

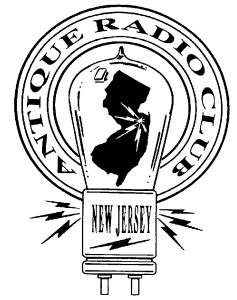


# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

April 2008

Volume 14 Issue 4



Reported by Marv Beeferman

## MAY MEETING UPDATE

In order to avoid a conflict with the Kutztown swapmeet (see ad in this month's Broadcaster), the **MAY** NJARC meeting will be held on **Friday, May 16th** instead of the 9th.

Last month's meeting featured a well-attended auction of a diverse gathering of electronic collectables, test equipment and components. Thanks to all who helped move, assemble and auction a large amount of items; the process went very efficiently. Although the majority of feedback was quite positive, some members, justifiably so, **suggested** that the club could have managed time a little better to avoid getting out of the meeting too late. This input will be taken to heart by your Board with a promise to do better in the future.



We were also treated to an engaging video produced by club webmaster Dave Sica. Dave felt that many club members have not even been to InfoAge, and, of



## MEETING NOTICE

The next meeting of the NJARC will take place on Friday, April 11th, at 7:30 PM at the David Sarnoff Library in Princeton, NJ. Contact President Phil Vourtsis at (732)-446-2427 or visit us at <http://www.njarc.org> for directions. The April meeting will feature awards to the winners of the club's 2008 Broadcast Band DX contest and judging of entries for our Homebrew Radio Contest. If you are a homebrew contestant, don't forget to bring your entry to the April meeting. Some additional surprises may also surface.

those who have, very few have seen the inside of the "H" buildings. Dave said that he had no real idea of the full scale of the complex until he gave himself a little walking tour of the complex. He compressed over 20 minutes of his walk-through into a 3-minute, fast motion video tour with a musical accompaniment. Dave even created a little animated "key" to show the "traveler's" location in the overall layout.

On March 19th, Ray Chase, Al Klase and Harry Klancer participated in the New Jersey Historical Society's "Lunch Times are Past Times" program. This program is presented for the benefit of those in Newark area who wish to combine their lunch time with learning about New Jersey history. The club's presentation included displays of vintage radios from our InfoAge museum and Power Point images and audio clips of famous radio events played through the displayed radios. Photos can be found in this month's *Broadcaster*.

This month's *Broadcaster* also includes an article on the Sparton model 409 mirrored radio. This radio, along with many other sets, tapes, books and miscellaneous items were donated to the InfoAge radio museum by Mr. Donald H. Rohrbaugh and Roy D. Miller, Jr. of Hackensack NJ and Tamaqua, PA. Ray Chase and Harry Klancer, who championed this effort, will need some help in April to recover the rest of the sets (mostly consoles).

The club is still taking reservations for

our April swapmeet; the PAL center in Parsippany is filling up quickly. We've also set the date of our Summer Swapmeet at InfoAge for July 26th; more on this later.

NJARC Executive Board elections will take place during the June meeting, and nominations will continue to be accepted at the April and May meetings. You must be a paid member for 2008 to nominate a candidate or to vote. At present, we have nominations for President (Richard Lee), Vice President (Harry Klancer) and a third Trustee (Ray Chase). Note that the outgoing President (Phil Vourtsis) takes the place of our first trustee and the second will be appointed by our new President. Remaining positions will be continued to be filled by our present officers (if no new nominations are received) but we absolutely need replacements for our Treasurer and David Sarnoff Library Sergeant-at-Arms.

Although not a requirement, in the past, some of our nominees have provided a short statement to the *Broadcaster* summarizing their thoughts on the club's future and how they plan to implement their agenda.

The election will be conducted by secret ballot and each position and nominee will be listed. Even if there is no nomination for a position that will be filled by the present office holder, that office holder will still be listed on the ballot and needs to be voted for.

**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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## WHAT'S THE DEAL WITH COLLECTING?

Edited by  
Marv Beeferman

*The following article is based on the piece "Amass Appeal" by Richard Rubin that appeared in the March/April 2008 edition of the AARP magazine...Ed.*

Did you ever wonder what started you on the road to collecting antique radios? Are you driven by and share similar impulses with coin collectors, stamp collectors, streetcar transfer collectors or even mustard collectors? In the March/April 2008 edition of AARP, Richard Rubin tries to answer this question in an article he calls "Amass Appeal." However, rather than answering the question "Why do people collect?" - a question that he admits may never be able to be answered satisfactorily - Rubin feels that a more reasonable question would be "Why do people collect that?"

Rubin says that on the surface, in the world of collecting, it may appear that irrationality reigns supreme:

"It could even be said that collecting is, itself, an irrational act. Why would any rational person want to have a bunch of stamps sitting around that he or she is never going to use? Coins that will never be spent? Radios that take up much more space than, and don't work nearly as well as, something you could buy almost anywhere for a few dollars? Old seltzer bottles that will never again hold seltzer? Faded maps that are hopelessly out of date? Phonographs that won't play 45s or LPs, much less CDs?"

But why, asks Rubin? Why do people collect things, things that they don't actually need but command much more than their fair share of space, time and treasure? It's a question, Rubin believes, has both no answer and too many answers to count. He cites that scientists have speculated the existence of a "collecting gene"; as someone who grew up in a family where everyone collects. Some collectors and armchair anthropologists speculate that collecting is a modern expression of our ancient instinct as hunters-gatherers

to, well, "hunt and gather."

Both theories have some merit, but also some flaws, and they don't seem to satisfy an answer to the basic question. Perhaps the answer lies in Rubin's own collecting genesis tale? Since it's about radios, it might interest us all.

"It begins on a spring afternoon in 1975, when I walked past an appliance-repair shop in my suburban New York hometown and saw, sitting in the picture window, an old radio, the kind with vacuum tubes and grille cloth, older than television, older even than my parents."

"Immediately, the old set caught my eye. Bit my curiosity, my attraction, had nothing to do with technology or design. You see, I was only eight years old at the time and hadn't quite mastered electron theory yet; I figured that old-time radios received old-time radio programs. And I had a keen interest in hearing these programs, because my father, who was not ordinarily a sentimental man, recalled them with great fondness. He never tired of telling me about Gangbusters and Fibber McGee and The Goldbergs and Amos 'n' Andy, or of asserting with perfect confidence that television was just garbage in comparison. Now, I perceived a chance to see (or hear) for myself."

"I told my mother about my desire to own an old radio, leaving out the part about listening to old-time radio programs. My mother, ever supportive, took me down to Queens to see her father, who descended into his cellar and emerged carrying a large wooden box: a 1936 RCA Model 5T, the old family table radio from my mother's childhood. Its tall wooden case looked a bit scratched up but still very dignified.



## A "SPARTON" GIFT AT INFOAGE

By Marv Beeferman

"We got home late that night, and I was sent straight to bed. But I was too excited to sleep; all I could think about was the possibility of catching Orson Welles's "The War of the Worlds" broadcast. Maybe I would hear Bobby Thomson's "shot heard 'round the world" homer. Maybe even...the crash of the Hindenburg. Oh, the humanity!"

"Finally, it was morning. I raced downstairs to plug in the radio. The switch crackled when I turned it on; the dial lit up and glowed softly, as if it were shyly introducing itself to me. After a few seconds, the tubes started glowing and humming in a comfortable way. The pleasantly mild burning smell that emitted was, I imagined, the smell of history. I was filled with childish glee."

"But as I turned the dial and closed in on the sound of words, the resonant male voice I heard was not that of The Shadow or The Green Hornet or Henry Higgins or Jack Armstrong the All-American Boy."

"It was...Don Imus."

"Yet, disillusioned as I was, I didn't throw out that RCA Model 5-T or ask my mother to give it back to my grandfather. I kept it. I still have it, in fact; it sits today atop a bookshelf in my living room, surrounded by other such sets, part of a collection that continues to grow some 30 years later. In the end, it seems, it didn't matter what voice came out of that old radio. I loved it anyway."

"That, you see, is the real reason that people collect things: because they love them. It doesn't matter why, if they even know why; it doesn't matter if these things are obsolete or ungainly or ugly, that they cost far too much and take up a ridiculous amount of space and serve absolutely no practical purpose whatsoever."

"In love, as in collecting, irrationality reigns supreme."

In an attempt not to defend collecting, Rubin argues that it needs no defense. He says that some believe that the era of the collector may be passing, but in Rubin's eyes, collecting is not embattled or beleaguered. "...for now, at least, the hobby - or habit, or lifestyle, or compulsion, or pathology, or sacred mission - of collecting something, anything, is very much alive."

Mirrored radios have always been admired and sought after by radio collectors. The most recognized were those produced by the Sparks-Withington Company (Sparton) with a line introduced between 1935 and 1939. The impetus, like that for many other manufacturers of the mid 1930s, was a radio that combined both beauty and function with an eye-appeal that would attract the consumer.

Sparton's mirrored radios were the brainchild of Walter Dorwin Teague, a prominent Eastman Kodak industrial designer. His work can be seen in such diverse products as the interior design of the Boeing 707 to the front panel of the E.H. Scott 800B radio. Teague's influence gave Sparton radios a cool and sleek appearance. Ebony-lacquered wood, chrome accent pieces and colored mirrors provided a simple but modern style. Asymmetric, geometric shapes and accent designs were distinctly art deco, with chrome strips that were reminiscent of the "speed lines" used in art deco illustrations of the period.

Up until now, the museum at InfoAge has displayed an example of this line of classic designs in the form of a reproduction Sparton 557 "sled" radio. This was quite a departure from the round Bluebird and Nocturne styles of 1935 and 1936, and it was a study in motion. It featured mirrors on the front, top and left side of the radio with a contrasting ebony lacquer finish and chrome-plated accent pieces. The left end was streamlined and the right end had chrome fins that were designed to give the illusion of movement and speed.

Recently, as a result of a most generous contribution, the museum has acquired an actual original Sparton mirrored radio...the model 409 "personal radio." (This radio is sometimes referred to as the "409-GL"; however, it is more accurately described as the model 409 with a 409-GL chassis.) Introduced in 1938 and selling for \$18.95, it was the last of Sparton's mirrored radios and was marketed as a second radio for the den or boudoir:

"Here is beveled midnight blue mirror glass modeled in a rhythmic, modern design enriched with touches of silver glints and ebony black. It is a magnificent, artistic coalition of contour and colors...a worthy successor to the widely accepted Sparton Bluebird model...a radio thoughtfully designed to harmonize with all interiors, whether modern or traditional. Truly an original and imaginative gift whose beauty and character are too elusive to be trapped in words."

In concept, the 409 does have the appearance of a miniaturized Bluebird 506. It consists of an inclined, "midnight blue" mirror (which also came in "peach") with the electronics housed in a rear, gray flock finish cabinet that is hidden from the viewer. The mirror is seven-sided with beveled edges with a cutout for the speaker. Two, black-lacquer feet support the mirror. The radio is surprisingly small...12" wide by 7.5" high by 5" deep. It was meant to sit on an unattached mirrored base of the same color, but only a few of these bases have survived. Unfortunately, the example at the museum is missing its base.

The cabinet encloses a 4tube, super-heterodyne receiver together with a ballast tube and resistance line cord. The tube lineup is as follows: 6A8GT (mixer/LO), 6J7GT (2nd detector), 25L6GT (power output), 25Z6GT (rectifier) and BK3AJ (ballast). The line cord and ballast tube are in series with the tube filaments and the speaker is electro-magnetic dynamic (moving coil with field excitation coil). Sparton recommended the use of a 50', 25-50' high antenna.

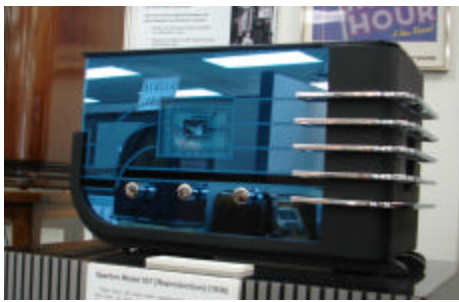
An interesting example of a modified Sparton 409 is described by a collector at TubeRadioLand.com:

"After purchasing this radio, I discovered that the original tubes had been replaced with a 35Z5GT, 50L6GT, 12A8GT and a 12J7GT, all having 0.15A filaments; the originals had 0.3A filaments. It turns out that this was a neat idea, since the substitution allowed the troublesome resistive line-cord to be disconnected, a definite safety enhancement! Other than filament characteristics, these two tube sets are interchangeable without any circuit modifications other than the bypassing of the potentially dangerous line cord and the removal of one connection from the socket of the 35Z5GT. Furthermore, for

the vintage radio purists, the original configuration may be quickly restored by replacing the original tube types and re-connecting both the line cord (which is still present) and the wire to the rectifier socket."

"It is interesting to note that the tubes now in this set were not available until a year or two after this radio was manufactured, once the "all-American Five" lineup had been established. Had they been available at the time of manufacture, it's highly likely these would have been used in preference to the original types."

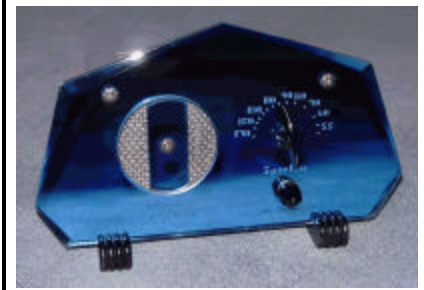
Of course, the museum's 409 will remain as-is. But hopefully, some time in the future, it will take its place as a central feature of a proposed exhibit of "designer radios." Finally, for the question that I will probably be dogged by this month if it is left out of this article...at the 2000 Michigan Antique Radio Club's "extravaganza," a Sparton 409 sold at auction for \$1400. You can take it from there.



The museum's Sparton 558 reproduction (courtesy of Phil Vourtsis).



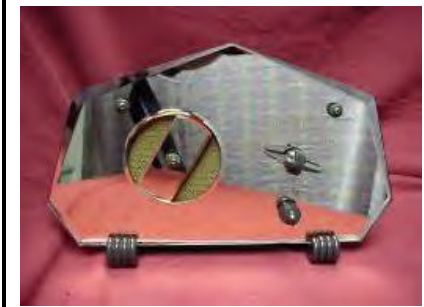
Another museum Sparton deco radio from the Phil Vourtsis collection... the model 5740.



The Sparton 409...a recent museum addition.



Side and rear views of the 409. Notice how the cabinet was designed to be hidden by the mirror.



The Sparton 409 "peach" version.



A "neat" way to eliminate the 409's original resistance line cord. The original tube lineup of 6A8GT, 6J7GT, 25L6GT and 25Z6GT has been changed to a 12A8GT, 12J7GT, 50L6GT and 35Z5GT with only one tube socket modification required. The museum's 409 "Sparton" tube lineup will remain "original."

## ELECTROMAGNETIC SPEAKER REPLACEMENT

Edited by  
Marv Beeferman

The February "Broadcaster" carried two articles that got me thinking. In the January Repair Clinic story, Phil Vourtsis talked about the restoration of his Victor International table radio. Phil said that following recapping, some resistor replacements and "IF tweaking," he could never obtain adequate speaker volume. He then borrowed an 8-ohm PM (Permanent Magnet) speaker, jumpered it across the radio's electrodynamic speaker's voice coil, but still could not get volume to improve. Never one to give up, Phil got the radio home and jumpered in a 4 ohm PM speaker; volume was now loud and room-filling. With a little experimentation, Phil also found that the lower the speaker impedance, the louder the volume from the PM speaker.

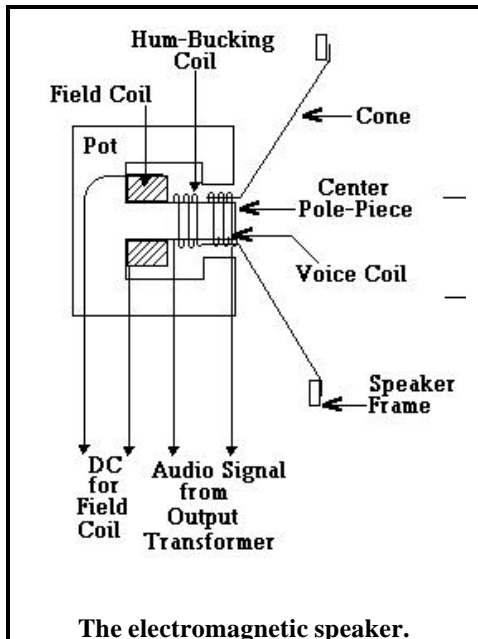
In a second article, we talked about electrodynamic speaker fundamentals and performing some operability tests on the speaker system for a Grunow 470 table radio. I don't want to go into too much detail, but an electrodynamic speaker system is comprised as follows:

- A field coil is wound on a center pole-piece that is part of the speaker assembly; DC current creates a strong magnetic field to operate the speaker.
- The field coil is used as a filter choke in the radio's power supply, which gives it a high hum component.
- To reduce hum, a buck coil (consisting of a few turns of wire) is wound on the speaker's pole-piece and stationary to the field coil; it's connected in series with the speaker's voice coil.

In a way, Phil was blessed with low volume; this meant that his speaker system was fully operable and didn't require replacement. Shorted voice coils are rare, but shorted field coils are not uncommon with a subsequent reduction in volume. Whatever the case, improved volume from a 4 ohm PM speaker (approximately

2-3 ohms in resistance) in parallel with an original voice coil of about 2.5 ohms guarantees good volume from the PM speaker. But what if there's no speaker output? Does the same replacement scenario apply?

Unless a reliable substitute can be obtained from some junker, repairing open field or voice coils can get a bit intensive. However, when a PM replacement is considered, it gets a little more complicated than Phil's simple fix; you'll have to consider power supply ramifications. As stated above, an electrodynamic speaker's field coil is also used as a filter choke in the radio's power supply in addition to dropping about 100 volts. With no field coil in the PM speaker, you'll have to deal with this extra voltage and also provide necessary filtering.



The electromagnetic speaker.

Unfortunately, the DC resistance of a field coil (typically 800 to 2000 ohms) is much higher than the DC resistance of a filter choke. Therefore, the field coil substitute will require both inductance and resistance in series, with total DC resistance being more critical than the value of the choke to avoid too high or too low of a plate voltage. Any choke of about 8 or 10 Henries (with a DC resistance of about 150 ohms) will do as long as it can handle power supply current. Subtract the resistance of the choke from the field coil resistance (shown on most schematics) to obtain the value of the required series resistor.

Consideration must now be given to

the power rating of the resistor. Let's assume that a 1500 ohm resistor is used to replace a field coil with 70 mA of B+ current flowing through it. Squaring the current and multiplying by 1500 ohms gives us 7.35 watts. At least a 10 watt resistor should be used, with 15 watts being even better. Since the resistor will run rather warm, it should be mounted so that the generated heat will not affect other components.

A power resistor alone (without a series choke) that matches the resistance of the field coil might be also considered. However, extra filter capacitance may have to be added to keep power supply hum within acceptable limits and this might involve a little extra experimentation.

Some complications exist if field coil resistance is not shown on a radio's schematic. However, its calculation is relatively simple. First, determine the voltage drop across the coil by noting the voltage at its connection points and determining the difference. Then, using a tube manual, determine the total current drawn by the radio tube's complement (excluding the rectifier) by adding together each tube's  $I_T$ . By using ohm's law, the field coil resistance can be calculated. For example, typical values of an 80 volt coil drop and a total current of 60 mA will determine a field coil of about 1300 ohms. Of course, current values found in tube manuals are typical values and the actual current drawn for each tube can vary depending on how the set is designed; some adjustment of the final resistance may be required to get plate voltages in specification. Using a power resistor with a variable tap would work great in this type of application.

With the field coil replaced by either a resistor or resistor/choke combination, a PM speaker can now be used to replace the electrodynamic one. If the radio's output transformer is mounted on the original speaker, it must be removed and either mounted on the replacement speaker or on the chassis and wired to the new speaker.

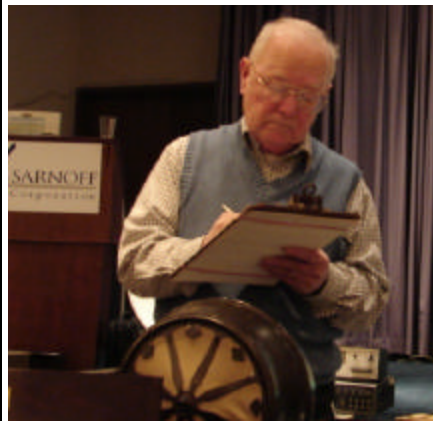
### References:

This information was compiled from various internet sources that include nostalgiaair.com, tubesandmore.com, radioremebered.org and ppinyot.com

March Auction Highlights



Auctioneer Al Klase takes bids for a Zenith Transoceanic with the aid of VP Richard Lee.



Ray and Edith Chase assumed the recording duties.



Consoles were abundant.



Turnout was heavy.



Your editor went home with this empty RCA tube caddy.



This Baldwin speaker sold for \$25.



A nice AK goes on the block.



Something for everyone.



One of the offerings of test equipment with Japanese dial markings.



This Stewart Warner 325 sold for \$60.

### THE NJARC IN NEWARK

On March 19th, Ray Chase, Al Klase and Harry Klancer presented an "Oldies but Goodies" program at the New Jersey Historical Society in Newark. This program was part of a lunchtime series of presentations dedicated to New Jersey Radio History which included InfoAge's Fred Carl's "Sending the Right Signals" and Rich Phoenix's (New Jersey Radio Museum) "Theatre of the Mind." Ray Chase reported an interesting side note to his presentation; the organizer of the series was not aware of the extensive number of "firsts" and memorable radio and TV historical events that had taken place in our state. As members of a club dedicated to the preservation of New Jersey radio, TV and entertainment electronic history, we should all be very proud in playing an important part in advancing public education in these areas through club events and our museum at InfoAge.



# Kutztown Spring 2008 Antique Radio Meet

Renninger's Antiques and Farmers Market  
 740 Noble Street, Kutztown, PA  
 Friday, May 9, Noon - ?  
 Saturday, May 10, 7am - 4pm



Sponsored by Renninger's Antiques and Farmers Market  
 Hosted by the Delaware Valley Historic Radio Club (DVHRC)

www.dvhrc.org

### Special Announcement!

Richard Estes, well-known radio auctioneer, will be holding a quality radio auction Friday evening. A limited number of quality consignments will be accepted. This is in addition to the Saturday afternoon general auction.

- ◆ Renninger's is located between Allentown and Reading, PA just off Rt. 222 ◆
- ◆ Rain or shine ◆ Meet held under pavilion ◆
- ◆ 2<sup>nd</sup> pavilion available for overflow – make reservations early!! ◆
- ◆ Free Parking ◆ Free Admission ◆ Free overnight camping. ◆

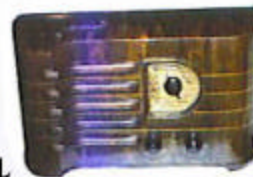
To reserve a table, contact Renninger's, Mon-Thurs (570) 385-0104; Fri-Sat (610) 683-6848. Reserve early!!  
 For more information on the show or information about consigning items in the Friday night auction, contact Stan Saeger (saegers@ptd.net, 610-967-5340) or Dave Abramson (dabramson@phillies.com, 610-827-9757).  
 For discounted hotel accommodations, contact the Allentown West Hilton Gardens, 610-398-6666. There are a limited number of rooms at the discounted rate, so register early. Be sure to mention the Kutztown Antique Radio Meet to receive the discounted rate.



# New Jersey Antique Radio Club's Spring Swap Meet



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



## Saturday, April 19, 2008

**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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