

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

April 2004

Volume 10 Issue 4



MEETING/ ACTIVITY NOTES

Reported by Mary Beeferman

As a result of a vote taken at the March Executive Board meeting, the NJARC will be implementing a new auction policy. We will continue to auction, following each meeting, items donated by non-members and items purchased by the club. As before, the club still welcomes items donated by the membership. Also, as before, members may sell items directly at the beginning of the meeting. However, the auction of member-owned items (with proceeds going directly to the seller) will be limited to twice a year (dates will be announced in advance) with a 10% premium going to the club treasury. The Board felt that this policy was similar to that of many other clubs and a 10% premium was justified for offering this service. It also simplifies payment collection which was getting a little complicated with a mixture of both donated and non-donated items.

At the general meeting, nominations were proposed, seconded and accepted for the following positions: Technical Coordinator - Al Klase, Vice President - Richard Lee, Treasurer - Sal Brisindi and President - Phil Vourtsis. Nominations will continue to be accepted from the floor at the April and May meetings, with voting scheduled for the June meeting. A proposal from the floor to impose term limits on club officers was unanimously voted down.

The show-and-tell theme "Novelty Radios and Radio Novelties" brought out a nice showing of examples in this category. Of special interest was Steve Goulart's Mitchell "Lumitone" radio, a plastic table-lamp and tube radio combination from the early 40s. Daren Hoffman showed us the first FM Stereo headset radio produced by Lafayette which he rock 'n rolled to in high school. Ray Chase brought in a unique col-

MEETING NOTICE

The next meeting of the NJARC will take place on Friday, April 9th at 7:30 PM at the David Sarnoff Library in Princeton NJ. See the NJARC web site or contact Phil Vourtsis at 732-446-2427 for directions.

The April program will include a presentation by Al Klase on regenerative receivers based on his article "The Age of the Autodyne" that appeared in the January 2002 QST. We'll be also having a mini-auction of some recently donated items. See the MEETING/ACTIVITY NOTES text for a short intro to Al's presentation and for auction offerings. We'll also be accepting nominations from the floor for officer elections to be held in June.

lection of post cards that included imbedded crystal sets, but still thin enough to be sent through the mail. Just add a headset and antenna and you're ready to listen to your favorite station. As a special treat, Sarnoff Library Director Alex Magoun

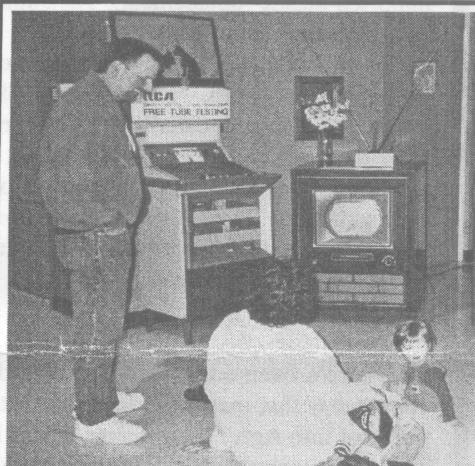
tacked was Joe Weller's Zenith 7H921 which didn't play on the FM band. With the help of Marty Friedman, replacement of an incorrect tube, a dial cord tightening and a mild cleaning, the set was brought back to life. It is now awaiting capacitor and selenium rectifier replacement. Marty also worked on a GE T-129B and Emerson DQ-331.

Al Klase combined with Ed Taylor in an interesting project - getting a replica WW II canteen radio to work. With some coil adjustments, replacement of a bad variable capacitor and a plate voltage adjustment, the unit could be made to operate at 3.8 MHz. More information about this radio can be found at: http://www.webex.net/skywaves/SPY/canteen_detail.htm.

John Ruccolo teamed with Tom Provost to get a Hallicrafters S-38 back in operation. A new line cord and replaced electrolytics got things back in order but a non-working BFO had to be put off to a later date. Again, all the action was captured on film for this month's *Broadcaster*.

The upcoming April meeting will include a short auction of some donated items. Included are a Stromberg-Carlson model 535, an Atwater Kent model 32, and RCA R-78 (GE J-125), a Majestic model 50 with matching table stand, a Philco late 30s table radio and a few other surprises.

If you're interested in regens, here's a tickler for the presentation we'll hear at the April meeting based on Al Klase's "The Age of the Autodyne."



A working CT-100 celebrates 50 years of color TV at the Sarnoff Library.

showed the club the first 45 RPM record ever pressed - a December 7th, 1948 artifact from Indianapolis. Other contributions came from Marty Friedman, Dave Snellman, Rick Skoba, Phil Vourtsis, Steve Collandra, Edith Chase and Bob Pilcher. We caught them all on film for this month's *Broadcaster*.

Attendance at the March 20th repair session was a little light but it still turned out to be a fun day. Among the sets at-

THE JERSEY BROADCASTER is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$20 per year and meetings are held the second Friday of each month.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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Most of us grew up equating short-wave communication receivers with the superheterodyne circuit. Yes, we knew there were regenerative receivers, but most of the ones we encountered were clearly toys, and were effective only on strong short-wave broadcast stations. However, an examination of history reveals that there was a twenty-year period when the vast majority of short-wave receivers were regens. During this period, amateurs went from transmitting tens of miles to regularly contacting the far ends of the earth, and they did it with radios that were the second cousin of the lowly Knight-Kit "Ocean Hopper." How did they do it?

An interesting posting on the AWA reflector recently caught my eye, only to the extent that I am a big supporter of faithful restorations. The Jupiter Condenser Company is offering a new design for wax paper capacitor replacements. The capacitors appear to be a good compromise for those who want to recap to restore to working order but are concerned about replacing original parts having a manufacturer's name and date code with a modern, imported plastic replacement. The Jupiter caps closely resemble the paper caps of the 30s and 40s and would result in a more authentic restoration. The company also offers a wax impregnated, fabric covered hook-up wire, both stranded and solid, in various colors and gauges that also looks very authentic. The web site for the company is not quite ready with the capacitor information, but you can keep trying at Jupiter at www.jupitercondenser.com.

There's been some late-breaking developments that may seriously impact the future of Info Age. There seems to be a lot of politics involved along with typical government foot-dragging, especially by the BRAC commission which oversees the Camp Evans transfer. However, we have a lot of support on our side from Wall Township, the NJ State Historic Preservation office, the National Trust for Historic Preservation and New Jersey and New York media. An Info Age meeting will take place on April 6th and we'll be looking for an update from club representative Ray Chase.

ENRON REVISITED:

THE CONSOLIDATED WIRELESS TELEGRAPH & TELEPHONE CO.

Edited by Marv Beeferman

About two years ago, club member Jerry Simkin gave me a copy of a prospectus for the Consolidated Wireless Telegraph and Telephone Company. Of local interest was the fact that the company advertised an operating station between Cape May and Atlantic City and the construction, among others, of stations in Barnegat City and Sandy Hook. But after doing a little research on the history of the company, my expectations of locating some vestiges of these stations quickly waned. All I was left with was the following article, re-enforcing the fact that there is nothing new under the Enron sun.

Consolidated was one of the offshoots of the American Wireless and Telegraph Company, one of the first "radio" companies in the United States. But most of its activities consisted of sales promotions of its vastly overpriced shares of stock, and it had little interest in actually operating commercial radio stations.

The company based its right to exist on wireless patents issued to Professor Dolbear in 1886. But these patents, while "wireless," weren't for a radio system. Radio uses electromagnetic radiation and Dolbear, who was a Tufts College professor, had patented a short-range induction system. American Wireless did manage to set up a few radiotelegraph stations, but the fact that they used radio waves meant that they weren't actually based on the Dolbear patents.

The equipment that was used was fairly crude, even by 1902 standards, and likely infringed on radio patents held by other companies. The limited commitment with regard to good equipment by one of the subsidiaries of American Wireless, the Pacific Wireless Telephone and Telegraph

Company, is echoed by Robert Marriott in a 1924 *Radio Broadcast* article. Mr. Marriott was charged with setting up a station in Avalon, California and described his search for a "serviceable" detector:

"That detector proved to be a contact between a polished steel tip and an oxidized iron plate. The first plate I made was from a hack saw blade, but I found I could do better by burning the surface off a piece of tin can using a blow torch and a little water and then a little oil on the oxidized surface. To get fine adjustment, I needed a well made steady screw with fine threads and a large dial. The spherometers I had used in college to measure the curvature of lenses were the first thing I thought of, so I went to Los Angeles and bought some and Mr. Swenson made them into detectors that were used for several years."

To trace the birth of Consolidated Wireless, we begin with a clique of promoters headed by real estate and gold mine speculator Dr. G. P. Gehring. G.P. Gehring's name appears on the Consolidated Wireless prospectus (see page 4) as General Manager of the stock depository, the German-American Title and Trust Co. Gehring got hold of the Dolbear patents mentioned above, which had almost been forgotten but recalled by the sudden rise to fame of a young Marconi. The incorporation of the American Wireless Telephone and Telegraph Company was the result, with \$5,000,000 of capitalization and Gehring as president.

The \$10 stock was offered first at \$1.50 a share, but the price was gradually raised to \$8. Meanwhile, sub-companies were formed. American Wireless was not an operating company; it owned patents and divided the country from coast-to-coast into areas in which the sub-companies were to operate: New England, Federal, Northwestern, Atlantic, Commercial, Central Western, Gulf, Continental and Pacific. Each sub-company turned a large proportion of its stock over to the parent company. Total capital was \$55,000,000; a bold scheme on paper, but it needed some one with courage and funds to develop it.

The man for New England Wireless was found in Thomas B. Bishop (who gets transformed to Director C. B. Bishop on the Consolidated Prospectus). Bishop was well known as the author of the song "Shoo Fly! Don't Bother Me!" and had the distinction

of having opened the first bucket shop in New York for women gamblers. Bishop chose as his figurehead president the Hon. James N. Huston, former Treasurer of the United States.

Bishop hawked his wireless stock throughout New England at bargain prices, selling at first for ten cents a share. But no one paid much attention to the new wireless companies until L. E. Pike, a promoter of worthless oil and gold adventures, took hold of Federal Wireless. His figurehead president was the Hon. Ernest Cady, former Lieutenant-Governor of Connecticut and president of a wildcat oil and worthless gold mining company.

Pike spread his advertisements of Federal Wireless through the Sunday newspapers, offering stock first at 40 cents, then 60 cents and finally at a dollar. He took whole pages in the New York newspapers, spending thousands of dollars a week. But one feature of the Pike wireless advertising was that there was no promise of dividends. Pike, of course, saw that there was no possibility of earning dividends on his \$5,000,000 capital, and that it was impossible to pay unearned dividends without getting caught. Pike based his scheme, therefore, on the similarity between the wireless telegraph and the telephone as an investment:

"With the Bell Telephone stock in memory, which went from a few cents to thousands of dollars a share, thoughtful persons are buying up wireless stocks with avidity."

Instead of promising dividends, he talked only of the marvelous future of the company and the expected rise in the price of the stock.

The cash flowed into Pike's offices in a steady stream. The buyer's of Federal Wireless stock waited in vain for the opening of the commercial wireless line from New York to Philadelphia, but Pike was too busy selling stock to bother about setting up any equipment.

The first stock certificates were scarcely dry we first see the **Consolidated Wireless Telegraph and Telephone Company**, formed in January 1902 with a capitalization of \$25,000,000 to take over the American, New England, Federal, Atlantic and Northwestern companies. The exchange was on a dollar-for-dollar basis; an investor who had paid Pike from \$40 to \$100 for a hundred shares of Federal Wireless received one hundred shares of

\$1 Consolidated Wireless shares in return. But a few months later, Consolidated reduced its extravagantly inflated capital to \$7,500,000. Thus, an investor who had turned in \$100 worth of Pike's Federal Wireless received \$20 worth of the new Consolidated.

But the new Consolidated Wireless was only a transition; in February 1903, it was absorbed by the International Wireless Company which further watered down the stock. In January 1904, the American De Forest Wireless Telegraph Company came along and swallowed the whole Dolbear outfit.

So where does Consolidated Wireless fit into the scheme of things? The entire evolution goes something like this:

\$50 (real money) bought \$50 worth of American Wireless, January 1902;

= \$50 (certificate) of watered **Consolidated**, February, 1902;

= \$10 (certificate) of unwatered **Consolidated**, October 1902

= \$10 (certificate) of International, February, 1903;

= \$10 (certificate) American De Forest, January, 1904;

= \$7.50 (company's money) subscription price of De Forest, October 1906;

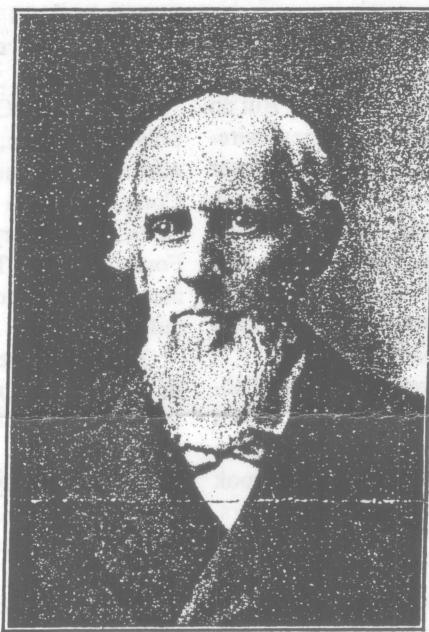
= \$6 (company's money) subscription price of De Forest, October 1906;

= \$0.85 (real money) cash market value

But all is not lost. If you managed to live to one hundred and two, or your relative stuffed away some Consolidated Wireless certificates that managed to survive, the paper is worth much more than the company that is printed on it. A web search for a Consolidated Wireless stock certificates resulted in a normal price of \$675 and a sales price of \$475 from scripophily.com.

References:

1. Prospectus of the Consolidated Wireless Telegraph and Telephone Company
2. Robert H. Marriott, "As It Was in the Beginning," *Radio Broadcast*, May 1924, pgs. 51-59
3. Frank Fayant, "Fools and Their Money," *Success Magazine*, January 1907



PROF. DOLBEAR
Nestor of Wireless Telegraphy



HENRY SHOEMAKER
American Wireless Telegraph Expert

PROSPECTUS

OF THE

Consolidated Wireless Telegraph and Telephone Company

(INCORPORATED)

CAPITAL STOCK, \$25,000,000. PAR VALUE OF SHARES, \$1.00 EACH

FULL PAID AND NON-ASSESSABLE

NO PREFERRED STOCK OR BONDS

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OFFICERS and DIRECTORS

E. B. HUME, President

G. P. GEHRING, Vice-President

WM. S. DARNEll, 2d Vice-President

H. SHOEMAKER, Electrical Engineer

C. E. COLLINS, Director

A. F. CLARK, Director

WM. J. MOSS, Secretary

SEYMOUR LEE, Assistant Secretary

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GEO. CORBION, Director

C. B. BISHOP, Director

C. D. EHRET, } Patent Attorneys
D. P. MOORE, }

WM. S. DARNEll, Corporation Counsel

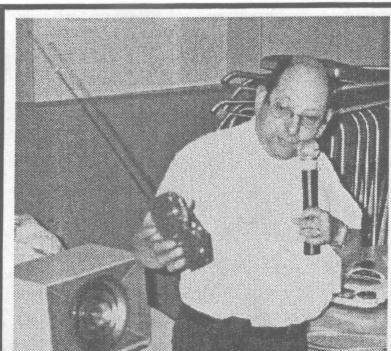
WM. J. MOSS, Registrar and Transfer Agent

54 N. Ninth St., Philadelphia, Pa.

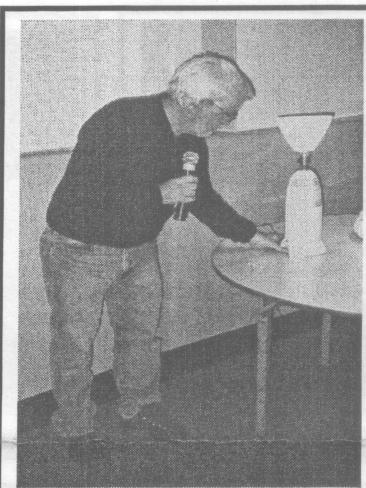
DEPOSITORY, GERMAN-AMERICAN TITLE AND TRUST CO.

G. P. GEHRING, General Manager
Company's Principal Office, 1345 Arch Street, Philadelphia, Penna.

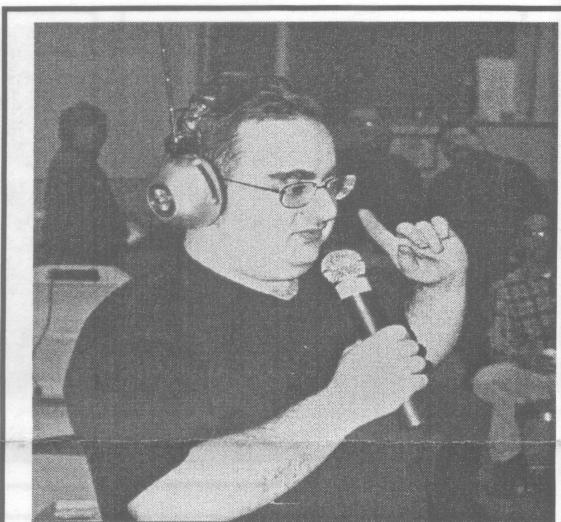
MARCH SHOW-AND-TELL



Marty Friedman



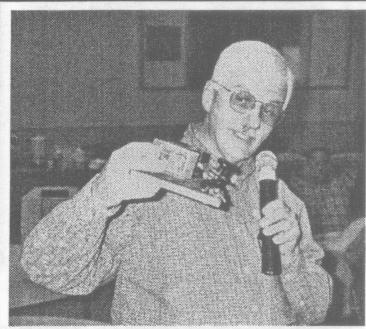
Steve Gougart



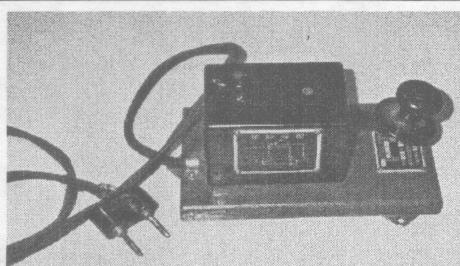
Daren Hoffman



Dave Snellman



Steve Gougart



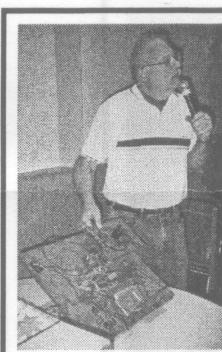
Rick Skoba



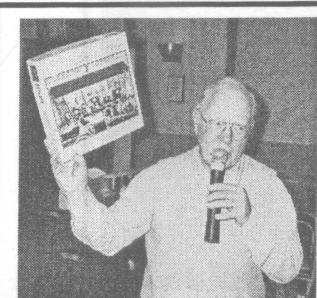
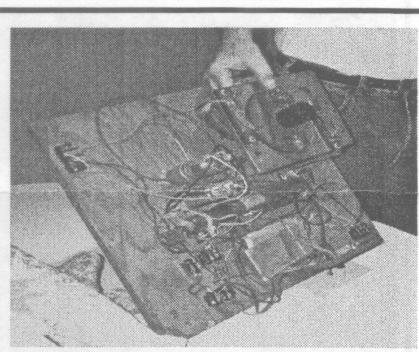
Alex Magoun



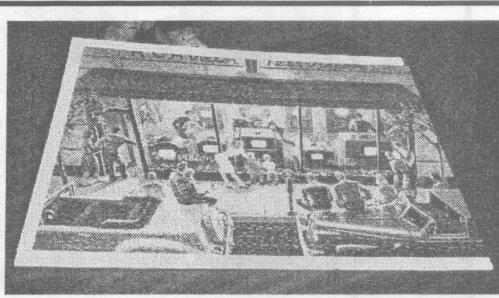
Steve Collandra



Phil Vourtsis

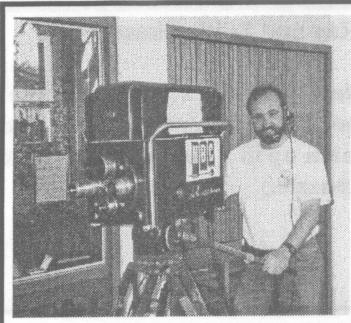
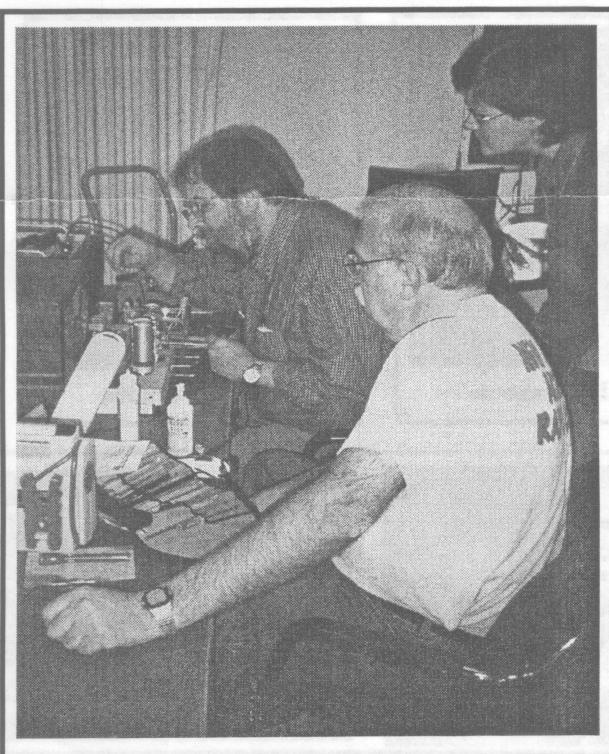
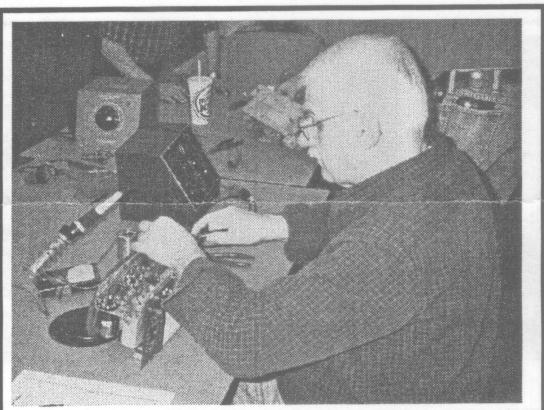
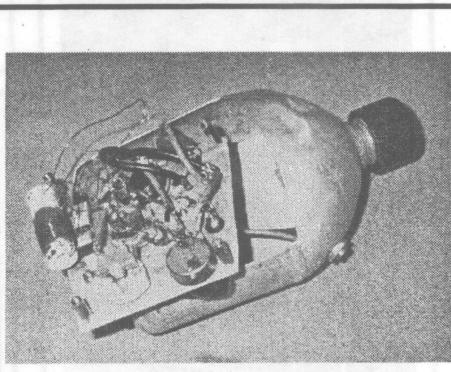
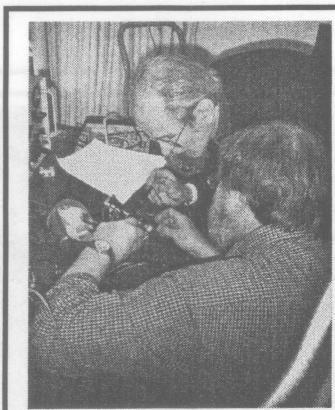
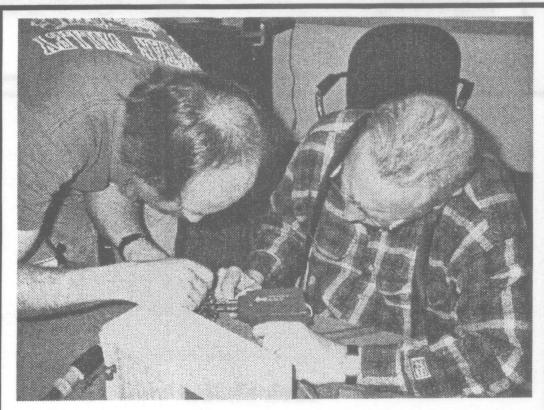
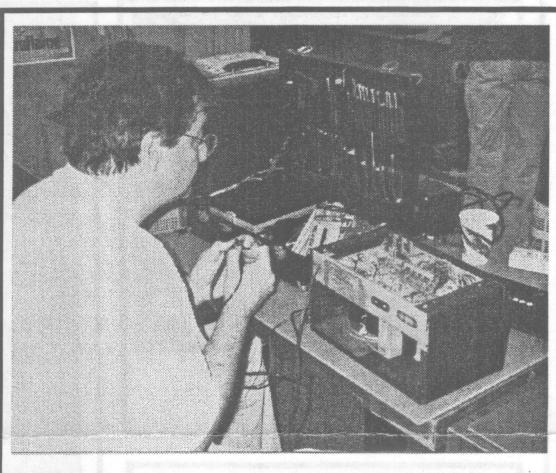


Ray and Edith Chase



(Sorry-technical difficulties prevented showing a great shot of Ray's crystal set postcards; we'll try to catch up in a future issue. Shown is a TV shop puzzle.)

REPAIR CLINIC - MARCH 20th



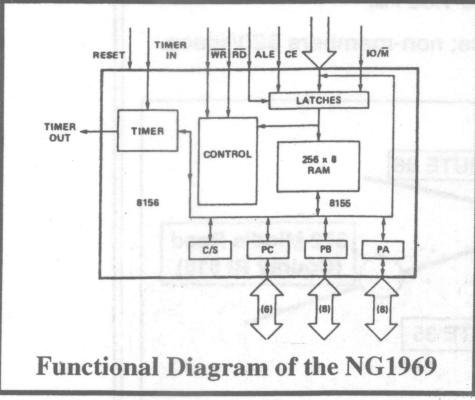
Sal Brisindi
kept a record
of all the action

IC SIMULATES CLASSIC AUDIO

By Marv Beeferman

The first thing that radio restorers usually attack are those leaky power supply electrolytics; get out the AC hum and its usually clear sailing from there. And if you ever watch NJARC president Phil Vourtsis fine tune one of his 45 players, you'll know what striving for sound perfection is really like. "Sounds good to me Phil" is just not good enough..."let me see if I can knock down the static and noise by replacing that 12SC7 with a 12SL7; or maybe the tube contacts need more cleaning. It just doesn't sound quite right yet."

But from the April 1st, 2004 issue of *Nuts & Volts* magazine comes a report of a new product for those of us who miss that warm, fuzzy sound of vinyl recordings - with the associated hisses, cracks, pops, and other overdub distortions. Sonorous Devices, Inc. (www.sonorousdevices.com) has introduced the NG1969 analog IC, a dual -channel noise enhancement chip that employs a reverse filtering concept that actually brings out background noise. It also offers user-selectable sound enhancement that simulates the sound of a needle dropping into the record groove, various types of dirt in the grooves, and even the sound of the needle being dragged across the surface of the record. In addition, it can generate friendly 60-cycle hum that was typical of some vintage Dynaco tube amplifiers.



Functional Diagram of the NG1969

In designing the chip, Sonorous engineers purchased hundreds of used LPs and studied the auditory effects of various substances that were found in the grooves.

These included dust, dried beer and wine, cigarette smoke and shag carpet fibers. The result is a sound that has not been heard since the early 1970s.

The chip, which can be designed as an add-on option to most receivers and amplifiers, employs a reverse Dolby®-like technique that discriminates between the musical data and distortions, reduces the levels of the former, then amplifies both. This creates up to 25dB of auditory enhancements.

The NG1969 runs about \$8.50 in lots of 100. Now, you just have to track down some Jefferson Airplane CDs and a shoehorn to help you get into your old hip-huggers.

SURREALISTIC PILLOW



THE NJARC SCHEMATIC PROGRAM

By Marv Beeferman & Aaron Hunter

There's a resource available to NJARC members that hasn't received too much attention. It's the schematic program administered by Aaron Hunter. Although repair information is available from many other resources...the web, CD's, professional schematic services, etc...for those members with limited access or who just need information only now and then, Aaron's help may be just the ticket. Here's what's in his present inventory:

- Riders Volume 1 to 23 on CD. Covers 1920s to about 1954.
- Riders Volume 1 to 5 abridged and Volume 1 to 19 manuals. Covers 1920s to

about 1949. Also a few early TV manuals.

- Beitman (Supreme) Radio manuals, 1926 to 1969 in book and CD form. Some TV manuals, 1954 to 1964.
- Sam's Photofacts, about 350 folders out of thousands listed. Most low number sets available courtesy Ludwell Sibley.
- Gernsback to 1936 (CD) and Volume 1 & 2 in book form.
- Canadian radios to 1952 (CD).
- Indexes for all of the above except the Rider TV manuals.
- Mallory Radio Service Encyclopedia; Radio Troubleshooter's Handbook by Ghirardi; The Locator, by Larsen (index to Rider by tubes used).
- Sam's Dial Stringing Volume 1 to 8 (CD), starting about 1938
- RCA Socket Layout Guides, 1921 to 1932 and 1921 to 1935
- Sam's Tube Placement Guide, 1938 to 1947
- RCA tube manuals, 1932 to 1975.
- Sylvania tube manuals, 1937 and 1953
- Tube substitution books
- Some transistor info
- Several books with pictures and values (over 20) and thousands of pictures on CD.

Original Service Documentation:

- Atwater Kent to 1932
- Philco service data (radio and TV), up to 1953
- RCA to 1952
- Zenith to 1942 (CD) and 1973 to 1983

If you need help with a current restoration, provide Aaron with the set's make and model number, or send a picture of the set with its tube complement and layout and any tag and chassis information. You'll receive anything that Aaron has via e-mail, fax or mail. But remember, Aaron is offering his services as an extension of his hobby, not as a business, and most of the material is from his own personal collection.

Aaron Hunter
23 Lenape Trail
Southampton, NJ 08088
609-267-3065
ahunter01@comcast.net

CONNECTIONS

Free exposure for buyers and sellers! Unless requested otherwise, each ad will run for two months in both the *Jersey Broadcaster* and the *Delaware Valley Oscillator*. All buying and selling transactions are the responsibility of the parties involved.

FOR SALE

Check out NJARC's capacitor program for those most commonly needed replacements. Contact John Ruccolo at any club meeting or call him at home (609)-426-4568 to find out what's available. All proceeds go to the club.

13" Zenith color TV (1987) - \$30
12" GE color TV (1985) - \$20
Tom Musacchio, 609-448-0787

The NJARC tube program offers clean, tested, boxed tubes at very reasonable prices with availability at any club meeting (no dealers, please...not for resale). Proceeds go to the club. Of course, donations of radio-type tubes in any condition are welcome. See Gary D'Amico at the next meeting.

WANTED

Magnavox Sportsman model AW-24, all wave, 7 transistor, 2-band portable, in good condition and working. Joe Bentrovato, 84 E. Munson Ave., Dover, NJ 07801. (973) 361-7392 JBentrovat @ msn.com

Tested and true Signal Generator. Please contact Lisa Starnes Eve.: (973) 410-0373. lisa.starnes@milliman.com

1931 Sparton model 15 wooden console radio. Original condition; works. Has hole in grill cloth and is missing a small piece of trim. \$125 or best offer. Majorie Ford, 8 Brookview Rd., Boonton Twp., NJ. 973-334-8283 marjorieford @att.net

Atwater Kent 70, console, type L chassis, type N speaker (10"), cabinet in A1 condition, has all tubes and worked until tuner clutch started slipping. John Edelhauser, 1515 Silo Ct., Manasquan, NJ 08736 732-223-7203

Does your mailing label indicate "1/04"? Then your last three issues of the Broadcaster were free! Please send in your 2004 dues.

NO DUES - NO VOTE



New Jersey Antique Radio Club Antique Radio Indoor Swap Meet



Sunday, April 18, 8:00 AM - 1:00 PM*

North Centerville Vol. Fire Co., Hazlet, N.J.

The NJARC presents its Spring swap meet at the spacious North Centerville Fire Co. banquet hall in Hazlet, N.J. The first 30 reservations receive an 8-foot table at no extra cost. A \$5.00 buyer donation is suggested. *Vendor setup at 7:00 AM (no early admittance); the meet may extend beyond 1:00 PM.

DIRECTIONS: Garden State Parkway, North or South: Take exit 117 (towards Hazlet (Rt. 35)/Keyport/Aberdeen). Bear left onto Route 36 and continue for about 0.5 mile. Turn right on Middle Road (County Route 516 East) and continue for about 1.5 miles. The Fire Co. banquet hall is on the right.

RESERVATIONS: Marv Beeferman, 2265 Emeralda Park Drive, Forked River, NJ 08731 (609-693-9430). E-mail: mbeeferman@cs.com. Phil Vourtsis, 13 Cornell Place, Manalapan, NJ 07726. (732-446-2427). E-mail: pvoverts@att.com.

RATES: NJARC members \$15/space; non-members \$20/space.

