



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

March 2009

Volume 15 Issue 3



**MEETING/
ACTIVITY
NOTES**

Reported by Marv Beeferman

THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now online. To date, 102 of your fellow NJARC members have subscribed, saving the club over \$1800 a year. Interested? Send your e-mail address to: mbeeferman@cs.com
Be sure to include your **full name**.

2009 DUES

This is your last chance to respond to the club's request for this year's dues; we will start cutting names from the membership list on April 1st. Your attention to this request will keep our numerous activities at the high standards that you expect. If you look back on 2008 and the first quarter of 2009, you can't argue that the price is not unreasonable.

To the right of your name on the *Broadcaster* mailing label is your membership status. (E-mail recipients have been notified individually.) An "H" designates an honorary member and an "L" designates a lifetime member, both with no dues required. Some members are paid through "2010", and this designation does not require a payment for this year. Those with a "2009" expiration date may renew for a \$20 payment or \$25 to continue/begin a family ("F") membership. A single, lifetime membership is 10 times the annual yearly rate (presently \$200).

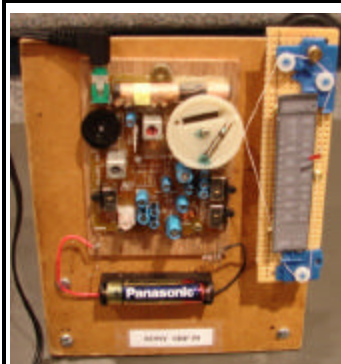
Please send your renewal to our membership secretary:

Marsha Simkin
33 Lakeland Drive
Barnegat, NJ 08005



MEETING NOTICE

The next meeting of the New Jersey Antique Radio Club will take place on Friday, March 13th, at 7:30 PM at the David Sarnoff Library. Visit us at <http://www.njarc.org> for directions. We will be conducting the second part of the Lukas Estate Auction and a listing of items, including a few photo examples, may be found in this month's *Broadcaster*. At press time, a meeting topic has not yet been finalized, so watch our web page or the *Reflector* for further information.



Modifying Sony's SRF-59 for DX work seems to be the project of the year. Do I see a contest taking form? This example by Nick Senker was displayed at our February meeting.

The February meeting started with an engrossing talk by Herb Hobler on how a great idea, when kidnapped by the wrong people, can easily go astray. His initial idea, where the listener could selectively choose from a constant stream of varied radio information by programming up to 999 four-digit codes, morphed into *DOWALERT* which appealed to only a limited audience. Of course, the venture eventually failed, but Herbs' stories of his adventures as a B-17 navigator were a welcome contrast.

Sarnoff Library scheduled for July 10th, let's hope that we are successful in what appears to be a new meeting place with great potential.

There are some future dates you need to keep in mind. Our Spring swapmeet is scheduled for Saturday, March 21st so it's time to get those table reservations in. An "open" repair clinic will take place at InfoAge on March 28th with "experts" arriving at 9:00 AM and members arriving at 10:00 AM. See our web page and Reflector for further information. We're also scheduling a very large, May 2nd, InfoAge auction with a professional auctioneer that will place some very nice items on the block. Finally, the May meeting has been rescheduled to the 15th as not to conflict with Kutztown.



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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**DWLR
(DRIVING WHILE
LISTENING TO
A RADIO)**

**By
Marv Beeferman**

*THE SAN DIEGO UNION
JANUARY 5, 1939*

**Listening to Car Radio
Causes Crash; 2 Hurt**

State highway patrolmen last night quoted A. C. Hansen, 53, Los Angeles, as saying he was listening to his automobile radio and not paying attention to his driving. Hansen's machine, the officers said, went through a guard railing on Highway 78, three miles north of Foster, and came to a stop in a river bottom.

Two passengers, Mrs. Stella Jarboe, 50, Los Angeles, and her daughter, Gloria, 12, suffered cuts and bruises, and were taken to County hospital.

JAN 10 '39

Most of us know that we shouldn't be talking on a handheld cell phone while driving. But recent studies suggest that even hands-free devices are just as dangerous on the road. The risk of getting into a car accident while talking on a wireless device, including headsets and vehicles with built-in communication systems, is growing significantly as the number of cell phone subscribers increases.

Experts say that engaging in a phone conversation on a mobile device while driving distracts the brain and delays reaction times. Drivers are more likely to swerve between lanes, slow down and miss important signs. In January, the National Safety Council urged legislators in all 50 states to pass laws prohibiting motorists from using cell phone devices. Some experts say that drivers talking on cell phones are four times more likely to get into a crash than those who don't talk on their phones behind the wheel. One study, from the Harvard Center for Risk Analysis, estimated that 636,000 traffic accidents each year, resulting in an estimated 2,600 deaths, are

caused by drivers using their cell phones.

Six states and the District of Columbia have laws against using handheld devices on the road. Some private industries, such as trucking and bus companies, prohibit their employees from using cell phones on the road. Other states restrict teenagers from talking on cell phones while driving. But many state governments are reluctant to pass restrictions because they say there isn't enough research. They point out that talking on a mobile device isn't the only distraction. Other distractions, such as reaching for the glove compartment, changing a radio station or putting on make-up, can also cause accidents.

Changing a radio station? What about bopping to the strains of *Good Vibrations* while you fantasize about the good old days when real music ruled the airwaves? Or perhaps having your blood pressure redline while listening to the ravings of Rush Limbaugh? Were the same problems that we now find with cell phones encountered with radios when they first took their place on the automobile consoles of the past?

Well, don't try to Goggle this bit of radio history since you won't find much; most of the information for this article comes from my personal files. In fact, one of the most authoritative books on the car radio, Donald W. Matteson's *The Auto Radio: A Romantic Genealogy*, has little to say on the subject:

"...the Radio Manufacturers Association argued successfully against opposition to the installation of radio sets in automobiles by some municipalities. The RMA claimed that the tuning of the radio in the automobile by the driver while that vehicle was in motion was no more distracting than turning on the windshield wiper."

Strong opposition by the RMA against limiting car radio installation seems to be supported by a few documented events of the time. As reported by the *Daily Capital News* in 1937, Idaho State Senator Ralph E. Whitten sponsored a law that would not allow a person to tune their radio while the motor was running. Whitten said that "I have heard radios blaring so loudly that signals from trains or other highway traffic could not be heard and they have found to be important factors in many crossing crashes." It was the first measure of its kind to be introduced in an

American legislature. But on the evening before the vote, half a dozen representatives of various radio interests, including the general manager of the RMA, talked over their plans for testifying to show that the measure would hurt business, and "is just a bit silly." The measure never passed.

Another interesting ban was suggested in 1940. H. Frederick Bright, managing director of New York City's Broadway Association, began a crusade to banish radios from taxicabs. Mr. Bright's indictment of taxi radios charged them with being an accident hazard because they detracted from the driver's attention (along with creating unnecessary noise, causing crowds to collect around parked cabs at sporting event broadcasts and creating an unnecessary expense on an overburdened industry).

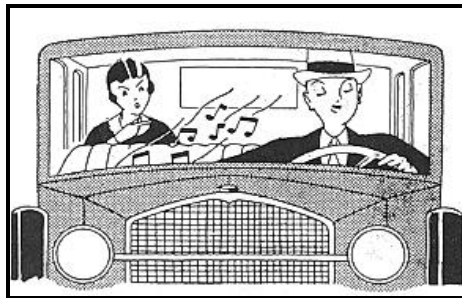
Nathan Levine, president of the Bell Transportation Co., with some 400 radio-equipped cabs, also supported the ban. "Cabs with radios are a hazard to the public as they take the driver's mind off the road. The accident ratio went up immediately after the radios were installed." On the other hand, Mrs. Frances Cohen, head of the Mural Transportation Co., which operated over 100 radio-equipped cabs, said, "we find the public likes radios, wants them, and we'd prefer to keep them." Of course, this ban never made its way to the legislature.

Although widely unsupported by the public, opposition to auto radios was just not an American phenomenon. In 1939, in a column in the Los Angeles *Southwest Wave*, it was noted that: "Sometimes it's awfully hard to figure us out. For instance...in Calcutta (India), where there are so few automobiles there could hardly be a traffic problem, radios in cars have been banned; the traffic board there feels the attention of motorists is liable to be distracted from the road by music. Yet here in Los Angeles, where the traffic problem is becoming more acute daily as the Grim Reaper stalks greedily, about seven autos out of 10 are equipped with radios."

With car radios supported by a public in love with mobile entertainment and the strong business interests of Radio Manufacturer's Association, the theory that automobile radios were a major distraction and contributed to the highway death toll never got any traction. Perhaps the outcome was best summarized by an arti-

cle in the May 1st, 1939 edition of *Time* magazine, noting that by 1938, there were some 5,000,000 radio-equipped autos in the U.S.

The *Time* article stated that the three main arguments presented against car radios were that they diverted the driver's attention from the road, prevented him from hearing warning signals and preoccupied him with tuning manipulations. But four counterarguments, whether justified or not, would ultimately win out: Radios induced slower driving; broke the monotony of extended or night driving, preventing drowsiness and promoting attention, interest and alertness; soothed motorists during extended traffic jams, and silenced backseat driving.



In addition, the article reported that motor-vehicle commissioners in 38 States failed to find any accidents directly attributable to auto-radios.

It would appear that any legal reaction to initial concerns with the car radio were quickly put to rest. Today, recent insurance company surveys indicate that 65% of drivers feel they are more concentrated on the road while listening to their favorite music or program. Psychologists claim that listening to music while driving is a positive thing. There is no doubt that taking one's eyes off the road for even a second or two significantly increases the chances of an accident. But the car radio holds no monopoly in this area; just as many accidents have been documented that owe their origin to changing a CD or lighting a cigarette as to tuning in a station.

The cell phone appears to be in a different category when compared to the car radio; many experts consider it as pure distraction where conversations sometimes require the user's full attention. As a result, even with the driver's eyes directly on the road ahead, decision-making and reaction time may be seriously impacted.

WHATEVER HAPPENED TO HEATHKIT?

*The following article was published in the February issue of **Electronic Design** and was written by Louis E. Frenzel...Ed*

Whenever I mention to folks that I used to work at Heathkit, a few people actually ask, "What's Heathkit?" Yes, I suppose that does date me a bit. Others will say, "Oh, yes, my dad used to build Heathkits." Anyway, some of you do remember Heathkit, and fondly in most cases. If not, let me explain.

There once was a time in electronics when you could actually build circuits and equipment yourself. You needed a design that you could create yourself, or, if not, get from one of many magazines, including *Electronic Design*. You could buy the resistors, capacitors, transistors, or tubes in the olden days, then put them all together on a metal chassis, a breadboard, or a finished printed-circuit board (PCB). It was quite a project but doable, and many hobbyists like hams built these designs on a regular basis.

In the late 1940s and 1950s, someone invented the kit business. Companies designed a product and sold it as a bundle of parts called a kit. You could buy the kit for a fraction of what a comparable wired unit would cost and then build it yourself. The outcome was quite favorable; a workable electronic product and a great sense of accomplishment you got from the construction.

Heath was one of those companies that help started the kit business. Ed Heath founded the company in 1926 with, of all things, an airplane kit. He died in a test flight in one in 1935, but Howard Anthony kept the company going. Right after World War II, he bought a batch of electronic surplus. Out of that came one of the first successful kits, a small oscilloscope for \$50, which was a real achievement in its time. With that success came many new products.

Heathkit probably succeeded more on its ham radio products than anything else. Most of the early kits were shortwave radios, transmitters, accessories like antenna tuners, and the famous Antenna, a 1kW non-inductive power resistor in a paint can with mineral oil for the heatsink. Heathkit went on to create an extensive

line of small and large transceivers and big power amps, many of which are still operational today.

The Successful Years

Later in the 1950s and 1960s, Heathkit expanded into audio equipment, TV sets, and lots of other consumer products. The company even had a low-cost line of test equipment with scopes, multimeters, generators, counters, and other items. While Heathkit had competitors like Allied Knight, Lafayette, Eico, and a few other smaller companies, it essentially beat the pants off everyone else because it had a better product.

But Heathkit's good reputation really came from offering a better assembly manual than anyone else. A poorly executed step-by-step manual is a prescription for disaster for any kit company. If the customer can't build the kit successfully without massive telephone and mail support, it would die a quick death, and many did. Heathkit figured this out early and spent as much development time in the manual as it did engineering the product. Its primary marketing message was "We won't let you fail," and the company lived up to it.

I went to Heathkit in the early 1970s to start its education and publishing product line. The idea was to extend the concept that building a kit was an educational endeavor and that we could expand on that idea with more formal learning materials to supplement the kits. We built a line of self-instructional courses on electronic fundamentals and a wide range of other topics. A line of kit trainers accompanied the instructional materials. The first products emerged in 1974 and were instantly successful. We followed up with micro-processor learning packages, which were hot for their time. And, we developed the Hero robot kit that came out in 1982.

I was also involved with the development of the Heathkit computers. We created the H8 and the H11, not to mention the H9 terminal, and of all things the H10, a paper tape reader/punch. (What was I thinking?) The H11 kit used Digital Equipment Corporation's (DEC) famous LSI-11 board. We packaged that into kit form with some 8-in. hard drives (remember those?) and the RT-11 operating system with Basic; not bad for \$1200 at that time. The all-in-one H89 and others came later.

The Beginning of the End

The success of the computer line attracted the attention of Zenith Corp., which went on to buy Heathkit in 1979 from the owner Schlumberger, an oil field service company that also owned Fairchild Semiconductor at the time. Zenith carved out the computer product line and started Zenith Data Systems (ZDS), and that company went on to build a several billion-dollar business making Zenith computers and PC compatibles. Groupe Bull of France eventually bought that business, and ultimately it succumbed to the market forces driving the PC compatible business with all its shakeouts, ups, and downs during the late 1980s and early 1990s.

In the meantime, the kit business suffered. Zenith didn't really want that business, but it came with the deal. It was neglected as ZDS grew, and so began its slow decline into oblivion. But a great deal of that decline had little to do with Zenith. It was also the time of great progress in semiconductor manufacturing. More and more equipment was being made of more and smaller ICs and surface-mount components, both of which were always a challenge for kit builders. It became harder to make a kit people could build at home with basic hand tools.

At the same time, wired products became cheaper thanks to Asian engineering and manufacturing. You could buy a great stereo or color TV set for less than what a kit cost, and you didn't have to spend three weekends building it. Everyone was into instant gratification in the 1980s, so nobody wanted to spend time building kits.

Heathkit discovered it could no longer compete in many markets like ham radio, audio, TV, and test equipment as it took as much time and money to create the manual as it did the product. With double the development costs and the technology making assembly more difficult, Heathkit eventually concluded it could not compete. This perfect storm of conditions led to the formal phasing out of the kit business in 1991 and 1992. There was lots of editorial coverage about that being the end of an era.

Heathkit Really Didn't Go Away

Everyone thought that Heathkit was

no more. Wrong! The education and publishing business now called Heathkit Educational Systems (HES) was still doing well. While the courses, materials, and trainers were sold to individuals, HES also developed a huge college and university business. HES was soon sold to a private buyer and continued as a successful operation. It still is today.

While its primary customers are educational institutions, you can still buy individual learning programs and even the trainer kits. HES also retained the rights to all those amazing kit manuals. The company still has many in stock. If you're looking for the documentation on an older Heathkit transceiver, scope, or whatever, you can get a copy of the manual. It's a nice little side business.

And despite the surface-mount components, ever-smaller ICs, and challenging construction, you can still buy a kit today. Most of these kits are smaller products, but a few larger ones require some skill to build. An example of some of the smaller kits can be found at Ramsey Electronics which offers a wide range of kits like power supplies and amplifiers that hobbyists love. Ramsey also has many ham radio kits and some commercial radio kits.

Jameco, which you might recognize as a mail order parts house, also has a line of small kits for hobbyists and educational institutions. Some of the ham radio companies offer kits as well, like Elecraft and TenTec. Other sources include Elenco Electronics and Kelvin Electronics.

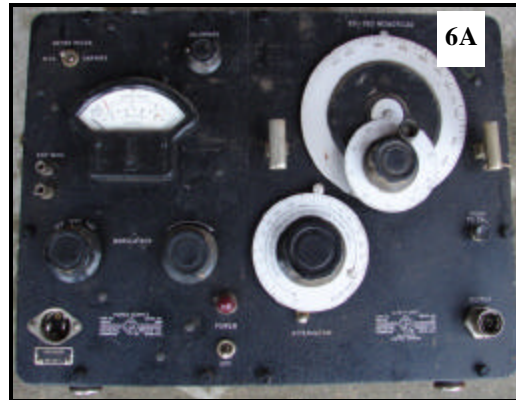
Most kits go light on the newer parts and stay with older but still good ICs with the larger through-hole packages. When newer ICs are used, they're often pre-mounted on a PCB, or the assembly using them will be pre-wired to prevent damage from poor construction.

It is still fun and satisfying to build a kit, at least to some people. And if you have the patience, you will actually experience that "Eureka" feeling one gets from building a particularly large and difficult kit. It works! It is a rare, satisfying experience that few enjoy any more. Next time you want to encourage one of your kids or relatives to enter the electronics field, give them a kit.

So despite the fact that almost everyone thought that Heathkit had died, it still exists and is still doing well.

The Lukas Estate Auction—Part 2

<u>ITEM</u>	<u>MANUFACTURER</u>	<u>MODEL</u>	<u>DESCRIPTION</u>
1	B&K	1460	Oscilloscope
2	Homebrew		Variac, with meter
3	Consolidated Electro-dynamics	26-302	Moisture monitor
4	Wheelco Instruments	310	Millivolt bridge
5	L&N	Unknown	Interesting test device (you figure it out)
6A	General Radio	1021A	Standard signal generator (40-250 MHz)
6B	General Radio	1021A	Standard signal generator (250-920 MHz)
7	Boonton Radio	190-A	Q-meter
8	Precision	E-310	Sine/Square wave signal generator
9	Unknown	Unknown	Very unique, Japanese machine tool kit
10	HP	805A	Slotted line
11	General Radio	631-BL	Strobotac
12	Ballantine	314	Electronic Voltmeter
13	Fairchild	7000	Digital multimeter
14	L&N	4285	Kelvin bridge ohmmeter
15	Heathkit	1G-57	T.V. post marker/sweep generator (rough)
16	Royce	I-580	23 channel "MOD-U-LAR" citizens band transceiver (new, in box, high end)
17	Fairchild	792A	Pulse generator
18A	Bekey	ARJ-4	Audiometer
18B	Bekey	ARJ-4	Audiometer
19	N/A	N/A	Assorted oscilloscope probes
20	N/A	N/A	Assorted test cables, 2 bags
21	Raytheon	2444	Depth finder (part of DE122)
22	Tektronix	53/54B	Wide-band preamp plug-in unit
23	Kay	PM7650B	Crystal pulse marker plug-in unit (part of 154C sweep oscillator bought last month)
24	Capps	GM2011A	Condenser microphone (in box)
25	Lafayette	a) PC-45 b) PC-45	Relay unit Exciter
26	Heathkit	G-3	Sweep signal generator (early Heathkit)
27	Keithley	2008	Decade shunt for Keithley electrometer
28	RFL	380	Electrical thermo meter, with probe
29	Kepler Optical	Unknown	3,6,12 V power supply (English)
30	Gonset	"Commander"	Transmitter, 1.7 - 54 MHz, very cute
31	Commutator Co.	Unknown	Unknown (looks like miniature welder)
32	Kendrick & Davis	"INVERTO"	Staking Tool No. 17 (made in Lebanon, N.H.); very early
33	Various	N/A	60 drawers filled with semiconductors
34	Homebrew	N/A	Microammeter
35	Accurate Instruments	156	"Genometer" (RF signal generator)
36	Fenway	56100-4	Temperature indicator (200-600 F)
37	Homebrew	N/A	Power supply, unknown voltage, 0-25 mA DC, output says "G" and "A"





NJARC 2009 DX Contest Results

(MDS = Most Distant Station * = Winner)

A- Crystal Radios: No entries

B - Primitive Tube Radios-1 or 2 Tubes: No entries

C- 1920s Battery Sets

***Jerry Dowgin**, Atwater Kent Model 10 using 140 ft. long wire antenna, 8,689 pts. MDS 850 KOA, Denver, CO 1615 miles

D- Home Entertainment Radios: No entries

E- Amateur, Commercial and Military Tube Radios

***Al Klase**, Collins R390 w/Skywaves shielded loop, 12,944 pts. MDS 750 YVKS Caracas, VE 2,097 miles

Tom Provost, Hammarlund HQ 150 w/ HB loop 9,789 pts. MDS 820 WBAP Dallas, TX 1,379 miles

Gary D'Amico, 1940 Meissner Traffic Master w/ HB loop 9,081 pts. MDS CEMA, Santa Clara, CU 1,379 miles

F- Transistor Radios Introduced before 1970: No entries

G - Light Weight (Any radio weighing less than one pound) Note: Both entrants in this category had listening posts outside of New Jersey.

***Joe Ricci**, Sony SRF-59 w/built-in loop (listening in Arnold, MO) 7,313 pts. MDS 1030 WBZ Boston, MA, 1,038 miles

Nevell Greenough, Sony SRF-59 w/built-in loop (listening in San Diego, CA) 4,025 pts. MDS 850 KOA, Denver, CO, 832 miles

Compiled by Tom Provost

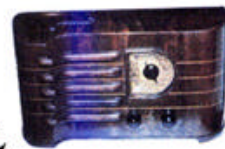
Thanks to all who participated!



New Jersey Antique Radio Club's — **SPRING SWAP MEET** —



Parsippany PAL Building
Smith Field
Route 46 & 33 Baldwin Road
Parsippany, New Jersey 07054



Saturday, March 21, 2009

**Walk around auction
starts at 11:30 am.
Bring in your attic
treasures for free
appraisal!**



**Expert Antique Radio
Repair Available.
Refreshments Available.
Easy ground level access.**

Open to the Public
(8:00 am to 1:00 pm)

Vendor Set-Up at 7:00 am
**\$5.00 ENTRANCE FEE
CLUB DONATION**

**(70) 8 ft. Tables
\$20.00 for members
\$25.00 for non-members
Reserved Additional Tables \$15.00
At the Door \$20.00**

**FOR DIRECTIONS
VISIT OUR WEBSITE: WWW.NJARC.ORG
OR MAPQUEST.**

(33 Baldwin Rd., Parsippany, NJ 07054)

Vendors Make Your Reservations Now!

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