All the Electrons that are fit to flow.

OSCILLATOR

The Official Newsletter of the DVHRC Vol. 10. No. 9, November, 2002

Back to our shack in Telford...DVHRC plans ahead

October 2002 Meeting Notes and Minutes,
Dave Snellman reporting

Our October meeting was held on the eighth at our usual Telford haunt. We have two new members to welcome to or ranks. Dan Collins and Gary Spear joined up at the meeting.

We had some lively discussions about our recent radio meet at Kutztown. Everyone had positive comments. Everyone enjoyed themselves. We're officially a two-day event now! We filled the 25,000 square foot pavilion. A discussion group on the Internet (Antique Radios on line) had positive comments. (I can't wait till the first 2003 meet.)

We did have some suggestions including publishing a list of nearby hotels and possibly moving the time

a list of nearby hotels and possibly moving the time of the auction back a little to benefit the vendors.

Our club would like to extend thanks to the New Jersey Antique Radio club for changing the date of their regular meeting to allow their members to attend

Inside the Oscillator

Newsletter of the
Delaware Valley Historic Radio Club
P.O. Box 847
Havertown, PA 19083

The Oscillator is published monthly by members of the non-profit DVHRC. It's purpose is to provide for use to educate, inform members and communicate with collectors and preservers of vintage radio technology.

We welcome technical information relating to radio history or collecting. Submissions should be carefully researched, typed and accompanied with clear photographs or diagrams. Material on disc should be in Word and .jpg formats.

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Personal views, opinions and technical advice offered in this newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling misadventures incurred.

To join DVHRC dues are $15 per year. The membership year runs January - December. Please mail to the club P.O. box above.

Meetings are held the second Tuesday of the month at 7:30pm in the Telford Community Building, Telford, PA.

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the Friday evening session at Kutztown.

Let's be sure to show our appreciation by attending their upcoming swap meet in Hazlet, NJ on December 7, 2002. Details of the meet and directions are available on their website at www.njarc.org.

We had a discussion concering the possibility of publishing a "cyber" Oscillator. This would allow us to publish color photos. Dave Abramson published one color copy of the Oscillator that we passed around at the meeting. It sure looked good. Printing costs would make it prohibitive, but if we did it electronically, it might be possible.

In other business a number of items were discussed. Dave Abramson made a pitch on possibly having tours of member's collections as a possible fundraiser. Dave Snellman updated the group on "InfoAge," a project at Camp Evans in Wall Township, NJ that the NJARC is involved in. InfoAge hopes to create a family oriented science type theme park on the site of the Army's former "House of Magic." The site originally was a receiving site for Marconi Wireless and later RCA. They hope to be able to have space available for a museum and meeting space as the overall InfoAge site develops. Ted Sowirka reminded the group that we have an invitation to visit the David Sarnoff Library at the David Sarnoff Research Center in Princeton, NJ. Ted has spoken to the curator, Dr. Alex Magoun, who has agreed to host a visit by our club.

Our evening's program was "Show and Tell." Dan Schwartzman showed off a nie sounding Lafayette solid-state Hi-Fi FM radio from around 1970. Original paperwork indicated the cost was $49.95. Mike Koste related a really scary story about a shelf collapse. The top shelf of a series of shelves in Mike's living room came crashing down. As it fell, it took other shelves with it. The damage was severe to many radios. Plastic pieces everywhere. One wooden set, an Arvin "Rhythm Baby" had a "chunk" taken out of it. Mike showed pictures of the damage – it looked hopeless. Well, enter Lowell Schultz in to the picture and after he worked his "magic" on the se, it looks as good as new.

A few lessons can be learned from this. The first is to make certain the shelving that holds your precious collection is sturdy and secure. Second, have insurance on our collection. Third, if disaster strikes and things look hopeless, call Lowell and have him work his artistry on restoring your set.

We had our usual auction and the meeting dismissed.

Just a few items for club members to remember. First, dues for the year 2003 are due. Everyone's dues are due at the same time, we do not pro-rate. If your mailing label indicates "2002" on it, your dues are due. $15.00 is all it takes to renew your membership in DVHRC for one year. You can pay at any club meeting or you can mail your dues to the address on the masthead of the Oscillator.

Second, the November meeting the time we enlist nominations for the board of directors of the club. We will be taking nominations from the floor at the November meeting. The election is held at the December meeting. Any member in good standing (dues paid) may vote by secret ballot at the December meeting. The list of candidates will be published in the December edition of the Oscillator. Results will be published in the January Oscillator.

Please try to make the November and December meeting and make your voice and vote count. Remember it's your club.

Our November meeting will be on Tuesday, November 12th. December's meeting will be on Tuesday, December 10th. Come out to the monthly meetings. Hope to see you there.

A few more photos from the meeting

DVHRC Club Capacitor Program
Many values and voltages
Available at each meeting

AS SEEN ON THE INTERNET

With help from Dave Snellman, I am going back to the internet in this issue to look at a few of the many sites available to our hobby. The list is endless and with a little help from a search engine like Google, the endless list is even longer. In a future issue, I plan to run a story and photos of what happens to all of those tubes that go to Japan. The amps are amazing, but the home-made speakers are mind-boggling.

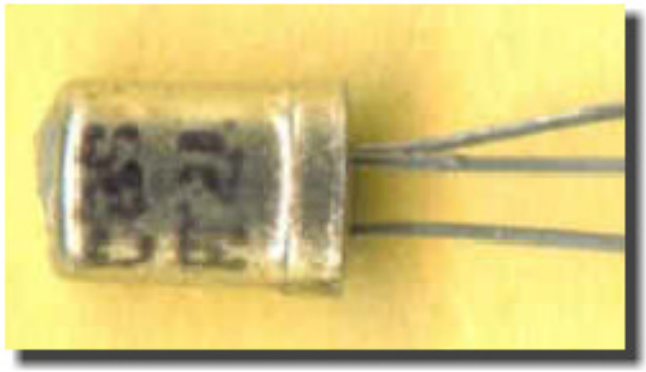
For this issue, the first visit is to The Transistor Museum which can be found at www.transistormuseum.com. I excerpted two articles from the many that can be found there. It is loaded with bios, history, photos, vintage transistors for sale, and construction articles. All of the name manufacturers are there including National Union in Hatboro, PA. It is the work of Jack Ward and you will enjoy your time spent there.

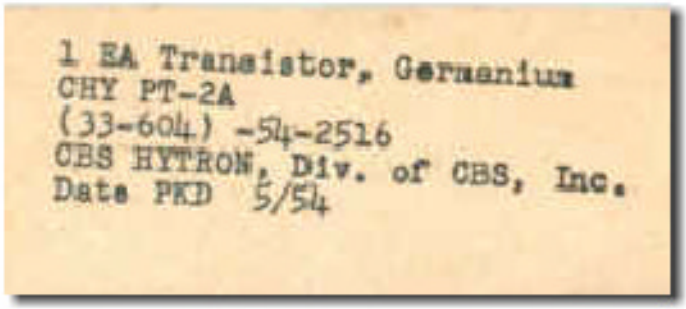
Examples of the Early Junction Transistors

These units represent various styles and manufacturers of early junction transistors, dating from 1951 to 1956. Starting at left center and going counterclockwise, the large amber block with metal fins is a very early alloy junction unit built by John Saby (1951) at the General Electric E-Labs. The black trapezoid is a grown junction type M-1752 from Bell Labs (1951). The white epoxy TA-153 is another very early alloy junction (1951/52) built by Charles Mueller and Jacques Pankove at the RCA Labs. The 901 is an example of the first silicon transistor commercially available, developed by TI in 1954 – it is a grown junction type and the only silicon unit in the photo. The small silver unit is an alloy junction hearing aid transistor from Radio Receptor in 1955. On the far right is a grown junction RD2517 from Germanium Products (1952/53). The small black unit in the upper right is a small signal alloy type from Clevite Transistor Products (1954/55). The HA white metal unit is an alloy junction type from Hydroaire (1954/55). The green epoxy unit in the center of the top row is a grown junction unit from National Union (1952/53). The brilliant blue metal cased unit is a CK722 alloy junction from Raytheon, date code 1956. Each of these units tells a story involving exciting technological breakthroughs and interesting personal successes, which you'll be able to study in the Transistor Museum.

More next page>

CBS-Hytron introduced the PT-2A point contact transistor in 1953, with limited production. This transistor was designed for amplifier applications, while a similar unit, the PT-2S was designed for switching applications. Here is some text from the CBS datasheet: " The PT-2A offers relatively high gain, low input impedance, and high output impedance. Gains of 18db are typical for the PT-2A when used in amplifier circuits of appropriate design." The 1955





Lafayette "Money-Saver" catalogue lists the PT-2A as available for $2.90. This is the last year when point contact transistors were generally available, with junction transistor technology rapidly replacing point contact technology.

And one more thing...

The photo on the left came by e-mail from Dennis Shimozono, our member in Japan. It is a Siemens Blatthaller flat speaker from the mid-20's on display at the Japanese Radio Museum in Tokyo. On the right is another Blatthaller photo I found on the internet. It is described as a "horn-loaded PA ribbon". It stands about 1 meter tall and was used in theatres.

"And now a word from our announcer..."

Another web site is from the Pasadena City College Audio Labs with an in-depth look at microphones through broadcast history. There are audio files using the microphone detailed in each section. It can be found at: www.coutant.org. Some samples are shown here.

The Type 44-BX Velocity Microphones (MI-4027-H, -J and -K) are high-fidelity microphones of the ribbon type that are specially designed for broadcast studio use. They are constructed to withstand mechanical shocks, and to retain sensitivity and frequency response regardless of changes in temperature, humidity, and barometric pressure. Their essentially flat frequency response (50 to 15,000 cycles) is suitable for reproducing both voice and music.

The moving element of the microphone is a thin corrugated aluminum ribbon suspended between the poles of a strong Alnico magnet. The moving air particles that constitute sound waves vibrate the ribbon in the magnetic field. This motion causes an alternating voltage to be generated in the ribbon, the amplitude of which is proportional to the velocity of the air particles. The output voltage and the electrical impedance of the ribbon are raised to a value suitable for transmission of the signal to an amplifier, by a transformer built into the microphone case. The transformer is well shielded against stray magnetic fields by multiple shields of mu-metal and copper.

This is the RCA Type 77-A, forerunner of the 77-DX. Grand-daddy of the ribbon microphone, the 77-A is among the rarest of the RCA ribbons microphones. Designed by Dr. Harry F. Olson, RCA's lifelong resident audio genius during the late 20s and early 30s, the 77-A set the performance benchmarks for all RCA ribbons to follow for the next four decades. It is rumored that prototypes actually existed in 1929 and 1930; however, the 77-A wasn't announced until 1932. It featured two vertical in-line ribbons and an acoustic labyrinth inside the case, which enabled it to be uni-directional. The 77-A is a huge microphone resembling a cannon shell with a large perforated windscreen on the top portion. It is mounted gimballed at its center of gravity in a U-shaped fork. It is placed next to a standard 77-DX radio model.

Odds and Ads

Custom made record player console with 78rpm turntable. Uses 10Y power amplifier tubes. 12W push/pull output. $200 as is. Contact George Hawthorne, 608 Schwenk Mill Rd, Perkasie, PA. 215-257-0683.

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Inside...

Meeting notes...Internet websites

Transistors...Speakers...Microphones

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