

The Grid Leak

May—June
2011

www.hvra.org
(Color GL on web site)



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Alvin Swap Meet
June 18

Michael Payne's
Place
9 AM

From The President.....

With the month of May half over and the summer solstice only weeks away, summertime activities will soon be in full swing. Looking back, our annual spring mega auction went off smoothly even though we had to move into the Bayland Park's annex where things were a little congested to say the least. Everyone pitched in to help and by 1:00 PM things were pretty much brought to a conclusion.

Many thanks to all who helped, including VRPS President Jim Sargent, who helped with the auctioneering. Despite working in somewhat of a handicap, the bidders were enthusiastic, as many fine items crossed the auction block along with a good portion of "recyclable resources" and dozens, upon dozens' of tubes.

Despite the two truckloads of items from our storage units, there still remain at least one and one third, 10' by 20' units, full of auction items mostly from the Bob Wood Estate. We will continue to parcel out some of these items during our monthly meetings, so plan to attend these auctions as there is no telling what we may find as we dig deeper into those storage units.

With no regular meeting in May, our next major event will be the annual Alvin Swap Meet at Mike Payne's place in Alvin, TX. June 18. Then on June 25 we will once again return to Bayland for our regular monthly meeting. Remember, your participation in our meetings really make HVRA a fun organization, and hey; you just might just make that buy of a lifetime at one of our monthly meeting auctions. See you there!

HVRA Annual Spring Mega Auction Stats

Auction Gross \$3,551.00
Lots 206
Members present 39

Highest price item:
McIntosh Theater Amp. \$450.00

HVRA Meeting Contests

June 25, 2011 Amplifier Contest

Rules:
output 5 to 10 watts
100 mv input for 5 watts output
Construction with currently available new parts
Amplifier stages must be tubes
Power supply may be solid state
Operation must be demonstrated: sound, gain waveform power, distortion (if equipment available).
Entries must have parts/cost breakdown
Meeting attendees will vote on eligibility of each entry.
Lowest cost eligible entry wins.

October 22, 2011 Radio Conversion Contest

Many people would like a vintage radio with no tubes.
Rules: Conversion may not use commercial solid state tube replacements.
Original radio chassis must be converted to work without tubes.
Demonstrate operation of radio on all bands.
Explain the design
Meeting attendees will vote to determine winner.



Battleship Texas generators had the ability to deliver a lot of DC power



On the Battleship Texas Hard Hat tour, visitors are guided into areas not open to the public. In the photo is a demonstration of the loading process of the 14 inch guns and also shows the tight crew battle stations. The tours are given several times a year. There is a cost.

Alvin, TX Annual Spring Swap Meet June 18

Mark your calendar for June 18! HVRA member Mike Payne will once again open the gates to Electro Junk, Inc. in Alvin, TX for all to participate in the annual trunk and tail gate swap meet.

If you have never participated in one of Mike's swap meets, you have been missing it BIG TIME!

Mike's place is easy to find and the facilities are ideal for a swap meet of the magnitude that this should be. If you are a HAM, a collector, dumpster diver, restorer, or whatever you'll surely enjoy seeing Mike's fantastic collections of everything electronic imaginable.

Gates will open for all at 9 AM sharp. To get there take Highway 288 South from the I-610 Loop in Houston. Turn left on to Texas Highway 6 and drive to Alvin. In Alvin, turn right on N. Gordon St. (which is also Highway 35), cross the railroad tracks go several blocks, then turn right on Coombs St. At the second intersection turn left on Taylor St. and you are there at 803 S. Taylor.



Museum Ships Weekend – Battleship USS Texas

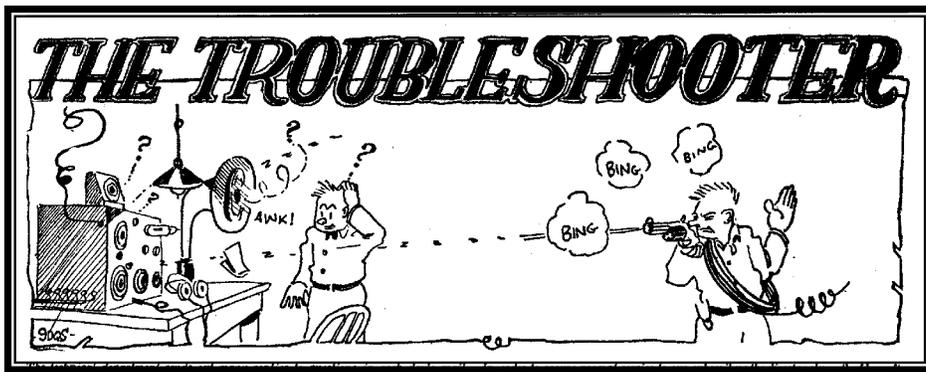
The Museum Ships Weekend event will be held aboard the Battleship USS Texas June 4 and 5. Members of several area HAM clubs will be joining together with BTARS (Battleship Texas Amateur Station) and HVRA members as well to contact museum ships and HAMs around the world. Transmitters will be set up in General Stores room on the ship's second deck, port side (that's on the left side of the ship as you face the bow).

For those who are unfamiliar with the USS Texas, the ship is permanently docked at the San Jacinto Battleground State Park in La Porte, TX, just off Texas Highway 134. When you arrive at the park, go to the ticket office near the ship's gangway and tell the person(s) on duty that you are an HVRA member or HAM operator for the Museum Ships Weekend Event. There, they will give you a token for the turn style gate so you can come aboard.

A free guided tour of the ship will be provided by HVRA President Bill Werzner, who also doubles as a docent aboard this historic ship. A special treat is in the offing as the new, beautifully restored, engine room was reopened April 24th following a four year renovation. If you have not seen this recent addition, you are in for a treat. The 1912 four cylinder 14,000 hp steam engine is incredible! So, come on over, visit the park, and help penetrate the ether on 20 and 40 meters.



Bill Werzner conducts tour on the Battleship Texas



by Bill Werzner

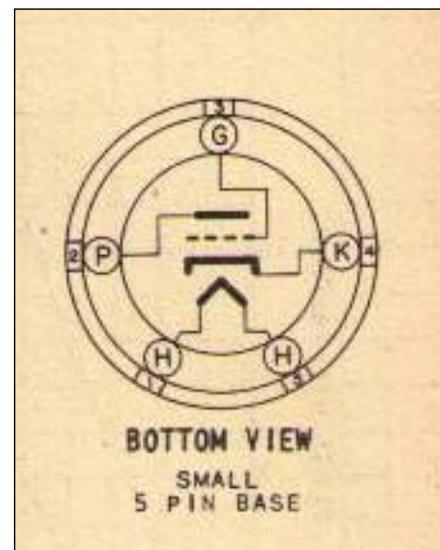
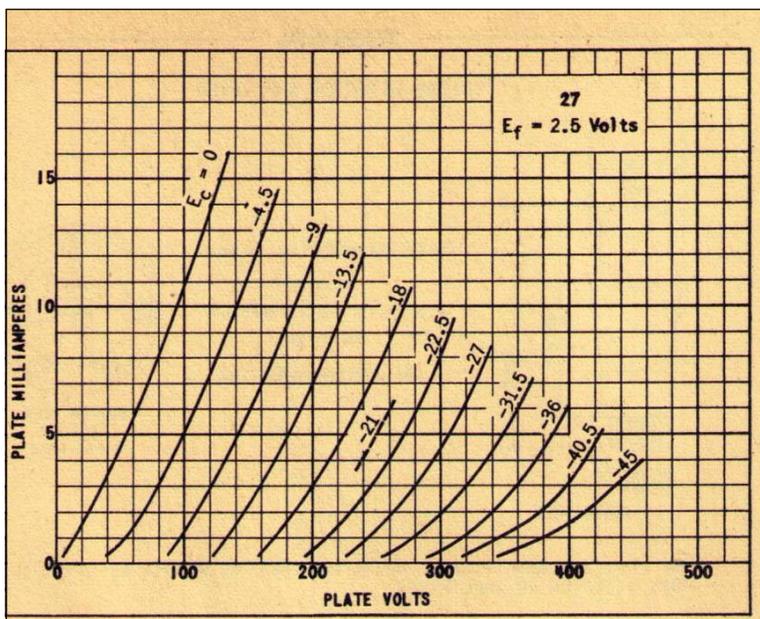
The Number 27 Tube

In several of my earlier articles I presented information regarding some of the early vacuum tubes about which detailed characteristics are sometimes difficult to find. Several months ago I wrote about the number 26 tube that made possible an affordable AC current operated radio for the first time. Best known of those radios are the RCA Radiola models 17 and 18. The 226 or 26 as it was called used a directly heated filament that was designed to reduce hum by having voltage and current requirements equal. The 27 or UY 227 was introduced by RCA in May 1927 and quickly became the tube of choice. What made it unique was an indirectly heated tube that utilized a cathode. This versatile five pin tube was widely used in many radios, amplifiers, theater sound systems and some test equipment up until 1932 when it was displaced by the number 56 that consumed about half the filament power as the 27. I have serviced many radios from that era that used the 27 as rf and if amplifiers, oscillators, and detectors. If you encounter equipment of that era that uses one or more 27 tubes, this information may be useful in your trouble shooting endeavors. I found this information in a 1948 Tung Sol Tube Manual that I bought in an estate sale many years ago.

With a 2.5 volt filament drawing 1.75 amps, you can understand why large gauge wire was used to supply filament current in a set using perhaps four of these tubes. The current requirement would be 7 amps to supply power to the four parallel filaments. Therefore in rewiring a set of that type, #14 gauge wire would be recommended.

Typical Operating Conditions and Characteristics as Class A Amplifier

Plate Voltage	90	135	180	250
Grid Voltage	-6	-9	-13.5	-21
Plate Current MA	2.7	4.5	5.0	5.2
Plate Resistance	11,000	9,000	9,000	9,250
Amplification factor	9	9	9	9



From Lamps to Aerospace

sHOUt Newsletter, LORAL Space Information Systems, Aug. 1992

Once upon a time, on April 21, 1892, a meeting was held in Philadelphia to organize a new company to manufacture carbon arc lamps, those bluish lights associated with derby hats and Model T's. It was initially called the Spencer Company, after one of its founders, but by August 26, the board had decided to change its name to Helios Electric Company, after the German firm for whose patents and processes the new company paid most of its \$10,000 initial capitalization.

Thus began a century-long tradition of name changes.

What little market there was for carbon arc lamps dwindled steadily. Under-capitalized and with a product that was doomed from the outset, the American Helios company limped along on the verge of bankruptcy until July 25, 1906 before it decided to change its product to electric storage batteries and its name to the Philadelphia Storage Battery Company.

The product change was well timed. Originally produced for electric automobiles, trucks, and mine locomotives, electric storage batteries found an unexpected booming market as gasoline-powered cars advanced to self-starters and head-lights. In 1910, the company showed a profit of \$30,517.

In the next few years, the company developed a "trickle charger" that was sold along with the batteries, and in 1925, a rectifier that made it possible to operate previously battery-driven radios from household current. More than a million of these "Socket Power" devices were sold under the brand name Philco, although it wasn't until 1940 that the name became official.

In 1927, technology caught up with the company again; development of the ac tubes for radios eliminated the rectifier market. A later article in Fortune Magazine noted that the only thing that saved the company that time was its ability "to turn on a dime while its big competitor was attempting to turn on a dollar". Overnight, Philco moved into the radio business and by the end of 1928 had produced and hand-assembled 96,000 radios, making it the 26th largest radio manufacturer among 800 in the U.S.

Now management became convinced that the high cost of the handmade radio could be cut by incorporating assembly line techniques than being used in the auto industry. Philco borrowed \$7 million to retool, renovate and equip the plant for mass production. The company's second association with the auto industry would prove strangely prophetic, and it certainly worked.

By the end of 1929, Philco was the second largest radio manufacturer with 408,000 units and, by the end of 1930, the world leader at 616,000 units.

Thanks to the assembly line, more than half of those sales were the only popularly priced home radio then on the market, the "Philco Baby Grand," which sold for \$49.50 plus the cost of the tubes. Although that was still less than the competition's price. And Philco retained its radio leadership for 20 years.

In 1927, the company had begun early research into television, and in 1931, it got a license for operation of the first all-electronic experimental TV station in the U.S. (WPTZ, Philadelphia, later operated commercially from 1941 to 1953 before it was sold to Westinghouse.)

Meanwhile, innovations and new products rolled right along. In 1934, Philco perfected "high-fi sound," and in 1938,

began making room air conditioners, one of the most rugged products it ever manufactured; some of them were still in operation in 1979! In 1939, the company bought out Fairbanks Morris and started making refrigerators. On Jan. 2, 1940, Philco "went public" and became officially the Philco Corporation. Then came 1941, Pearl Harbor, and World War II.

Philco turned to making military communications equipment, artillery fuses, and electronics, endeavors that later included ground-floor expertise in something called "radar". Philco "technical representatives" were dispatched all over the world to help the military with installation, maintenance, and training in operations of the new equipment, and thus was born the TechRep Division, the mostly retired survivors of which still hold an annual reunion in August at locations from Philadelphia to California and Houston.

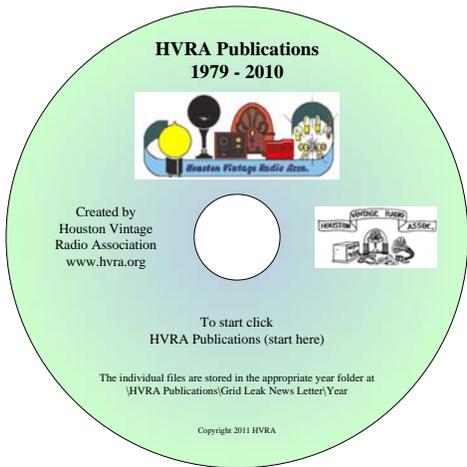
More than 100 letters of commendation from the military are reproduced in the company-published history of the war years, and Philco won 21 "E" flags for wartime production excellence.

After VJ Day, the company plunged back into consumer products and was soon on top in car and home radios, air conditioners, refrigerators, and a new product: coin-operated washers and dryers for the Laundromats that prang up. In 1945, WPTZ carried the first commercially broadcast football schedule, consisting of all of the home games of University of Pennsylvania. In 1948, the company began producing a 7-inch black and white TV set. In 1949, electric ranges were added to the line and in 1954, home washers and dryers.

The Fifties were a tough decade of Philco consumer products. Sales had never been higher, but earnings dropped – from more than \$300 million in 1950 to \$2.3 million in 1960. Markets changed, competition increased, product R&D costs climbed; production and customer service costs skyrocketed. However, the "other side of the house," the Philadelphia-based Government and Industry Division, had continued to work on military contracts after the war. Philco was among the earliest and most active participants in the development of the communications industry; it was a major independent producer of microwave communication systems, a leading producer of radar system, and the developer of the communication, tracking, and telemetry antenna systems for the Discoverer satellite program to be launched in 1959.

In April, 1956, the G&I Division established Western Development laboratories (WDL) in Redwood City, CA; permanent quarters were built in Palo Alto the following year. WDL was to participate, as a subcontractor to Lockheed, in building satellite tracking stations around the world. WDL produced angle tracking, command and telemetry, and data receiving antennas and supporting electronics systems and later built satellites for the U.S. Air Force.

In the same year, Ford Motor Company's General Products Group founded a Ford division known as Aeronutronic in Newport Beach, CA. Aeronutronic built a sounding vehicle for the U.S. Air Force, designed to sense the Earth's magnetic field and space radiation. Launched by a four-stage rocket from a balloon over the Pacific in 1957, a few days before Russia's Sputnik startled the world, the vehicle is believed to have achieved its targeted distance of 4,000 miles from Earth and thus, become the first vehicle to ascend outside the Earth's atmosphere. The Space Age had arrived. On Dec. 11 1961, Ford Motor Company bought Philco.



Houston Vintage Radio Association Introduces

HVRA Publications 1979 – 2010

This DVD captures 32 years of HVRA and radio related historical information that may be used for research, finding technical or how to articles, or just reminiscing about old friends or past HVRA sponsored activities.

Menu driven

Approximately 300 HVRA Publications in PDF format

Over 650 articles in 4 pre-sorted lists

A matrix that allows the single click access to any HVRA Publication

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HVRA
P. O. Box 31276
Houston, Texas
77231-1276

Texas City HAM Fest July 10th

The annual Texas City HAM Fest will be held in the Doyle Convention Center, 2010 5th Ave. North in Texas City, TX on Saturday, July 10. If you are looking for just about anything electronic from vintage to contemporary, Texas City is the place to be! Commercial vendors set up time: 6:00 AM, flea market tables 7:00 AM, and at 8:00 AM the center will open to the public. To get there from Houston; take I-45 toward Galveston, take exit 16 and drive about eight miles east to 21st Street. Turn right and the convention center is located at Phoenix Lane and 21st St. For additional information go to Tidelands Amateur Radio Society's web site www.tidelands.org/2011hamfestinfo.htm

Tom Granger Cabinet Restorations

Several members have inquired about finding someone who can do radio and phonograph cabinet restorations. Well, now it appears we have someone who can do just that. Owner, Tom Granger stopped by Vintage Sounds a couple of weeks ago with a radio in need of extensive electronic restoration. The challenge for us will be to restore that radio to match its beautifully restored console cabinet. Tom gave us several business cards and by the looks of that cabinet, he is a real professional. Give him a call at (281) 338-8277 or e mail tom-granger@mac.com if you are in need of cabinet restoration or refinishing.

Buy, Sell, Trade, & Services Offered

Huge collection of Sams from Vol I on! Also included are seven or eight file cabinets filled with these collectable volumes from a closed out radio TV repair shop. Call or e mail Andy Lee at www.radiomanL@verizon.net

Radio & Phonograph Sales & Repair including vintage auto radios, battery sets, foreign sets, etc. We also sell and service vintage telephones and telegraph equipment also parts, new & used tubes, transformers, schematics, books, phonograph parts & needles, records, etc. Vintage Sounds – celebrating our 24th year in business. Open Fri., Sat, & Sunday from 10 until 6 PM. Now located in The Market Place Antiques, 10910 Old Katy Road, in Houston (Located just west of The Room Store on the north side of the Katy Freeway). 10% member discount on radio items.

Borden Radio Company website: <http://www.xtalman.com> Antique Radio Schematic Service included in website. Crystal radio kits for sale. (281) 620 - 6692

Sargent Auction Service: www.sargentauction.com | Jim@sargentauction.com Jim Sargent, WA5QBR, Auctioneer | TX license 16135 | 200 Thomas Rd, Granbury TX 76049

Paul Wishnow, Certified Appraisals – for insurance, estates, divorce. “The Antique Man” can be heard Sunday afternoons 1 – 3 PM KNTH Radio 1070. Office at 5615 Richmond Ave., Ste. 145 in Houston. Phone (713) 666-2222 or go to www.theantiqueman.com

EPO Electronic Parts Outlet, New and surplus electronic components, come by and check out this incredible store! 3753 Fondren Road, Houston, TX 77063. Go to www.epohouston.com

More Radio Clubs

Antique Radio Collectors Club of Ft. Smith, Arkansas (ARCC). Paul Tucker, 4700 N. "N" St., Fort Smith, AR 72904. Dues: \$10. Monthly meetings, annual show.

Antique Radio Club of Illinois, www.clubinfo@vintage-radios.org

Collins Radio Association (CRA). David Knepper, PO Box 34, Sidman, PA 15955. No dues. www.collinsra.com

Louisiana & Gulf Coast Antique Radio Club. Phil Boydston, 750 Moore St., Baton Rouge, LA 70806.

Michigan Antique Radio Club (MARC). Don Colbert, MARC, membership@michiganantiqueradio.org. Pub: The Michigan Antique Radio Chronicle, quarterly. Dues: \$20. Annual Extravaganza and other quarterly meets. www.michiganantiqueradio.org.

New Mexico Radio Collectors Club (NMRCC). Charles Burch, 39 Chaco Loop, Sandia Park, NM 87047. Pub: *New Mexico Radio Collectors Club Newsletter*, quarterly. Dues: \$12. Annual Sale & Show and monthly meetings.

<http://members.aol.com/NMRCC.org>

Texas Antique Radio Club, Ed Engelken, Schertz, TX (830)899-3864, www.EdEngel@gvtc.com

Vintage Radio and Phonograph Society (VRPS), Jim Sargent, bsargent@swbell.net; www.vrps.org

HVRA Event Schedule:

Location for all events: Bayland Park Community Center, 6400 Bissonnet, Houston, TX Coffee & snacks available at regular meetings.

No Regular Meeting in May due to Memorial Day Weekend.

Tuesday, June 14, 2011 Monthly Board of Directors Meeting 6:30 PM

Saturday, June 18, 2011 Annual Spring Swap Meet in Alvin, TX

Saturday, June 25, 2011 Monthly meeting 9:30 AM, program and auction.

Tuesday, July 12, 2011 Monthly Board of Directors Meeting 6:30 PM,

Saturday, July 23, 2011 Monthly meeting 9:30 AM, program and auction.

Tuesday, Aug. 9, 2011 Monthly Board of Directors Meeting 6:30 PM,

Saturday, Aug. 27, 2011 Monthly meeting 9:30 AM, program and auction.

Saturday, Sept. 24, 2011 Annual Fall Mega Auction
Annual Business Meeting & Election of Officers. 9:00 AM

2012 HVRA Convention — Feb. 10-11, Greenspoint Marriott Hotel.

Useful Web Sites for Collectors and Restorers

With the wonderments of this computer age we no longer need to lug around and copy Riders Schematics, or fret over finding some odd tube that our old reliable suppliers no longer have in stock. With E Bay, Amazon.com, and others too numerous for me to chase down and type in today; here are a few sites I have found most useful. I hope others will add to this list for all to share, and share with us what you found:

Tubes: Radio Electric Supply, La Crosse, FL (A good source for all kinds of tubes – fair price and fast delivery too!)
www.vacuumtubes.net

A great site to find tube diagrams: WWW.tubebooks.org/tubedata/HB-3/masterindex.html

Cover - Book cover graphic by Elizabeth Gordon entitled REALLY SO STORIES 1924
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The Grid Leak

May—June, 2011

MONTHLY MEETINGS

**** No May Meeting ****

Saturday, June 25 &

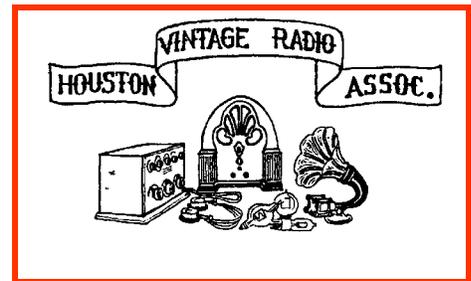
Saturday, July 23

Bayland Park, Bissonnet & Hilcroft

www.hvra.org

Notice on renewing your membership!

Please check the expiration date by your name in the address of this newsletter. It should show your membership expiration date.



***Alvin Swapmeet
Sat., June 18***