

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

November 2017

Volume 23 Issue 11



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 150 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

Thanks again to member Mike Molnar for his presentation at last month's meeting featuring excerpts from mostly unseen video interviews with Vladimir Zworykin originally provided by Chuck Azar and Instant Replay. Zworykin, inventor of the Iconoscope television camera tube, kinescope TV picture tube and many other RCA devices, was shown to be critical of the commercial program content on television. He lobbied for the improved use of television as a tool for education and improved communication between people.

In his early days with RCA, when the WD 11 triode vacuum tube was introduced, Zworykin found that there was great demand but production was slow. Filaments were prepared and placed on the stem by hand, one unit at a time, and failure rates were high. One of his first assignments was to increase production and reliability at a reasonable cost.

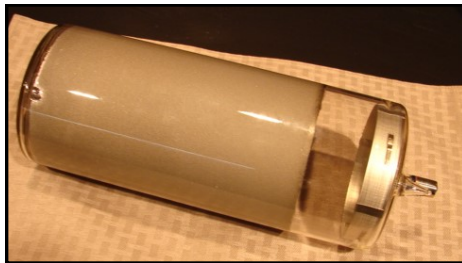
In Zworykin's first attempt at an Iconoscope, he described how he eventually solved a major problem while shaving. With a 16 line image, the tube's target was made in one piece and then scored to divide down to lines and pixels. But, no matter how carefully this was done, the individual pixels would chip at the edge leaving the response to light inconsistent. "I was shaving in my room ...and it was early in the fall, 1923. And there was dew on the window, and for some reason I had a magnifying glass and looked at the



MEETING NOTICE

The next NJARC meeting will take place on Friday, November 10th at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://www.njarc.org>). Dust off those unusual pieces in your collection and show them the light of day during our "Radio Show & Tell" scheduled for this month. We're asking you to not only "show" them but "tell" us a short story behind your selections. Nothing new to talk about? How about participating in a discussion and demonstration of those "hints and kinks" that have simplified your repair and restoration experiences?

dew and said, my goodness, just exactly what I want - beautiful small spots (i.e., insulated globules...Ed), all equal. Very quickly after that I was in the laboratory, and told the boys...drop everything, let's do this. The same day we had the first screen."



Examples of a Farnsworth image dissector and Zworykin Iconoscope provided by Mike.

As he has done in the past, president Richard Lee again "sweetened the deal" for those members who attend our monthly meetings with a small auction of some estate items. A lot of credit has to go out to Richard for assembling these

items and "lugging" them to our meetings.



Member Darren Hoffman displays one of the October auction offerings.

There is only one month left until we hold our Holiday Party and 25th Anniversary celebration so **your reservation is critical for us to plan properly.** A reservation response form is included in this month's *Broadcaster*. It cannot be stressed enough that you send in your response as early as possible since we expect a good turnout of members wanting to take part in all the planned activities associated with toasting our 25th year. Only 70 slots are available! It might also be a good time to start considering your entry in our Mystery Grab Bag instead of wrapping up whatever is lying around at the last minute. We'll be gently reminding you over the next few weeks via the club's Reflector.

Upcoming Events

November 18th - Fall Repair Clinic at InfoAge
December 16th - Holiday Party at West Lake Country Club; 25th Anniversary celebration

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 \$25 per year and meetings are held the second Friday of each month at InfoAge or Princeton University.

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

PRESIDENT:

Richard Lee (914)-589-3751
radiorich@prodigy.net

VICE PRESIDENT:

Sal Brisindi (732)-308-1748
salb203@optonline.net

SECRETARY/NEWSLETTER EDITOR:

Marv Beeferman (609)-693-9430
mbeeferman@verizon.net

TREASURER:

Harry Klancer (732)-238-1083
klancer2@comcast.net

SERGEANT-AT-ARMS (WEST):

Darren Hoffman (732)-928-0594
amcmataador@aol.com

SERGEANT-AT-ARMS (EAST):

Rotating

TRUSTEES:

Ray Chase (908)-757-9741
raydio862@verizon.net
 Phil Vourtsis (732)-446-2427
pvourtsis@optonline.net
 Bill Zukowski (732)-833-1224
nocusr@optonline.net

TECHNICAL COORDINATOR:

Al Klase (908)-892-5465
al@ar88.net

TUBE PROGRAM CHAIRMAN:

Al Klase tubes@njarc.org

SCHEMATIC PROGRAM:

Aaron Hunter (609)-267-3065
ahunter01@comcast.net

CAPACITOR PROGRAM:

Matt Reynolds (567)-204-3850
mattr04@hotmail.com

RESISTOR PROGRAM:

(To be announced.)

WEB COORDINATOR:

Dave Sica (732)-382-0618
dave.sica@njarc.org
www.njarc.org

MEMBERSHIP SECRETARY:

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

LONGTIME NJARC MEMBERS EDITH CHASE & MARTY DRIFT PASS

By
Marv Beeferman



Edith Chase

The NJARC sadly notes the passing of member Edith Chase on October 1st. The club's condolences go out to her husband Ray Chase and her family. Edith is remembered as a devoted homemaker and mother of four children who "cherished the time she could share with her family and was especially happy when surrounded by her grand and great grandchildren." Her interests included postcard collecting (especially those with tiger motifs), Toby jugs, cooking and knitting and "was considered one of the best cooks in the neighborhood."

Edith was a constant fixture at club meetings and auctions, aiding her sidekick Marsha Simkin in maintaining our membership roster, collecting dues and keeping auction registration and proceed collections all in order. She was also an active participant in our "show and tells" and scavenger hunts, showing items that reflected her eclectic radio interests.

Friendship between Edith and our membership secretary Marsha Simkin go back many years. As Marsha relates:

Edith and I were friends for over 30 years. I can't recall exactly when and where we met but it was most likely at an AWA (Antique Wireless Association) conference at Canandaigua NY in the early 80's. This was way before the beginnings of the NJARC. We bonded over several common interests, being "radio spouses" and coming from New Jersey. The thing that sealed the deal was our mutual fascination with Wegmans. This was long before this market was a fixture in our area. This store was a forerunner of the changes to come in the field. The 'old' Wegman's was across the street from the Sheraton Canandaigua. This was our first foray into this unique (at the time) place. The store moved to a new location and when

the AWA migrated to Henrietta in the Rochester area, we found additional and even more updated stores there. We looked forward to the conference so we could pay our annual visits. This went on for years until Edith could no longer manage going with me. By then, Wegmans was already in New Jersey so it wasn't as special as it had been but we always reminisced about times gone by.

A favorite "radio spouse" story was told by Edith at an AWA Ladies Luncheon. It went something like this: "One day I was driving down a busy street and going over the speed limit when I noticed flashing lights in my rearview mirror. I sped on, going faster and faster. I looked in the mirror again and he was still there. He now had his siren on and was definitely in hot pursuit. Finally, reality hit me and I knew I shouldn't run from the police, so I slowed down and pulled over. The policeman came up to me, took my license and examined it asking if I saw his flashing lights. I replied that I did. Then he asked if I heard the siren. Again I replied that I did. "Then why did you keep speeding and try to get away?" "Well, you see, my husband collects antique radios. Last week he sold his collection to a police officer. I was afraid you were trying to give it back!"

We always got a chuckle out of this story. I will always remember and miss my cherished friend.

Your *Broadcaster* editor first met Edith at the Franklin Institute during the deaccessioning of the institute's library. Each buyer was given cards that were used to separate a "run" of bound periodicals that you wanted to buy. Somehow, a run I had selected overlapped a run that Edith had selected. When Edith noticed the transgression, she really gave me hell! I tried to wiggle my way out of the problem by insisting that the run I had selected was of a slightly different publication that she had selected, thinking I could easily win the debate with this defenseless woman. But Edith held her ground and insisted we call over the librarian to act as arbitrator. Of course, no matter what ruse I gave in my defense, there was no contest, with Edith defending her turf like the tigers in her postcard collection. Later in the day, I passed by Edith as she was looking directly at me and whispering something in Ray's ear...probably not repeatable in a lady's presence. But Edith earned my respect as a strong and protective individual and someone not to mess with when she's competing with you in the radio collecting wars.

Ray has asked me to forward the following message to the club:

"I wish to thank all of those who sent condolence cards to me and my family on the passing of my wife Edith. I also appreciate the club and other donations in her memory to the American Heart Association."



Edith was an active part of the "crew" that helped establish our museum at InfoAge.



Edith and Marsha Simkin were constant companions and helped many club functions run smoothly.



Ray helps Edith unwrap a grab bag gift at one of our holiday parties. Edith couldn't be more delighted: "Just what I always wanted; a signal generator!"



A personal moment at the Estes auction of the Ralph Muchow estate. Edith was Ray's backup in recording auction results (when it didn't interfere with her knitting).



Edith models a United Electrical Radio and Machine Workers of America cap at one of our Freehold show-and-tells.



Marty Drift

The NJARC sadly notes the passing of member Marty Drift on October 5th. The club's condolences go out to his wife Marie and family.

Marty, WB2FOU, was a licensed radio amateur and Heathkit and AM DX enthusiast. He was the author of the "Compendium of Heathkit Radios," a compilation of photocopies of catalog pages of 380 Ham related Heathkit items and articles on restoring a Heath AT-1 and Apache TX-1. Videos posted by Marty on YouTube include "Replacing Capacitors on a Drake Novice 2-NT Transmitter (4 parts)" and "How to Build a Frugal, Inexpensive 17 meter Rotatable Dipole Antenna."

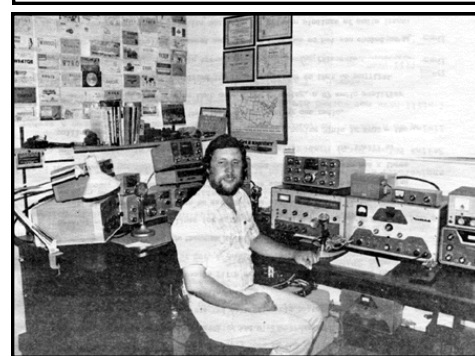
Friend Lee Bahr noted the following on Marty's passing:

"I moved to Houston, Texas 31 years ago and got to know Marty while he was living here. I considered him a friend to this day. He was a good guy and a very interesting guy. The gang I hung around

with was interested in boat anchors and AM. Marty fit right in with his love for Heathkit gear. I'm sorry to hear of his passing."



Being an AM DX enthusiast, Marty liked to participate in the club's yearly Broadcast Band DX contests.



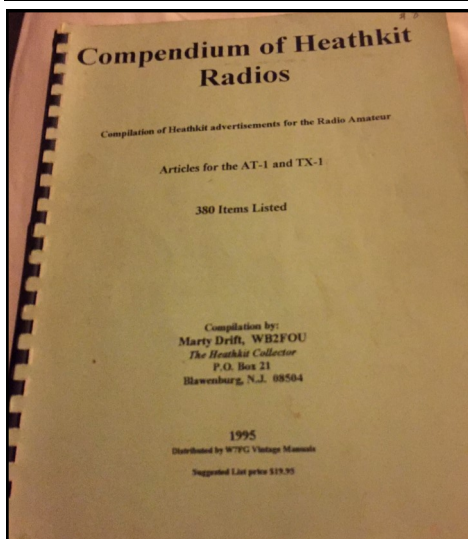
An early photo of Marty. His AM station consisted of a Heathkit DX-100 transmitter and RX-1 Heathkit receiver. Antennas are 80 and 40 meter bazooka and CL-33 Classic.



Marty's frugal, 17 meter rotatable dipole found on YouTube.



Raising a cup with the guys at the Sarnoff Library. To his left is friend Gary D'Amico who has also recently passed.



Marty was a big Heathkit enthusiast. You can still obtain copies of his publication from "Vintage Manuals."

AN RME STORY

By
Al Klase

The following story was originally published in the September 2000 DVHRC "Oscillator." ...Ed

When I wrote a piece on the National HRO-500 receiver for John Dilk's column in QST magazine, I was asked to supply a photo of myself. When I set up the shot, I made sure some of my juicier specimens were visible on the shelves.

The Navy RAL in the foreground of the picture brought a letter from a gentleman in NYC with an offer of its brother RAK. (I haven't taken him up on that offer yet.) A second letter, forwarded from ARRL headquarters came from an



old-timer claiming to have helped build one of my radios in the 1930s. W9GLW wrote:

The RME-69, sitting on the shelf just beyond your left ear ("A") on page 80 of February QST, brought back memories of economic hardship as well as personal success. As a 19-year-old technician, I built the prototype of the "69" under the guidance of W9RGH (Russ Plank, RME cofounder...Ed). The year was 1934, and times were tough.

Production was begun with guarded expectations. Failure meant irrevocable fiscal disaster. In production I specialized in construction of the HF tunable oscillator, mixer, and antenna amplifier as well as the associated switch. Each solder connection was wiped clean while still hot.

Upon completion of each assembly, one of the aluminum shield cans was initialed with a measure of pride. It is likely the radio pictured has my initials.

The RME-69 was sold world-wide for commercial as well as amateur high-frequency communications. The pay was not great, but nevertheless, RME (Radio Mfg. Engineers...Ed) was good to me. A college degree was made possible and entry into the wonderful world of electronics was assured.

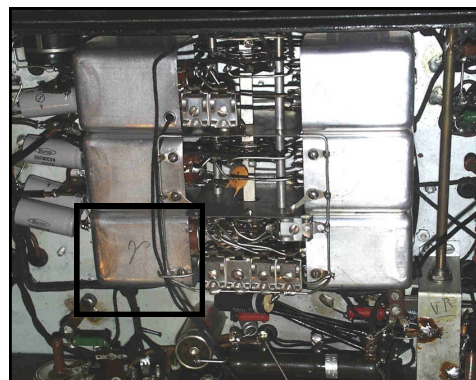
73, Clint, W9GLW

I pulled the bottom cover off my radio. Sure enough, there were initials on the shield, but I couldn't relate the hieroglyph to Clint's name. Well, my radio was purchased in 1937, and he was talking about 1934. I shot some pictures and lost the whole thing on my desk for several months.

The folder resurfaced in a recent cleanup, and I wrote to Clint and enclosed the pictures. He replied promptly. What I had been taking for a stylized "Y" or "V" was actually an upside-down "cb" for Clinton ("Clint") Bowman. He

further informed me that the "VR" on the bracket was Vern Rogers, who wired the remainder of the set.

I am extremely gratified to have established this personal link with the distant past. Thank you Clint!



"I pulled the bottom cover off my radio. Sure enough, there were initials on the shield..."

RME's OF THE 1930's

By
Al Klase

Radio Mfg. Engineers (RME) of Peoria Illinois was the smallest of the four best-known communications receiver builders of the 1930's. The others were National, Hammarlund and Hallicrafters.

RME's initial receiver product was the RME-9 Single-Signal Super, a 9-tube design with a single "airplane" dial, calibrated directly in frequency, and incorporating a crystal filter for single-signal CW performance. It sported a built-in power supply, band switching as opposed to plug-in coils, one RF and two IF stages, and a BFO for code reception. BFO frequency and RF peaking controls were on the front panel. Frequency coverage was 540 KC to 22 MC in five bands. The RME-9 was first advertised in QST in December 1933. A modified RME-9 appears in the May 1934 issue. It added a second ganged

tuning condenser and airplane dial, for "electrical" band spread, and an "R" meter to indicate signal strength.

Refinement of the basic design continued, and October 1934 saw the introduction of the RME-9D. This landmark radio was the first to include all the features one now expects to find in a proper communications receiver in a single instrument. The addition of switch-selected automatic volume control to the expanded RME-9 design established a receiver architecture that would endure well into the 1960's.



The RME-9D.

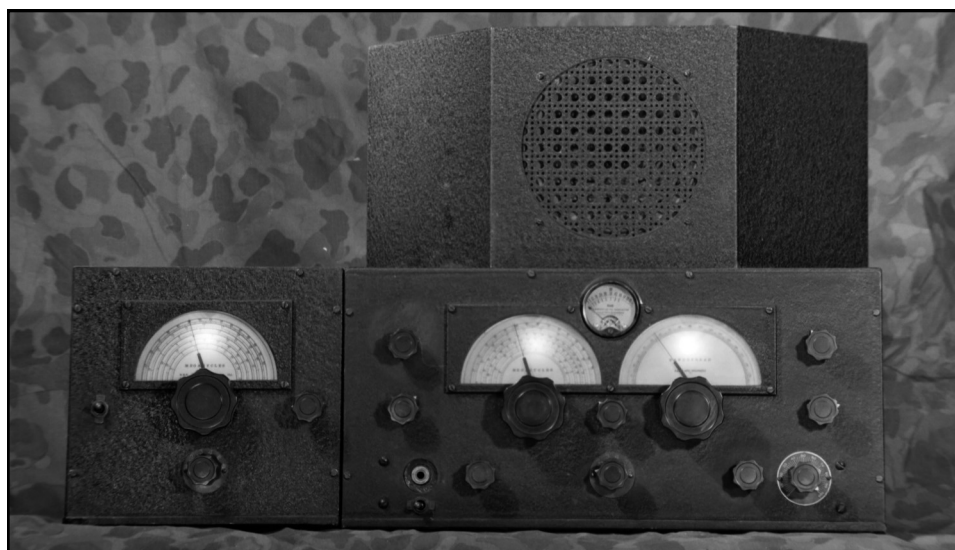
1935 brought an upturn in sun-spot numbers and increased amateur interest in 10-meter (30 MC) operation. To meet the 10-meter challenge, RME introduced the RME-69 six-band, nine-tube receiver. This expanded frequency coverage to 32 MC. The somewhat passé airplane dials of the 9D were replaced with large and distinctive "half moons."

The single RF stage in the RME-69 resulted in questionable image rejection on 14 MC and nowhere near enough on 28 MC. Other designs like the National HRO and the Hammarlund Super-Pro, with two RF stages, worked well enough on 14 MC, but still left a lot to be desired on 28 MC.

RME's solution was a DB-20 preselector. This self-powered external unit, with styling to match the RME-69, added two additional stages for a total of three amplifiers and five tuned circuits before the mixer. This is a level of RF preselection unrivaled by the competition.

Other RME-69 accessories included the LS-1 noise silencer, and an unusual trapezoidal metal speaker enclosure that apparently was intended to "horn load" the back of the speaker in conjunction with a nearby wall for improved bass response.

These sets were produced until 1940. Raymond S. Moore, in "Communications Receivers of the Vacuum-Tube Era," tells us that 6500 were produced. The RME-69 surely remains one of the classic communications receivers of the golden age.



A DB-20 preselector, RME-69 and original speaker in the author's collection.

Postscript - The Image Problem

The basic strategy of the superheterodyne receiver is to convert the desired signal to a usually lower, "intermediate frequency" (IF) where filtering, amplification, and detection can be more easily accomplished. This is accomplished by mixing the signal with a signal from a local oscillator (LO). The problem is that the system responds to signals at two frequencies, $LO + IF$ and $LO - IF$.

A typical broadcast-band superheterodyne receiver, with an intermediate frequency of 455 KHz, tuned to a station on 1000 KHz, will have the LO running at 1455 KHz. There will be an unwanted image response at 1910 KHz (signal frequency plus $IF \times 2$). A simple LC tuned circuit at the input to the mixer can suppress the image to a high degree because the image is separated from the desired signal by 91% of the filter center frequency.

Now consider the same superhet tuned to 10,000 KHz (10 MC). The LO is now running at 10,455 KHz. The image will still be 910 KHz away, but that's only 9.1% of the input filter's center frequency. The classic solution is to add a tuned RF amplifier stage before the mixer. There will now be two cascaded tuned circuits trying to suppress the image. The problem becomes still more acute as the signal frequency increases.

More stages of preselection help, but they must be kept in alignment, consume power, and cost money. Increasing the intermediate frequency of the design will reduce the image difficulties, but the desired IF selectivity may be impossible to come by at the higher frequency and, a

0.5 to 30 MHz receiver will most likely need to tune across its own IF, with the possibility of oscillation.

The ultimate solution to the image problem does not appear in mainstream communications receivers until after WWII with the introduction of multiple-conversion superhets by Collins Radio and others.

OCTOBER SWAPMEET A HUGE SUCCESS

**By
Marv Beeferman**

Some say it was the balmy weather. Some say it was the "radio bagels" and "radio buns." I tend to think it was the hard work, strong advertising and thorough planning by NJARC president Richard Lee and all those who contributed their time and effort to make our Fall swapmeet at the Parsippany PAL one of the best ever. The sold out event contributed well over \$1,000 to the club's treasury.

As noted by Richard, we had somewhat of a slow start: "I was inside the room at 6 AM thanks to the PAL custodian, and a good thing too!...only half the tables were set up correctly as per the layout instructions I had given to PAL management, plus I needed to set up all the extra tables for the 15 extra vendors who wanted to join our event." However, Richard managed to sort things out with the help of our members and all went well from there.

Both Richard and myself received

many positive comments from new buyers and sellers who guaranteed a return visit to our Spring meet on March 17th, 2018. All this positive energy was captured on video by member Bob Bennett and can be viewed at his RadioWild site on YouTube.





RADIO AS ART

By
Marv Beeferman

Like all products destined for commercial consumption, by the early 1930's, industrial design became a major component of radio salesmanship. This was typified by such designers as John Vassos (see the May 2017 *Broadcaster*) and Raymond Loewy.



The Vassos-designed RCA 96-X3. Its unique setback design and the asymmetrical sweep of the grille made it one of the more distinguished American radio designs.

When Hallicrafter created the S-40 receiver, its objective was to manufacture a radio receiver that would not only meet the technical requirements of the ham

radio operator, but would serve the average home radio listener by easily converting to regular broadcast bands. For this dual role, Lowey designed a simple curved-edge case with color-coded dials marked for easy identification.



But occasionally, radios show up as the subject of a pure work of art. Recently, a painted and collaged electric clock radio by American artist Kenny Scharf went up for auction with a starting bid of \$3,000.



NJARC Holiday Party

25th Anniversary Celebration

Date: Saturday, December 16th, 2017
Time: 5:00 PM – Cocktail Hour
 6:15 PM – Dinner
Place: West Lake Golf & Country Club
 1 Pine Lake Circle, Jackson NJ 08527

Members	\$25 each
Non-Member Adults and Children over 12:	\$25 each
Children under 12:	\$5 each

Cocktail Hour, Dinner Buffet, Mystery Grab Bag, Surprises

*******RESERVATIONS REQUIRED*******

If you plan to attend, please fill out the attached form, detach it and mail it with a check to:

Marvin Beeferman
2265 Emerald Park Drive
Forked River, NJ 08731
609-693-9430/mbeeferman@verizon.net

by December 9th. **Members who plan to attend must send back a response form with the full name(s) of additional attendees.** Reservations must be made via the form below; please refrain from telephone or email reservations unless absolutely necessary! Payment must accompany the form.

-----Cut here -----

Name(s): [Please indicate if member (m), non-member (nm) or child (c).]

Telephone or email: _____

Number of Members :	_____	X \$25	= \$	_____
Number of Children under 12:	_____	X \$5	= \$	_____
Number of Non-Members :	_____	X \$25	= \$	_____

TOTAL: \$ _____

Make checks out to **NJARC**, enclose with this form and **mail by 12/09/17.**