SoundWaves

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VRPS Summer 2025

From the President

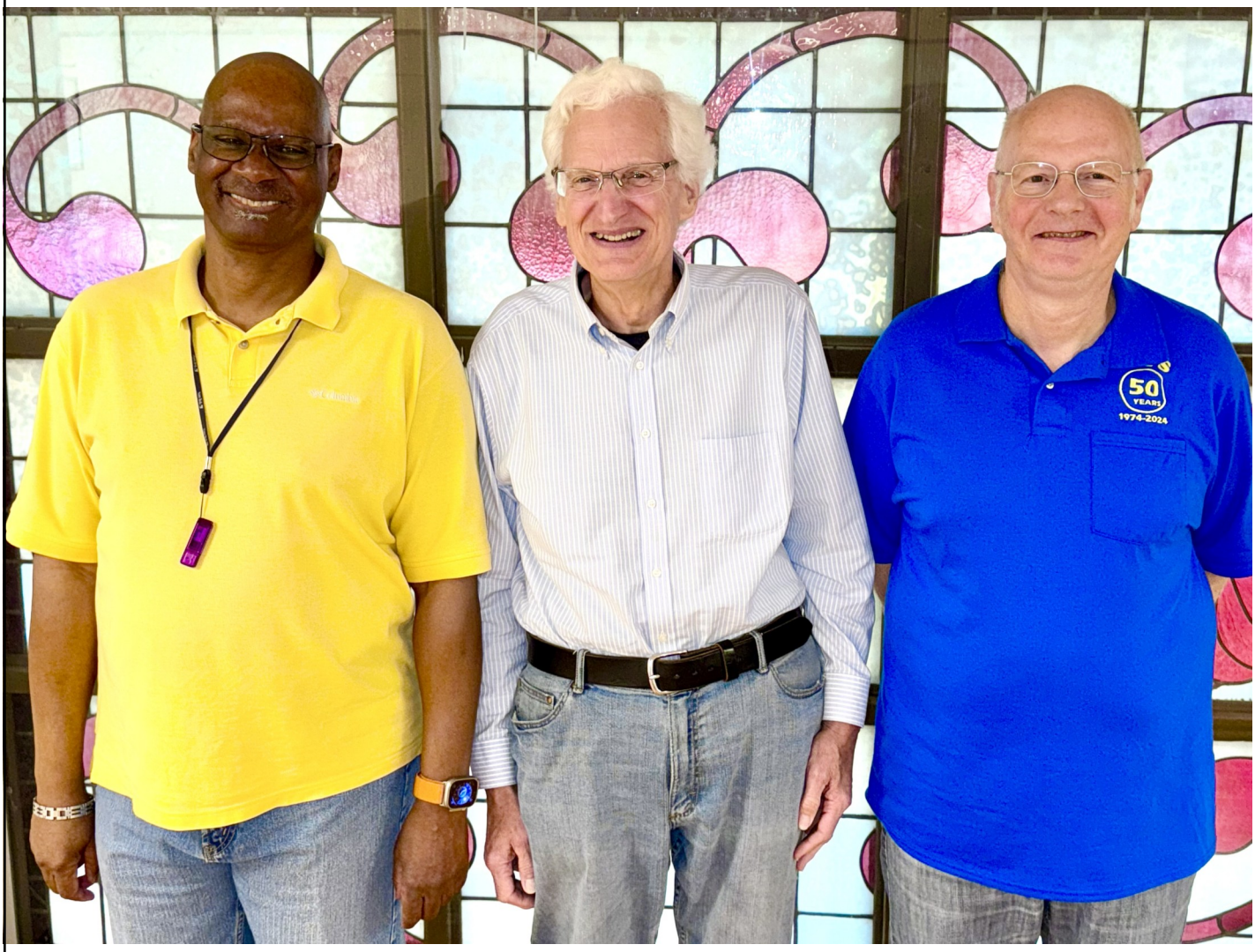
The summer months are definitely upon us and half of 2025 is officially in the record books. I have to tell you that, from my perch in this organization, I believe we are witnessing a resurgence in our great hobby. I come to that conclusion from key indicators I look at every time I write this quarterly article. The first check I make is of how many new members have joined the VRPS since the last article. In this case, since April, we have averaged at least one new member per month. Without looking at any other metrics, I would say this is a good sign of a healthy organization. However, I have another measurement I refer to. As most of you know, my wife and I own an auction business…and most of my auctions center heavily around my favorite hobby, vintage radios. As such, I have continued to add approximately 10 new bidders at every auction sale for the last three years. I believe this is a significant measurement of our hobby's health. But wait, I have another metric I track that may be even more important. Repair calls…

Yep, in case you have not checked our VRPS website lately, we have a statement on the homepage offering assistance to anyone who has an old radio or phonograph (remember, "old" is a relative term) needing repair. Mike Grimes and I are the two contact names listed on the homepage. Rarely a week goes by that we do not get an inquiry, sometimes multiple inquiries, for radio or phonograph repair. Now, I will readily admit that few, if any, of these inquiries lead to a new VRPS member. However, it shows a very real interest in vintage radios and especially 50's to 80's era audio equipment.

While Mike and I are capable of performing most needed repairs, generally we act as a referral service to the few qualified technicians we are aware of in the area. While all of our "technicians" are willing to talk with the customer, and actually do the needed repairs, each has a similar line to the customer…expect a 3 to 6 month wait before they can work on any new repair jobs. I say all of this to make one point. If you are a qualified and competent radio technician, and are willing do repairs for a non-club member (the public), then drop me an email or call me. Saying this another way, there is a real need for qualified radio technicians.

Welcome to our most recent new members, Bob Baker, Paulo Oliveira, Mike Mastin and Diana Cangelosi. See you at a monthly meeting.

--Jim



April 19th Garden-& Arts -- Phonograph & Radio Patents 1877 to Present. Our trifecta of talent: Eric Kirst, Kenneth Brent and Kurt Ehrlich, explore how key patents provide insight on a variety of companies covering Radio and Phonograph Patents and Intellectual Property. Notes by Mark Walden

Part 1: The Phonograph
The presentation begins with an exploration of phonograph-related inventions, primarily focusing on Thomas Edison's contributions. It highlights his Tin Foil Phonograph and an improved phonograph patented in 1888, which utilized wax cylinders. The Graphophone, an advancement over Edison's design, is also noted. The presentation references the Aretino brand, detailing components such as the Aretino record, spindle, disc player with horn, and badge. A historical photograph of Edison, captured at 5:30 a.m. on June 16, 1888, shows him working on the phonograph, surrounded by wax cylinders and an electric battery. The presentation notes that the cylinder phonograph appeared in early Biograph movies, underscoring its cultural impact.

Part 2: Radio-Related Inventions and Patents
The second part of the presentation delves into pivotal radio technology developments. It describes John Ambrose Fleming's Diode, known as the Fleming Valve (1906), which leveraged the Edison Effect to polarize current flow. Lee De Forest's Audion, a triode patented in 1908, is presented as a voltage-controlled current valve that enhanced the sensitivity of oscillation detection.
Edwin H. Armstrong's contributions are extensively covered, including his invention of regeneration (1914, 1925),

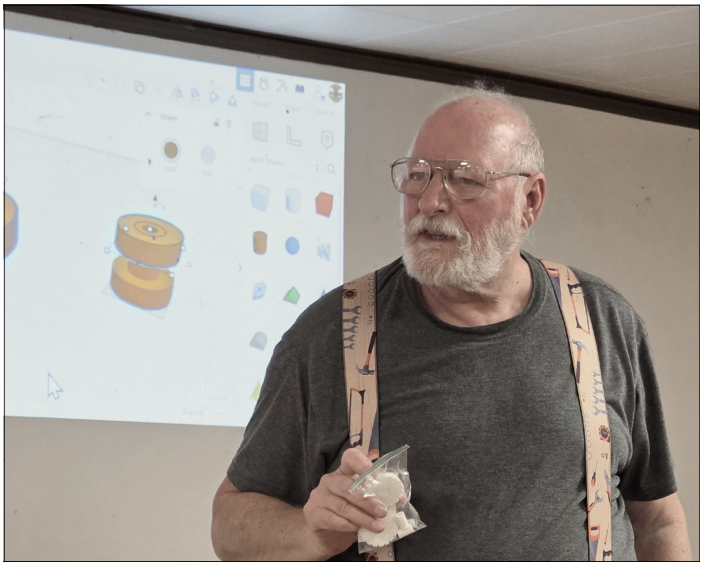
which applied positive feedback to increase gain, though contested by De Forest in a legal dispute. Armstrong's superheterodyne receiver (1920), co-developed with Lucien Levy, is recognized as a cornerstone of modern radio receivers. His frequency modulation (FM) system, patented in 1933, introduced a novel method for modulating the frequency of transmitted waves.

The presentation also discusses Harold Stephen Black's Negative Feedback Amplifier (1937) which improved amplifier stability. It further explores a series of vacuum tube innovations: Walter H; Schottky's Screen Grid Tetrode (1916) reduced capacitance, enabling greater amplification; Gilles Holst and Bernhard Tellegen's Pentode (1926) incorporated an additional grid to address secondary emission; Stuart Ballantyne and Harold Snow's Remote Cutoff Pentode (1929) facilitated gain control in RF and IF amplifiers; Beam Power Tetrodes (1933), developed by EMI engineers, were widely used for power amplification; Albert Hull and William Ruggles' Indirectly Heated Cathodes (1933) enhanced cathode efficiency; RCA's Pentagrid Converter (1939) combined oscillator and signal mixing within a single valve.; Herbert Wagner and Allen DuMont's Tuning Eye (1936) provided a visual indicator for signal strength. The presentation covers Louis Hazeltine and Harold Wheeler's Neutrodyne Receiver (1925), which neutralized triode capacitance to prevent parasitic oscillations. Harold Wheeler and Harold Snow's Automatic Gain/Volume Control systems (1932–1937) ensured consistent radio output. Finally, Edward Kellogg and Chester Rice's Dynamic Loudspeaker (1934) utilized a voice coil and magnet to produce sound, revolutionizing audio output. Through these patents, the presentation illustrates how inventors like Edison, Armstrong, and others laid the groundwork for modern audio and radio technologies, shaping the evolution of communication systems.

Part 3: Intellectual Property Overview

This portion introduced intellectual property (IP) as creative works or ideas embodied in physical form, enabling others to create, emulate, or manufacture the concept. It identified four main IP types: patents, trademarks, copyrights, and trade secrets, outlining the characteristics, benefits, and requirements of each category.

[continued on page 6]



June 21, 2025 VRPS Meeting --Update on 3-D Printing
Notes by Margaret Bryant

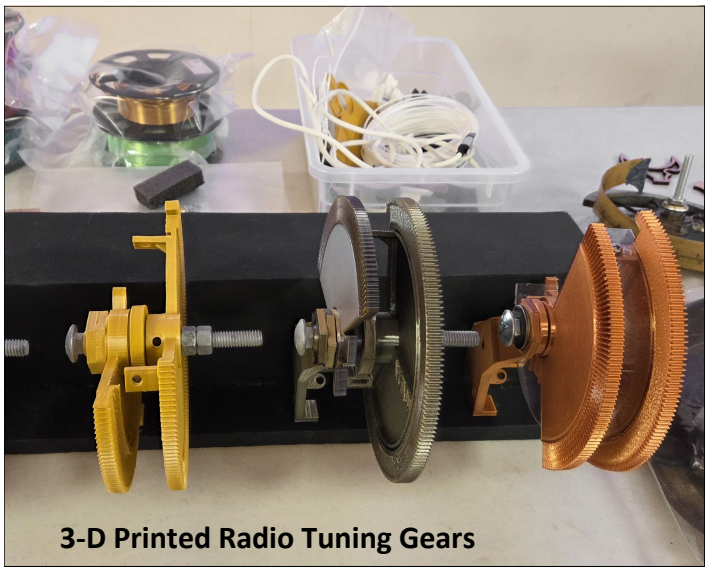
Smartest guy in the room won this month by Dave Seymour.

Speaker was Ron Carroll talking about 3D printing.

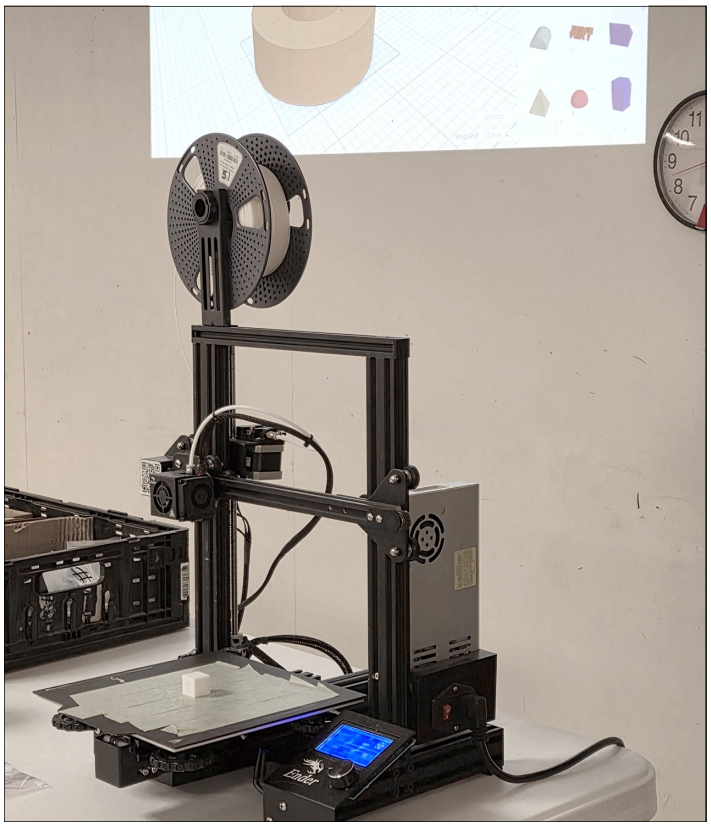
3D printers can be used to “print” many parts used by people who restore old radios and old phonographs. These parts might be unobtainable in the real world, but parts like knobs, escutcheons, feet, rubber belts and rubber bushings can be made using a 3D printer. Ron emphasized that there is a steep learning curve with 3D printing, but it can be worth the effort. The industry is changing rapidly, so buy an inexpensive printer to start out, then once you get proficient, you can upgrade to more expensive equipment. There are many types of “filament” on spools that are the material used with the 3D printer to “print” out the various parts. (See photo of tuning gears for radios)

The first thing to be done is to create the data files needed to instruct the printer how to print. Ron uses free CAD (computer aided design) software called Tinkercad (tinkercad.com). Ron then demonstrated how he starts with a drawing of a cylinder in the CAD program, and modified it to replicate a gear that might be used in a radio. It is a time intensive process! Ron also uses Prusa Slicer software to prepare the CAD drawings for printing (theprusaslicer.net). Prusa also makes 3D printers.
There are lots of free videos about 3D printing on You Tube. If you do not want to design your own parts, you can use projects designed by others. There is a web site, Thingiverse.com where people share their designs that anyone can download and use.

Overall, a very interesting presentation! All sorts of parts made of different materials can be created with 3D printing. 3D printing does have a steep learning curve, and can be expensive, but Ron gave many tips on using free software to ease the cost of starting out.



3-D Printed Radio Tuning Gears



¡ Hasta la vista KAAM! Dallas area AM Radio Station 770 went dark on July 7, 2025.

First Dallas Media is receiving the license of Christian Preaching 770 KAAM Garland/ Dallas TX from DJRD Broadcasting as a donation valued at $1,885,128. The deal does not include the KAAM tower site, which was sold separately. KAAM had recently gone silent due to the loss of its tower site. .. As the end result, KAAM is temporarily silent.

From: Venta, Lance. "Radio Insight." Station Sales Week of 7/11, July 11, 2025. https://radioinsight.com/headlines/303926/station-sales-week-of-7-11/.

A short history of 770 from Mike Shannon's DALLAS-FORT WORTH AREA AM STATION HISTORY 1920 - 2024+ KAAM, Garland.

Call letters re-established 11/1/1999. Nickname: "Legends 77", "K-Double A-M," "Where the Legends Live." Owner: Crawford Broadcasting (to 2007,) Don Crawford Jr dba DJRD Broadcasting (started 2007.) Format: Religious (started 6/5/2017,) Oldies/Big Band/Adult Standards (11/1/1999-6/5/2017.) Call letters stand for "Keep Absolutely Awesome Music" (a backronym.) Formerly broadcast in stereo. Programs: "Sunday Night Bandstand," "Big Band Bash," "The Breakfast Club," "Saturday Sock Hop," "Sinatra and Friends." Notables: Ken "Hubcap" Carter, Linda Martin, Jaan Kalmes aka Jaan McCoy (PD and host of "The Breakfast Club,") "Deacon" Don Evans (holdover from KPBC-770,) Hermann Bockelmann, Bill Bailey, Tammy Dombeck, Steve Simmons (with KPBC-770 1990-99; returned to 770 in 2002,) Bill MacCormick aka Bill Dennis (began 1976; PD; started with Crawford at KPBC-1040AM,) Eddie Hubbard, Joe Lacina, Jack Carlisle, Jack Davis (was concurrently PD for KKGM-1630,) "Willie B," Charles Kuenzi aka Johnny Michaels (to 10/2004; former longtime personality at KNUS, KVIL and KLUV; a holdover from KAAM-1310 and KAAM-620; not the same as KZPS/KZEW's John Michaels,) Chuck Brinkman (began 2006; hired after an 18-year stay at KLUV,) Jerry Overton, Tori Logan, Tom Goodridge, "Cruisin'" Al Taylor (as host of "Saturday Sock Hop,") Ray Van Steen, Don Keyes, Dick Roth aka Dick Marshall, Dave Mitchell, Irv Jackson aka Jack Bishop (to 2006,) Bill Bailey, Cary Richards (as host of "Sinatra and Friends," "Big Band Bash" and "Sunday Night Bandstand.") 3rd incarnation for KAAM and this format (see entries at 1310 and 620.).

Note from the editor: After I moved back to Dallas in 1988, I enjoyed listening to Hermann Bockelmann, host of "Europe Today". If anyone finds "The Best of Bockelmann" please let me know.

A short history of AM radio in the Dallas area from: Mike Shannon's website again: https://www.dfwretroplex.com/amlist.html

The success of AM radio after the advent of television can be attributed to the late Gordon McLendon, who started station KLIF -1190 in 1947. KLIF became a trendsetter that was reportedly the most copied station in America. McLendon was one of the creators of Top 40 playlists, a staple of programming that continues today.

From: Shannon, Mike. n.d. "DFWRETROPLEX.COM - History of Radio in Dallas - Fort Worth, Texas - AM." https://www.dfwretroplex.com/ amlist.html.

[continued from page 3] The United States Patent and Trademark Office (USPTO) protects inventors and authors by granting patents, administering patent law, reviewing applications, preventing duplication, and resolving conceptual overlaps. It also records assignments, handles appeals, maintains research facilities, retains electronic and physical copies, and assists government bodies. The USPTO's services support research, provide instructional information, and confer professional legitimacy and recognition.

Patents protect technical inventions, chemical compositions, mechanical processes, and machine designs that are new, unique, and usable. They grant exclusive ownership, preventing others from copying, making, using, importing, exporting, or selling the invention without consent. Patent types include:

Design: Covers new, original, ornamental designs for manufactured articles (15-year protection).

Plant: Protects new or distinct plant varieties (20-year protection).

Utility: Encompasses new, improved, useful processes, machines, or compositions (20-year protection).

Requirements include a functional invention with a clear description, novelty, and non-obviousness. Patents cannot cover natural laws, physical phenomena, abstract ideas, or nuclear technologies. Applicants can include inventors, co-inventors, legal representatives, or contractually bound entities. Patent applications must include sections like abstract, background, summary, description, drawings, and claims. Examples cited include patents by J. Hollingsworth (1865), S. D. McKelvey (1985), and G. Marconi (1899, 1900).

Trademarks protect words, phrases, designs, or combinations that identify specific goods or services, distinguishing them from others. They prevent unauthorized registration or use of similar marks for related goods. Examples include Coca-Cola®, Where's the Beef®, and Filet-O-Fish®. Trademark types include:

Registered (®): Protected by USPTO for 10-year increments.

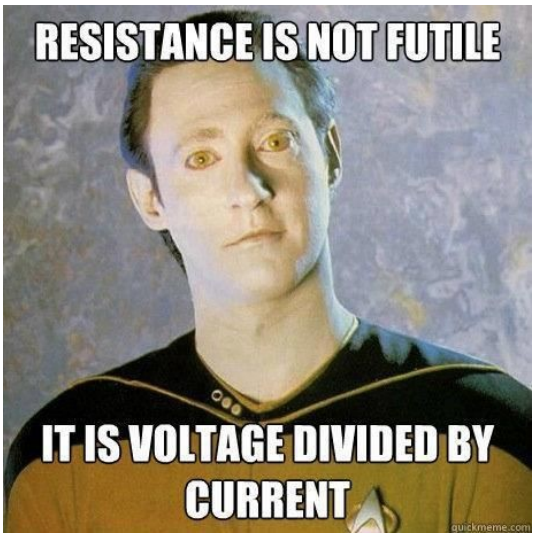
Unregistered (™, SM): Proprietary to a business.

Certification and Collective Marks: Indicate standards or organizational membership.

Copyrights protect original works fixed in a tangible medium, independently created with minimal creativity. Protection lasts the author's lifetime plus 50–70 years. Benefits include exclusive control over use, public dissemination, and infringement remedies. No registration is required, but it enhances protection, establishes a public record, and is necessary for litigation. Applicants must submit completed applications, fees, and exact work copies. The presentation notes there is no automatic international copyright, as protection is territorial.

Trade secrets cover information with economic value, not generally known, and maintained under secrecy. Protection is supported by the 1996 Economic Espionage Act and 2016 Defend Trade Secrets Act, allowing courts to stop misappropriation, protect secrets, seize misused secrets, and award damages. Examples include the Coca-Cola formula, Kentucky Fried Chicken recipe, and Jim Beam whiskey formula. No specific benefits are guaranteed unless documented, and secrecy must be maintained.

The presentation concluded with a thank-you note and an invitation for questions, emphasizing the importance of understanding IP for inventors and creators.



Updated Old Equipment Contest Categories for 2025 VRPS Convention

1. Crystal Radios
2. Non Radio Electrical Equipment Pre 1940
3. AC Table Transformer Radios Pre WWII
4. AC/DC Non Transformer Radios Pre 1960
5. Transistor Radios Pre 1965
6. Console (Floor) Tube Radios
7. Phonographs and Related Accessories Pre 1960
8. Novelty Radios-Tube or Transistors
9. Radio Related Ads, Ephemera, and Accessories
10. Test Equipment Pre 1950
11. Table Top Art Deco Radios (Includes Catalin, Chrome Front, Others
12. Battery Radios Pre 1928
13. Foreign Tube Type Radios
14. Microphones and Speakers
15. Home Brew or Kit Radios
16. Open -Radio Related Items Not Belonging in Other Categories
17. Theme - Shure Manufacturing. Check out their "About" page to learn more about them

https://www.shure.com/en-US/about-us/100years

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2025 Convention will be October 24--26 in Grapevine, Texas. Details on *www.vrps.org*

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MONTHLY MEETING PROGRAMS 2025

NOTE: Programs will be held at various locations in Irving, Texas. Make note of the location as they may change from time to time. Senter East, 1000 Senter Road; or Garden and Arts, 906 S Senter Rd. Maps are located on the WEB site, www.VRPS.org EVENTS page. Programs start at 2pm. unless otherwise noted. Call us if you get lost: 972-898-7251 or 972-742-8085.

Programs are subject to change, contingent on scheduling conflicts. As always, your suggestions for programs/content are welcome. I need volunteers to organize other programs, so consider presenting a program yourself. Call anytime or send an email: **Larry Lindsey email: pipilindsey@tx.rr.com telephone: 817-312-8761.**.

- July 19th — Senter East, Irving, TX — 1pm-5pm — Annual Repair Session
- August 15th — Senter East, Irving, TX — 1pm-5pm — Tube Tester Forum
- Sept. 20th — Senter East, Irving, TX — 8am -Noon — Fall Tailgate Swap Meet
- Oct 24,25,26 — Grapevine Convention Center — Annual Convention
- Nov 15th — Senter East, Irving, TX — 1pm-5pm — TBA
- Dec 13th — Senter East, Irving, TX — 1pm-5pm — Annual Christmas Party