VOLUME FIVE - NO. 2

DVRA NEWS

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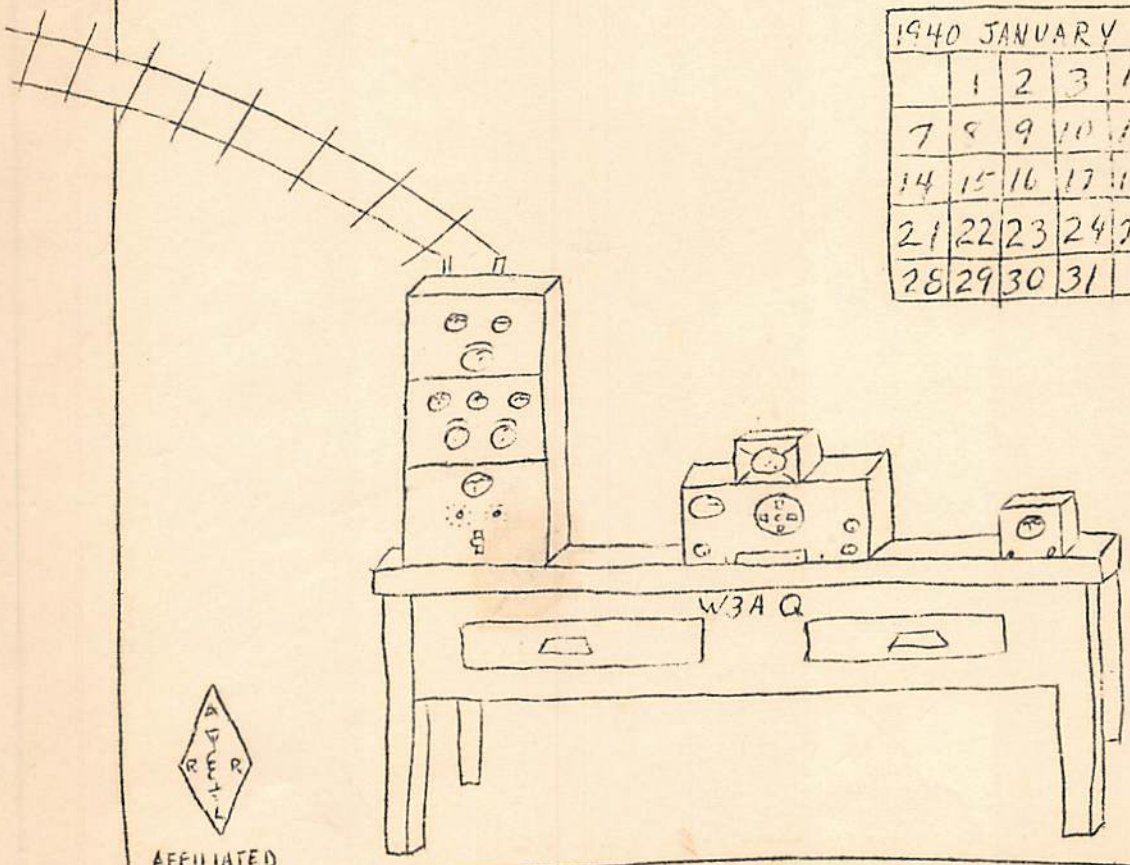

ARRL AFFILIATED

Official Organ of the Delaware Valley Radio Association, Inc.

VOL. 5 JANUARY 10, 1940 NO. 2

CLUB OFFICERS.

President
Lester Allen, W3CCO
Vice President
William Wilbur, W3GNU
Secretary
Edward Raser, W3ZI
Treasurer
William Hannah, W3EUH
Business Manager
David Nabutovsky
Asst. Secretary
Charles Kayser

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WHAT YOUR CLUB IS DOING

by
Ed. G. Raser, W3ZI/WLNE (Sec'y DVRA)

Let it not be said that our club is standing still. We have been steadily advancing year by year but I think the past one has shown more real activity than any in the past.

On February 9, 1939 your Board of Directors took a very WISE step and under the laws of the State of New Jersey the Delaware Valley Radio Assn. became incorporated, as a non-profit organization. This step was taken for our own protection in legal matters only and not as a business proposition. However it may some day in the future mean much to the group as a whole. Also our DVRA Building Fund became something very real this year and will if steadily added to, is sure to become a means whereby club quarters and an operating shack may be realized.

Much good publicity favorable to all amateur radio was successfully accomplished thru our Club Newspaper Project thru its article entitled "Trenton's Radio Amateurs Prove Asset to Community" which appeared in the magazine section of the Trenton Sunday Time-Advertiser of March 26, 1939. W3ZI, who supplied the historical facts and our Editor-in-chief William A. Burroughs, III, who wrote it, we should be indebted for their work. Many hours of midnight oil were burned to make this an outstanding club feature. In this we have felt highly successful. It is publicity of this nature that will eventually pull amateur radio out into the limelight, and further educate the public as to its worth, in its community.

The public once again had the opportunity to see what amateur radio is doing, when during the week of May 10 - 13 1939 your organization participated in the annual Hobby Show at the Y.W.C.A. setting up and operating a complete radio station and Amateur Exhibit which proved to be the center of attraction during the duration of the Show. W3GNU, W3CCO and W3ZI worked untireling on this project and with the assistance of many club members, made this an outstanding activity.

On July 26th two radio stations were set up and operated, in cooperation with the Trenton Time Soap Box Derby event near the Olden Avenue Extension, for the purpose of starting and timing the various races. Duplex operation was maintained on two bands (10 and 160 meters) during all races and the Committee in charge of the Derby commended our club very highly for rendering such valued service. Here once again Amateur Radio demonstrated its ability to serve the public-- and well. Those most active in this event were W3EUH, W3GNU, W3AFH, W3CCO, W3ZI, Charles Kayser and Dave Nabtovsky. As a matter of record, radio contact was maintained with a club member in Jamesburg, N. J. (W2LZZ) on 160 meters during the initial tests, with a very low and poor antenna. W3AQ/3 was copied solid in Jamesburg with good strength from the Derby location.

The DVRA participated 100% in the Annual ARRL Field Day event held on June 17th and 18th. Three transmitters and two gas driven 110 volt power units were operated continuously over a period of 30 hours and ran up a score ov over 1500 points, which is just about twice of last years score. Sixteen licensed club members operated the three stations under the call of W3AQ/2 at Collier's Mills N. J. on the farm of W3GNU. Excellent contact was maintained and all appartus functioned perfectly, and was installed and put in operation in record time. Most of the gang camped over night and cooked their meals right on "location". A swell

time was had by all and another highly successful activity was entered in the records.

On August 6th, the clubs most outstanding Annual Outing & Hamfest was staged. A record event and a record attendance for our Third Annual Affair, drawing Hams from twenty states and as far as Arizone, Ohio and Mass. Six hundred attended this gala affair, which was held at the Trenton State Fair Grounds on a cloudless day, more perfect weather could not have been made to order. One of the big features of the Outing was a complete self powered mobile emergency station operated in a Ford Pannel truck by members of Western Union Telegraph Co. under the direction of Major Felsenheld, W3MI, who was in charge of the demonstration. Radio contact was maintained with ARRL Headquarters from the Fair Grounds, and congratulatory messages were received from F. E. Handy, Communications Manager of the League. The credit for success of this Hamfest goes to the various committees who worked so hard to put the event over, and Doc Wilbur, the general chairman.

Just prior to the selection of a new Sections Communications Manager, (SCM) in this ARRL Section, the DVRA sponsored our able President, Les Allen, W3CCO for nomination to the office as the new SCM, Southern N. J. Section as of July, 1939. The campaign slogan "Keep Your Section on Top" has not been lost sight of by Les, who is doing a real job in an endeavor to bring the old Southern N.J. Section back to its rightful position of leadership in the Atlantic Division. Lets all back our SCM to the limit and give Les the support he is entitled to as a Leader in the Amateur field.

In closing we must not forget the clubs Movie Project which is now in the process of finishing. Due to the efforts of Dave Nabatovsky and Bill Blumel an excellent moving picture record of all DVRA activities is about completed. When this is finished, with titles and all, it will be a full feature picture and will take about three quarters of an hour to show, such a project has been talked of for many years, but it has now become a reality and will be something decidedly worth while as a matter of historical record.

We have read the records, you can sum up the facts. The DVRA is forging ahead. Lets all put our shoulder to the wheel during 1940 and do our little bit to make YOUR club the ideal organization we all want it to be. So when asked to serve on a committee during the comming year, always remember it is the individual effort of each of us combined with a spirit and will TO DO, that puts any organization "up in front". Pull together fellow members and lets see what 1940 will bring.

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TOLERANCE
by
W3AID

In any ordered society, from the world as a whole, down through each divisions such as the nation, the state, the community, the club and the family, there must be the element of cooperation if the main unit is to survive. And there can be no cooperation without tolerance. Tolerance is the happy state of hearing the others opinions with an open mind instead of having a fixed, immovable prejudice before he or she offers it. Intolerant people refuse to entertain any ideas or thoughts not already catalogued and neatly bundled in their minds. They wear the chip of aggression on their mental shoulders and fly off the handle whenever their neighbor's opinion is at variance with their own preconceptions. They raise a barrier to progress as well and real as one built of stone and steel.

Europe today is a sorry state from intolerance. Almost half the world battles because one group refused to discuss the opinions of the other. All their energy is expended in a hodge-podge of bickering with no concrete scientific approach to problems being offered.

A good sample of present day intolerance is people who won't listen to Wagner's music because he was German, or read the literature of Thomas Mann because he is Jewish. There we have the unscientific, the intolerance in its highest form-- if it can be classed in that form. Merely because a person belongs to a certain race or creed anything he accomplishes is branded false by those with opposite views The very affiliations over which- in many instances--he had no control are used as weapons against him. His works, his contributions to mankind, are for naught, he is an outcast.

Happily such a marked example does not prevail to any great extent in America where all the world has paraded--Jew and Gentile, French and English, German and

Dutch alike, to lay their bit on the alter of progress to make us the great. We are and should be justly proud of this. But we are not perfect. We have certain factions with no faith but the absolute certainty of their own thoughts; Catholics who look upon Protestants as demons from Hell, and Protestants who think all Catholics are something set apart; not because of facts but because they are members of that group and hence their ideas must be bad to start with.

Getting closer to home, we find numerous examples in club life where the self same conditions prevail on a smaller scale. And as time moves on and the present world conditions tighten, we will be assailed with more cases in our daily life.

This is wrong. Healthy competion and a free exchange of thought never hurt any one. We need more of it. We need more science in our thinking. Science deals in facts not prejudices and beliefs, and marshalls these facts for the greatest good, regardless of what creed or group originated them so long as they are sincere.

The next time someone tosses aside an opinion on the grounds the opinion does not come from one holding their concepts tell this someone you appreciate their creed or their group, or any like objection and you accept it. In one stroke you will have won half the battle and be in a stronger position to intelligently weigh the facts.

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Our staff liked the cartoon in a recent issue of the Saturday Evening Post showing a radio shack aboard a boat. The shack had a forty-five degree list to port and water was pouring in every crack, crevice and porthole. The 2nd op stood in the doorway with water up to his ankles and a shocked expression written large across his features. The 1st op, hand gripping key, turned to him saying: "How do you spell precarious".

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Our cheerful thought for the month: Federal income tax blanks are in the mail these days.

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Wondering if W3HWO will ever get to work on 2½ meters.

160 METER CHATTER

Who hasn't heard all the wicked signals on this band recently.

W3EUH worked a K4 at 5 P.M.

Some local lads disturbing this band have been heard in England.

We are waiting with application blank in hand for the hefty sig heard on 160, December 30th, announcing that he was going to join the DVRA before the New Year.

W3BWF, inactive since 1930, is back on the ether again. Les Wood, the owner, is a well-known musician and was quite prominent in ham affairs in the past. Les notified us he received his old call back on November 7th, last and is now operating 160 with a '10 in the final, input 20 watts. He is going after a W.A.S. To date he has been getting out well locally and north and south.

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BUCKSHOT

How would Dave like to go to Hawaii.

Whose yl lost shoulder straps at the Leghorn Farms.

and speaking of yls, who put the bandage on Dave's eye.

Did 3AID and yl feel the effects of being pushed about by the one million people stampeding thru New York's famed Times Square New Years' eve.

Doc is wishing he could see Florida this year also.

Anyone interested in coils and their measurement--and who isnt--don't fail to read 9KWP's splendid article in the latest QST.

3ZI scores photo scoop: At our Fair Grounds Outing on August 6th Ed snapped not one but two SCM's. See Page 71, January QST for the results.

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Better television signals are being received locally according to 3AID, who has been technical assistant on all the Hurley-Tobin Company Radio Lab last month. and marked improvement in picture definition and synchronization was noted over the first fest held high atop the Trenton Trust Building in May '39.

During the May tests, 2XBS in the Empire State Building was monitored for three days using the standard RCA TRK-12 chassis with a 12 inch Kinescope. In order to secure enough gain to over-ride the downtown noise level, it was necessary to seek the highest altitude possible to position the dipole antenna while at the same time permitting the receiver being placed close to the antenna in order to minimize transmission line losses. The Trenton Trust served nicely. But the results of these tests were not perfect. For fifteen minutes at a stretch, and sometimes less, the picture would be sharp and clear and "lock" nicely; but then came half hour stretches when the gain decreased beyond the point where the sync pulses take hold and the frames would flip past like a scenery from a swiftly moving vehicle. Severe qrm from diathermy and car ignition smeared the results with the now familiar 'herring-bone' pattern and light splotches resembling bursting shells, until only a person accustomed to studying television frams could tell the real picture.

The December tests were the outcome of recent changes made at 2XBS, of which the writer has little or no data for publication. But it can be said that even at a greatly reduced antenna altitude and under very poos conditions, the frames was the best obtained yet. No diathermy was encountered and car ignition, except for slight splotching, had no appreciable effect on synchronization. On this basis further tests are planned for the near future.

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CLUB OFFICERS MEET
by
W3AID

3ZI and 3HVO held a neat, impromptu little pre-New Year's party Friday evening, December 29th, at their home for officers of the club. The purpose was to discuss plans for the coming year and to welcome Bud Waite home for the holidays from his extensive lecture tours.

Several items of importance were aired, the main topic being a future meeting place for the club, since our former quarters at the 112th Field Artillery were taken over due to war emergency drilling No decision was reached.

The completed film of club activities was shown by Dave Nabutovsky after which Pauline, ever the charming hostess, set a bountiful board of good things to eat for the boys. Mrs Hannah and Mrs. Allen assisted.

During the stag session that followed, Bud regaled the assembly with his interesting tales of adventure in China and announced his plans for a trip to Peru in June seeking new lecture material.

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WHAT HAVE YOU

TRANSFORMER - 1 - 1200 V, 1000 mils. $6.00 - W3EUH

MICROPHONE - 1 - Condenser, complete with preamplifier - $5.00. W3CCO

RECEIVER - 1 4 tube TRF complete w/power supply, tubes and coils - $10.00 or what have you. W3GNM

TRANSMITTER - 1 35 watt all bands, complete w/ECO, Speech and Modulators - $85.00, W3EUH

CALL PLATES - Have you call letters made by W3CCO - $1.50

QST - Renewals @ $2.00 per annum. W3ZI

TRANSFORMERS - WANTED 2 pole transformers 1 KW each. 2400 V each side CT. See W3EUH.

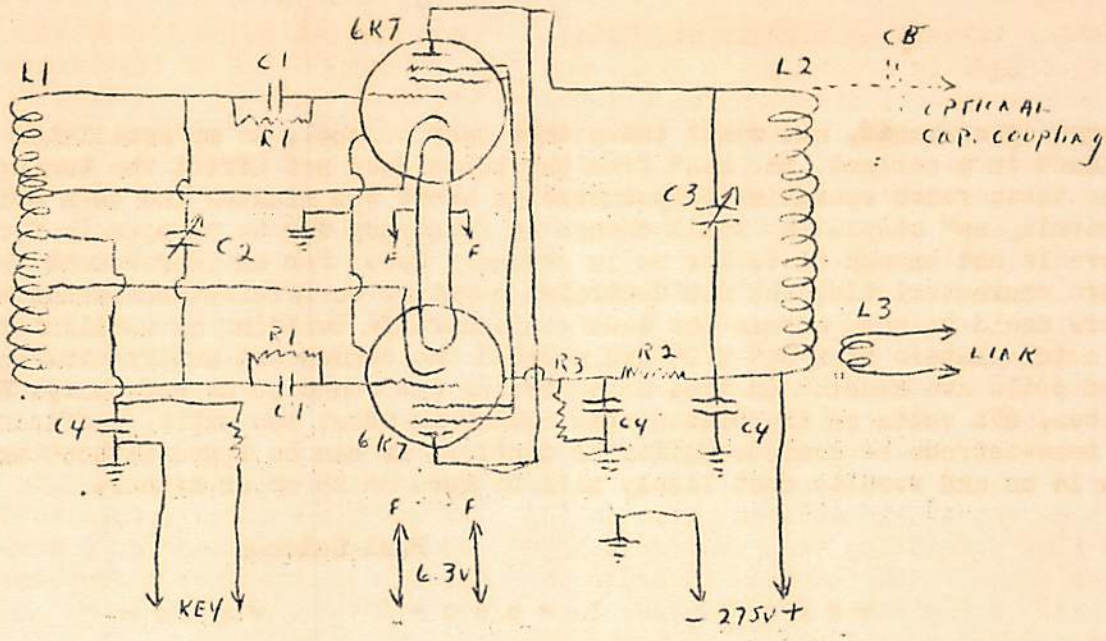
DYNOMOTOR - 300 watt, operates from 6 storage batteries - See Beemish

MICHROPHONES - $8.97 up - Beemish

TRANSFORMER - 1 - 500 watt, 1500 v each side CT, GE case - $6.00 - Torretti

GENERATOR - 1 kw, w/o motor 110v, $12.00 Riggs.

MISCELLENEOUS- B&G 160 M TL Tank; Heavy Key; Code practice buzzer & key; 5M. 6 tube super receiver; misc. equipment - W3HWO



L1 - Fundamental resonant circuit - 1½" plug-in form. Turns adjusted to use 140 mmf condenser on frequency used. Center-tapped. Cathode taps equally distant from center to 1 to 4 turns up coil.
L2 - Output circuit - 1½" plug in form - Low C - See handbook for No. turns.
L3 - Link winding - 1 to 3 turns.
C1 - 50 mmf midget micas
C2 - Hammarlund Mc140's - 140 mmf variable.
C3-- 50 MMf variable - any type
C4 - .01, or larger, paper tublars.
C5 - Coupling condenser for capacity coupling
R1 - Centralab 50M resistors - 1 watt
R2 - 15M 10 watt resistor, atlas
R3 - 74M 1 watt centralab
R4 - 200 ohms 1 watt centralab

Here is the circuit of the electron coupled oscillator that has been in use at W3GRW for the past ten months. The results have been very satisfactory, and have aroused some interest, so here is the dope on it. The principles used are not new, as similar oscillators have been described in QST some time ago. However, they never became popular because of the expensive parts used and the complications compared to the ordinary E.C.O. This oscillator uses inexpensive parts. Total cost will not be over $6.00.

The advantage of this circuit over other E.C.O's is the stability with respect to changes in voltage and loading. Changes in voltage as much as 75 volts change the frequency only a few hundred cycles at 7mc. The output link can be shorted or opened with less effect that it would have on the ordinary crystal oscillator. This high inherent stability is due to Three things. First, the grid circuits of the 6K7's form two oscillating circuits, an oscillation being set up between the grid and screen circuit of each tube, and these oscillations are closely coupled, as one tuned circuit forms the tank for both of them. When two oscillations of the same frequency, approximately are closely coupled they lock together and both oscillate on the same frequency with greater stability than that of one oscillation alone. Second, the fact that changes in plate voltage tends to change the frequency in one direction, while the same change in screen voltage tends to change the frequency in the opposite direction makes the changes in frequency due to voltage changes negligible. Third, the output circuit is well isolated from the oscillating circuit. This isolation is effected by tuning the ouput circuit to the second harmonic of the oscillating circuit, and by the good screening of the 6K7 tubes when the screens and suppressors are tied together. The changes in frequency due to temperature changes are reduced by useing a good tuning condenser, a ribbed coil form, with the

turns space-wound, and small tubes that operate cool. As my oscillator is not inclosed in a cabinet, the heat from the tubes does not affect the tuning circuit. The tubes reach operating temperature in about two minutes and then drift due to "warming up" stops. The small change in frequency due to changes in room temperature is not enough to bother me in ordinary use. For an improvement in temperature characteristic, the new Centralab negative coefficient compensating condensers could be used across the tank condenser. In building my oscillator, I used a metal chassis 5" x 9½" x 3" and mounted the condensers underneath. The tubes and coils are mounted on top. No shielding was found to be necessary. With 6K7 tubes, 275 volts on the plates, the output is about two watts, sufficient to drive a beam-tetrode or pentode buffer or doubler. It can be keyed without any chirp on 14 mc and results most likely will be good on 28 mc or higher.

Paul Solomon

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CONTEST CONTEST CONTEST

First Prize: 1 ARRL 1940 Radio Amateur's Handbook
Second Prize: 1 Hents and Kinks for the Experimenter
Third Prize: 1 ARRL Log Book

As announced in the last issue of the DVRA News we bring you the First of several Contests to be sponsored by the DRVA News. It is easy to win one of the above-mentioned prizes by merely writing a short essay of not more than 50 words on "Why I should affiliate with a radio club". Write on one side only and in your best handwriting, neatness is an essential item. This contest is open to all Radio men and amateur interested SWL's. Judges will be Mr. David Nabutovsky, Business Manager of the DVRA News Staff and Mr. William A. Burroughs, Editor of DVRA News. Decisions of the Judges will be final and in case of ties duplicate prizes will be awarded. All essays become the property of the DVRA News and none will be returned. All essays must be mailed or delivered before Midnight February 1st, 1940. Results will be announced in the February issue of the DVRA News. Staff members of the DVRA News are not eligible to participate.

Mail all essays not later than February 1st, 1940 to Mr. David Nabutovsky, Business Manager, 1101 East State Street, Trenton, New Jersey.

(Editors Note) Lets all get behind this fellows as participation will determine future contests, don't put it off, sit down and write your essay now. 73's and lots of luck to all.

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ENTRANCE FEES RAISED.

At the December Meeting of the Delaware Valley Radio Association the member ship voted to raise the entrance fee from $1.00 to $3.00 and dues from 25¢ to 40¢ per month. This decision was decided upon after serious thought and concentration. We all feel it will go in making a better DVRA and help reach the goal we are all striving for. Elsewhere in this issue you will find an article written by Mr. Ed. G. Raser outlining the progress made by the DVRA in the past year. With the added financial support we feel that we can carry forth all of DVRA's traditions.

FOR SALE - 2 Eimac 100TH's (Brand new, never used) $10.00 each.

WANTED * 1 Weston 0 to 15 volts AC and 1 Weston o to 1 mill, type 301 meters. See Less Allen W3CCO.

W3CFS - Steve is getting up the old DX'ing fever. He is getting up early in the morning to look on 160 for the DX

W3GAF - Pat or Joe is back on 160 phone as is W3GNM louis.

W3EUH - Scotty has the DVRA transmitter on 160 and working out FB

W3HTP - Ed is also on 160 phone nowadays.

W3HTJ - Frank has his half kw almost finished and should pack a wallop on 160. Frank has promised to buy a quart of tonsil lubricating oil when he puts the new rig on.

W3ZI - Curley has a snazzy little portable transmitter which he claims will work out successful for day and emergency contacts. Upon examining the rig carefully we see that Curley forgot to put in a microphone jack.

W3HKO - Admiral Byrd's sidekick was in town over the holidays and long enought to attend the DVRA Directors meeting.

W3FNL - Joe has just put a new coat of paint on his rig in anticipation of having his picture taken.

W3AFH - Bill is taking sun baths regularly every day now so he can compete with Tarzan

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IF YOU HAD SENT IN AN ITEM THIS SPACE WOULD NOT BE AS

EMPTY AS IT IS.

ANONYMOUS.