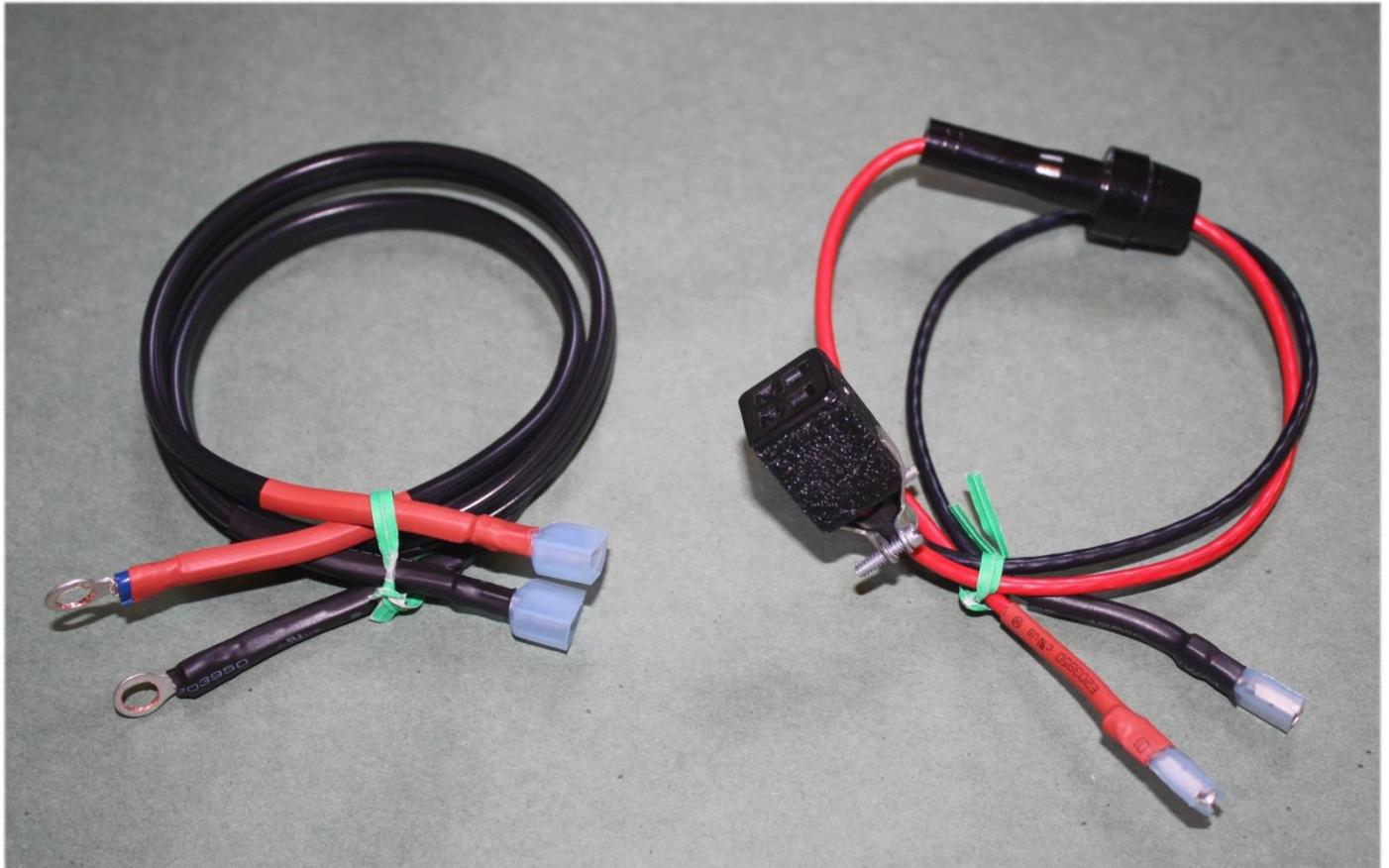
At a recent ham breakfast Roger Schlichter, WR4R, mentioned that all of his Kidde fire extinguishers had been recalled. If you have any Kidde fire extinguishers, please visit [Kidde's Product Safety Recall](#) web site to determine whether your fire extinguishers have been recalled.

Shrink Wrap Tool

Submitted by Dan Lasley, NE7JN

I recently purchased a used 40 watt VHF amplifier and power supply. After checking out the amp, I decided to take it with me on the MS 150 bike event that Delta supports every year.

I wanted to drive the amp with a battery, so that means I need to attach battery connectors to the amp's power leads. If I also made up a short cable with ring terminals on one end and the appropriate connectors on the other end, then I could plug the amp's power leads into either a battery or the power supply.



Above right is the amp's power leads with crimped battery connectors attached. Above left is the new cable which attaches the power supply to the amp. Note the red and black shrink wrap on all terminal ends. Not only does the shrink wrap lend a professional appearance, but it also helps keep the positive and negative leads aligned.

You may be interested in reading about crimped vs. soldered connections in "[To solder or not](#)" by Bryan Bergeron, NU1N.



In this photo, the ring terminals on the new cable go to the power supply and the amp's power leads connect to the other end of the new cable.

Note the color coding: red ring terminal to red (+) output and red male connector to red female connector.

A dime of common sense and a bit of paying attention means you shouldn't cross-wire the power leads!



If you shop carefully (i.e., watch for coupons), you can find a decent heat gun at Harbor Freight at a good price. This heat gun is a Chicago Electric with 12 power settings. The high setting on 970 degrees Fahrenheit will shrink a section of shrink wrap tubing in less than five seconds.

You'll also need shrink wrap tubing. This selection is a start but doesn't offer nearly enough tube diameters. You can usually find a good selection of shrink wrap tubing at hamfests.

Treat the muzzle end of the heat gun with caution. This sucker gets hot!

HF Propagation, Part 14: Tools

Submitted by Dan Lasley, NE7JN

This is my last scheduled article on HF propagation. I'd like to mention some propagation tools and resources on learning about propagation.

Attempting to master propagation is not a trivial accomplishment; there are many moving parts and they interact in numerous ways, some of which are not intuitively obvious to the most casual observer. By the same token, propagation isn't rocket science either, as you'll discover if you regularly read the "How's DX?" or "The World Above 50 MHz" columns in QST.

Learning about propagation's moving parts and how they interact would serve you well. Carl Luetzelschwab, K9LA, has written extensively about propagation. Reading his "[The Sun, the Earth, the Ionosphere: What the Numbers Mean, and Propagation Predictions--a brief introduction to propagation and the major factors affecting it](#)" is a good place to start. Once you understand Carl's material, read "[Solar Activity & HF Propagation](#)" by Paul Harden, NA5N. Paul's article is more in depth, but at eight pages, it's an easy read.

Now that you have an inkling about propagation, let's look at some tools to help understand the moving parts. If you visit Delta's [Solar Conditions](#) web page, you'll find a summary of the current solar conditions using these tools:

- [HF Propagation Tools and Solar Data](#)
- [What's up in space](#)
- [radio communications dashboard](#)
- [real time solar wind](#)

Many other tools are available on-line:

- [nearly real-time spotting network](#)
- [CONUS \[Continental U.S.\] HF band conditions](#)
- [Beacon locations used by the NCDXF/IARU International Beacon Project](#)
- [the reverse beacon network](#)

I haven't used the reverse beacon network (RBN) yet but it's on my list of goodies to learn about. The RBN web site says of one of the features it provides: "... you can see band openings in near-real time on an animated map."

With solar indices weak and becoming weaker in the next couple of years, digital modes, especially JT-8, can help overcome poor propagation. See the two-part article by Nobel Prize winner Joe Taylor, K1JT, and his team in the October and November, 2017, issues of QST for details.

If you want to work DX, you would do well to research propagation. Here's a tidbit from an [eham.net contributor](#): "... particularly a few days after a geomagnetic storm has pounded the ionosphere, 10m/12m/15m light up pretty well for a while..."

As you'll find, there is no end of things to learn about propagation!

St. Jude Needs a Few More Good People

Submitted by Dan Lasley, NE7JN

Roger Schlichter, WR4R, ham coordinator for the St. Jude Marathon, is looking for a few more volunteers to provide communications for the marathon on December 2, 2017.

As I mentioned in last month's [Sparks](#), this is a fun event to work and is a great place to start if you've never volunteered for a public service event before. If you can help St. Jude, please contact [Roger](#). The kids at St. Jude thank you for your service.

Update to US Coast Guard Auxiliary Special Event

Submitted by Dan Lasley, NE7JN, contributions by Bill Flanigan, KK4VPS



Delta's Bill Flanigan, KK4VPS, a member of the US Coast Guard Auxiliary, let me know the Coast Guard Auxiliary is having a special event on November 10, 11 and 12 to commemorate the 78th Anniversary of the USCG Auxiliary and to honor our military veterans.

In late October I went to [1x1 Special Event Call Signs](#); searching for "USCG" turned up 18 hits in all call districts except land-locked call district zero. More 1x1s may be added prior to the event.

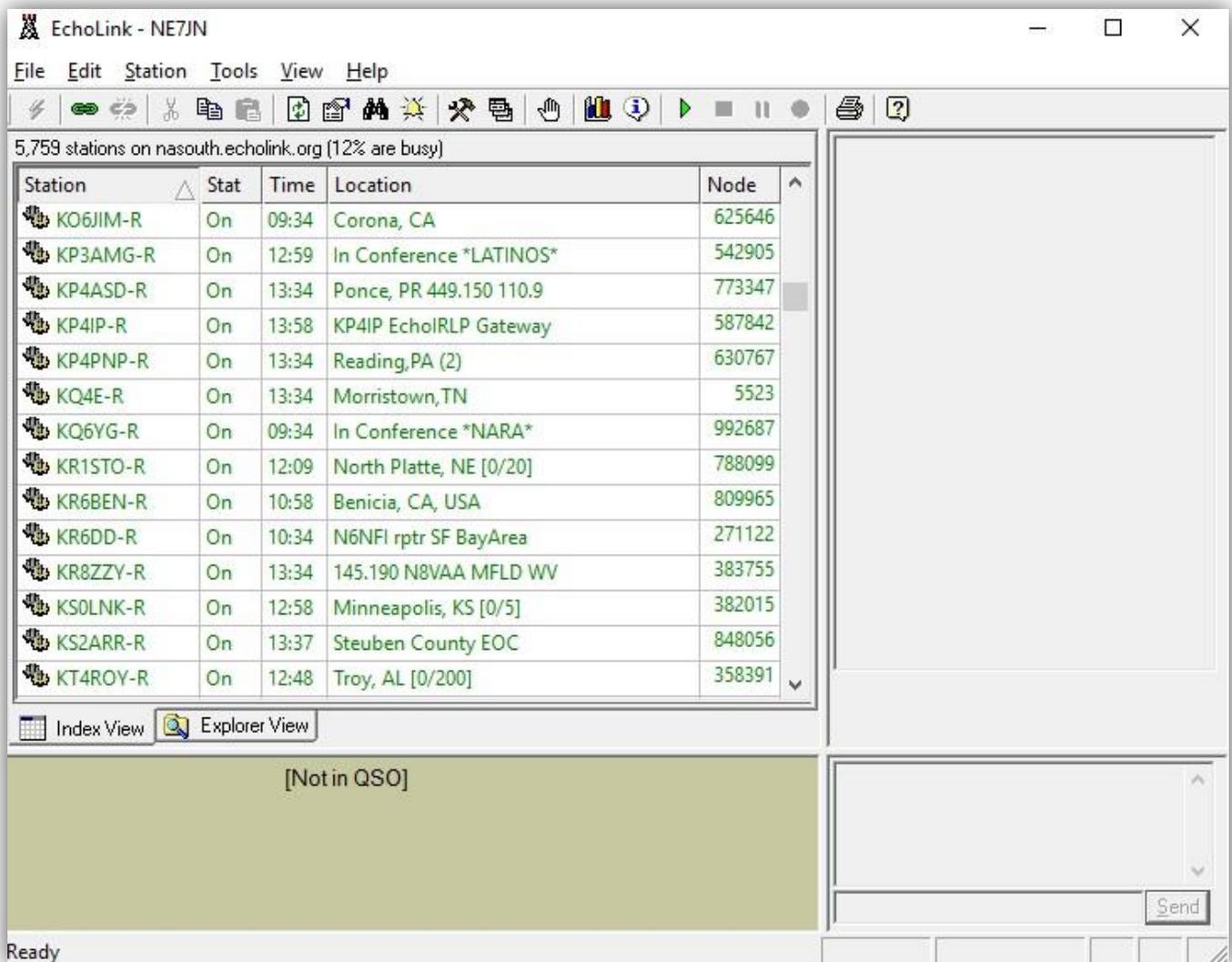
Event operators will provide QSL cards. If you are working on WAS or other awards, this will be a good opportunity to add states to your list.

Installing and Using EchoLink

Submitted by Dan Lasley, NE7JN, contributions by Larry May, K4QZF

I had intended to write a detailed article on the steps necessary to download, install, and operate EchoLink, but the process is so easy a third grader with a ham license could do it! Start with [Download EchoLink](#) and follow the instructions. The download page provides everything you need, especially if you will be a casual user. If you plan to be more than a casual EchoLink user, you may benefit from [VoIP: Internet Linking for Radio Amateurs](#) or [Nifty E-Z Guide to EchoLink Operation](#).

Once I had completed the setup, on the advice of Larry May, K4QZF, I went to windows setup, searched for "audio," clicked on "sound," clicked on "microphone properties" and set the level to 100%.



I clicked on the EchoLink icon; when the screen came up (see above), I clicked on a random ham in call sign district 6 (under the Station column) and clicked on the green "connect" icon near the top left of the screen. When the ham answered, I told him this was my first

EchoLink QSO, and we had an interesting conversation. I asked him if my audio sounded ok. This is a good thing to check, especially if you didn't set the microphone level to 100%.

I asked Delta's Michael Knight, KK4IOH, if he would be willing to talk to folks and help them with their first EchoLink QSO and he courteously agreed. When you are ready for your first EchoLink QSO, search for KK4IOH-R, connect, and click on transmit. At the end of your transmission, don't forget to click on transmit again to stop transmitting!



I tried the Tip of the Day with the space bar and it works without having to change anything. The only issue is that I use one of the old IBM keyboards that has a loud click on pressing a key and the ham at the other end of the QSO could hear it. The space bar is much more convenient to use than clicking on the "transmit" icon.

Good luck with EchoLink. It's easy to set up and use and the sound quality is generally very good.

Odds and Ends

Submitted by Dan Lasley, NE7JN



Nov. 11-12, [Ten Ten International Fall \(Digital\)](#), starts 0000 UTC Saturday, ends 2359 UTC Sunday.



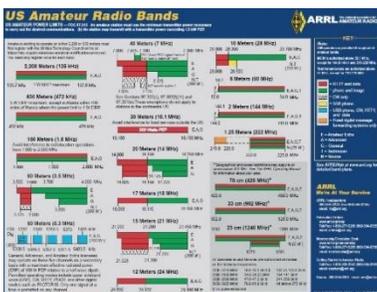
Nov. 25-26, [CQ World Wide DX Contest \(CW\)](#), starts 0000 UTC Saturday, ends 2359 UTC Sunday.



Is this a [satellite dish](#) or a [2M antenna](#) disguised as a satellite dish? If you have Home Owner Association woes, check out the March, 2016 QST, pp. 37, 38 by starting [here](#). Thanks to Richard Martin, K4DXF, for the information.



The [IEEE's Chip Hall of Fame](#) has a brief summary of a number of famous chips, including the [555](#), [ATmega8](#), [68000](#), and my favorite, the [6502](#).



The ARRL has new [frequency charts](#) which include the recently authorized 630 meter and 2,200 meter bands.

SPARKS Newsletter & 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

An alternative email address to offer the Board your suggestions, ask questions, and voice complaints is darc4you@gmail.com.

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>.

2017 BOARD OF DIRECTORS

President

[Ken Laseter, KI4AOH](#)
901-853-0400

Vice-President

[Steve Frazier, KK4VPT](#)
901-218-6385

Secretary

[Barri Munday, WB4SWP](#)
901-756-5259

Treasurer

[Linda Laseter, KJ4CTX](#)
901-268-1766

Director of Training

[Joe Lowenthal, WA4OVO](#)
901-628-4318

Director of Publications

[Dan Lasley, NE7JN](#)
901-827-5049

Director of Programs

[Kevin Zent, K4KLZ](#)

Director of Meetings & Special Events

[Scott Adams, KM4PMU](#)

Repeater Trustee

[Bill Stevens, WC9S](#)

Public Information Officer

[Len Grice, W4MKS](#)
901-488-4195

Immediate Past President

Joe Wray, WD4GXI

Board members beginning their positions in 2017 are listed in *italics*.

Public Service Events

If you are a coordinator for any of these events, please review the listed information. Please [email](#) corrections or additions.

2017 Date	Event	Contact Information
Jan. 15	Swamp Stompers 50K/25K Run	Keith Barton, KT4EP
May 6	March of Dimes March for Babies	Linda Laseter, KJ4CTX
June 17	Diabetes Tour de Cure	Pat Lane, W4OQG
Sep. 23-24	2017 Bike MS: FedEx Rock-N-Roll	Darrell Sheffield, KK4D
Oct. 7	Bluff City Blues 100 Ride	Ken Laseter, KI4AOH
Dec. 2	St. Jude Marathon	Roger Schlichter, WR4R

Tennessee Ham Radio License Plate

Submitted by Joe Lowenthal, WA4OVO

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

<http://www.tn.gov/revenue/article/emergency-safety>

The application can be found at this link:

<http://www.tn.gov/assets/entities/revenue/attachments/f1312601Fill-in.pdf>

As of July 1st, 2017, you must send a copy of or show an ARES membership card to keep from paying the \$25 surcharge for new plates or renewals. If you send a renewal in by mail with the lesser amount and do not include a copy of your ARES membership card, they will return your renewal and check due to insufficient funds.

If you want to become an ARES member, complete an ARES Registration Form FD-98 at <http://www.arrl.org/files/file/Public%20Service/fsd98.pdf>. Send completed form to Shelby County ARES c/o Joe Lowenthal, 6675 Ashbridge Cove, Memphis, TN 38120 or email to wa4ovo@gmail.com.

If you are not an ARES member and you do not want to pay the \$25 surcharge for renewal, you can get a regular plate for no additional charge. You will need a copy of your previous registration or there is an additional \$3 charge.

If a spouse is also a ham, only one of the couple needs to be an ARES member if the auto is registered in both names. If registered in the spouse's name, the spouse must have an ARES membership card.

The following link from the Tennessee Department of Revenue <https://www.tn.gov/revenue/article/emergency-safety> has the Amateur Radio auto tag information and listed below:

Amateur Radio

Available to: Tennessee residents who hold an official FCC-issued amateur radio license (unrevoked and unexpired).

Documentation Required: Application supported with copy of the FCC Amateur Radio license.

Cost: Annual fee of \$51.50; Members of emergency, rescue squad and Amateur Radio Emergency Service - \$26.50.

Other Notes of Possible Interest

Submitted by David Webb, KV4QI

It's Time to Renew Your 2017 Annual Memberships! Download the latest Delta Club [Membership Application Form](#). The 2017 membership renewal fee remains a very modest \$20 for an individual, with an additional \$5 fee for family membership. Thanks for Your Active Support of Delta Amateur Radio Club!

Memphis Area VHF/UHF Nets

Updated September, 2016

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 Barefooted Bullfrog Net	146.535	[simplex]	7:30p	Daily
Secret Service Net	224.780	[no tone]	8:30p	Mon
Elmer Net	145.210	- (107.2)	9:00p	Mon
The Short Winded Net	146.850	- (107.2)	8:30p	Tue
MedMERS Net	146.820	- (107.2)	12:00p	Wed
CERTPlus Net	443.200	+ (107.2)	8:30p	Wed
ARES Training Net	146.880	- (107.2)	9:00p	Thu
Super Sunday Niner Net	927.6125	- (146.2)	8:30p	Sun

Delta Club sponsored Nets are shown in red.

TENNESSEE HF NETS

As of December, 2015

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 (Center for United States Earthquake Consortium)	3.810		As needed
CUSEC (Center for United States Earthquake Consortium)	7.180		As needed

3980 kHz – TN 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

DELTA CLUB ADVERTISEMENTS

See Advertisement Order Form for Instructions.



MID-SOUTH AMATEUR RADIO SUPPLY (MSARS)

6631 Vallendar Cv., Bartlett, Tennessee 38135

tel: 901-371-9700 • fax: 901-266-3374 • web: www.msars.com

CURRENTLY STOCKING

Antennas	Antenna Mounts	Connectors	Coax & Cable
HT	Magnet	UHF	RG-213
Mobile	Trunk Lip	"N"	RG-8/U Mini
Base Station	Roof Mount	SMA	RG-58
HF	Window Mount	BNC	450 & 300 Ohm
Wire	Swivel Ball	RCA	Rotor Cable

LDG Electronics	Accessories	Miscellaneous
Automatic Antenna Tuners	RF Chokes	Gordon West Books
Remote Tuners	Power Poles	Coax Seal
Brand Specific Antenna Tuners	Antenna Switches	Fuse Holders
Baluns	SWR/Power Meters	Remote Tuner Boxes
Ununs	Mic Holders	Dog Bone Insulators

**Owners/
Operators**

**Steve
W5VAA**

**Rosalinda
WN2V**

**Ham
W4GMM**

Mid-South Amateur Radio Supply, (MSARS.COM) is owned and operated by local hams who are dedicated to promoting the hobby and providing help to anyone interested in ham radio. We actively support the local amateur radio clubs and are ARRL members.

MSARS offers free antenna building classes each year and help many new hams with guidance on their first radio, setting up a ham shack, programming a radio and much more. We are proud to be a part of the ham radio community and are *here to help you*.

Please thank our sponsors by using their services and mentioning that you saw their ad in the Delta Club SPARKS Newsletter!

This ad space is available

DELTA CLUB ADVERTISEMENTS

See Advertisement Order Form for Instructions.

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)



Ben Richhart
Sales and Service Director

Chick-fil-A at Paragon Place
6282 Poplar Avenue
Memphis, TN 38119
Phone: 901-766-1875
Fax: 901-766-1878
E-mail: ben@cfaparagonplace.com

Please thank our sponsors by using their services and mentioning that you saw their ad in the Delta Club SPARKS Newsletter!

This space is available!

We offer our continued thanks to EMHC ambulance company for generously providing their training room for the many ham radio classes given there.

**Delta Amateur Radio Club
Sparks Advertising Order Form**

Date: _____

Name: _____

Call Sign: _____ Phone: _____ Email: _____

TO PLACE AN ORDER

1. Mark the box below indicating the ad size you are purchasing and the months you want your ad to appear in Sparks.
2. Submit this completed order form and your camera ready ad, via email at sparks@carbheat.net
Make check payable to Delta Amateur Radio Club (DARC) at monthly Delta Club meeting, or send US Mail to club mailing address at P.O. Box 432768, Memphis, TN 38134-2768. Camera ready means that ad copy is exactly as you wish it to appear, scaled to fit within the dimensions specified below. Ads may be submitted in .gif or .jpg format, or submitted as a hard copy (we will scan and place your ad for you).
3. Your ad order and payment must be received on or before the first Tuesday of the **month before** you want it to appear in Sparks.

SPARKS ADVERTISING

FULL PAGE			HALF PAGE			¼ PAGE			BUSINESS CARD		
\$50.00 for 3 Months 7" w X 8 ½" h			\$25.00 for 3 Months 7" w X 4" h			\$15.00 for 3 Months 3 ½" w X 4" h			\$10.00 for 3 Months 3 ½" w X 2" h		
Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	July 2017	Aug 2017	Sept 2017	Oct 2017	Nov 2017	Dec 2017