

# *Harc Herald*

A Monthly Newsletter of the Heart of America Radio Club  
Published in Kansas City, Missouri  
September 2019

## Know Your Amplifier Classes

You probably have heard of some of the various older amplifier classes. There is the class-A amplifier, the class-B amplifier, the class-AB amplifier and the class-C amplifier. But what about the class-D, E, F, G and H amplifiers?

A class-D amplifier or switching amplifier is an electronic amplifier in which the amplifying devices, usually MOSFETs, operate as electronic switches, and not as linear gain devices as in some other amplifiers. They operate by rapidly switching back and forth between the supply rails, being fed by a modulator using pulse width, pulse density, or related techniques to encode the audio input into a pulse train. The audio escapes through a simple low-pass filter into the loud-speaker. The high-frequency pulses are blocked. Since the pairs of output transistors are never conducting at the same time, there is no other path for current to flow other than through low-pass filter to the output. For this reason, efficiency for this amplifier can exceed 90%.

The class-E, F, G and H amplifiers are variations of the switching amplifier concept. While the Class-D amplifier is useful in amplifying audio signals, the class-E, F, G and H amplifiers each have their own advantages.

The September 17 meeting of the Heart of America Radio Club will bring you a discussion of these interesting classes of amplifiers as a meeting program at the American Red Cross office at 6601 Winchester, Kansas City, MO 64133 at 7:00 p.m. Please try to attend the meeting if you can.

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### Meeting continued

There is more than one way to the location. Here is one of the routes. From Sixty-third Street, turn south on Winchester Avenue at the traffic signal. Drive up a long hill for three blocks. You will pass the Spectrum office on the right. The next building on the right is 6601 Winchester Avenue. Parking space surrounds the building, but park in front.

The front door of the building will be locked at the time of the meeting. Before the meeting you will be greeted at the door. If you arrive after 7 o'clock, call for WØRR on 146.940 MHz. simplex, because reaching the 94 repeater using an HT from inside the building is difficult. You might also use 94 simplex to obtain talk-in directions if you are close by.

### Minutes of the Meeting August 20, 2019

The August meeting was called to order at 7:00pm by Dennis, NØUYN.

Introductions were made by name and call sign for the 9 attendees.

### Secretary

The minutes of the June meeting were published and read. Approved as read.

### Treasurer

The treasurer's report from Larry KAØYJE showed the following balance of \$968.69 for July. Report approved as read.

### Old business:

Larry, KAØYJE met with the bank, they have proposed an account where at least one deposit is made each month to prevent bank fees.

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## Minutes continued

Craig, KYØO, reviewed repairs in regard to FD issues:

- ✓ One antenna moved
- ✓ Coax connections repaired
- ✓ Replaced connectors on headsets

## New Business:

Mike, KØUAA reviewed the 4-Kids Triathlon at Kill Creek Park on August 24<sup>th</sup> at 7:00 AM.

## Evening Program

Craig, KYØO discussed Quantum Mechanics. The meeting was closed by the president, Dennis NØUYN at 2030.

Respectfully submitted August 20, 2019 by  
Richard, WØKRF

# U-Kid's Triathlon

Kill Creek Park, near Olathe was the site of the last Heart of America Radio club coordinated public service event of 2019. The U-Kid's Triathlon was held on Saturday, August 24. The triathlon is designed for youngsters of both genders ages fourteen years and younger. The eleven to fourteen year age group starts the swim first. The age group rides the bike course when the swim is completed and then runs the run course. About 40 minutes after the first older group of triathletes began their swim, the six to ten year old group begin their swim. The swim is followed by bike and run stages about half the distance of the older triathletes. An hour into the events the five and younger kids splash, bike, or trike and then run under the supervision of their parents.

This was the fifth year that the Heart of America Club has participated in this event. Hams participating were Larry Widener, KAØYJE; Brian Whitlock, KBØZWA; John Lyon; NØTXO; John Eberenz, NØRES; Kristen Christensen, KEØMQO and Andrew Christensen, KEØJKA Mike Bellinger, KØUAA organized the hams and Dennis Crawford, NØUYN was net control.



# Southside Hamfest

The Southside Amateur Radio Club Hamfest will be held Saturday, October 5, 2019, from 8 AM until 1 PM. Sellers may set up from 6 to 9 PM on Friday, October 4 and again from 6 AM until 8 PM on Saturday.

The hamfest will be held at Mill Creek Upper Elementary School, 308 South Cleveland Avenue, Belton, MO 64012. Talk-in directions available on the Southside ARC repeater on 147.12+ MHz. (PL 151.4 Hz.)

Tickets are available at the door for \$4 each. Advance tickets cost \$7 for 3. Tables may be secured for \$10 each. Tables with electrical power availability are limited. Payment may be made by check or money order to PO Box 701, Grandview, MO 64030. Tickets purchased in advance may be picked up at the door the day of the hamfest.

Breakfast and lunch to be provided for purchase by the Down Home Cafe.

Norma, Ted and the W5YI VE team will begin testing 10 AM. A \$14 testing fee will be payable in exact change. Applicants need to bring an original and a copy of their amateur radio license.

Associated Radio, Mastrant and D&L Antenna are committed commercial vendors.

Cash prizes will be awarded to those present. First prize is \$300, second prize is \$200 and third prize is \$100. Door prize drawings occur throughout the hamfest.

Information will be available from Jay Duthler, KEØU by mail at PO Box 701, Grandview, MO 64030, by telephone at 816-607-1330 or by email at [info@southsidearc.net](mailto:info@southsidearc.net).

# Larry's List October 2019 Ham Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>29</b>	<b>30</b>	<b>1</b> 7 pm Ararat Radio Club	<b>2</b>	<b>3</b> 11 am QCWA lunch  7 pm Pilot Knob Amateur Radio Club	<b>4</b>	<b>5</b> 7:30 am Santa Fe Trail ARC Meeting 8 am SouthSide ARC Breakfast ARRL SET SouthSide Hamfest
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b> 12:10 pm Crown Amateur Radio Association  7 pm Wheat State Wireless Association	<b>10</b> 11 am QCWA lunch  7:30 pm Blue Springs ARC	<b>11</b> 7 pm Johnson County Radio Amateurs Club  Extra Class license class	<b>12</b> 7 am Santa Fe Trail ARC Breakfast 8 am SouthSide ARC Breakfast Extra Class license class 9 am W5YI Testing - Independence 2 pm KC Area Blind Association Radio Club
<b>13</b> Extra Class license class	<b>14</b>	<b>15</b> 6 pm SouthSide ARC  7 pm Heart of America Radio Club  7 pm VE Testing-Raytown ARC	<b>16</b>	<b>17</b> 11 am QCWA lunch	<b>18</b>	<b>19</b> 7 am Santa Fe Trail ARC Breakfast 8 am SouthSide ARC Breakfast 9 am VE Testing - Johnson County 2 pm Mo-Kan Regional Council of Amateur Radio Organizations
<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b> 11 am QCWA lunch  7:30 pm Raytown ARC	<b>25</b> 7 pm Johnson County Radio Amateurs Club	<b>26</b> 7 am Santa Fe Trail ARC Breakfast 8 am SouthSide ARC Breakfast 9 am Platte County Amateur Radio Group 9 am W5YI Testing - Blue Springs
<b>27</b>	<b>28</b> 6:00 pm Kansas City DX Club	<b>29</b>	<b>30</b>	<b>31</b> QCWA lunch	<b>1</b>	<b>2</b> 7:30 am Santa Fe Trail ARC Meeting 8 am SouthSide ARC Breakfast Raytown Amateur Radio Club Hamfest

The ***Harc Herald*** is the official organ of the Heart of America Radio Club, Inc., of Kansas City, MO. Permission to reprint any article appearing in this newsletter is given providing appropriate credit is given to the ***Harc Herald*** and the article's author.

This ***Harc Herald*** was duplicated for mailing courtesy of the Emergency Services Department of the American Red Cross.

In order for members to receive this newsletter before the meeting, articles for this newsletter must be received by 8 a.m. one week before club meetings. The editor can be reached by telephone at 816-363-1118. Call that number if you wish to submit an article by electronic means.

**Post Office Address for HARC  
(Other than for newsletter articles) is:  
c/o Larry Widener, 8316 Summit St. 64114**

**HARC Net Schedule**

The HARC net meets every Thursday at 9:00 p.m. on the 146.34/146.94 MHz. repeater. 88.5 Hz. access tone required

If you have received a complimentary copy of this newsletter or saw it posted, we invite your membership. Annual dues of \$12.00 include the cost of this newsletter. New members may join by paying dues prorated from the date of joining to end of year.

**Club meetings are normally held at 7:00 p.m. on the third Tuesday of each month at the Red Cross building in Kansas City, MO.** The address is 6601 Winchester 64133. There is parking in the front of the building. Visitors are welcome. You must be accompanied into the meeting.

**The next meeting will be September 17.**

**HARC website:** <http://www.harc-mo.net>

**Ham events calendar:** <http://www.larryslist.info/events-listing.html>

**HARC Officers:**

President: Dennis Crawford, NØUYN  
Vice President: Craig Martin, KYØO  
Treasurer: Larry Widener, KAØYJE  
Secretary: Richard Fretwell, WØKRF  
Director: Craig Schley, KAØFSP



**FIRST CLASS POSTAGE**

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