

SOUND WAVES

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VRPS Fall 2020

From the President



I keep thinking I am gonna wake up after six months in a deep Rip Van Winkle type sleep to find this has all been a nightmare. So far no one has pinched me, so I guess I have to assume that, while it is a nightmare, it is not a dream. Darn!!

I hated like the dickens to have to send out the note in early September telling folks we would not have a convention in 2020. What a disappointment! To boot, this would have been a year to celebrate the 100th anniversary of the birth of broadcasting as we know it. I can just picture the displays in the contest,... a large variety of vintage microphones...early radio station QSL's, photos and radio station advertising, etc... What a disappointment we will not be able to see them all in

the same place. But, most of all, I will miss seeing you. For some of you, it is a once a year renewal of friendships. I feel bad, but then I look around the nation and none of our sister organizations have managed to pull off their convention this year...except the Houston Vintage Radio Association. They managed to get their convention in February before all this stuff hit the proverbial fan. Nice job Houston, glad I was able to attend.

I get to feeling sorry for all of us...me included, but then I realize that those who are most vulnerable to this virus are ...well, it's me and you! So, I have tried to use the time productively...fixing and cleaning old radios that have been begging for attention. I have uncovered some items I have had 20 years...and had forgotten.

As I mentioned in this column back in the summer, I get the feeling that many of you are also paying long needed attention to items in your collection. I continue to get weekly requests for tubes, parts, and knobs.

Our Zoom meetings, set up by Dave Seymour, have been well received and, as a result, will continue as we go forth. We find folks on the call (averaging about 35 people per call) coming from all over...even as far north as Minnesota and Wisconsin. Join us next time. Mike Grimes does a great job of keeping the website up to date, so check it often.

As a personal note, we have held numerous auctions this year...only one had a live audience. Folks have responded well to on-line only sales...not my favorite, but definitely a way to get one collection into the hands of others.

Until the next time, as the old saying goes...I will see ya when I see ya.

--Jim

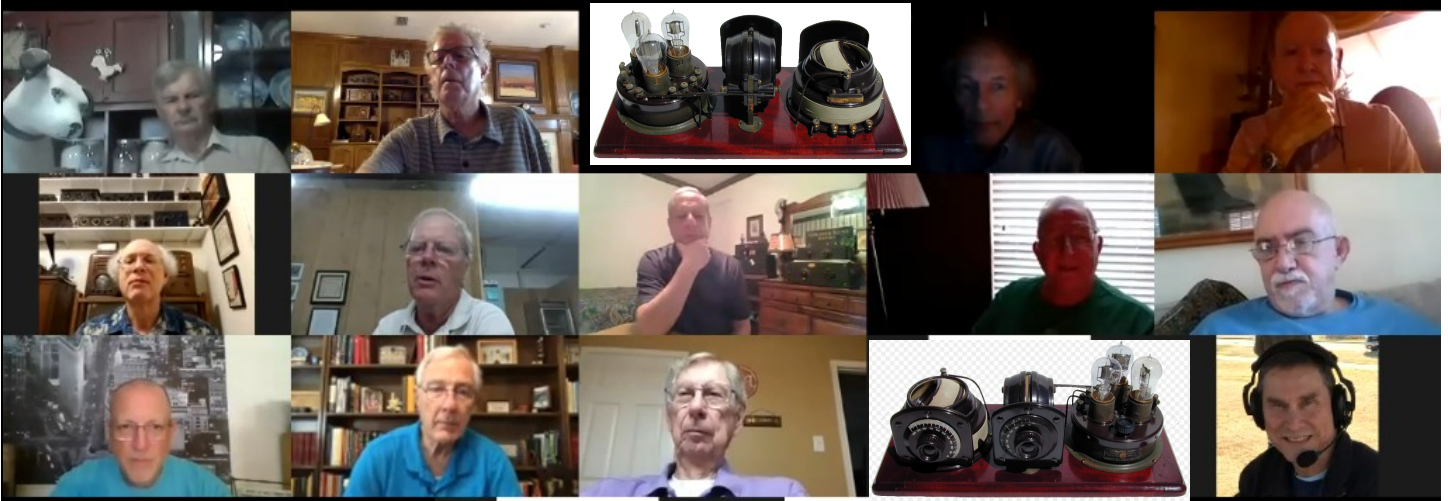
July 11, 2020 Swap Meet



Photos by Mike Grimes



August 1, 2020 Zoom Meeting



After a number of months with no meetings (thanks to the COVID -19 virus) the club enjoyed a virtual get-together via the ZOOM meeting process. Jim Sargent conducted the meeting, which was attended by more people than our average in the past. There were 37 members signed on, at last count. Many of them that reside far away (e.g. Jerry Sirkin – Spring, Texas) commented that it is good not having to drive to a meeting. Jim informed us that the city of Irving is still not opening their meeting facility and that our annual convention was not likely to happen (update – it has been cancelled). Jim thanked Dave Seymour for setting up our ZOOM meeting,. At first there was some problem with echoes and feedback when members had not turned off their microphones when not needed. Jim reminded them, so it went well thereafter. Mike Grimes is keeping our website going, particularly important these days. Dave shares the meeting video via thumb drive with Mike who puts it on our website. So there is a link under the “Activities” page that lets us play back the entire ZOOM meeting – about an hour-and-a -half duration.

Jim introduced the meeting topic, which was Atwater-Kent. He pointed out that AK was the real leader of early radio, as far as manufacturing and developing parts and, eventually, complete radios. He had a history of making electrical equipment for automobiles, working with Bakelite and winding coils. Jim showed a very early AK “breadboard” model (dubbed Model-1 by collectors, much later on). It has a 3-tube “island”, a coupler and a variometer-type regeneration control. The parts were available from AK in kit form or pre-assembled. They were modularized according to function, such as the 2 and 3 tube islands, antenna couplers and regeneration control (variometer). The latter was never supplied with a kit or finished unit, but could be bought separately by the owner of the radio. It came with instructions for installing it on the breadboard, using the space already allotted for it. This was how AK avoided patent infringement problems or license fees with Edwin Armstrong. AK did everything he could to avoid paying patent royalties, such as using belt-driven tuning capacitors to obtain a single-shaft tuning feature and sticking to TRF designs to avoid superhet patents. Jim showed two books that are useful references for AK products, by Ralph Williams. (One of them is available from abebooks.com, titled A. Atwater Kent: The Man, The Manufacturer and His Radios).

Dave Seymour gave a presentation and slide show regarding his so-called AK Model 2 breadboard. He said that it is the very first item in his radio collection. He opened up his tube island base, only to find that someone had removed the tar and replaced the audio transformers with modern ones. One of the transformers was used only as a choke, and a resistor was used as a plate load for the other stage. Once restored, Dave set up test equipment to analyze the

performance of each unit on the breadboard. His slide show presented his schematic diagrams and performance (frequency response plots) data. He discussed the material on each slide. On another topic, Dave noted that adding a bias battery, such as used on early battery sets, improves the output tube sound quality on early AC sets.

Larry Lindsay showed a SMITR award that has been looking for its owner – Mark Blackwood.

Jerry Sirkin highly recommended a museum fairly close to Seattle – the Sparks Museum in Bellingham, Washington, a city north of Seattle via I-5 and just south of the Canadian border. (Their website Facebook video is fascinating.)

One attendee proposed that the club continue having ZOOM meetings, eliminating long drives. (We would still need attendance for swap meets and auctions.)

Author's Note: Model-T Fords had a rotary contact that sequenced four individual spark coils - one for each spark plug. AK supplied a kit with a distributor for the high voltage spark from a single coil to the spark plugs, using one of the original coils (leaving 3 for spares). Many of those coils were used by radio hobbyists for spark transmitters. There is one on my bookshelf.

Bill McKeown

September 12, 2020 Zoom Meeting

Club members participated in another monthly meeting via the ZOOM meeting process. Jim Sargent conducted the meeting, which was "attended" by more than 30 members. Again, there was some problem with echoes and feedback when members had not clicked on their mute buttons whenever their microphones were not needed. This is something we need to get used to. After Jim reminded us, it went better. As before, Mike Grimes posted the video of our meeting on the club website after Dave Seymour shared the meeting video with him. So now, there is a new link under the "Activities" page that lets us play back the September ZOOM meeting. Once our distant members learn via Soundwaves or word-of-mouth, we may see even more "attendance".

Jim mentioned that he is having an on-line auction on October 3rd, so there will be postings on his auction website about it during the weekend before that date. Then he started off the show-and-tell meeting with an item of his own. It is a reproduction of a very early detector and associated tuning devices, including a loose coupler. It is made from early parts from around the 20-21 time period. It is a so-called "stair-step arrangement".

Jim Ray, from Midwest City, OK, showed a Telefunken Opus 6 radio from 1957. It has AM, FM, and two SW bands. Even though it is not stereo, it has 6 speakers and the usual good sound of these German radios. He purchased the radio at one of the VRPS auctions. He primarily collects and restores foreign radios, especially German models. He pointed out a Belgian radio that he had bought at one of our club conventions.

Joe Strickland showed a Harmon-Kardon F500 FM receiver, from about 1961. The condition is excellent, but the area of the chassis for an FM-multiplex section is covered with an aluminum plate. He described the tube lineup and the function of each one. Joe was a technician for RCA for awhile, but spent many years, until retirement, at Collins Radio.

Tim Henry discussed his work (for someone else) on a Seeburg model 222 juke box that came out about 1958. He said it is the very first jukebox providing stereo performance. He showed the electronics, which he mounted to a sheet of plywood so he could work on it and put it into operation without the jukebox itself. He showed the two chassis, one for the amplifier function, and one for control of the mechanical operation of the machine. He also showed the record playing mechanism itself, sitting on a bench and put into action to select a record. It holds 80 records, playing 160 selections. He mentioned that a replacement double needle is very expensive. He is nearly finished with the project, having worked on it for about six months.

Mike Grimes showed and discussed his David Grimes "kit" radio. Mike related the history of David Grimes himself and his radio business, operating from about 1924 to 1928. He then described the details of the radio's construction, which included aluminum castings for the chassis and other parts. The circuit is a reflex-type, using the RF stages doing double duty by taking the audio signal and feeding it back through the RF stages on top of the RF signal itself. This expedient (developed by others) reduced the number of vacuum tubes, which were expensive in the early days. He showed us the schematic diagram of the radio, which he had totally disassembled. Then he showed us a picture of the cabinet parts, including the front panel and lid. All the parts were checked out, including a choke and the two audio transformers (one used for reflexing). Another part of the project was creating a power supply for the several required voltages. Mike showed and described the schematic diagram for the supply that was built to power the radio.

Gilbert Hedge showed his recent acquisition – a 1922 Zenith Radio catalog describing Zenith models I-R and II-R. The catalog provides information on installing and using radios, with reference entirely to the II-R, which was never manufactured.

Larry Lindsey showed an empty loop antenna frame that he would like to restore. He was seeing advice as to how to do it. George Potter offered that it is a big job and that he has a complete antenna of that type, and Larry might benefit from looking at it.

George Potter showed a crystal detector that he bought at one of our parking lot swap meets. He identified it as an Allied unit shown in the book "Crystal Clear", Vol II, pg. 105, figure 149 – made around 1928 to 1930. It is very well made and includes nickel-plated binding posts. In 1936 it was offered with Fahnestock clips, instead.

Dave Seymour showed a Power Point presentation that was a continuation of the one he made during the August meeting. He presented more results of his performance analysis of an AK Model 2 breadboard radio. He plotted data points showing the magnitude of the coupling between the antenna input and the variometer output, over the available range of adjustments. He then concluded that the performance was optimized for the frequency range

of early broadcasting. Next, he showed a list of radio stations from the Radio-Locator website. It provides a list of stations that we should be able to pick up in our area. It is touted as a very useful site. He had checked off the stations that he could pick up - one station was KVSQ, Ardmore OK. At night he could pick up San Antonio and Tulsa. Dave also showed a tone control device that could be added to radios having push-pull 45 output stages. It is supplied with two wafers that sandwich between the 45 bases and the tube sockets. The device adds a resistor and capacitor across the existing tone control capacitor.

A member showed a six-pin blue WUNDERLICH tube in its original box. Jim Sargent commented that there is nothing to the widely held rumor that radios work better with tubes having blue glass.

Howard Stone showed a Hammarlund ST-600 radio. It is a very difficult radio to work on because of its construction. It was necessary to unsolder a large part of it to get at the works. It is one of those radios that fit into the heavy "boat anchor" category. It is not the type of radio that he generally works on, but it has made a good project during confinement.

The author showed a UX-245 in its original box. It is interesting that the tube is supplied wrapped with a data sheet with all of the engineering technical data for the radio engineering designer to use.

Jim Sargent announced that the city of Irving will not be able to accommodate us this year, and it is yet to be determined what our schedule looks like for next year. He also said that if we pay our dues by November we have a chance to win a model K-53 GE cathedral radio - which would have been a prize at our annual convention. Mike Grimes will continue to keep up the club website, and we can watch it for postings of events to come.

Author's Note: For more information about an item discussed during this ZOOM meeting, you may want to watch the video of the meeting posted on the club website. I noticed that when I was "on the air", there was a lot of echoing when I spoke. I realized later that my sound system volume was too high, causing feedback. We can turn down our computer system volume settings to avoid this.

Bill McKeown

Tips and Tangled Cords

IF Transformers #2 Blake Dietze

This month's column is a follow-on to the previous discussion on IF transformers. In this month's discussion I focus on the K-Tran (J-Tran, Other) inductively tuned IF transformers. Below is a typical example.



These inexpensive transformers have several common failure points, including ferrite core failure, cardboard tube failure, and internal capacitor failure. The first issues requires the replacement of the core if you have one (I have drawer full from scrapped units). The second issue can sometimes be resolved by heating and reforming the cardboard with your soldering iron and re-threading with a fine thread screw or bolt (I use a nylon screw sourced at the local hardware store). The more predominate failure occurs in the fixed silver coated mica capacitor built into the base of the unit. The silver oxidizes, producing an intermittent or failed connection. Below is an example of the disassembled unit.

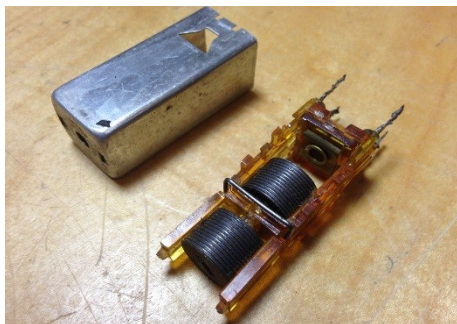
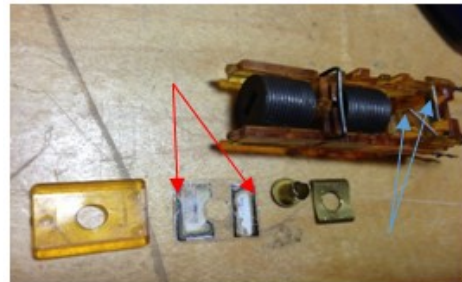
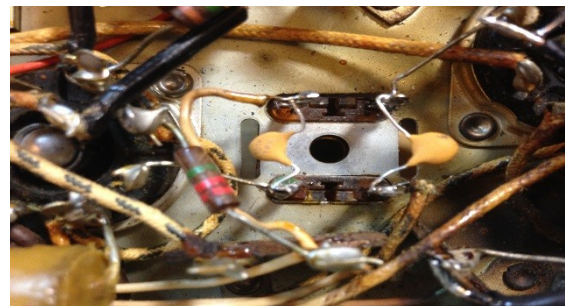


Fig 3. K-Tran IF transformer disassembled. In order to restore the transformer, the repairman will need to remove the silver coated mica capacitor. Construction varies by brand, some require the

removal of a single rivet, other will require cutting out a section of the base (I use a rotary tool). In either case be VERY careful with the wire connections, they break easily. The photo below shows a K-Tran unit with the mica removed, Note the black silver oxide. (red arrow)



Once you have removed the mica sheet you will need to trim the 2 leads (blue arrow) on each side or insulate them. Don't trim too much or you will affect the strength of the leads. I use instant bond glue where the leads go through the base. Once this step is completed, reassemble the transformer. (Again, using glue as required) After remounting the IF transformer, it will be necessary to replace the internal capacitors. I tend to do this on the outside of the can for two reasons: The internal base tends to be pretty flimsy. If you should need to adjust the value, you won't have to remove the can again. The typical value for the external capacitors is 100pF, but I have on occasion had to add or subtract from those values to peak the transformer during alignment. I use 500V silver mica or ceramic discs and I have used a range of values from 82pF to 120pF. Completed assembly shown below.



That's it for this column, "happy hunting" and "keep 'em playing".

Things to Do While Staying at Home *(now that you've fixed all your radios)*



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Obituary - The Passing of a Charter Member - by Jim Sargent

Glen Zook's daughter, Rebecca, contacted me in the early half of August to let me know that her dad was in failing health and had been placed on Hospice care. He fought a good fight, but he passed from this life on August 13th. A man small of stature, yet a giant when it came to his knowledge of electronics and clocks, and well, anything that had a mechanical bend. He had a thought or opinion on every subject and was free to share. In 1974, Glen, along with a small group of visionary hams and radio collectors, got together in the metroplex to form the **Southwest Vintage Radio and Phonograph Society**. A few years later we lost the "Southwest" in our name, but we never lost the zeal for collecting and preserving the history of radios and phonographs that Glen and those other men set forth as the purpose of our hobby. Glen was an early President (yes, presidents used to rotate in an out of the job!). He was also the first editor of our newsletter. In the early days, we held our meetings and club auctions in the Richardson Power and Light building. Glen was instrumental in getting us access to that facility. He was fond of auctions, and it was through those that he and I exchanged many calls and had discussions concerning items in an upcoming sale. I will miss him. Our condolences to the family.

VRPS, INC.
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DUE TO THE CORONA VIRUS PANDEMIC,
VRPS MEETINGS WILL BE SUSPENDED UNTIL FURTHER NOTICE.

WATCH THE WEBSITE AT VRPS.ORG FOR
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