

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

October 2003

Volume 9 Issue 10



## MEETING/ ACTIVITY NOTES

Reported by Marv Beeferman

At the Board meeting prior to October's general meeting of the NJARC, plans were made for three swapmeets in 2004 - a Spring (date to be determined) and Autumn (first week in November) meet in Hazelet and a Summer (last week in July or first week in August) meet in Dover. It was also decided to participate again in the DVRA hamfest. (If you don't want to bring your own table, ensure you register early for our November 1st swapmeet next month in Hazelet; we only have about 10 tables left.) In addition, the Board agreed on a Saturday date, December 13th, for our annual holiday party. With dinner at 5 PM, this will prevent members from having to rush away early from work and buck the Friday night traffic. It will also ease the work of our planners in setting up prior to the party and provide a more relaxed atmosphere.

Member Steve Calandra, inspired by the "Custom Cabinet" section of Phil Vourtsis' book "The Fabulous Victor '45," brought in what he dubbed the "Victor/Calarad Stereo."



The "Victor/Calarad Stereo"

## MEETING NOTICE

The next meeting of the NJARC will take place on Friday, October 10th at 7:30 PM at the David Sarnoff Library in Princeton NJ. Reference past *Broadcaster* issues, see the NJARC web site or contact Phil Vourtsis at 732-446-2427 for directions. Another show-and-tell is set for this month, so please bring in an item that you would like to display and talk about. As a change of pace, a Zenith theme should guide your choices but we'll be happy to accept anything that you would care to bring. Also, we'll be hearing from Dan Collins who will talk about his web site [radioswapmeet.com/](http://radioswapmeet.com/).

The unit consists of a) a 3-tube stereo amplifier built by Steve in his 1973 High School electronics class and designed by his teacher, b) real asbestos for tube heat insulation, c) a 12 vdc pilot light and cooling fan that vents at the bottom, powered by a panasonic answering machine transformer, d) a Taiwanese magnetic phono preamp, e) an RP 190 changer sporting a Shure M7D magnetic cartridge, f) Realistic "Optimus" Pro-7 speakers, and g) a cabinet, use unknown, tossed out at a former workplace. Nice job Steve; that's what I call a fully integrated system!

Prior to the evening's auction, Al Klase showed a promotional film from Hallcrafters on the building of the SCR-299 mobile field station. The film was warmly greeted, showing the complete process of the station's design and assembly and the ruggedization required to transform a stationary unit for field use. The auction itself was a mix of receivers and Heathkit items, with some desirable ham gear taking center stage. A Heathkit SB-102 SSB receiver with power supply went for \$201, a Zenith 7G605 "bomber grill" radio sold for \$110 and a Heathkit HO-10 monitor scope was hammered down at \$95. Bid cards were used for the first time which allowed the auction to move quickly and smoothly; they'll probably be a permanent addition to future auctions.

To put our auction in perspective, "Tube Collector" editor Ludwell Sibley reports the results of the only known public sales of LRS relays (AKA von Lieben

tube; see Type pp. 235-241) at a recent Estes Auction sale in Ohio. One with an open filament and dark bulb went for \$7000 and one with a clear bulb and good filament sold for \$14,000. In addition, an IP-500 regenerative ship receiver of the '20s was hammered down at \$31,000. Yipes!

### David Sarnoff Fund Raiser

On Saturday night, November 1, the David Sarnoff Library will host a re-enactment of Orson Welles's 65-year-old Halloween broadcast of "War of the Worlds." Your family can enjoy a staged theatrical presentation of this historic broadcast and participate in a Martian costume contest starting at 6 p.m. Seating is limited and advance reservations are suggested. For reservations, call 732-422-7438 or use the web to contact [Jer-ARTS2@aol.com](mailto:Jer-ARTS2@aol.com). Reserved tickets for adults are \$15.00 and children under 12 cost \$10.00. Tickets at the door are \$20.00 and \$15.00 respectively. As library executive director Alex Magoun suggests, "wiggle your tentacles" and sign up for a very entertaining evening.

In order to support Alex, NJARC members are asked to loan one or two 1938 (+/- 2 years - nobody will know the difference) radios for display around the auditorium. The radios must be in good working order (the program will be transmitted to them); bakelite, wood, tombstones and cathedrals and small consoles would all be appreci-

**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 \$15 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.

**PRESIDENT:**

Phil Vourtsis  
13 Cornell Place  
Manalapan, N.J. 07726  
(732)-446-2427

**VICE PRESIDENT:**

Richard Lee  
154 Hudson Terrace  
Piermont, N.Y. 10968-1014  
(845)-359-3809

**SECRETARY/EDITOR:**

Marv Beeferman  
2265 Emerald Park Drive  
Forked River, N.J. 08731  
(609)-693-9430

**TREASURER:**

Sal Brisindis  
203 Cannon Road  
Freehold, N.J. 07728  
(732)-308-1748

**SERGEANT-AT-ARMS:**

Dave Snellman  
Box 5113  
New Britain, PA 18091  
(215)-345-4248

**TRUSTEES:**

Ray Chase  
Gary D'Amico (732)-271-0421  
Martin Friedman (732)-238-1047

**TECHNICAL COORDINATOR:**

Al Klase  
22 Cherryville-Station Road  
Flemington, N.J. 08822  
(908)-782-4829

**TUBE PROGRAM:**

Gary D'Amico  
84 Noble Street  
South Bound Brook, N.J. 08880  
(732)-271-0421

**SCHEMATIC PROGRAM:**

Aaron Hunter  
23 Lenape Trail  
Southampton, N.J. 08088  
(609)-267-3065

**CAPACITOR PROGRAM:**

John Ruccolo  
335 Butcher Rd.  
Hightstown, N.J. 08520  
(609)-426-4568

**WEB COORDINATOR:**

Dave Sica  
(732)-382-0516  
<http://www.njarc.org>

**MEMBERSHIP SECRETARY:**

Marsha Simkin  
33 Lakeland Drive  
Barnegat, N.J. 08005  
(609)-660-8160

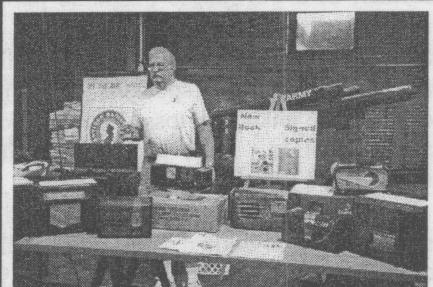
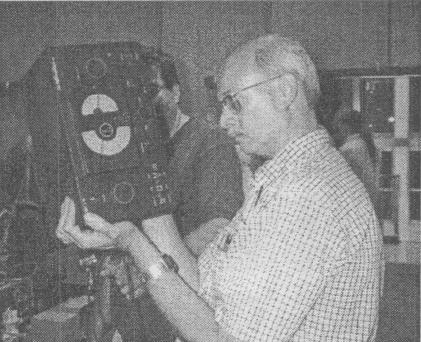
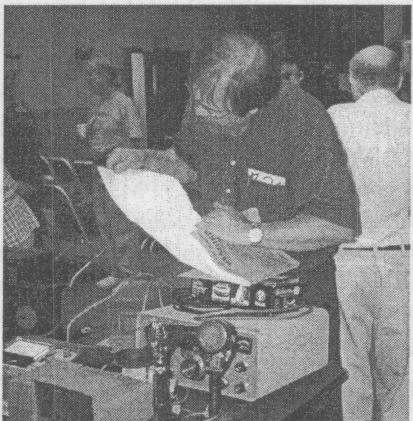
ated. If you are planning to come to the October meeting, please bring your radio with you; Alex will arrange appropriate storage and they can stay at the library until the November meeting if necessary. Let's support our gracious host on this one!

President Phil Vourtsis reported on the DVRA hamfest and antique radio swapmeet. Although attendance was down because of the weather, NJARC attendees had a pleasant and rewarding day. Exhibits by your editor, Phil, Rob Flory, Al Klase and John Dilks' mobile museum sparked a lot of questions and interest and some vendors reported that they did quite well. In addition, the club gained four new members.

Two items on closing. Our 2003 Homebrew Radio Receiver Contest is fast approaching (November); contest rules are published again this month. Second, Walt Heskes would like to note that Owen Gerboth did most of the recapping of the Globe radio featured in his "Helping Hands" article in the September issue. Walt says that Owen's workmanship is "second to none."



Checking out the auction offerings.



The DVRA meet.

This stuff deserves some close examination.

## RADIO'S NIGHT OF TERROR

By Mike Koste

With the celebration of the 65th anniversary of the War of the Worlds broadcast at the David Sarnoff Library, Mike Koste felt it might be appropriate to reprint an article he wrote for the October 1998 issue of the DVHRC (Delaware Valley Historic Radio Club) Oscillator. It includes some insights that many of us may not be aware of. Thanks Mike for allowing it to be included in the Broadcaster...Ed.

*“...Ladies and gentlemen, I’ve just been handed a message that came in from Grover’s Mill by telephone. Just a moment...At least forty people, including six State Troopers, lie dead in a field east of the village of Grover’s Mill, their bodies burned and distorted beyond all possible recognition. The next voice you hear will be that of Brigadier General Montgomery Smith, Commander of the State Militia of Trenton...”*

If you weren’t one of the majority listening to the antics of Charlie McCarthy on NBC that night, and happened to tune in late to The Mercury Theater on the Air on CBS, the preceding dialogue may have made you one of the victims of the most memorable radio broadcasts in history.

*“...Incredible as it may seem, both the observations of science and the evidence of our eyes lead to the inescapable assumption that those strange beings who landed in the Jersey farmlands tonight are the vanguard of an invading army from the planet Mars.”*

H.G. Wells War of the Worlds was scary enough even without the dramatic flourishes provided by scriptwriter Howard Koch and Broadway’s “Boy Wonder” Orson Welles. Herbert George Wells has been recognized as one of the greatest minds of the century, having penned other sci-fi classics as *The Invisible Man* and *The Time Machine*. Even more remarkable than

his literary output, Wells’ stories depicted futuristic marvels like the combat tank and the atomic bomb. *War of the Worlds*, written in 1898, was his second novel and was the first ever to describe extraterrestrials and mass panic in fiction.

*“...Good heavens! Something’s wriggling out of the shadows like a gray snake. Now it’s another one...and another. They look like tentacles to me. It’s as large as a bear, and glistens like wet leather. But that face...it’s indescribable. I’m hardly able to force myself to keep looking at it. The eyes are black and gleam like a serpent’s. The mouth is V-shaped with saliva dripping from it’s lips that seem to quiver and pulsate...”*

Sixty-five years ago this month, radio pushed the listener’s panic button. Public reaction has prompted decades of research into mass hysteria. The broadcast of *War of the Worlds* on October 30, 1938 has also been used as a model by the military around the world to design information warfare against enemy troops and the civilian populace, and surely, the most compelling reason to protect the public from the knowledge of the presence of aliens on Earth.



**New Jersey rallies to save the world from real weapons of mass destruction.**

*“...The battle which took place tonight in Grover’s Mill has ended in one of the most startling defeats ever suffered by any army in modern times; seven thousand men armed with rifles and machine guns pitted against a single fighting machine of the invaders from Mars. One hundred twenty known survivors. The rest strewn over the battle area from Grover’s Mill to Plainsboro, crushed and trampled to*

*death under the metal feet of the monster, or burned to cinders by its heat ray...”*

So how severe was the terror? Patrolman John Morrison was on duty at the switchboard of the Bronx Police Headquarters when all of his phone lines became busy at once. Among the first he answered was a man who informed him “They’re bombing New Jersey!” The New York Telephone Company reported it had never received so many calls in one hour in years in Westchester. Jersey City police were bombarded with calls asking, “Have the police any extra gas masks?” Traffic became snarled at Hedden Terrace and Hawthorne in Newark by more than twenty families who ran into the street believing “the gas attack” had started. In Philadelphia, law enforcement officials found families with wet clothes on their faces, contorted with hysteria.

*“...This is Newark, New Jersey. Warning. Poisonous black smoke pouring in from the Jersey marshes. (Was this another Jersey slam?..Ed) Reaches South Street. Gas masks useless. Urge population to move into open spaces. Automobiles use routes seven, twenty-three, twenty-four. Avoid congested areas. Smoke now spreading over Raymond Boulevard...”*

It is fair to assume that much of the believability of the *War of the Worlds* can be attributed to the locality of the drama. The Mercury Theater broadcast moved the story from Wells’ native England to the Columbia Broadcasting System’s backyard in suburban New Jersey. Reaction in major population cells in the Northeast probably could have been expected, but wasn’t limited to New York, New Jersey and Pennsylvania. West Coast listeners called their local CBS affiliate asking for casualty lists. The Boston Globe told of one women who claimed she could “see the fire” and that she and many of her neighbors were “getting out of here.” At the Associated Press office in Kansas City, numerous inquiries were made with regard to the “meteors.” In Birmingham Alabama, people gathered in groups and prayed. And in Indianapolis, a women ran into a church screaming “New York is destroyed; it’s the end of the world. You might as well go home to die. I just heard it on the radio.”

*“...numerous bulletins are piling up in the studio here. We are informed that the*

Central portion of New Jersey is blacked out from radio communication due to the effect of the heat ray on power lines and electrical equipment...Astronomers report continuous gas outbursts occurring at regular intervals on the planet Mars. The majority voices opinion that enemy will be reinforced by additional rocket machines..."

Broadcast historians tend to agree that what listeners thought they heard on the air contributed as much to the mayhem as the program itself. There were "earwitnesses" who insisted that President Roosevelt, a well-known radio voice in the 1930s, addressed the nation during the drama, adding further credibility to the invasion fantasy. It may have been Orson Welles' and Howard Koch's intention to include the President in the script, but due to pressure from the network, changed the character to the Secretary of the Interior. Still, one must wonder whether the casting of Kenny Delmar (well-known for his FDR imitation) was a coincidence or the sly mind of Orson Welles at work.

*"...I will not try to conceal the gravity of the situation that confronts the country. No, the concern of your government is protecting the lives and property of its people. However, I wish to impress upon you; private citizens and public officials, all of you, the urgent need of calm and resourceful action."*

It would be difficult to imagine the same kind of mass misinterpretation of a radio dramatization in this day and age. We're so well-wired to media sixty-five years after *War of the Worlds*, that if word of impending doom of this magnitude showed up on radio or cable TV, our short attention span would force us to hit the remote and select another channel. (*Considering recent news events, I'm not too sure about that...Ed*)

Nonetheless, it's still fun to give "The War" another listen. The low-end technology hasn't held up very well with the passage of time. Still, it always was, and still is, a fascinating piece of science fiction. And should you ever care to invite the younger generation in to hear the program and hear the story of the hysteria it caused, remember this. The people who believed *The War of the Worlds* was real in 1938 were far less gullible than the people who weren't listening. While the Mercury Theater was dismantling the planet before their ears, everyone else was listening to Edgar Bergen and Charlie McCarthy on NBC...a ventriloquist on radio!

## 2003 HOMEBREW RADIO RECEIVER CONTEST

The 2003 NJARC home-brew radio contest will be held at the November meeting. Once again, the objective is to preserve the tradition of building your own radio. This year, we're adding two additional categories.

### Category 1 - One Tube

- The signal path of the radio may use no more than one tube envelope. Multi-function vacuum tubes are permitted.
- Solid-state diodes may be used for detection as in a crystal set or reflex circuit.
- Transistors or integrated circuits may be used only in the power supply. Any convenient power supply may be used, and may contain additional vacuum tubes.

### Category 2 - Two Tubes

- Same as one tube except that the signal path may use no more than two tube envelopes.

### Category 3 - Open

- Any recently constructed homebrew radio.

### Category 4 - Restoration

- Any vintage homebrew radio restored to operating condition.

### **Contest Rules:**

1. The contest is open to NJARC members only
2. Entry is limited to "scratch-built" radios as opposed to kits or modified production sets.
3. Entries must have been recently constructed (Categories 1-3) or recently restored (Category 4) by the contestant and must be capable of receiving at least one station.
4. Contestants should be prepared to demonstrate their creations at the October 2003 meeting and say a few words about the design and construction of the radio.
5. The membership in attendance will vote for the best entries in each category.

## HOW CLOSE IS DIGITAL AM RADIO?

By Mary Beeferman

During the Herb Hobler talk at our August meeting, the subject matter took a lively turn to AM digital radio. Mr. Hobler seemed to think that the technology was only some five years away, which chilled the filaments of many of our members. When one considers that the ultimate pleasure of our hobby comes from picking up stations directly off the airwaves on a vintage 1920 battery set or a 1930 AC set, the prospect of losing this capability is a little numbing. Will authenticity shortly take a back seat to AM transmitters and canned programs? Perhaps, but not for some time to come. Here's what's going on.

In June 2003, the Digital Radio Mondiale (DRM) consortium ([www.drm.org](http://www.drm.org)) agreed to purchase a technology that was capable of bringing FM-like sound quality and improved reception conditions to the long, short and mid-range frequency bands. The DRM consortium includes 70+ members, including service providers such as the BBC, Radio France International, Voice of America and others. Also represented are equipment manufacturers including Sony, Hitachi, Dolby Labs and Bosch.

In addition to improved sound, the technology will allow the transmission of text information such as stock quotes, traffic messages, information about the radio station, the title of the recording, the artist's name and so on. It is also expected that users will benefit from a lower cost for receivers, lower battery consumption, more diverse program content and a wider receiver range. But the bottom line is that equipment manufacturers hope to sell receivers that will replace the estimated 2.5 billion radios already in existence and the technology promises enormous energy savings to broadcasters.

The concept applies new modulation processes such as mouthfuls like "coded orthogonal frequency division multiplexing" (COFDM), but the biggest difference is in the upgraded coding process for data (*Continued on page 5*)

(Digital AM continued...)

compression. The technique is essentially an extension of MP3 technology called aac-Plus. It is said to deliver CD-quality sound at a data rate of only 48 kbps.

The International Electrotechnical Commission (IEC) now recognizes the DRM technique in an international standard. If you're really interested, you can buy a copy of standard IEC 62272-1 at [www.iec.com](http://www.iec.com).

Before the public will be able to buy a receiver, however, equipment manufacturers will need to adopt the technology and bring systems to market. A complete conversion is expected to take at least 10 years. So, for the time being, you can relax a little and hope that the digital AM concept goes the way of the Edsel. The fact that we embrace technology does not necessarily mean that we have to welcome every gizmo that comes our way.

## YOU HEARD IT FROM THE COMMANDER

By Marv Beeferman

Since this month's show-and-tell will feature Zenith radios, I combed through my files to find some appropriate material for the *Broadcaster*. As some of you might know, some time ago, I acquired the correspondence files of F.J. Schlink who was the radio editor for Consumer's Research (later to become the more familiar *Consumer Reports*). In a February 15, 1949 letter to Ted Leitzell (Public Relations Director for Zenith and manager of their FM station WWZR), Schlink complained about the low sensitivity of many FM sets of the day. Since Mr. Leitzell was away when it was received at Zenith, the Commander answered the letter directly.

Besides winding up with McDonald's signature, I was able to get some insight into his character in just a few short sentences. Although Messrs. Cones and Bryant (authors of the recent Zenith history series) might argue otherwise, Zenith's president had a tendency toward bravado. But in this case, it certainly may have been justified. For the price, Zenith made one of the best FM receivers on the market. But before we examine the letter, some introductory remarks with regard to Zenith and

FM radio are in order.

According to Cones and Bryant, "McDonald had determined early (1937) that Zenith should position itself for FM growth and began a research and development program to produce high quality FM receivers. He predicted publicly that FM would sweep the country by storm, as long as good programming and quality FM receivers were available to the public."

A close friendship soon developed between Commander McDonald and Major Edwin H. Armstrong, the inventor and patent holder for FM. Zenith engineers worked closely with Armstrong during 1938-1939 to produce their first FM radio transmitter for the experimental station W9XEN. In September of 1939, Zenith received favorable treatment in negotiating its Armstrong Frequency Modulation License agreement because of the friendship of Armstrong and McDonald. Also, unlike other licenses, it allowed for FM research and development work.

With the 1944 FCC hearings to examine radio frequency allocations, McDonald joined Armstrong in the bitter battle to maintain the FM band at 44-50 MHz. RCA argued for the proposed 88-108 MHz band based on the needs of television and Sarnoff's refusal to pay royalties to Armstrong. It was once said of RCA that the company doesn't pay royalties - it collects them. RCA was also joined by AM interests like CBS, ABC, Cowles Broadcasting, Crosley, Philco, Motorola and DuMont.

In June 1945, FM was officially moved to 88 to 106 MHz and soon expanded to 108 MHz; the effect of the move was disastrous. However, the terms of the decision allowed Zenith and 50 other pre-war FM pioneers to broadcast on both frequencies until the end of 1948. Zenith responded by producing a series of FM

models that contained both bands and marketed as "two band FM."

McDonald advertised his friendship with Armstrong through his radios. For several years, beginning with the 1946 model 8H034, which he named "The Major," two tags could be found on FM and AM/FM receivers: a dealer sticker stating "Only Zenith has the SUPER SENSITIVE Zenith-Armstrong FM" and the generic license-holder tag "FM - The Armstrong System - Licensed Under Armstrong Patents."

In McDonald's February 17, 1949 letter which I've included here, the Commander notes ("strictly off-the-record") that Zenith will be marketing an FM receiver with a sensitivity of around 6 or 7 microvolts. In addition, he says that the AM/FM line will have a sensitivity of around 8 or 9 microvolts which "of course, is unheard of up to the present time in FM receivers." Actually, 6 or 7 microvolts was probably a little out of line and was more likely attributed to tests held under strict laboratory conditions. Later correspondence in my possession from McDonald's very own Public Relations Director Ted Leitzell talks about sensitivities of 10 microvolts as compared to 20 microvolts from the competition. Also, if one wanted to spend the money, a receiver with a 1 microvolt sensitivity was not "unheard of" and could be found in the high-end market.

### References:

1. H. Cones, J. Bryant and M. Blankinship, "Zenith - The Glory Years, 1936-1945, History and Products," Schiffer Publishing, 2003
2. D. Springer, "Thanks from Major Armstrong: A Zenith 7H822," *Antique Radio Classified*, Vol. 12, No. 6 (June 1995).



One of the labels that was typically attached to the back of all Zenith FM radios, recognizing a legally acquired Armstrong patent. RCA devised a different scheme to avoid paying royalties

## Zenith Radio Corporation

CHICAGO

OFFICE OF  
E. F. McDONALD, JR.  
PRESIDENT

February 17, 1949

Mr. F. J. Schlink  
Consumers' Research, Inc.  
Box 429  
Washington, New Jersey

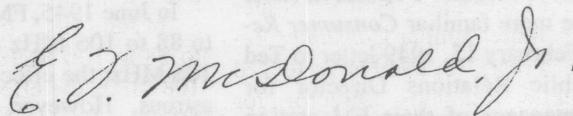
Dear Mr. Schlink:

Your letter of February 15 to our Mr. Ted Leitzell has been received in his absence from the city, and I appreciate everything you said in that letter.

For your information but strictly off-the-record for the time being, Zenith is coming on the market within the next ninety days with a straight FM receiver which will have a sensitivity of around 6 or 7 microvolts.

All of our receivers, other than the straight FM, will have a change in circuit which should give them a sensitivity of around 8 or 9 microvolts, which sensitivity, of course, is unheard of up to the present time in FM receivers.

Cordially yours,




New Jersey Antique Radio Club  
Antique Radio Indoor Swap Meet



Saturday, November 1, 8:00 AM - 1:00 PM\*  
North Centerville Vol. Fire Co., Hazlet, N.J.

MAKE YOUR  
RESERVATIONS

The NJARC presents its Autumn 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 \$3.00 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)/Keppert/Aberdeen). Merge onto Route 36 and continue for about 1 mile. Turn right on Middle Road (County Route 516) and continue for about 1.5 miles. The Fire Co. banquet hall is on the right.

RESERVATIONS: Marv Beeferman,

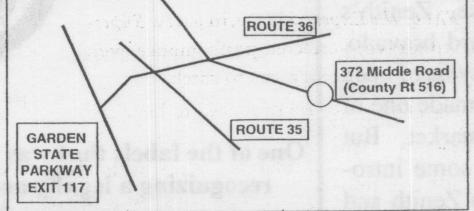
2265 Emeralda Park Drive, Forked River, NJ 08731 (609-693-9430). E-mail: [mbeeferman@cs.com](mailto:mbeeferman@cs.com). Phil

Vourtsis, 13 Cornell Place, Manalapan, NJ 07726. (732-446-

2427). E-mail: [pvourtsis@att.com](mailto:pvourtsis@att.com).

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

GARDEN  
STATE  
PARKWAY  
EXIT 117



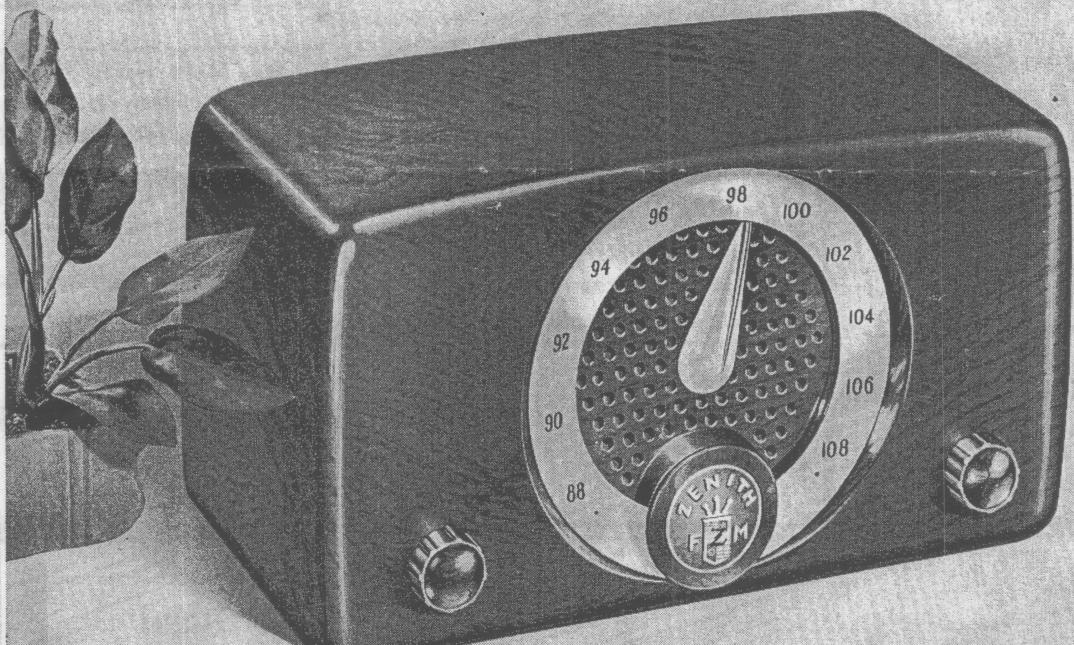
EARLY!

*Zenith Challenges Any Comparison*

WITH THIS

# The Most Sensitive FM Radio Ever Built

FOR THE PUBLIC



## ONLY ZENITH GIVES YOU THIS

### Most Sensitive Performance

Superb reception even on weak signals.

### Longer Distance

Because of high sensitivity, brings in stations in fringe areas others miss.

### No Interference

No whistles, no overlap, no cross-talk, no background hiss.

### No Static

Even in the worst storms. Only rich, glorious tone.

### No Special Antenna

With Zenith's patented Power-Line Antenna, just plug in and play.

Whatever has been your experience with FM—whatever FM radio you have ever heard—Zenith<sup>†</sup> now asks you to listen to a new marvel of Radionics<sup>†</sup> science.

This all-new Zenith Model is the climax of years of acknowledged leadership in genuine Zenith-Armstrong FM—that hundreds of thousands know as *true* FM—the FM radio that leading FM stations over the nation rely upon to monitor and test their own broadcasts—*truly the FM of the Experts!* Now, in a new *Super-Sensitive* circuit that gives perfected performance even on signals too weak for ordinary sets to catch.

So we say—hear, compare! Be prepared to hear the most sensitive FM receiver you have ever listened to—a genuine Zenith-Armstrong receiver at a sensational low price.

The lowest price ever for genuine Zenith-Armstrong FM! . . . only **\$39<sup>95</sup>\***



\*Suggested Retail Price. West Coast prices slightly higher.  
Prices subject to change without notice.

**ZENITH HAS THE GREAT VALUES**

**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



Some time back, I acquired a metal container advertising "Rajah Radio Solderless Snap Terminals" manufactured by the Rajah Auto Supply Co. of Bloomfield, N.J. I was attracted by the word "radio" but wasn't too sure about the purpose and configuration of the terminal. Recently, I came across the terminal's advertising in the November 1926 edition of the *Electrical Record* and things became a little clearer. The terminal provided a quick disconnect type connection for a ground or B battery connection. This is a typical example of a non-radio related company (auto supply) getting a piece of the radio action. Any ideas of the significance of "Rajah" - a "prince" of a product or someone's last name?

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.

Blaupunkt "Arkansas 59" type 532/4533 for sale in the Red Bank, NJ area. Radio was shipped from Europe and never used in US. Best offer ... (732) 530-9832, jwattvo@email.com

RCA Radiola model 80/82, 1929, working with good tubes but needs capacitors, value \$170-\$190, asking \$100. George Argila, 15 Bayberry Rd, Princeton, NJ, (609) 818-9595, czandga@aol.com

**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

"Radio in the Home" magazine, December 1925. Other issues also considered. Also looking for Sparton radio ads from 1928-1929 Liberty magazines. John Okolowicz, 624 Cedar Hill Rd., Ambler, PA 19002, john@grillecloth.com

**YOUR AD HERE...FREE TO 200 MEMBERS****Dealers—Attention!**

With every initial order for 100 Rajah Radio Solderless Snap Terminals, of either Ground or Panel type, we give free this metal display cabinet as illustrated below.

PRICE—Cabinet and 100 Terminals, \$9.00



Used on  
TUNIGAR,  
RECTIGON,  
PHILCO and  
EXIDE.

**RAJAH**  
Ground  
Connection

Instantaneous in Operation—Positive Contact.  
For Panel, Ground and Battery Connections.



Patented—Sept. 23rd, 1924

The Base Stud is tapped and furnished with  
8-32 screw and washer. This fits all "B"  
Batteries with screw posts.

**THE RAJAH COMPANY**  
Bloomfield, New Jersey