



Super Wintermeet, March 4th!

OSCILLATOR

DELAWARE VALLEY HISTORIC RADIO

The Official Newsletter of the DVHRC *Vol. 8. No. 2. February.*

2000 AT A GLANCE

Mark your calendars!

- Feb 20 Radio XXXI – Westford, MA
- Mar 4 Super Wintermeet 2000 – DVHRC
- May 19-21 Dayton Hamvention
- June 15-17 Radio Activity 2000 – MAARC
- Aug 4-6 Radiofest XIX – Elgin, IL
- Sep 6-9 AWA Convention, Rochester, NY

JANUARY MEETING

By Dave Snellman

Welcome to the first DVHRC meeting of 2000! Y2K is has come and gone without a hitch. Attendance was a little light, but those who came to the meeting witnessed one of the more exciting meetings in a long time. Read on for the details.

Lots of club activities to report on this month. First off, our “SuperWintermeet 2000” is coming up. It will be held at the Grimes Center in Havertown, PA on March 4, 2000. Vendors will be able to set up at 7:30 AM, with buyers admitted at 8:00 AM. We lined up a set-up crew for the night

before. Phil Fabrizio, Bill Overbeck, Dave Snellman, Ted Sowirka, Mike Koste, and Abe Molliken all “signed-up” for set-up duty. Anyone is invited to assist in the set-up. It will start Friday night, March 3rd at 6:00 PM. If you want to volunteer, give Bill Overbeck a call at 610-853-3199. An auction is planned for the meet as usual. If anyone knows of, or plans to bring, an “estate” for auction, please give Pet Grave a call at 610-847-2214 prior to the meet.

Phil Fabrizio was busy collecting dues at the start of the meeting. Yours truly was kept busy updating the membership roster for 2000. Look for the “2000” or “00” on your mailing label. That means your dues are current. If you still see “99” then it’s time to pay up. Phil and I are trying our best to get all records up to date and keep them that way. If you’ve paid you dues and still have “99” on your mailing label please let me know as soon as possible. If you’re paying by check, please write “DUES” in the memo section. We are collecting money for the swapmeet at the same time, and with the table cost and dues the same amount, we want to make certain your money is properly credited. (If you’re paying for a table, please add “SWAPMEET” or “TABLE” in the memo section.) We had a lot of confusion last year and don’t want to repeat that again this year.

The updated membership roster of those who paid dues through January 11th has been forwarded to Al Klase, the Oscillator editor. You should see your mailing label reflect your payment.

SPECIAL NOTE: If you plan to pay your dues at the swapmeet, PLEASE pay by check and mark it for dues. If you want to pay with cash, please put the money in an envelope (We’ll have them available at the meet.) and print your name on it. We had a number of people pay at the meet last year and in the confusion of the day, their dues got mixed with the table money and some lost their “Oscillator” subscription. Again, we want to avoid that this year.

Pete Grave, well-know collector of “boat-anchors” reported some good news, I should say great news for collectors of military radio sets. Michael Crestohl, editor of the *CCA Signal*, along with the help of the CCA has managed to convince the powers that be (a.k.a. the government) not to arbitrarily “de-militarize” surplus radio gear. For those not familiar with the term “de-militarize,” it basically means the unit was destroyed or made useless instead of offering it up for auction on the surplus market. This should mean that we’ll see

COMING EVENTS

Feb. 18-27	NJARC BCB DX Contest
Mar. 4	Super Winter Meet IV
Mar 10	NJARC Meeting, Freehold, NJ
Mar 12	Hamfest, York, PA
Mar 14	DVHRC Meeting, Telford, Pa
Mar 18	Cherryville Hamfest, NJ
Mar 25-26	Hamfest, Timonium, MD
Apr 9	Hamfest, Tall Cedars, NJ
Apr 11	DVHRC Meeting, Telford, Pa
Apr 14	NJARC Meeting, Freehold, NJ
April 30	Hamfest, New Castle, DE

THE OSCILLATOR

*Newsletter of the
Delaware Valley Historic Radio Club
P.O. Box 847
Havertown, Pa. 19083*

The *Oscillator* is published monthly by members of the non-profit DVHRC. Its purpose is to provide a forum to educate, inform, entertain, and communicate with collectors and preservers of vintage radio technology.

We welcome and solicit information relating to radio history or collecting. Submissions should be carefully researched, typed and accompanied with clear photographs or diagrams. Material on-disc (3-1/2" DOS/Win95) is particularly welcome.

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Personal views, opinions and technical advice offered in this newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling transaction incurred.

To join: DVHRC dues are \$15 per year. The membership year runs January-through-December. Please mail to the club PO box above.

Meetings are held the second Tuesday of the month at 7:30 PM

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COPY DEADLINE: The 20th of each month.

"new" vintage gear at sales and auctions in this new year. For more information, check out the Internet at www.thebizlink.com/am/drms/drms.htm. You can also check the Collins Collectors' website at www.collinsradio.org/html/demilitarized.html

We had technical presentation by Ted Sworika on the history of television. Ted brought along one of his videos captured from the "History Channel" for all to see. It traced the history from John Logie Baird to the present.

The evening's surprise highlight was the auction! I know we've had theme auctions, specialty auctions, and even "high end" auctions, but this one took the prize. Mark Zaharchuk, a friend of Ted Sowirka, brought along a "couple of boxes of tubes" that he liberated from someone's attic recently. Well, once the "natives" saw what was in the boxes, I knew we were in for a frantic auction. Pete Grave and myself had quite a time as bids were flying as others were pawing boxes to see the contents. We almost needed the local constabulary to control some of the crowd! (Just kidding.) The first box I saw contained 6L6's. I saw new 6E5 eye tubes. Many happy campers took home box after box of GOOD tubes. All these tubes were at least 30 years old as evidenced by the fact that most were individually wrapped in newspaper from 1970! We hit an auction record - \$78 paid for one box of tubes. I couldn't see the contents, but someone saw something in there to make for a fierce bidding war.

Tubes weren't the only auction venue this month. We had some nice radios, a pink Zenith Royal 500 and an Emerson 888 to name a few. Some books and other paper materials, too. A nice SONY reel-to-reel deck and a lifetime supply of tapes went on the block.

So what looked at first like an uneventful meeting, turned out to be a real "barn-burner." Let's keep that momentum up for the rest of the year! A big thanks goes to all who participated. A special thanks goes out to Mark Zaharchuk for bringing the boxes of tubes that made some many people happy tonight. That's all for now.

Just a reminder - It's time for the 1999 dues. The membership dues are \$15.00. (Remember membership runs from January to December.) Dues can be paid at any regular monthly meeting or send your check to DVHRC, P.O. Box 847, Havertown, PA 19083.

Those wanting a table for the March swapmeet should contact Bill Overbeck ASAP. We expect a sell-out again this year. Tables are \$15.00 per table in advance. You can send your check to the address listed above. Again, please mark it for "swapmeet table" so we don't confuse it with membership dues.

See you all in February. The eighth is the day. Telford Community Center is the place. 7:30 PM the time.

OLDE AUDIO

Bob Thomas, W3NE

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The most memorable events in the early days of olde audio were the annual Audio Fairs sponsored by the Audio Engineering Society and *High Fidelity* with support from all major manufacturers. The Fairs were held in ordinary guest rooms in (I think) the New Yorker hotel. Each company had a room or suite, so one can easily imagine the din created by an industry based on making loud sounds, each trying to rise above their neighbors! But attendees loved it as they shuffled through jammed hallways from one exhibit room to another, usually just browsing, but sometimes searching-out a new technology or a product rumored to be shown here for the first time.

And so it was that Magnecord made a big splash every year with their latest tape recording wizardry. Four elements characterized Magnecord machines: 1) “sortof” broadcast performance; 2) a price within reach of well-off enthusiasts; 3) heads with lossy solid metal cores that rapidly acquired a groove where the tape eroded the soft core, and; 4) hiss, Lots and LOTS of tape hiss that did not seem to bother too many listeners for, after all, we were experiencing response out to 15kc. (at 15 i.p.s)! Not only that, Magnecord seemed to have a new hook every year. Their first showing was the new and revolutionary – for its time – Model PT-6, what would be considered a less-than-basic recorder today. This was followed the next year with the PT-66, now with three heads so you could monitor a new recording directly from tape. The next year they introduced binaural sound by recording *two* tracks on quarter-inch tape. WOW! The recordings were made with two signals picked-up by an artificial head with an Altec miniature condenser mike in each ear canal. There is no mixing of right and left channels in a binaural system, so the reproduced audio retains nearly human phase and amplitude relationships by virtue of the life-like head dimensions, making binaural sound as near as one can come to actually sitting in the audience. When you put on the earphones and heard a playback of a live concert it was very impressive, but when you heard applause coming from all around – wonder of wonders – that was nirvana, and an experience I will never forget! From then on, Magnecord trotted out various tricks like a sliding second playback head for variable delay effects and four-track recordings, but they never seemed to make much progress with hiss reduction and they eventually succumbed to competition from Ampex and European products. Still, Magnecord made an indelible impression on the audio industry.

Other manufacturers showing products at Audio Fares were Altec Lansing and their gigantic “Voice of the Theater,” folded exponential horn speaker system originally designed for behind-the-screen motion picture sound driven with a W.E. 300B tube power amplifier. Gold plated 0000-AWG Monstrous Cable was *not* used for connections in that setup; audio enthusiasts of that era were not easily fooled. Altec Lansing also manufactured Model 604B 15” coaxial monitor speaker, and numerous British manufacturers attended with speakers and amplifiers using strange sounding tube types, like KT-something or other; we tended to ignore them(!). After graduation and in a new job, my first priority was to run down to Radio Electric at 7th and Arch to buy an Altec 604C, all forty pounds of which had to be lugged home on the subway. My new 604C supplanted a 12” Jensen with a four pound Alnico-1 magnet, probably a pre-war leftover, purchased for \$12.50 in 1944 and still going strong in its original boomy bass reflex cabinet.

Pickup manufacturers included GE with the first low cost variable-reluctance pickup, Shure, Pickering and Paul Weathers, whose New Jersey firm led the way in low stylus force and low arm inertia from its balsa wood arm and a near-zero tracking force FM-based pickup, not unlike the one in Gernsbach’s book! The manufactured by Pickering was in static balance, enabling playback with the platter vertical. On the disc recording side there was of course the Scully Lathe, the defacto mastering machine (don’t ask how much it cost, you couldn’t afford one) and some lesser machines from Rangertone and Presto. I saw a complete Presto professional portable disc recorder at a recent MARC Radiofest on sale for \$8.00 with no takers; made me want to cry.

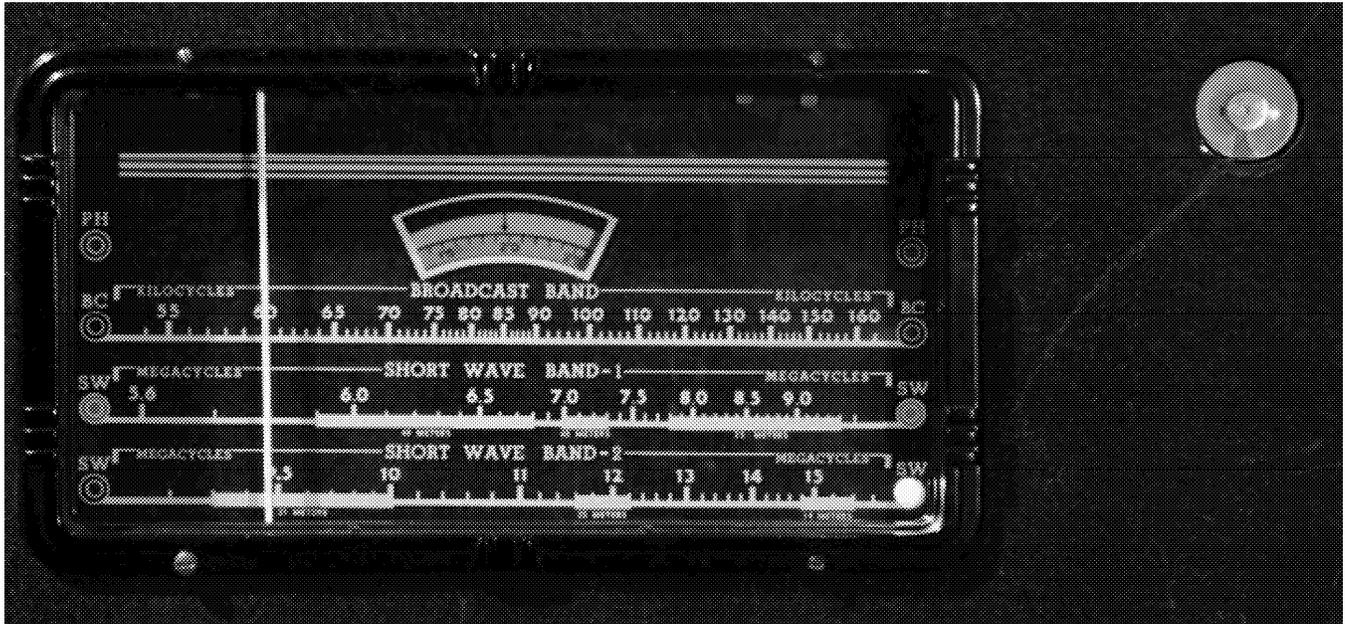
An entrepreneur named Emory Cook introduced an innovative approach to binaural discs. These discs were recorded with one band for the right channel, and a second band for left. They were played with a special arm manufactured by Pickering that carried two-pickups spaced by precisely the right radial distance so that when lowered onto the disc, each stylus dropped in corresponding right/left tracks for synchronized playback. It was a Rube Goldberg scheme, but by this time I had become a real audio nut and since I could not afford a binaural Magnecord tape machine, I invested in the special arm, two pickups and a bunch of Cook records to listen to the binaural organ music. As in the Magnecord binaural system, right and left channels were completely isolated so, on reproduction through earphones, the sensation was equivalent to being present at the original concert. My experience with binaural sound in those days spoiled me by the time stereo was eventually introduced with mike placement according to the moon’s phase, cross-channel mixing by some technician who may or may not get it right, and further

(continued on Page 6)

A Professional Broadcast Radio

By Al Klase

At the December NJARC meeting John Dilks handed me a radio he thought was a Hallicrafters. While it was, indeed, accompanied by a 10-inch Hallicrafters PM speaker mounted on a rack panel, and the confusion was compounded by a total lack of any identification of any kind, I immediately recognized the set as one of the E.H. Scott “low radiation” receivers. The Dean of DX built a series of “moral” receivers for the U.S. Navy as his part of the World War II effort. Part of the hype was a set of design features that reduced local oscillator and IF radiation to nearly undetectable levels.



I had previously owned an RCH, but this was more of an auxiliary communication receiver. It had a BFO and tuned the short-wave and long-wave bands and left out the broadcast band. I had also owned a Scott Phantom Deluxe, but found it less than satisfying. It was unduly complicated, with noiselimiter dual-loop AVC and a lot of other “elegant” stuff it didn’t really need. Furthermore, I was less than impressed with the quality of the components concealed under all those poorly-chrome-plated cans. I passed both these sets along to potentially more appreciative owners.

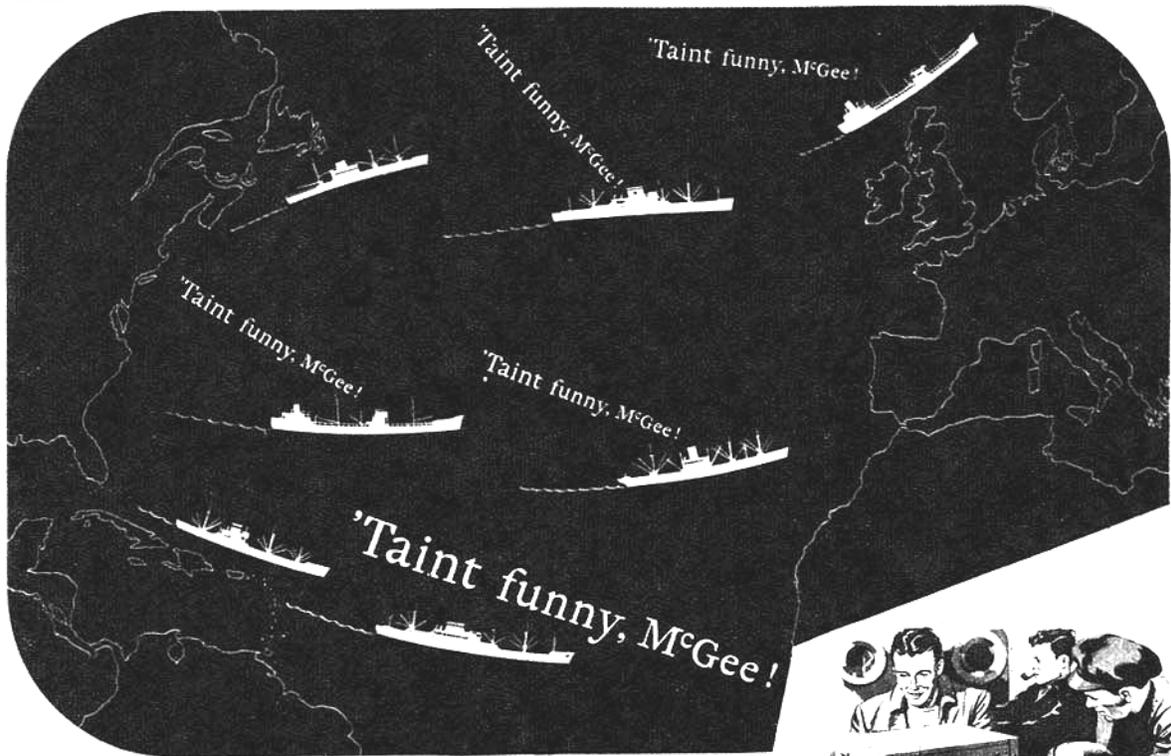
Careful examination of the Christmas present revealed it to be one of the early SLR (Scott Low Radiation) receivers, most likely a Navy RBO. The previous owner had discarded the original thin steel front panel and fabricated a new one from an 1/8” aluminum rack panel. He did a pretty good job, but never drilled the necessary mounting holes to attach the panel to the chassis, and I found it rattling loose on the control shafts. In the process the grab handles, RCA style knobs, and the identification plate along with the original cabinet were left behind.

With the exception of a few incomprehensible wiring mods, the set proved to be in very good electrical condition. This is largely due to the high quality components used in construction. The bypass caps are hermetically sealed “bathtub” types, and none seem leaky. The transformers and filter chokes are from Thordarson and are also hermetic units. Even the power-supply filters are sealed paper caps similar to the ones found in military Super-pro power supplies, they’re rarely defective. So what we have here is a broadcast radio built out of communication receiver parts rather than vice versa.

The RBO tunes the standard broadcast band plus the major international short-wave broadcast bands in the 5.5 to 15.6 MHz range in three bands. The edge-lit slide-rule dial with a highly precise circular 0-100 logging scale along with most of the basic circuitry was borrowed from the pre-war Laureate receiver. The dial cord was upgraded to phosphor-bronze cable. Colored lights identify the band in use, and an eye tube indicates signal strength.

To me, one of the hallmarks of world class broadcast receiver is variable IF selectivity. The SLR provides three settings: medium, 8KHz, for normal conditions yielding a 4KHz audio bandwidth; wide, 16KHz, for near-hifi performance, and narrow, 4KHz, for digging out listenable voice signals under poor band conditions. This flexibility is backed up by an effective tone control and a very smooth sounding, if not overly powerful, audio amplifier.

I really like this radio, and I’m listening to it via an Altec 604 cobbled into a Jensen bass-reflex enclosure as I write this. (I hope Bob Thomas approves of the speaker.)



But it is funny, McGee, to lonely sailors on the long haul to Murmansk . . . who listen with a Scott!

Now, gratefully, our men-at-sea listen to programs from home . . . safe from enemy direction-finders!

Sailors so far away that they may be hearing your favorite programs *a day earlier* than you—across the international date-line—or men in the lonely reaches of the northern waters who listen the next morning—bless the programs from home. And bless the Scott that brings them.



SCOTT
Marine Model
LOW-RADIATION
RECEIVER

•The Scott Marine Model is for ship-board use exclusively. We regret that, due to present restrictions, it cannot be offered to individual purchasers.

The Scott was a "natural" for seafaring use. Back in 1928, on a trip to Australia, it logged a Chicago station *every night*. It has been purchased in 154 countries before the war—proud possession of Indian potentates, ambassadors, consuls. Now, built to sea standards, it roams the world, and makes distances shorter for men who long for news and entertainment from home ports.

And of course the Scott is *safe*—its low radiation never detectable by enemy submarines. Engineered in the Scott tradition, it is built with the precision of a marine instrument, the staunchness of a man-o-war. As fast as we can build them—they are going on merchantmen, tankers, transports and American ships of every kind. After the war, we shall try to have one for *you*.



E. H. SCOTT RADIO LABORATORIES, INC.
4450 RAVENSWOOD AVENUE, CHICAGO

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unwanted mixing of opposite channels due to questionable speaker positioning. I have never experienced better sonic realism than that created by headphones and true binaural recordings, surround sound notwithstanding.

However, for better or worse, and for undeniable reasons, stereo was destined to emerge as the system of choice. While various approaches were being made to stereo recordings, it fell to Westrex to invent and commercially develop orthogonal two channel disc recording. An era had ended and publications changed in lock step, first with the popular commercialization of high fidelity audio, and then into stereo. As *Audio Engineering* passed into to oblivion, engineering issues became the exclusive purview of the *Journal* of the Audio Engineering Society, leaving *Audio Review* and their ilk to publish soft ball technical “overviews,” doo-wop record reviews, and useless equipment reviews biased by the magazine’s mission to protect its advertisers.

The resulting vacuum in honest performance reviews was filled by “The Audio League,” founded by Julian Hirsch and his buddy Houck. Their publication, funded by subscription-only (no advertising) and consisting of ten or twelve pages of poorly reproduced offset printing, was packed with meaty test data, graphs, and thoughtful comment on all classes of audio products. Hirsch and Houck were not daunted by lack of laboratory facilities; for example, loudspeaker response measurements were made outside in the back yard of one of the partners – you can’t get much more anechoic than that – and while most of their instruments were Heathkit quality, they turned out good, repeatable test results. Their basic approach to speaker testing was to compare each speaker to every other speaker in the test group until they were able to select the best of the lot, which then become their “Reference” in subsequent evaluations. It came to pass that the Acoustic Research AR-1 consistently emerged as the Reference, a situation that subjected their methods to criticism, but they never wavered from their methodology or their conclusions. They proved that the “Music Power” parameter favored by the EIA was virtually useless as an indicator of power amplifier performance, and constant hammering by Hirsch-Houck Laboratories eventually forced acceptance of more meaningful RMS specifications, at least as an alternative to misleading Music Power, for consumer product specs. Another finding of H-H Labs was that the main contributor of failure of many amplifiers of that era to meet their maximum output power specification was not the amplifier itself, but its power supply, which frequently lacked sufficient regulation to support full-power output. The Audio League eventually closed up shop, but not before exploding many audio myths. Julian Hirsch then joined Stereo Review where he was able to maintain his journalistic integrity – if you understood his code words and knew how to read between his lines!

By the ‘sixties the audio field had split into sharply defined professional and consumer categories. More recently, New Age audio snobs have emerged, convinced they hear nuances indiscernible to lesser mortals. These dilettantes obsess over anything non-digital and non-solid-state no matter how flawed, for example, single-ended tube-amplifiers without inverse feedback. On one hand they wallow in 1930s tube theory, and on the other they crave the latest *hype de jour* quack product, like wire claimed to be “Harmonically Accurate; Tonally Correct” (I kid you not). Such a pity that this self-centered mystique has usurped the innocence and awe we once felt for genuine milestone inventions and rational product development. The Olde Days of audio are gone for ever, but they were exciting and fun while they lasted

Letters

I read with interest the article on the Baird TV. It reminds me of the time in 1939 when I had a job in a newly formed TV store as a salesman traveling to local bars and restaurants to sell the RCA TRK-12 TV. I was ridiculed by the owners of The Brass Rail Bar and Grille in Pleasantville, NY, to the point that I gave up after wasting my own gas to travel, and went back to work for a radio repair shop.

I agree with the last words of Dave Abramson’s article: “Leave them alone.” It would be like trying to but a Cadillac engine in a Model-T Ford. They are history, don’t change them.

Sincerely,
Alton A. Dubois, Jr.

WANTED: Type 21LR8 electron tubes. FT-243 crystals 7040 to 7135 KHz. R. C. Yingling, 2 South Locke Ave., Yeagertown, Pa. 17099, (717)-242-1882

