

9/49

# DVRA



W 2 Z Q



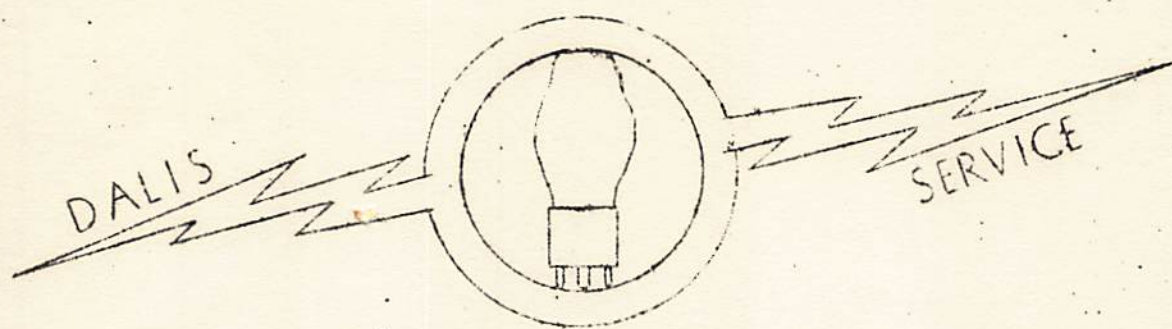
# NEWS

Official Publication of  
*Delaware Valley Radio Association, Inc.*  
Trenton, New Jersey



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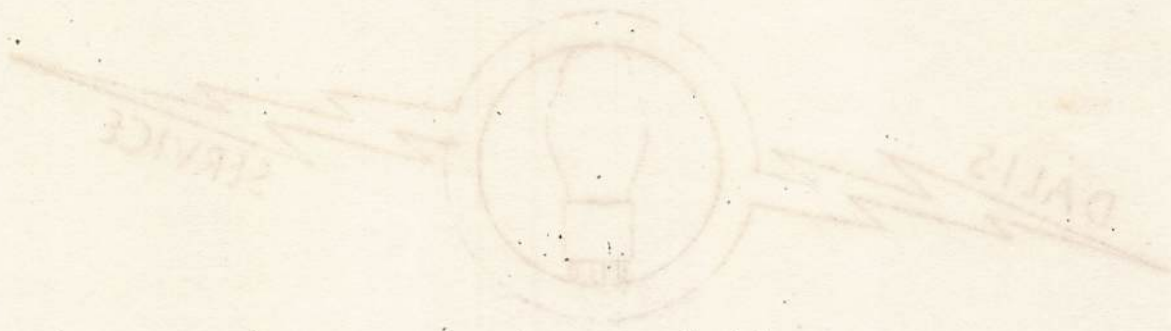
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Any visitor or prospective member attending one of our monthly meetings would, in all probability, wonder if this could be the same D. V. R. A. that he has read about in QST or some other publication. The monthly meeting is supposed to be a club activity, with all members taking an active part, offering suggestions or giving their pros and cons on some issue for the good and welfare of the organization. It is really discouraging to see someone make a motion or suggestion and have only 3 or 4 fellows listening to him, and the rest of those in attendance talking among themselves or two or three guys rag chewing on the other side of the room. Lets get the club rolling again fellows, up on the top with the rest of 'em. Show your interest in the club by attending the meetings regularly, volunteer for committees, take an active part in the meetings, voice your opinions. Lets make the meeting night really something to look forward to. With fall and winter coming on, and more fellows getting active again on the air, club interest should also pick up. Lets work together and try to make the D. V. R. A a lively and efficient organization. With the clubhouse coming up, and some good lectures and movies on the agenda, every member should make it a point to show up at each monthly meeting. We have the meeting notice cards moving again, and a couple of good men on the refreshment committee providing swell refreshments after the business meeting. So lets fill up a page in the log book at the next meeting. Wat say gang?

W2UFS



## News and Views

Wonder how many of the boys heard W2QOK working from his vacation spot at Ocean Beach. Les solved the antenna problem very nicely by filching one of his sons box kites to which he attached some number 20 wire for an antenna. He tells us that he has worked more stuff with the kite than "B" Wentzel has ever heard.

As a matter of fact Les has used the kite antenna for all of his many contacts with submarines. No foolin tho, a kite or a small gas filled ballon is a pretty nice way of getting around the 80 & 160 meter antenna problem that is if you can keep the DC 4's away from them.

\*\*\*\*\*

Congratulations to the New Section Communacation Manager Mr. Mkitarian W2ASG. Amateurs of the Southern New Jersey Section have cast their ballots and unanimously elected him to this important post. W2ASG is an active and progressive amateur and seserves the full support and cooperation of our section. One of the S.C.M.'s many duties is to submit a report once each month on the general activities of the section. This information he must get from you. Any activity or events that may be of general interest should be reported to your S.C.M. by card or phone regularly in order to have a real informative column in QST.

\*\*\*\*\*

"B" Wentzel tells us about a swell vacation trip he took this summer. "B" took off for the New England States to visit some of his 75 meter phone friends as a matter of fact he took 75 meters along with him in the form of a BC474 mobile rig. When ever he came upon a DX'Y looking spot "B" would stop and string an antenna to a pole or tree and give with a IQ. From these carious locations he worked into all the WI states and down into N.J. as well. WIARV was found to be the head of a small telephone company and invited "B" to spend a few days with him. WIPTL is supervisor of a plywood mill and took his guest on a tour through the place. WIJOC is the Mayor of a town in Maine and His Honor having worked enough for one day closed down the city hall and entertained the wondering Ham at dinner followed by a two hour speed boat cruise through the neighboring lakes. This trip is a wonderful example of the good fellowship that exits in the amateur fraternity. But all was not well. "B" made the mistake of kicking a hornets nest while putting up an antenna. As you probably know hornets also have quite a fraternity and they truned out as any well organized group should and ran "B" clean to the Mass. State line. The final score was 50 mobile contacts for "B", 7 contacts for the hornets. "B" says the lumps are all gone now.

\*\*\*\*\*

Charlie "estwood W2YGU" and a couple of his buddies have gone into the "television service business for themselves. Their new place on South Broad Street is really a modern layout.

\*\*\*\*\*



## News and Views

A big hand everybody for Doc. Thornley and his corn roast. Doc must have sat in the field watching that corn grow and picked it at precisely the right moment. It couldn't have been better had we had it cooked and served in the Waldorf Astoria. There were two professional corn eaters in the crowd. Charlie Rebman and Ole Zi really like the stuff. The food was fine and the weather ideal but the crowd however was small. The KYL's did a fine job and all in all it was a swell night. Thanks again to those who were responsible and to W2JAG and W2UPS who served as capable electricians on the lighting project.

\*\*\*\*\*

Our good friend Les Voder, W2SOR is leaving Trenton to take an assignment in Reading, Pa. for his present employer, The Atlantic Refining Co. Les we understand, will be a land lubber for some time; bidding Adios to the good ship SS Blum. Les gave a lecture at the August meeting on the new Micro-Wave setup that the Atlantic refining Co is going to use for point to point communications between Philadelphia and Reading, Pa. Les gave basic organization to be used and fundamentals of the transmitters and receivers. Les will have the job of maintaining these several stations keeping them on the air.

\*\*\*\*\*

Al "W2ST" has patched his "chariot" up and seems able to get around after being on the sidewalks for a few weeks following his accident with the old buggy.

\*\*\*\*\*

The Big F. C. C. meeting is scheduled for October. A penny for your thoughts.

\*\*\*\*\*

Here is both an invitation and an opportunity to air your opinions. The D.V.R.A. news will print any letters of complaint, opinion, general comment and letters containing technical information of such nature as to be of general interest to the membership. Just pick up your pen and let us hear all about it fellas.

\*\*\*\*\*

Wonder how many of our - ACTIVE members would be interested in donating a gallon of blood each in order to provide shots in the arm for the STAY AT HOMES ???

\*\*\*\*\*

"Barney" W2QVD is all a dither about finishing his new rig that he is building for his car. "Barney" plans to work 10 mobile.

\*\*\*\*\*



D.V.R.A. News  
Field Day Scores

Field Day scores have just been published in the September issue of QST. In the five transmitter class the D.V.R.A. came in 3th nationally with a score of 6363 points.

A careful examination of the tally will reveal scores higher than ours that were run up by clubs using only 3 or 4 transmitters. Even more important is the fact that these same clubs had 12 to 15 operators.

The D.V.R.A. made a very good showing on a national basis but it could have placed much higher. We had some very fine gear in the field, more AC than we could use and plenty to eat but only half the operators required to keep the rigs running full time. Lets put our group at the top of the list next year and show them we are still in business.

Did you notice that some of the clubs had 10 and 11 transmitters in the field?

They must have been well manned to run up scores of 15000 to 17000 points. The D.V.R.A. operators who turned out to man the rigs really earned themselves a citation as did those who turned out to help with the heavy work. Lets move up nearer the top next year with more help from more people.

\*\*\*\*\*

The Armed forces were well represented at the August meeting by Major Sam Kale, W2VE and Major Breece ex DL4MI who is electronics officer at McGuire Field, Fort Dix. Both Major Kale and Major Breece spoke briefly to the assembly.

\*\*\*\*\*

Ed Raser attended the Association of Police Communication Officers held in New York City on Aug. 30 & 31. Ed tells us there are many Hams holding down these jobs.

\*\*\*\*\*

Andy Toth formerly W3DEA of Trenton is now W5LQW of Hot Springs, Ark. Andy is looking for some Trenton QSO's so keep your ear open for him fellows.

\*\*\*\*\*

The New Jersey 75 meter emergency phone net has been meeting during the summer on Sundays at 9:00 A.M. on 3900 KC. An average of 20 operators have been reporting in for every drill.

Net control W2USA recently pulled a little surprise on the boys by asking them to report back on the net using only emergency power. The only ones who were capable of emergency operation at the moment were W2EGM, BUX, QFO, and ZVW.

Ed Raser had his little BC474 up at the State Police Barracks and couldn't get on the net with his emergency rig.

\*\*\*\*\*



\*\*\*\*\* SELL - SWAP - OR BUY \*\*\*\*\*

Sell - Hallicrafter SX 43 Compete with speaker. \$ 140.00  
Robert Thoms 264 Lynwood Avenue, Trenton, N. J.

Sell - BC 348 Receiver, homemade Xmitter 150 Watts CW, 80  
Watts Phone. Homemade Non-Key, Frequency standard,  
46 foot mast also associated Equipment for complete  
station. Carl Dannereth, Yardley 2208

Sell - 1/2 KW Xmitter components, complete power supply, FM  
Unit, Exciter, Final, panels and chassis. See W2ZEW,  
223 Second Street, Trenton, N. J.

Sell - U.H.F. Arc 5-100 to 156 Mc complete with circuit and  
instruction sheet, brand ne \$ 12.50 or will swap for  
BC 459- in good condition. Will consider BC 696-A  
(3 to 4 Mc) and BC 459-A (7 to 9.1 Mc) Transmitter.  
Jack Power, W2QYE, RD 5 Trenton, N. J. 2-6683

For Free - Miscellaneous parts and books. Ed Fisher, 317 Cleve-  
land Avenue, Trenton, N. J.

Sell - BC 459-A (7 to 9.1 Mc) Xmitter. Dick Henrie, W2UPS  
100 Tipton Street or Phone 5-3832

\*\*\*\*\*

The Delaware Valley Radio Association will run a column of  
free adds each month in the interest of promoting the sales  
of any surplus or extra equipment that you may have. Adds  
may be placed by contacting Les Allen or by calling either  
W2STU or W2UPS prior to the first of the month.

\*\*\*\*\*



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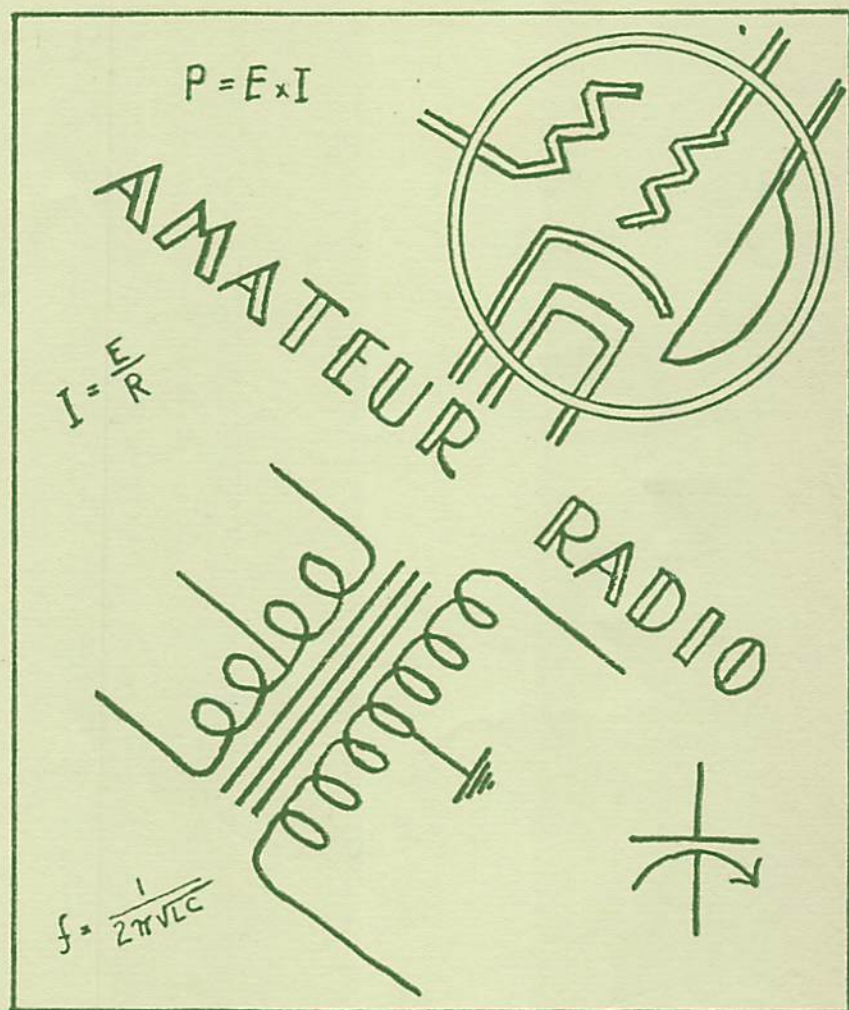


10/45

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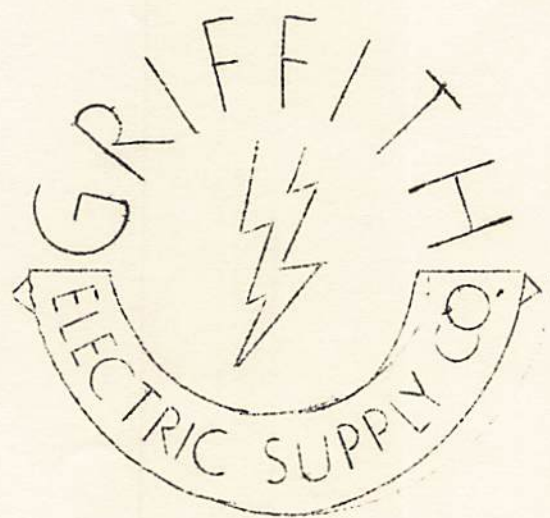
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Vice-President	Lester H Allen	W2QOK
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Treasurer	Charles Rebman	SWL

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Pierre Williams	W2JAG
Richard Henrie	W2UPS
David Van Nest	SWL

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Historian	Edward G Raser	W2ZI
Ass't Secretary	Robert Crozer	SWL
Sgt. at Arms	Charles Moore	K2XAR

## Standing Committees

Field Day Chairman	Harold Lee	W2STU
Refreshment	W. R. Tomlinson	W2GCU
	Charles Moore	K2XAR
Building Site	Richard Henrie	W2UPS

## Business Meetings of The Delaware Valley Radio Association

The regular monthly meetings of the Delaware Valley Radio Association are held on the second Wednesday evening of each month in the Chamber of Commerce room of the Hotel Stacy-Trent, corner West State and Willow Streets, Trenton, N. J. The Business meetings start at 8 P M. Refreshments are served after the meeting. All visitors are cordially invited to attend meetings.

\*\*\*\*\* W2ZQ \*\*\*\*\*

D.V.R.A. Club Station



## EDITORIAL

" Radio Hams Urged To Help U.S. Tell World The Time ", "Amateur Radio Defence Outlined If War Comes", "Amateur Service Recognized in Florida", "N.J. Radio Amateur Helps Save Life Of injured G.I. 6000 Miles Away", "Representatives Commend Amateur". These are just a few of the many articles taken from local and national newspapers and magazines where the radio amateur's service To his community or country is recognized and he is commended for his contributions to the public in times of emergency. Let us take a line or two of the last article mentioned above, wherein the House of Representatives passed a resolution commending the amateur operators for their contributions to the public welfare. " Resolved that the House of Representatives of the United States, on behalf of a grateful citizenry, expresses its gratitude to radio operators of amateur standing for their service both past and present". All of these things help to raise the standing of the amateur in the eyes of the public; and since, in the past history of the metropolitan area in which we live, there have been no serious communication emergencies, we are more or less riding on the laurels of other hams throughout the nation. However we should not set our plans on the assumption that there will never be need for our services; placing ourselves on the same level as the amateur mentioned in the above resolution, means being prepared at all times should a communications emergency be declared in our area. It is our opinion that it would be both a wise and progressive move for the club to purchase or acquire more emergency equipment, such as a gasoline generator or any gear necessary to put a station on the air when it is needed, not 12 or 24 hours later.







## News and Views

All Citizens Band operators recently received a letter from FCC bearing the sad news about the new technical requirements for the gear that is to be used in this service. We felt that a small portion of this letter might be printed for the benefit of those who have been seriously considering joining the Citizens ranks but who have not been closely associated with any of the present operators and thus not aware of the present restrictions.

Several amateurs in this vicinity have been working this band and we feel sure that they will be able to design a crystal rig that will meet FCC's approval.

W2YFT sent us word that a piece of gear known as Test Osc. TSI/ARRI with a slight amount of padding will work either the Amateur or Citizens bands. Just how this Test Osc. will stack up as to frequency stability hasn't as yet been determined. A class B station has a frequency Tolerance of 0.4% of 465mc which is plus or minus 1.86mc. This requirement is not easy to meet when using the variable frequency type surplus transmitters.

To put the issue in FCC's own words.

Quote: "The Commission has concluded that there is no simple method existing at this time for compliance with the technical standards of the Citizens Radio Service by home constructors or experimenters, and that highly specialized engineering experience in ultra high frequency techniques is required in the design of equipment to be used in the regular Citizens Radio Service.

For example, war surplus equipment such as the BC-645 transmitter-receiver, designed for airborne use, does not possess in its original form sufficiently stable circuits to permit licensing in the Citizens Radio Service. Extensive modification, in some cases amounting to almost complete redesign of the original equipment, appears to be necessary to meet the standards of the Citizens Radio Service rules and will be required before the Commission will consider authorizing the use of the majority of war-surplus apparatus in the Citizens Radio Service.

Henry Kammerer sent in the following item which was clipped from Business Week, Oct. 1, 1949 page 72.

"Stewart-Warner Corp. has bought Citizens Radio Corp. Cleveland, Ohio. Stewart-Warner's Chicago electronics plant will produce the FCC approved sets."

\*\*\*\*\*

Have you ever stopped to think how many commercial radio services are operating in the city of Trenton? I'll bet the list would knock your hat in the creek. We will try to name them all in our next edition.

Want to make a guess as to how many there are?



## " The Exchange Corner"

This month we have added a new column which will be run each month hereafter provided it meets with the general interest of the membership. This column will try to feature general information about different Amateur Radio Clubs throughout the nation; also some special activities that they sponsor or participate in.

This month we honor the Minneapolis Radio Club Inc. of Minneapolis, Minnesota. An active gang with 35 to 40 licensed members on the club roster, and they welcome all hands interested in Amateur radio, Hams or Swls alike. WOGYH, WOAA and WOIJN are officers and WOGYH is editor of "Splatter", a snappy informative club newspaper. The MRC participates very actively in the annual ARRL Field day, hold monthly Hidden Transmitter Hunts, annual picnics for members, conduct code classes on ten meters and also sponsor a theory class for the unlicensed members. The MRC owns their club house and has two-one KW rigs near completion for use by the licensed members. The aims and organization closely parallel those of our own D.V.R.A. Thanks to WOGYH we received a copy of Splatter and have shipped him a copy of D.V.R.A. News.

\*\*\*\*\*

### TVI in 1928?

An old newspaper clipping shows that the first public demonstration of the transmission of human images through the air was on August 22, 1928. It was transmitted from a radio station at Coytesville, N. J. on the banks of the Hudson River, and was licensed by a fellow named Herbert C. Hoover, who was then Secretary of Commerce.

Several hundred scientists gathered in a hall at New York University and squinted into some three-quarter by three-quarter inch screens and watched the faces of the people who where speaking on the other end. The first human faces to be transmitted through the air in that public demonstration of Television were those of Hugo Gernsback, now a publisher of "Radio Electronics", and John Gelasco, Chief engineer of the Old Pilot Electric Co. of Lawrence, Mass. Gelasco is now head of an electronics company at Milan, Italy. They were followed by several radio entertainers.

" The received image was of sufficient definition to enable observers to see the men's features distinctly" the old newspaper clipping reported. " The animated image did not stay in one place but continually shifted in one direction." Could be maybe some Hams lived in that particular vicinity ? Hi.

### Code Proficiency

Wonder how many fellas in the club have a code proficiency award or have increased their present code speed in the past few months? The next CP qualifying run will be sent from WIAW October 14 at 21 30 est; for further information on frequencies etc. refer to "Operating News" in the October issue of QST.



## News and Views

Dave Nabs has that pair of 807's cooking on all bands now running a cool 150 watts.

\*\*\*\*\*

You should be hearing Les Yoder on the air any day now operating as W2SOR/3 from Mohnton, Pa. near Reading. Yoder tagged Allen for the portable rig to work the 75 phone band. He also hopes to get in some nice CQ! QSOs on 40 and 80.

Yoder likes his job very much and why shouldn't he? Riding around in a company car.

\*\*\*\*\*

Brad Martin is back in office as Director of the Atlantic Division. Brad had no competition hence no formal election.

\*\*\*\*\*

Our good friend Sam Thackery W3IU is up for Alternate Director. Sam lives in Bustleton, Pa. and always gets up to see us on Old Timers Night.

\*\*\*\*\*

Ole ZI is just back from a two weeks vacation in sunny Florida. Ed made Daytona Beach in 2½ days out of Trenton, and visited with W4ASR, present ARRL director of the Southeastern Division and high official with the A.T.&T. Co. W4ASR is a member and also on the Board of Directors of the Daytona Beach Chamber of Commerce, and gave Ed and his XYL the Key to the City Hi. Ed says his old gas buggy served him faithfully throughout the journey, wonder if he brought back any grapefruit? Hi.

\*\*\*\*\*

Larry LeKashman has resigned as editor of the magazine CQ. Larry will be in the RCA Publishing Dept.

Doc Hayes a very capable man will be CQ's new editor.

\*\*\*\*\*

Ole ZI is at it again teaching the radio service business to G. I.'s at Fort Dix.

\*\*\*\*\*

Somebody said Bob Logan must have gone to Siberia but I hear he has squatted down in a brand new house. Bobs cruising around in an ex-police car minus radio gear of course.

\*\*\*\*\*

Starting with our November meeting we are going to have some swell movies each month that will cover all phases of amateur work. Most of them will be sound pictures and some in color. Many of the films are instructive but are high-lighted with bits of humor to provide good entertainment.



## News and Views

We have just come into possession of one of the famous Q5er's and am wondering whether or not the fellows who have not heard them know just what they are missing. You can't conceive single side band CW reception until you have tied one of these little BC453's to your present IF system. The Q5er's IF stages have adjustable plungers that enable you to tighten the transformer coupling by pushing the plunger down to provide a 6 KC band pass. By pulling the plungers up you can narrow the band pass down to 1.5 KC providing a really sharp IF system. You can observe the pronounced single side band affect by tuning a signal thru zero beat. The signal will be S9 on one side and SI or 2 on the other side.

Stations can be read and worked with a Q5er that would be nearly unreadable on an ordinary receiver in heavy QRM. Then using the gadget in conjunction with the receiver crystal filter you have at your finger tips a highly selective receiver comparable to those sold at highest prices.

The Collins 75A-I uses the same process of double conversion that can be had in any receiver by adding a Q5er. The only difference being in the much higher frequency used by Collins in their first IF amplifiers to get high order image rejection.

Another outstanding advantage is the fact that you do not have to tamper with your receiver when you add the gadget to it. You have only to lift out the second detector tube and loose couple a turn of insulated wire around the plate pin. The audio output can be fed to a speaker or fed back into the receiver by connecting it to the grid of the audio tube by simply lifting the audio tube out and making an electrical connection to the grid pin. The Q5er may be cut in and out of the circuit by simply turning the gain controls.

In addition to this the small panel on the front of the Q5er must be drilled to accomodate a phone jack, BFO off on switch and a gain control. The filaments may or may not have to be rewired according to the filament voltage available.

It's a very small amount of work to do as compared to the advantages gained. It will also give an excellent account of itself when used in the phone bands.

And last but not least by removing the input lead and attaching a length of wire to the antenna post you can sit and copy some very fine CW on the Marine frequencies between 200 KC and 500 KC.

\*\*\*\*\*

For those interested in high frequency gear we have included an article and circuit diagram submitted by member Creeden W2YFT elsewhere in this edition.



## News and Views

Radio Week will be observed throughout the nation from Oct. 30 thru Nov. 5. The D.V.R.A. has arranged for publicity broadcasts over the local radio stations. These scripts will be heard during the week over WBUD, WTTM and WTOA.

The D.V.R.A. had plans for a window display in a downtown store depicting a typical emergency setup complete with tent and coffee pot. Due to the change in date Radio Week comes along just when all of our downtown stores are having their windows painted by school students for the annual Halloween competition. We will have to pass up this publicity opportunity this year and hope for another change in date next year.

\*\*\*\*\*

With the coming of fall we hear the G's, I's, ON's DL's, F's etc coming thru on ten. Even W2JAG has heard them and that was all he needed to make him get busy on his beam. Ole JAG did get it up tho rotated by ropes and worked KP4 and a G2 right off the bat. Good DX to you fella.

\*\*\*\*\*

Want to work some DX? If so Pierre ( W2JAG ) says you will find it on  
40 meters Jersey to Far east 3:45 AM to 6 AM  
20 meters Jersey to Far east 7:45 to 12:30 AM  
40 meters Jersey to Australia 2:30 AM to 8:AM  
20 meters Jersey to Australia 12 midnight to 7:30 AM

\*\*\*\*\*

We hear Barney W2QVD went after his class "A" ticket. Good Luck Barney.

\*\*\*\*\*

W2QJO, Steve is working the best DX on ten fone again this year. He must have his beam on top of the well in his back yard. Hi.

\*\*\*\*\*

Don't forget the annual emergency test for "AEC's" amateur emergency corps on Oct. 15 to 16th. Register your gear or contact your coordinator.

\*\*\*\*\*

Are you going to enter the ARRL Sweepstakes. If so better get your rig in shape for the weekends of Nov. 19th - 20th and 26th - 27th.

\*\*\*\*\*

In the Trenton area gang this season the following are attending Temple University taking up the ole eye strain "television". Those attending are "Elvin Dow", "Dick Walsh", "Bill Latham", "Steve Scorgo", "Bob Logan", "Pierre Williams", and "Issie Marks".

\*\*\*\*\*





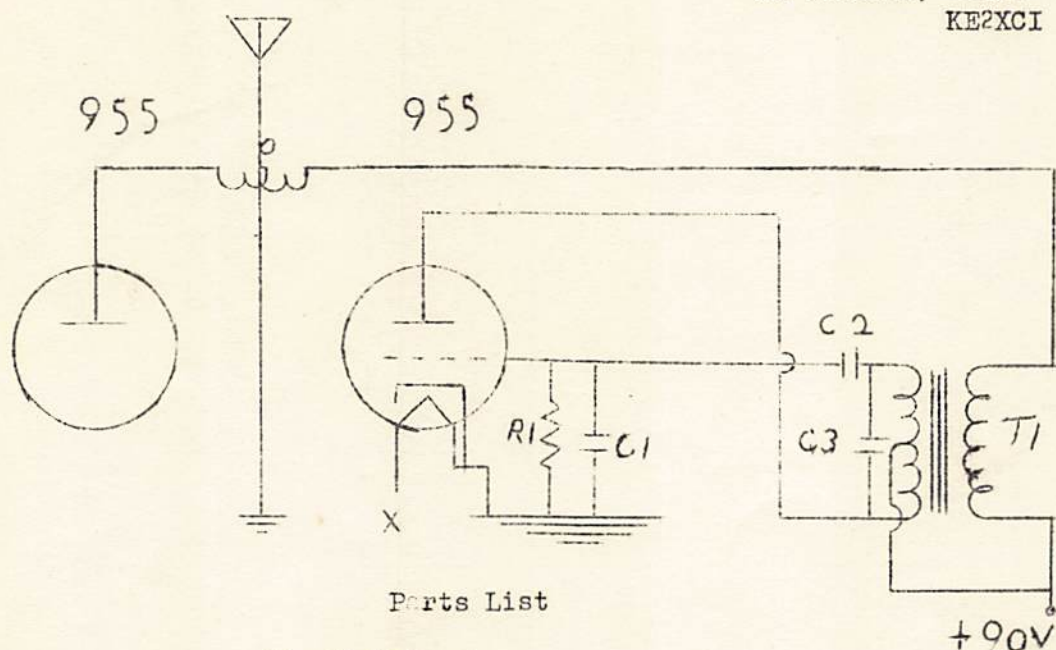


## Converting the TS-1/ARR-1 Test Oscillator

Hams interested in the 420 megacycle band should not overlook the TS-1/ARR-1 Test Oscillator which generates a fine second harmonic at these frequencies. The frequency controlling device is a gold plated cavity resonator in the grid circuit of the 955 R.F. triode oscillator. There is room in the case for batteries or the oscillator may be powered by a 90 to 150 volt plate supply and 6.3 volts AC for the filaments.

To use at the frequencies of the Ham Bands it is necessary to pad the grid circuit of the R. F. oscillator with a 3 to 12 mmfd. ceramic trimmer condenser. This trimmer is soldered directly from the outside of the cavity to the input to the cavity. The TS-1/ARR-1 may be purchased on the present surplus market for about four dollars and the schematic diagram is furnished. The original R.F. modulation may be changed to tone modulation by use of the following diagram.

Ed Greeden, W2YFT  
KE2XCI



### Parts List

- C1 .01 Mfd.
- C2 .1 Mfd.
- C3 .0006 Mfd.
- R1 2200 Ohms
- T1 Single Plate to Push Pull grids  
interstage Transformer
- X 6.3 Volts AC;

Note: Tone may be varied by  
changing value of C3.



\*\*\*\* Sell - Sals - or Buy \*\*\*\*

- Sell - 1 - 4 MFD. 3000 Volt Cond.  
 1 - 2 MFD. 2000 Volt Cond.  
 1 - Fil XFMR 2.5V at 10 Amps.  
 2 - FIL XFMR 6.5V at 10 Amps. each  
 1 - Thordarson T 92R2U XFMR - 450 VDC  
 1 - Matching Choke for above XFMR  
 1 - 100 Watt 30,000 Ohm Bleeder  
 Harry Cahill, 415 Park Ave., ( Ham Twp.) Phone 4-2366
- Sell - 1 Preware 3 Band Sky Buddy 550 Kc to 18 Mcs  
 W2JAG Trenton Phone 2-5972
- Sell - BC 459-A ( 7 to 9.1 Mc ) Xmitter  
 Dick Henrie W2UPS 100 Tipton St. Phone 5-3832
- Sell - Sonar XE 10 New Condition \$25.  
 Millen Variarm Vfo - New Condition - \$ 30  
 Les Allen Phone 8919
- Sell - Hallicrafters SX43 Complete with speaker \$ 140.00  
 Robert Thoms 264 Lynwood Ave, Trenton.
- Sell - BC 348 Receiver, homemade Xmitter 150 Watts CW, 80 Watts  
 Phone. Homemade Mon-Key, Frequency standard, 46 foot  
 masts also associated Equipment for complete station.  
 Carl Dannereth, Yardley 2208

\*\*\*\*\*

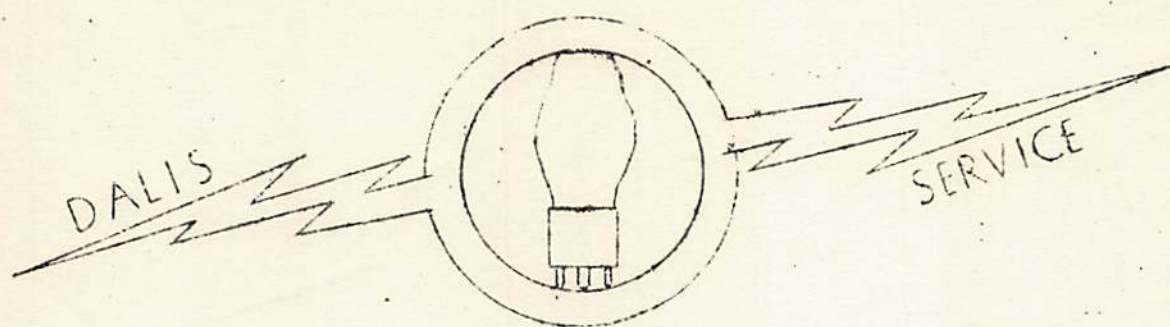
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\*\*\*\*\*



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11/49

# DVRA



W2ZQ



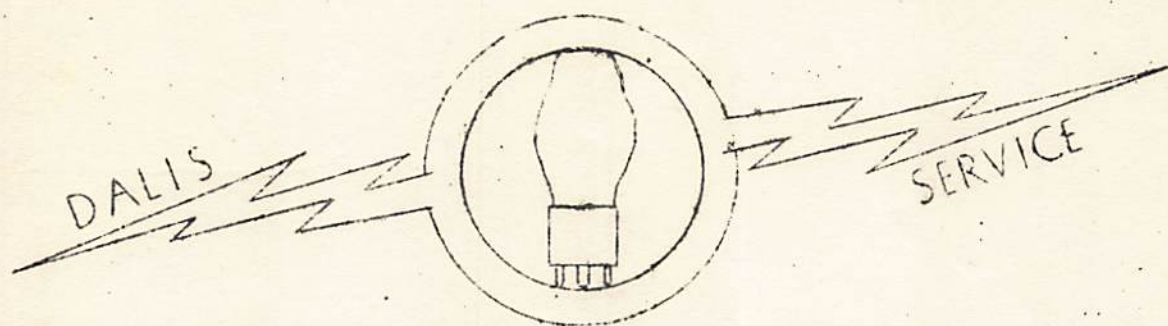
# NEWS

Official Publication of  
*Delaware Valley Radio Association, Inc.*  
Trenton, New Jersey



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## EDITORIAL

If we were to sit down and carefully list all the fun, benefits and advantages derived from amateur radio as a hobby, we would probably be writing for quite some time and also use up quite a few sheets of paper. We cannot list them all on this page but we can point out a few of the more outstanding ones. First of all, what club, lodge or group can you name, that has such a strong fraternal binding as amateur radio. True we have a minority in our ranks, that are more or less radical in their ways and perhaps lack the genuine friendliness that most Hams show, but I think the "Old Ham Spirit" is still prevalent in our amateur fraternity. Secondly we have the privilege of owning our own radio station, and operating it on approximately ten amateur bands; making personal contacts with people all over the face of this big, round world. And don't forget all the swell guys you tie into during one of those hour or two hour rag-chews right here in your own country. If you lean more towards traffic handling, there are any number of nets available for you to participate in, locally or nation-wide. There is the Amateur Emergency Corps, a swell opportunity for those interested particularly in the use of portable or mobile gear and the handling of traffic in a communications emergency; while at the same time being ready to serve should a disaster strike. As you can see, the above are just a few of the many good things connected with our hobby "Amateur Radio". I am proud to say that I am a part of this great Ham fraternity and sincerely thank Uncle Sam for the privilege of holding that little white paper with four letters and a number on it.

W2UPS



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Vice-President	Lester H Allen	W2QOK
Secretary	David Nabutovsky	W2SMP
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\*\*\*\*\* W2ZQ \*\*\*\*\*

D.V.R.A. Club Station



## News and Views

Guess most of you have heard the good news of unity in our ranks by this time. Differences of opinion that have existed up to now between SARA, NARC and ARRL have finally been ironed out and all three have agreed on a common set of proposals to be presented to F.C.C. The Commission we understand gave the hams the assurance that this common proposal would be the foundation for any future changes in amateur regulations.

Highlights in the proposal were opposition to 20 word code exam, re-examination of class "A", band width limitations for telephony and opposition also to the 100 KC for CW in the 50 MC band as proposed by SARA.

Approval on the other hand of a technical class, a novice class, and a request for an additional 50 KC in the 75 meter fone band.

The ARRL board has voted to submit a request to FCC for an additional 50 KC on the upper end of the 20 meter phone band making it I4200 to I4350 KC.

If this proposal is accepted by FCC the present amateur regulations will remain practically unchanged.

These differences that have existed in hamdom were fundamentally CW versus phone and would probably never have existed in the first place if MR Average Ham were more evenly balanced in his ham activities.

True, a ham should have his choice when it comes to choosing between CW or phone but no amateur should become so prejudiced in his way of thinking as to actually want to bring drastic regulations or loss of frequencies to brother amateurs who enjoy the same hobby but in a different manner.

Many phone men can't understand how a fella can have a good rag chew on CW and many CW men can't understand why any one would want to sit and blow hot air into a mike all night.

Lets all try to balance up our activity if its at all possible or at least destroy any thoughts that might tend to convince you that either mode of communication is far superior to the other.

W2STU

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Anyone interested in learning the International Morse Code should contact the Club Secretary, W2SMP, and have his name put on the list. A code class will be started in the near future provided we can get enough interested persons.

\*\*\*\*\*



### " WAS CONTEST "

The Delaware Valley Radio Association will sponser a "WAS" Contest open to all of its members, beginning at 0001 o'clock EST November 1, 1949 and ending 6 months from that date on March 31, 1950 at 2400 EST. First prize will go to the operator who works 48 states and has his written confirmations or QSL cards in the hands of the Board of Directors at the earliest date. If the full 48 states are not worked by anyone by the close of the contest, the ham with the most number of states worked will receive first prize. SWL members are also eligible in the contest. The SWL that has collected 48 cards at the earliest date will take first prize and in the event that the contest closes before an SWL has collected his full 48, the member with the most number of cards will win. The list of prizes will be announced at a future meeting.

### " HOBBY SHOW "

The Delaware Valley Radio Association will have a booth on display at the Hobby Show which is being sponsored by the Trenton Kiwanis Club. The Show is open Friday and Saturday Evenings, November 11 and 12 from 6 to 9:30 pm and will be held in the War Memorial Building. We will have several ham stations set up and will handle traffic for the public. Those working on this committee are Chairman; Harold Lee, Al Litinetsky, Pierre Williams, Bob Crozer and Dick Henrie. Come around and visit the D.V.R.A. booth as well as the rest of the interesting exhibits.

### " THE EXCHANGE CORNER "

This month we travel to Long Island, N.Y. and pay honor to the Amateur U.H.F. Club of Jamaica. The club was started before the war in about 1940 by a group of UHF enthusiasts. Along came World War II and the organization was just about broken up as were most clubs, by the loss of most of its members to the armed services. After the war ended and the boys returned home, they began the task of rebuilding the club. They now have the organization well on the way up with about 30 members on the books, and hold regular monthly meetings for those interested in the Ultra high frequencies particularly. They are contemplating a 420 Mc net (YFT take Notice) and also a low speed forty meter net. The Officers are President-W2DKH, Vice President-Nick Espolito SWL, Recording Secretary-W2MNX, Corresponding Secretary-W2QPQ and Treasure-Erwin Bortscheller. The U.H.F. Club of Jamaica took part in the recent ARRL Hudson Division Convention Held in New York City, and had a booth on display featuring UHF gear. Their club newspaper "Grid Leaks" is put out under the guiding eye of editor W2QPQ. We wish these fellows all the best of Luck in their club work. How about it fellows, do you want to see some more of the same in the next issue?



*(continued)*

...



~~Sell~~---~~Swap~~---Buy

Sell--- A prewar 3 band Sky Buddy 550 KC to 18 MC.  
W2JAG Trenton---Phone 2-5972

Sell--- Super Pro Receiver including power supply but  
without speaker.  
Dr. Collins---Langhorne, Pa. or see Les Allen

Sell--- Sonar XE-10 New condition \$ 25.00  
Millen Variarm Vfo in New condition \$ 30.00  
W2QCK Les Allen Phone 8919

Sell--- I--4MFD. 3000 Volt Cond.  
I--2MFD. 2000 Volt Cond.  
I--Fil XFMR. 2.5V at 10 Amps.  
2--Fil XFMRs. 6.3V at 10 AMPS. each.  
I--Thordarson T-92R2U XFMR-450 VDC  
I--Matching Choke for above XFMR.  
I--100 Watt 30,000 Ohm Bleeder.  
Harry Cahill, 415 Park Ave (Hm Twp) Phone 4-2366

Swap-- Will trade my NC57 for a Hallicrafters S-53  
John Resch 316 Genesee St. or call 4-0612 after 6 Pm.

\*\*\*\*\*

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\*\*\*\*\*



1941-1942

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12/49

# DVRA



W 2 Z Q



# NEWS

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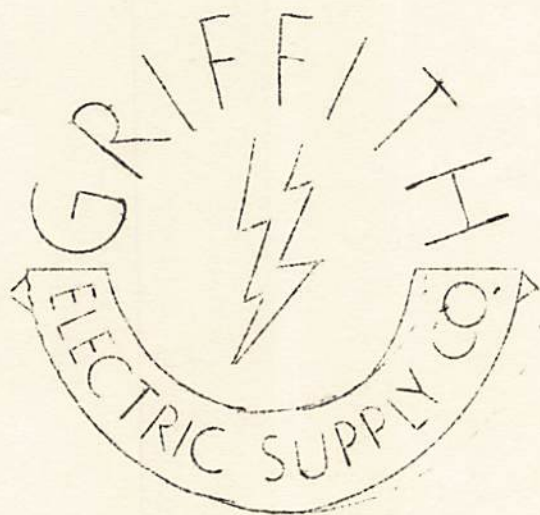
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VOL. I4

D.V.R.A. NEWS

EDITORIAL



DEC. 1949

After looking at the calender on our desk in the shack, we noticed that there is not much left of 1949; and mentally looked back through the past year. The club held one of the best "Old Timer's Nites" since its origin. Field Day this year surpassed all previous ones in that we came out with more contacts, more flexible emergency gear, and best of all, more cooperation by the membership. 1949 saw our publication, the "D.V.R.A. NEWS", completely revamped and improved; also amateur radio was presented to the public very efficiently by our booth at the Kiwanis Hobby Show. The trips to various radio stations were resumed and the tour of WSC at Tuckerton, N.J. proved very interesting. But lets not look back on these activities and pat ourselves on the back; instead lets use them as a marker or level that we can try to exceed in 1950. How about everybody getting behind ZI and give him all the cooperation he needs to put over a bigger and better "Old Timer's Nite".

Taking a second look at the calender we see that Christmas is not too far away, so on behalf of all the members of the D.V.R.A. News Staff I would like to take this opportunity to wish everyone a very Merry Christmas and a Happy sucessful New Year with all of the best.

W2UPS







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\*\*\*\*\* W2ZQ \*\*\*\*\*

D.V.R.A. Club Station



The field of television broadcasting is growing and challenging our hobby of Amateur Radio. We, as Amateur Radio operators, must accept the challenge and win. In the past our worst complaint from the public has been broadcast interference, which in most cases was the fault of the set and could be remedied. Today we have television interference and in most cases the shoe is on the other foot; our transmitters need a little house-cleaning.

Television interference has descended upon all of us living in and around Trenton who are actively on the air. It does not spare anyone, whether he is using low power or high power, low frequencies or high frequencies (providing you are not using a self excited oscillator on 420mc or higher). With some hard work, earnest experimenting and above all some hard earned cash, we could free ourselves of the interference.

We all know that the TV receiver itself can be the cause of some of the interference but we won't discuss that as there has been lots written about it. Let us free out transmitters of all spurious emissions first!

You can't work in the dark. It is necessary to have a few indicating instruments around the shack. The first of these is a wave meter that will cover the TV frequencies. This can be a simple coil and condenser combination with a crystal detector and, preferably, a microammeter or a one milliamper meter, or it can be the more sensitive regenerative wave meter as described in November QST. The second instrument is a grid dip meter. The latter wave meter will serve a dual purpose. A receiver covering the TV frequencies would be a big help but not many of us have such an instrument.

Now let's go to work on the old rig we thought was working pretty well untill we got our first telephone call. Where shall we start?

Is your transmitter in a shielded cabinet? No? Then that's the first thing to do. If you can't buy one, build it. A good one can be built by using a wooden frame with copper screen. A fancier one can be made from dural angle, dural sheet and copper screen. Be sure that all joints are electrically good, particularly if you make your rack cabinet of wood. In this case, lap all the joints with the screen so that it will make good contact.

Now let's look at the transmitter itself. This job can be done on the bench. With the grid dip meter, or the regenerative wave meter operating as a grid dip meter, examine the R.F. units for resonant circuits in the TV range. These circuits will be found in the grid coils, the plate coils and the wiring of these circuits. They may be caused by R.F. chokes, lead inductance and/or capacity to ground. Wherever you find a resonant circuit, break it up somehow without causing any new trouble.

To break up the troublesome circuits you may have to eliminate R. F. chokes, rearrange wiring, add bypass condensers and anything else you can do that works. Insert H. F. R. F. chokes in all meter leads and by pass at the terminals of the meters to ground. It is a good policy to shield all meters either from the front or the back. If you do any rewiring, use shielded wire. Remember the voltages and use wire with the correct rating. Ground the shields wherever you can.

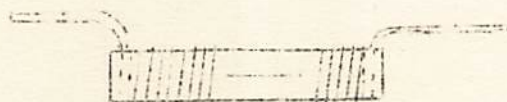






It is a good policy to put all the meters that you possibly can in the negative lead. Putting the plate meter in the cathode will also meter the grid current unless the grid is returned directly to the filament center tap. In the case of screen grid tubes, the screen current will also show but this is not serious because with these tubes the screen current should be metered and can be subtracted. With the meters in the low potential leads, shielded wire can be used to and from the meters. This will help in attenuating harmonics because of the poor dielectric at TV frequencies.

The H. F. R. F. chokes mentioned can be the Ohmite Z50 or equivalent or you can wind them yourself. The grid dip meter goes to work here. The R. F. choke wants to be self resonant at the bothersome frequency. For example, suppose you have a 56mc signal being radiated out the front of a meter. This radiation is much stronger than any of the other harmonics. Your R. F. choke should be self resonant around 56mc. Check your chokes for other self resonant spots throughout the range of the grid dip meter. It may have several. The most pronounced dip of the meter will be the most effective resonance. A choke for 56mc can be wound on a piece of wood dowel 1 3/8" long with wire pigtails inserted 1/8" in from each end. The winding is close wound 1 1/8" long of No. 26 enameled wire. The construction is shown in Fig. I.



A choke to resonate in the range around 86mc can be constructed similarly to the 56mc choke except the wood dowel is 1/4" in diameter, the other dimensions being the same. These examples will give you a start. Of course, polly, lucite or plexiglass rod can be used, too. Even a high value (1 megohm or higher) resistor makes a good form.

The cable back to the power supply should be checked for harmonic content. It is a good plan to separate the high voltage wire from those carrying 110 volts and filaments. The high voltage wires should be shielded. Here you can use coax or high tension shielded auto ignition cable. The latter being better because it has a higher attenuation at these frequencies. H. F. R. F. chokes should be placed in all high voltage leads and bypassed at the supply side in the chassis. The most efficient bypass condenser is the new Sprague Hypass three terminal condenser or equivalent and in many cases the R. F. chokes can be eliminated. These condensers can be used at meters, too.

A word about bypass condensers is necessary at this point. At the TV frequencies an ordinary condenser may look more like an inductance than a capacity. It is therefore necessary to use the smallest physical condenser possible. The small postage stamp mica condenser of about 470mmfd is okay. The best available at this writing, however, is the new type three terminal condenser, available in several capacity values and various voltage ratings. These three terminal condensers appear similar to a metal case paper condenser but are constructed quite differently internally. The case is always grounded and is one terminal. The lead being bypassed is fed through the condenser on the pigtails at each end of the condenser forming the other two terminals. The condenser acts like a lossy transmission line with broadband attenuation.







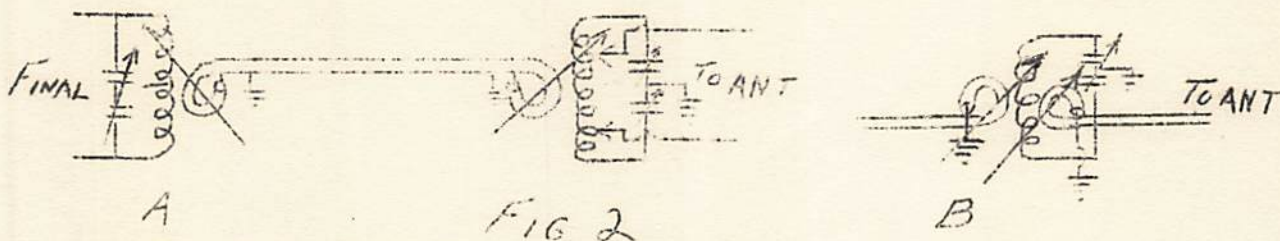
To illustrate, I have made tests comparing these condensers with the choke and mica bypass combination. The test was made by measuring the attenuation of the harmonic radiation through a meter face. Without any filter, the radiation was registering full scale on the wavemeter. (Full scale being 1.0) With the choke and small mica bypass combination, the radiation was small but measurable, .2. When the three terminal condenser was used, the radiation was not measurable. These same spectacular results were obtained when these filters were applied to high voltage and A.C. wiring.

Filament transformers supplying filament voltage to directly heated tubes are always a good source of harmonic energy. The new three terminal .1 mfd, 250 Volt condenser will do a very effective job in the primary of these filament transformers and prevent the harmonic energy from getting back into the line. These same condensers should also be placed across the 110V A. C. supply line where it leaves the cabinet.

The bias of all R.F. stages should be adjusted to their proper values, even a little under these values, whichever proves best.

The grid and plate circuits of all doubler and amplifier stages should have the proper C to L ratio, preferably a high C to L ratio, consistent with good Q. They should be link coupled to the following stage. Ground one side of the link line at both ends.

An antenna tuner is a must. The final should be linked to the tuner with coax cable. An open wire line to the antenna can be tapped on the coil or if coax is used, it can be linked to the tuner coil. This is illustrated in Figs. 2a and 2b.



The antenna tuner should be constructed like the final tank. The same coil and condenser ratings should be observed. The circuit should have a fairly high C to L ratio consistent with good Q. Shielding should be used.

To sum up, the following points are a must:

1. Shield the transmitter completely in a good shielded cabinet.
2. Prevent radiation from meter faces by using chokes and bypass condensers or preferably the three terminal condensers. Shield the meters.
3. Prevent radiation from high voltage leads by using R.F. chokes and bypass condensers or again the three terminal condensers at the chassis, by using shielded cabling.
4. Prevent harmonics from getting back into the A.C. line from filament transformer primaries by using R. F. chokes and bypass condensers or the three terminal condensers.
5. Track down self resonant circuits in the R.F. wiring and destroy them.
6. Adjust biases to proper values.
7. Use link coupled circuits between grid and plate circuits. Ground one side of the link line at both ends.
8. Use shielded wire wherever possible.
9. Use high C. to L ratios in tank circuits consistent with good Q.
10. Use a shielded antenna tuner, link coupled by a coax link from the final to the tuner.

It is work but it can be done. Good Luck!







## Ladies Auxiliary

### Officers

President -----	Alice Van Nest
Vice President -----	Pauline Raser
Secretary -----	Florence Rebmen
Treasurer -----	Trudy Crozer

### Activities

The November meeting was held at the home of Natalie Hannah. There was a very good attendance. The most recent members to join the club are Gussie Roberson and Peggy Schulwitz.

Everyone enjoyed the trip to New York in October. The members all met at the theatre for the matinee showing of the musicale "Lend An Ear"; this was followed with a dinner at Tofonetti's and the evening performance of the "Ice Show" at the Center Theatre.

The main topic for discussion at the meeting was the annual Christmas party. It was quite a problem to select a suitable place as entertainment other than Saturday night is scarce. It was finally decided (after the meeting and via phone) to have it at Brookside Inn. The date is Wednesday evening December 14 and the time 7 o'clock. Dinner will be served and gifts exchanged at this time. There will be dancing so it would be a good idea for the men folk to drop in after their meeting is over. Members will assemble at Pauline Rasers home before 6:30. Several of the ladies have offered to provide transportation to the Inn.

The winner of the blind pig was Helen Allen. she also won the hostesses prize. A lucky night for Helen. The rest of the evening was spent in playing Bingo and after that refreshments were served. The sandwiches and cup cakes were delicious, Nat.

The January meeting will be held at the home of Ida Nabutovsky.

A Merry Christmas and Happy New Year to all.

Pauline Raser  
Publicity



## News and Views

W2HX is doing himself right proud these days with the maritime contacts. Daily skeds are still kept and on Mar. 21st "B" made it possible for Capt. Matherson of the S S Joshua Tree to talk to his wife in New York City for twenty two minutes while the ship cruised off Antwerp, Belgium. The contact was solid on both ends and the Capt. was both surprised and pleased with the excellent contact.

"B" performed much the same service on Nov. 14th when he got Capt. Townsend of the Alleghany Victory thru to his wife in Baltimore, Md. for ten minutes. The ship was somewhere in the Med. Sea.

"B" is an unselfish cuss and figures he should share the fun in these contacts with some one else who doesn't sleep much either. He didn't have to look far before he found "Doc" W2WOA. Doc and "B" are now working the /M stations together and having a whale of a time. Doc's signal is about ten times as strong now since he changed the condenser on his induction loop. Funny thing about those condensers, huh Doc?

\*\*\*\*\*

Reports on the 80 MTR National Traffic Plan are working very well as of this date. Southern New Jersey is well represented by W2SXK and W2RPH with recent addition of W2ZI. W2RPH is net control station for section region Net Tuesday nites. A new record will be set at this rate. It is now common practice for traffic to go from coast to coast where previously it took two or three relays.

\*\*\*\*\*

W2SXK is net control for Southern New Jersey net on Monday nites.

\*\*\*\*\*

W2QVD, Barney, has a BC-474 for portable work. Latest dope is that he is going on 75 phone with that A-C power supply he is working late at nites with. Com-Mon lets hear ye on Barn!

\*\*\*\*\*

Well as sed, W2JAG is on the I60 meter band, waitin for you other birds. The frequency is I806 KC. So if your up late at nite and want to hear test transmissions, take a listen on your ole unaligned broadcast set and you mite hear me running 100 watt pair 807's

\*\*\*\*\*

Dick Henrie is well nigh on the I60 meter band all but the finishing touches on the final 807.

\*\*\*\*\*

A new piece of gear at Pierre's is a BC-22I frequency meter so I can tell where I am on the twenty meter band instead of trying to work the commercials.

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## EDITORIAL

If we were to sit down and carefully list all the fun, benefits and advantages derived from amateur radio as a hobby, we would probably be writing for quite some time and also use up quite a few sheets of paper. We cannot list them all on this page but we can point out a few of the more outstanding ones. First of all, what club, lodge or group can you name, that has such a strong fraternal binding as amateur radio. True we have a minority in our ranks, that are more or less radical in their ways and perhaps lack the genuine friendliness that most Hams show, but I think the "Old Ham Spirit" is still prevalent in our amateur fraternity. Secondly we have the privilege of owning our own radio station, and operating it on approximately ten amateur bands; making personal contacts with people all over the face of this big, round world. And don't forget all the swell guys you tie into during one of those hour or two hour rag-chews right here in your own country. If you lean more towards traffic handling, there are any number of nets available for you to participate in, locally or nation-wide. There is the Amateur Emergency Corps, a swell opportunity for those interested particularly in the use of portable or mobile gear and the handling of traffic in a communications emergency; while at the same time being ready to serve should a disaster strike. As you can see, the above are just a few of the many good things connected with our hobby "Amateur Radio". I am proud to say that I am a part of this great Ham fraternity and sincerely thank Uncle Sam for the privilege of holding that little white paper with four letters and a number on it.

W2UPS



Most everyone has at one time or another heard of the following BCI-broadcast interference, TVI-television interference and possibly even RPI or record player interference but we wonder how many of you have heard of HAI which stands for Hearing Aid interference. It seems that one of STU's neighbors had company one night and one of the guests happened to be wearing a hearing aid. This particular guest seemed to be in an uneasy state of mind as his facial expression changed several times and he began nervously adjusting his hearing aid. After several minutes of this unfamiliar behavior, the guest finally asked his host, was there a broadcasting station near-by as he heard the voice of someone along with those present in the room. Wonder if that qualifies one for a pink ticket Hi. He was receiving W2STU Q5 R9 plus 90 DB.

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The D.V.R.A. booth at the Kiwana's hobby show proved to be quite a success. After much careful preparation by the committee, an attractive display of amateur radio was achieved. A 75 meter folded dipole was raised, using a window on the third floor of the War Memorial Building for one end and the other was secured to one of those ornamental lightposts that surround the building. We had two stations on the air, one on 40 meters and the other on 75 meter fone. QSL cards of all the club members and a few rare IX cards were mounted neatly on a black background. Some of ZI's famous collection of old time gear also was on display. The booth was separated from the crowd by a wire rail or what have you, decorated with the Red Cross emergency communication pamphlets. Skeds were kept on 75 with W2QCK, W2ZI and also W2JAG/2 working mobile from his new buggy. Some pictures were taken and we imagine copies will be available for those who wish them. Traffic was handled as a public service for those who wished to take advantage of it.

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This month is the story of Netcong New Jersey radio telephone receiving station. In 1928 the American Tel & Tel Co. acquired 400 acres of farm land in Netcong N.J. in the contemplation of 50 London circuits. This plan, at that time, was to eventually furnish service to all European countries via London. Service was first inaugurated in December, 1931 to Rio de Janeiro. In 1934 services were temporarily maintained in building I, the main building. Also about this time, the Bell Telephone Laboratories were conducting experiments with a single sideband receiver. In 1937 single side band transmission became a reality. Post depression expansion brought on a "channel efficiency bureau" which we might refer to as a frequency measuring station. Today Netcong has 9 rhombic antennas 2 multiple-output antenna-bridging amplifiers and multi-channel single sideband receivers, handle 29 circuits with but half the effort it took back in the old days.

Next month will be the radiotelephone transmitting station at Ocean Gate, N.J. whose antenna masts may be seen from the Seaside Heights bridge.

W2JAG



Sell---Swap---Buy

- Sell -- Lysco Model 27 ten meter mobile transmitter, complete  
with three 6 AG7 tubes and crystal for 29 MC.  
Practically New \$ 14.00 "A1" W2SXX Phone 2-1687
- Sell -- BC 459 (7 to 9.1 MC) transmitter.  
Dick Henrie W2UPS 100 Tipton St. Phone 5-3832
- Sell -- BC 654 --- \$ 15.00  
Frank Sudi ESQ. 593 Centre Street Trenton. Phone 4-0145
- Sell -- Prewar Sky Buddy Receiver  
3 Bands 550 KC to 13 MCs  
W2JAG Trenton Phone 2-5972
- Sell -- A metal Tower 47 feet high.  
Marvin Saxton 33 Dieter Ave Morrisville, Pa.
- Sell -- Super Pro Receiver including power supply but without  
speaker.  
Dr. Collins -- Langhorne, Pa. or see Les Allen

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The Delaware Valley Radio Association will run a  
column of free ads each month in the interest of  
promoting the sales of any surplus or extra equip-  
ment that you may have. Ads may be placed by con-  
tacting Les Allen or by calling either W2STU or W2UPS  
prior to the first of the month.

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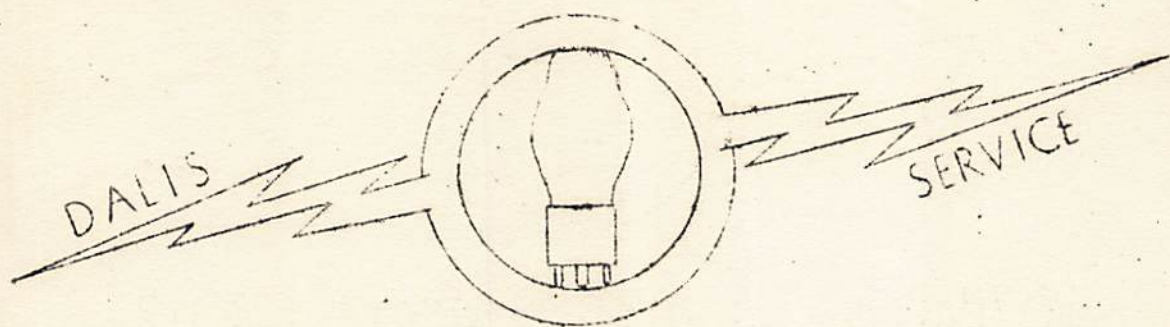






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