

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

July 2022

Volume 28 Issue 7



MEETING/ ACTIVITY NOTES

Reported by
Richard Lee

The *Jersey Broadcaster* is distributed to members via email as a PDF file. Back issues of many of our newsletters are available on the club's website:

<http://www.njarc.org/broadcaster/>

Our June meeting featured a presentation by Dr. Robert Forte about Spy Radios and the Spies who Used Them. A video recording of the presentation will be available on the club's YouTube channel.

Our May meeting featured a presentation by Dr. Jules Bellisio "[The Step-by-Step Telephone Switch](#)." A video recording of the presentation is available on the club's YouTube channel.

Don't forget, the NJARC [Sams Photofacts Library](#) is available to all members. If you use the Sams library (or even if you just think it's great that we have it!) why not reach out to [Jerry Ingordo](#) and thank him for all the work he did amassing the material, scanning it in and making it available to the club?



MEETING NOTICE

The next NJARC meeting will take place on Friday, July 8th at 7:30 PM. The meeting will be held in Bowen Hall at Princeton University. Information may be found at the club's website www.njarc.org. The meeting topic will be our ever-popular "Show and Tell" and "Hints and Kinks"

International Marconi Day 2022

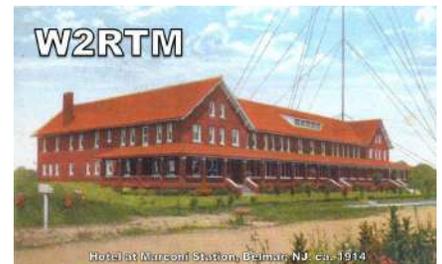
Members of the New Jersey Antique Radio Club participated in the International Marconi Day on-the-air amateur radio event, on April 22-23, 2022. Sponsored by the Cornish Radio Amateur Club, in the UK, which operates as GB4IMD, International Marconi Day features participating stations operating at sites having a historic connection to Marconi. IMD is held annually on the Saturday closest to Guglielmo Marconi's birthday, 25 April.



Ace operator Ted Copp, N2KPS, works a "pile-up" on 40-meters while Nevell Greenough, N2GX, keeps the log.

Our station, W2RTM, is located at The Radio Technology Museum, a part of The InfoAge Science & History Museums, at the location of Marconi's 1914 Belmar receiving station.

Over the 24-hour event period, we contacted more than 750 stations, most using single-sideband voice communications on the 7-megahertz ham band. We subsequently exchanged almost 50 "QSL" cards by mail verifying contact with our station.



W2RTM QSL card

You can learn more about the W2RTM station at the museum here: <http://www.w2rtm.ar88.net/>

THE JERSEY BROADCASTER

is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year as meetings are held the second Friday each month at InfoAge or Princeton University. Neither the editor nor NJARC is liable for any other use of the contents of this publication other than for information.

PRESIDENT:

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

VICE PRESIDENT:

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

SECRETARY/NEWSLETTER**EDITOR:**

Marv Beeferman

[Note: please send all submissions and correspondence to Dave Sica (732)382-0618 dave.sica@njarc.org]

TREASURER: Harry Klancer

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

SERGEANT-AT-ARMS (WEST):

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

SERGEANT-AT-ARMS (EAST):

Rotating

TRUSTEES:

Ray Chase (908)-757-9741
raydio862@verizon.net

Phil Vourtsis (732)-208-4284

philvourtsis@gmail.com

Bill Zukowski (732)-833-1224

n2yeg@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:

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

RESISTOR PROGRAM:

(Position open.)

WEBSITE ADMINISTRATOR:

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

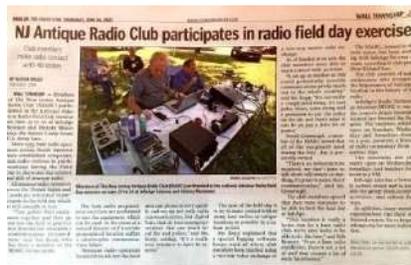
MEMBERSHIP SECRETARY:

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

NJARC Field Day 2022

Ted Copp, N2KPS

Another field day has come and gone and the event went better than ever. The club decided to run as a 2A class operation and as such we were able to increase our points/participation score by harvesting all the low hanging fruit including a visit and write up by a local newspaper. The Coast Star featured us in the Thursday edition June 30, 2022. [\[link\]](#)



[Click to enlarge](#)

Our setup went well as Ted got the lines up for station one with three shots from his Browning Fury I bow and Al using his bow to facilitate the lines for station two. Limb snag issues were very minimal this time.

In addition to the publicity we also benefitted from the fantastic "loaded OCF Dipole" antenna built by our own master engineer Nevel and this was



paired with an "End Fed Half Wave" antenna built by Ted. This concert of transmitting prowess enabled us in the

level playfield of "100" watts for all allowed station one to command frequencies at will and run extensive pileups. This resulted in a QSO rate over just over 100 per hour during the early hours of the event.

Station 2 was manned by Al and his team as was successful at using the "search and pounce" method and netted additional contacts during the event. We also had Ed and his team working under separate call sign and constituted out GOTA station and this completed our 2A station capabilities. Although we were lacking the extra staff needed to maintain full operations for the full 24hr period, the club overall put forth a heartfelt effort and a fine showing overall.



We also had our own "Chef Annie" that procured five star meals to sustain our participants and guests attending the event. The two Icom radios did not disappoint and both SSB and CW contacts were made throughout the available time frame. Our own Rich Lee also provided both spirits and snacks adding to the complement of delicacies available for consumption.

In summary station W2RTM was a force to be reckoned with and put out howitzer signals with punchy audio and strong CW signals as well. When station one went over to search and pounce, often just was call was sufficient to log the call we were after. Hats off to NJARC for a job well done!

Crystal Set Mobile

Al Klase – N3FRQ

[Originally published December 2006]

Back in the 1990's there was a Yahoo Internet "club", devoted to crystal radio development called "The Ferrite Core." One of the perennial topics of conversation was the difference between operating a crystal set near high-power stations as opposed to a more rural setting. Someone, who had read Aesop's Fables likened this to "The City Mouse and the Country Mouse." The country mouse needed a sensitive radio hooked to a large antenna, but could faintly hear distant stations without a lot of interference. The city mouse's crystal set could drive a loud-speaker using only the bed springs for an antenna, but he couldn't hear much beyond the city limits.

I've spent most of my life as a country mouse, but recently I've been frequently finding myself in Jersey City. Indeed, crystal set operation is very different there. Short antennas work pretty well, and even my nearly-deaf rocket radio picks up multiple stations. It's even possible to operate a properly designed set with the antenna terminal connected to ground with the headphone cord and listener serving as the actual antenna.

I decide to apply what I learned down town to a couple of radios I was building as Christmas presents. The circuit is very similar to the NJARC Pretty-Good Crystal Set, but the coil is wound on a ferrite toroid to save space, and there are additional antenna taps on the "high end" of the coil

to better accommodate short antennas.

I recently found myself in Maywood, near Hackensack, with



some time to kill while Peggy rehearsed before a Sunday-afternoon concert. I took the city mouse for a walk in a nearby park. With 20 feet of wire, 5 feet in the air, and the ground wire clipped to a metal park bench, I could comfortably choose from five or six stations. I could still hear the Jets game on WABC, with just the ground connected to the antenna terminal.

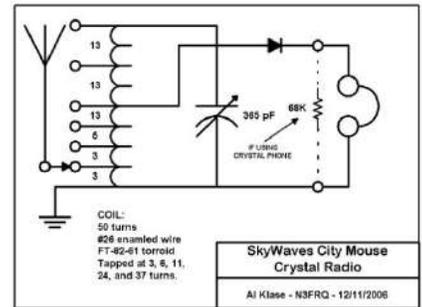
Still having some time to waste, I picked up a four-foot stick as I returned to the car. I grounded the set to the ignition key, and extended the antenna wire out the sunroof with the stick. Sure enough, the Jets were still ahead. I wound the rest of the wire around the stick as a loading coil.



The ugly stick

After an enjoyable concert (The Four Seasons and a Brandenburg

Concerto w/harpichord), I listened to the crystal set down the turnpike through the Meadow Lands, past all the towers, all the way home. I think most were on night-time power by now, as none were obnoxiously loud. I need to try that again, in broad daylight, with a speaker.



[\(Click to enlarge\)](#)

New InfoAge Exhibit

The Lenni-Lanape, European Colonization and Independence

The newest exhibit at InfoAge (home to our own Radio Technology Museum) consists of dioramas of the Lenape Native Americans at work. Here, you can learn about their history on the Jersey Shore, the history of Early Colonization, and the history of the Revolutionary War in NJ through artwork, artifacts & dioramas of battles fought in NJ.

The Coast-Star recently ran a story about the exhibit. You can read about it [here](#).



[Click to enlarge](#)

The President's Desk

Richard Lee



The Jersey Broadcaster is back!

Greetings Fellow Enthusiasts. We Are Back! The *Jersey Broadcaster*, that is! You can expect to see your Broadcaster as a digital file delivered via the Club's *Communicator* every month. Assistant editors: Al Klase, Ted Copp, Bill Zukowski, Dave Sica and I have agreed to resurrect our newsletter while Editor-in-Chief [can I use the word Chief anymore?] Marv Beeferman is on hiatus.

What have we been up to?

This past month was busy with **radio**. On June 11th, there was the [JD Auction Services](#) antique radio auction at the Hibernian Club in Hamilton Square N.J. On June 24th-26th the NJARC Amateur Radio Club's contingent participated in the the 2022 ARRL Field Day. Club operators were making contacts and adding up points from around the country on our station W2RTM [Radio Technology Museum] plus the Ed Papson station.

We contacted the local newspaper, The Coast Star, and they came by to photograph and interview our intrepid operators. You can read more about our Field Day in the accompanying articles in this month's issue.

Looking forward:

On Saturday July 23d, we will hold our annual Hamfest Tailgate Radio Show on the bucolic grounds of InfoAge, under the ever growing shade trees. I am taking reservations for Spaces now! Please email me at radio-rich@prodigy.net or call 914-589-3751.

The Club's [Event Calendar](#) is always available on the home page of our website.

Newsletter Contributors Needed

"You have the Right to Write for the Newsletter" – Richard Lee

You too can be a famous author (or look just like one.) – Marv Beeferman

With the return of our Jersey Broadcaster we are reaching out to all club members to supply us with interesting content for the newsletter. Send in an article, a blurb, some "pix" relating to our antique radio/electronics hobby/avocation. Don't worry about making it perfect, we'll edit it and clean it up if needed. But we need ideas from you! Send content to: newsletter@njarc.org.



I hope to see you all at Bowen Hall, Princeton University, for our Friday, July 8th meeting. The agenda is the ever popular Show & Tell Hints & Kinks.

The Rancher

Aaron Hunter

"This is one of the finest Radios ever built." So says the label on the rear pegboard cover. A wooden clock radio made about 1952 by Worbud Associates, Burlington, N. J. An All American 5 with miniature tubes, a ferrite loop antenna and a clock made by Sessions. An outlet in the rear is for your coffee maker. Came in at least two different cabinet styles in mahogany or blonde finish.



Advertised in 1954 by Strawbridge & Clothier in their Clover Day sale. List price \$39.95, on sale for \$29.95. Advertised again in 1955 in their TV and Clearance sale, list price \$39.95 and on sale for \$19.95. Who was Worbud Associates? A palindromic style spelling of the name of the founder Walter Dubrow (1923-2011) and his company, Dubrow Electronic Industries, Inc. Started as a one man shop in a small room over the family shoe store in Burlington, the company designed and produced electronic equipment, primarily for the military. By 1962, the company had grown to 500 employees. In 1964, the company was merged into Teledyne Industries. One military radio produced was the R-392.

Resources:

Antiqueradios.com/forums

Conversations with Jamie, Walter Dubrow's daughter.

Obituary from Oct. 3, 2011 in the Philadelphia Inquirer.

Newspapers.com

Aaron Hunter personal collection.

Restoring a Volksempfänger VE-301 Dyn (Part 1)

By Bill Zukowski, N2YEG



Volksempfänger VE 301 Dyn

Translation: People's radio, People's set
([Click to enlarge](#))

Part I – Background of the Radio

This is a reprint of a restoration documentation originally written in 2013. Part 1 is a background of the radio. Part 2 is the documented restoration and will be presented in the next issue of the Broadcaster.

There is reference to this radio having two tubes. There were variations of this model, mine is the three tube version: detector, audio amp, rectifier.

A Short Introduction

I noticed this VE-301 at the AWA Conference Auction in 2011 and was intrigued both by its historical value and near perfect physical condition. I had seen them previously, but none were in such good condition.

My father was a paratrooper in WWII with the 101st Airborne, but unfortunately we never talked much about his life in the military. He died in 1971 before I had the chance to hear his experiences di-

rectly from him, so almost all my knowledge of his campaigns came from my mother. I remember watching TV with him in the 50s and 60s, watching war movies and the two series that he liked the best: “The Silent Service” and “Victory at Sea” (when we weren’t watching the NY Yankees beat the Brooklyn Dodgers). One movie I remember in particular is “The Steel Helmet” – but it was sent in the Korean Conflict and not WWII. But hey-it was still a war movie.

For some reason I was always attracted to radios and “anything with wires” as my mother used to say. I always took notice of whatever radios were being used in these movies or TV shows.

So, when I saw this radio in 2011, I saw it both as a WWII historical artifact – it was actually used during the war, but more importantly by the victims, and a radio, that was part of history, that I could restore.

The “Volksempfänger” were the most produced radio set models in Germany between 1933 and 1945. Today these sets are very collectible. The construction of the “Volksempfänger” was controlled by the Seibt company, located in Berlin.

There are about 10 variations of the model VE301. By 1945, a total of approximately 2,875,000 Volksempfänger were built by 28 different manufacturers. I say “about” 10 variations based on research that I’ve done. These variations include battery only models with 2 tubes, electro-dynamic speaker or permanent magnet

speaker, wood or Bakelite cabinet, slide rule or circular dial.

The suffix after the VE 301 designation indicated the variation.

VE = Volksempfänger

301 = Date 1933/01/30. The date Adolf Hitler seized power.

W = AC (Alternating current)

G = DC (Direct current)

GW = AC/DC

B = Battery

n = new version

dyn = dynamic speaker

The circuit is regenerative, covering approximately 150–350 kHz and 550-1700 kHz.

VE 301 means (V)olks (e)mpfaenger and 301, 01/30/1933 the day of seizure of power by the German chancellor Adolf Hitler. These Volksempfänger were an important part of the propaganda campaign of the Third Reich.

During WW II it was prohibited and a criminal offence, punishable by death, to receive “foreign enemy broadcast stations”. So a tag was attached to the front of the radio to remind the listener.



([Click to enlarge](#))

Translation:

Remember. The reception of foreign radio stations is a crime against the national security of our people. It is punished with several years of penitentiary by order of our leader.

The Volksempfänger was sold for propaganda purposes during the Nazi years, the low price making it affordable to the masses. A similar goal fueled development of the inexpensive Volkswagen (people's car).

The VE 301 was developed by engineer Otto Griessing, and the Bakelite cabinet was designed by Walter Maria Kersting, the Professor of Artistic and Technical Design at the Kölner Werkschulen from 1927 to 1932. The radio was made by Lumophon, Bruckner & Stark, in Germany in 1933.

After the seizure of power by Adolf Hitler on 30th January 1933, the Propaganda Minister Joseph Goebbels requested the development of a people's radio. Radio was a relatively new media and radio receivers were prohibitively expensive. Realizing the propaganda potential of being able to deliver Hitler's powerful oratories and being able to control or limit the reception and broadcast of information, Goebbels' brief to engineer Otto Griessing was to use all available resources to design and mass produce an affordable radio receiver for German citizens.

The initial price of 75 Reichsmarks was about two weeks' wages for a German worker, vastly cheaper than most 1930s radios.

More than 7 million Volksempfänger were produced between 1933 and 1939. They were built jointly by 28 manufacturers including AEG, Braun, Blaupunkt, Eumig, Loewe, Lorenz, Nora, Philips, Siemens, Telefunken, Wega, and others. Production ran from 1931 through 1945. The final models were the VE 301 Dyn and Dyn GW introduced in 1938. At the

same time, another less expensive radio, the DKE (Deutscher Kleinpempfänger, or "German small radio") was introduced, so production of the VE 301 was severely cut back. My particular radio was made in 1944, so while the VE 301 may not be a relatively rare radio, the fact that production was so low in that year, I feel, adds some rarity to it.

(During my research to find the applicable schematic for my radio, I encountered many variations in circuits among the different manufacturers. Just when I thought that I had found the correct schematic, I'd find another discrepancy. At one point I had numerous schematics laid out on the workbench to make it easier. ALL THIS AND IT'S ONLY A THREE TUBE RADIO!)

Receiver performance was limited. The sensitivity was between .5 and 1.5 millivolts. It is basically a one tube regenerative receiver with an audio output tube and tube rectifier. It is maintained that the people receivers could only receive the local broadcast station and that they were very insensitive. However, reception of European stations from Germany was often possible at night. It was to many people their undoing when during house searches a Volksempfänger or other radio set was discovered, where the owner had forgotten to retune the set after listening to an 'enemy' radio station. For obvious reasons, the Volksempfänger was designed without shortwave capabilities.

(The United States did not make propaganda radios in World War II. However, the US banned domestic radio manufacturing during the war, diverting production to

military uses. If you owned a pre-war radio, you could freely listen, but buying a new one was impossible.)

US police also confiscated the prewar radios of many German and Japanese US citizens, altering them so that they could not receive foreign shortwave broadcasts. From time to time, US collectors still find such "politically corrected" radios, which were "modified" (coils were cut, switches were jimmied, etc.) to prevent shortwave reception.

Other citizens of the United States, and all countries for that matter, still owned prewar radios capable of receiving shortwave broadcasts. Although Germans were warned against listening to foreign broadcasting, US citizens (at least, those not of "enemy" ancestry) were free to listen to anything. The Nazi regime was well aware of that fact and beamed shortwave propaganda toward the US and Allied countries throughout World War II.)

This section depicts the original, 2 tube, VE 301 (there were several variations in the early 1930s) and gives the reasoning behind a people's receiver.



A 1933 Volksempfänger marketing Brochure ([Click to enlarge](#))

Translation:

fice workers, old and young are brought together by broadcasting. Thus, the people's receiver, VE 301, becomes the intermediary for the greater German community, to make Germany strong and prosperous again. Beyond the borders of the homeland, it connects Germans of the Reich with their brothers throughout the world and lets them participate in the intellectual life of all nations. Each German community, each German household, needs the political, cultural, and economic values brought to it by the people's receiver VE 301.

The next section describes the radio's wonderful tone and other virtues. It also lists prices for the three VE 301 models and explains the model number. The VE stands for Volksempfänger and the 301 represents January 30 (30 1 in German notation) 1933, the day when the Nazi regime took power

Translation:

The German people's receiver VE 301 has an especially beautiful tone. In music, perfect rendition and sound purity are ensured by a modern low-frequency transformer.

Antenna sockets in the left side allow you to match the receiver to the antenna for most favorable reception.

The receiver is built according to the safety regulations of the Federation of German Electrical Engineers (VDE).

Prices:

- VE301 W: 76 Reichmarks
- VE 301 G: 76 Reichmarks
- VE 301 B: 65 Reichmarks

The next part of the brochure discusses the radio's development and production. Built by 28 different German radio manufacturers using the same design, it was supervised and inspected by independent commissions. The first VE 301 was available in three models which used different power supplies: alternating line current (AC), batteries, or direct line current (DC). The radio was available in Bakelite and wooden cabinets.

The determination of the Reich government to bring broadcasting into every German household led to the creation of the people's receiver, VE 301. A total of 28 German radio factories build the VE 301 using a consistent standard. Its development was a joint venture of the entire German radio industry. This standardization made it possible to combine technical perfection with the greatest economy.

A neutral committee of experts guarantees the electrical and mechanical reliability of the receiver by pre-checking and approving all individual parts, such as transformers, condensers, coils, cabinets, etc., as well as the finished radios. This commission includes representatives from the radio industry, the Heinrich Hertz Institute and the Reich broadcasting corporation. The quality of the receiver is continuously supervised by the same technical commission during the current mass production. The receiver is built according to the safety regulations of the Federation of German Electrical Engineers (VDE).

The final page includes photos of key components and gives a few more technical details. (continued on next page.)



(Click to enlarge)



(Click to enlarge)

Translation:

45 RPM Phono Gazette
Now Available Online
 By Phil Vourtsis

Many of the issues of the 45 RPM Phono Gazette that have been published over the past 27 years are now available on the NJARC website. If you enjoy 45 players, or reading about them, [check out this new collection](#) in our online library.

(Continued from previous page.)



[\(Click to enlarge\)](#)

Translation:

VE 301 is a comprehensive two-tube receiver with two wave bands and built-in magnetic loudspeaker (free oscillator). In all parts of Germany—even those with the worst reception conditions—proven attempts have shown the receiving power of the VE 301.

The German people's receiver VE 301 gets best reception in the locality by permitting the use of antennas of different lengths. The construction of the resonant circuits from low-loss coils and condensers of modern design produces high selectivity and sensitivity.

This promotional photo depicts an idealized German working-class



[\(Click to enlarge\)](#)

family. Mother knits, father reads the paper, and the smiling children cuddle a kitten while everyone listens to the Volksempfänger.



Propaganda Minister Joseph Goebbels tuning a VE 301 [\(Click to enlarge\)](#)

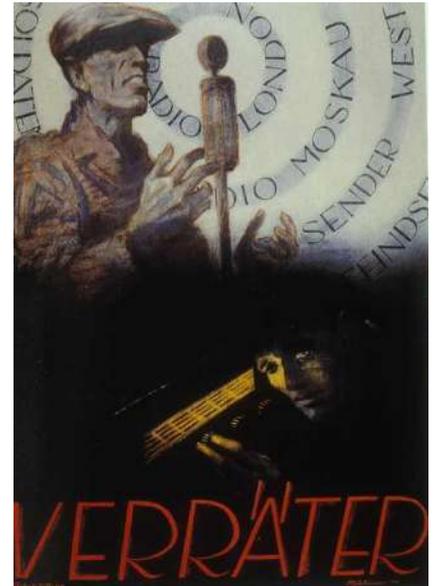
This is a poster that promotes the VE 301, stating that all of Germany hears the Führer with the Volksempfänger.



[\(Click to enlarge\)](#)

The caption says “Traitor!” and the dark picture shows a German furtively listening to a foreign broadcast from a speaker who looks like a Bolshevik (Communist), a party bitterly opposed by the Nazis. Remember, it was a crime during

the Nazi years for Germans to tune in foreign broadcasts.



[\(Click to enlarge\)](#)

Bibliography

Phil's Old Radios
<http://antiqueradio.org/VolksempfaengerVE301dyn.htm>

War Relics Forum
<http://www.warrelics.eu/forum/field-equipment-accessories-3-reich/dke38-ve301-showed-your-german-radio-3011/>

Powerhouse Museum, Sydney, Australia
<http://www.powerhousemuseum.com/collection/database/?irn=426097>

Bill Harris' A Website Dedicated To the Vintage Radio and Television Enthusiasts
<http://www.radioremembered.org/ve301w.html>

Wehrmacht-Awards.com Militaria Forums
<http://www.wehrmacht-awards.com/forums/showthread.php?t=634049&goto=nextnewest>

Radiomuseum
<http://www.radiomuseum.org/>



New Jersey Antique Radio Club's

Summer Tailgate Swap Meet and Ham Fest



Infoage Science History
Learning Center and Museum
2201 Marconi Road
Wall, New Jersey 07719



Saturday July 23rd, 2022



Refreshments Available

40 spaces available
\$25.00 for members
\$30.00 for non members
Bring your own tables

Open to the Public

8am to 12 noon
Vendor setup at 7:15 AM
\$5.00 ENTRANCE FEE
CLUB DONATION

For Directions

Visit our website: www.njarc.org
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Vendors Make Your Reservations Now!

Contacts:

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

Vice President
Sal Brisindi
(732) 857-7250
salb203@aol.com

Secretary
Marv Beferman
(609) 693-9430
mbeferman@cs.com