

(AMATEURS.)

ZERO BEAT



RADIO CLUB

General Secretary, J. G. MYERS,
128 Wycombe Road, Neutral Bay.
Phone: X3327.

Club Rooms:
Gregson Studios, 38 Sydney Arcade (1st Floor).
George and King Streets.

CLUB NOTES.

Morse Practice Transmissions.

VK2ZB—7.30 to 8.30 p.m. Tuesdays and Fridays.

VK2ZB—7.30 to 8.30 p.m. General Monthly Meeting Night.

VK2DZ—2.30 to 3.30 p.m. Saturdays.

2359hrs., 20/10/'33, and 40mx is comparatively quiet, with the usual Japs, Yanks, New Zealanders, KA's, PK's coming in at about R5 and a few VK's, but weak.

0001hrs., 21/10/'33, and the quiet is gone, for the five-point relay has commenced. Out of the void spring dozens of VK's, mostly going at the rate of 17-20 w.p.m., and all calling CQ test. Most of the Hams who are regularly heard are there, the best heard to date being VK2OZ, our choice hopes, 2FQ with a beautiful C.C. sig. that would wake the dead, 3RJ, a most consistent Ham, 4RV, who carried off the honors last year, 7CH also, who was very close to the winner, has been heard absolutely burning up his key and seems to be running up a large total of points. There are many other stations we could comment on, but if we did so we would need about three-quarters of "A.R.N." for the space. Those who have heard 2OZ will surely agree that John has a copper-plate fist, and most receivers whose receiving rate may not go above 12 w.p.m. can read 2OZ's sigs. at about 18 w.p.m. VK2YL, up on the coalfields, romps in down in VIS, with a good note, and strength from about R7 to R max. at times. The weather and QRN gods especially have not been too kind to the contest, as usual, so far. At the commencement conditions, although not 100 p.c., were such that traffic could be handled without headaches. This, unfortunately, did not last, as during the week a westerly and southerly disturbance came along and QRN took control on 80mx and although did not blot sigs. right out, made QSO's unpleasant. Thus, 40mx became the second barrel and QRH of most stations. A few stations were heard on 20mx by the various receivers of the club, but this band seems to be as unreliable as ever.

Of the club's stations, those who are taking part are VK's 2OZ, 2UP, 2CP, 2EL, and we wish you gentlemen best 73's and 100 p.c. QSOs on behalf of the club.

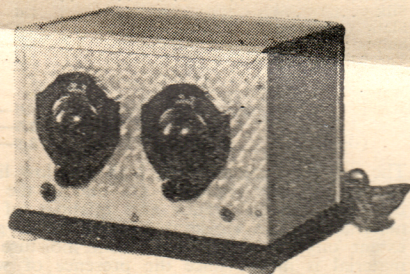
There is no doubt about these contests as the average Ham without them would just continue in his own quiet way and the Ham spirit in the matter of inter-State QSOs on sked., etc., would lag. By taking part in the contest he immediately QSOs men whose call signs he, perhaps, has heard or seen, and thus the whole Ham fraternity in VK is brought automatically closer together. This is what is needed badly as the Ham game, especially in VK2 and VK4, has had some vicissitudes of late years. These, happily, have passed, and indications point to a greater and closer harmony than before, which we sincerely hope will continue.

Word has been received that VK2GL, the Richmond River Listeners' League, has been notified from Melbourne to discontinue their Sunday morning and afternoon transmissions. These transmissions, of course, were totally amateur and were for the benefit of the listeners around the Richmond River district, as during the times of transmission no stations, "A" or "B" class, of any State were audible there. VK2GL filled the breach without QRM'ing any other transmission from "A" or "B" class. The Radio Department, however, ruled that these programmes, which did much to brighten the Sab-

bath up there, were out of order under the rules and regulations applying to amateur transmissions on the broadcast band. To bring VK2GL into line with the other amateur stations operating on this waveband, the decree has gone forth that such transmissions during the day must be discontinued.

Much indignation has been aroused in the Richmond River district by this edict, and many meetings of protest have been held to voice the listeners' views on the subject, but the people concerned may rest assured that the powers controlling radio do not do these things for fun, spite, or any other whim. We understand that in the very near future the Government is going ahead with a further large programme in "A" class and relay stations, also quite a few new "B" class licenses have been granted. It may seem very hard, which no doubt, perhaps, it is, but one feels that the measure is temporary. No matter in what sphere of life we travel, progress and development always hurt someone.

Another of our country members, Mr. Stan White, of Nyngan, is ready to sit for his



This is the neat little short-wave receiver used by VK2Z-1, Mr. Cambourne, who writes the weekly news and notes for Z.B.R.C. The receiver uses two-volt valves and is a detector and one audio type. It gives an excellent performance, as may be seen from the lists of overseas stations appearing under the Z.B.R.C. heading.

A.O.P.C. VK2QA, "John," of Tullamore, forwarded the information on a QSL long overdue to VK2Z-1, for which VK2Z-1 sends his 73's and thanks. Well, Stan, OM, we sincerely wish you the best, and hope to hear from you soon. How about a few photos. from Nyngan way?

QSLs are to hand, in the club letter rack, for stations 2ZH, 2DZ.

CLUB MEMBERS AND GENERAL NOTES

2WR and 2BQ, who both work at the Plaza Theatre, thought it a good idea to rig up a shack in the box at the theatre, as their evenings only begin at 11 p.m., after the show is over, and they could do some experimenting on the broadcast band together. The rig used was 2WR's and is a three-stage Xtal job. For various reasons 2WR and 2BQ had to QRT from this QRA, and are now on the BC band from their own QRAs. Transmissions were highly successful, and both Fred and Allan would like to hear from listeners who may have heard them. The aerial used was a departure from their aerials at home, and reports of a comparative value would be greatly appreciated. These may be sent to their private QRAs.

Say, 3HF, we haven't heard from you since you returned to VIM. How are you doing, and

what about a few snaps, also the card you promised VK2Z-1?

VK2Z-50 has heard the following: VK's 2MY, 2OZ, 2VG, 2OH, 2AH, 2DM, 3TU, 3FR, 3FK, 4UU, 5GW, 5XQ, 5LG, 7JW, 7PN, ZL's 1GO, 3FK, 1GL, 1DE, 3GM, 3AR, W's 6AXT, 9AAL, 9AJP, 9BIB, 9USA, 6FL.

VK2Z-23 has logged the following: VK's 2ZO, 2FQ, 2IZ, 2AV, 2ZM, 2JC, 7DR, 2GF, 2OD, 2AK, 4RV, 2EL, 2BY, 2NG, 2HA, 2UK, 2FY, 2OZ, 2HM, 2DL, 2VG, 2SK, 2DZ, 2DM, 2WT, 4JU, 2QA, 5LJ, 2GI, 3TA, 7CH, 2QT, 2XO, 2GY, 2ZU, 2UO, 2HC, 2HP, 2NB, and ZL's 1BQ and 2OG.

VK2PW has a good 'phone sig. on 4mx. Reports by club members all give him R7-9, QSA5, with FB 'phone around the metropolitan area.

VK2WH, from Forbes, certainly has some lively times with QRN charging up his aerial. He says that sparks fly all ways at once from his aerial switch during the storms.

Zero Beat Radio Club Lecture No. 5.

CONDENSERS.

STATIC INDUCTION, ELECTROSTATIC FIELD.

When a conductor or plate which has been electrified or charged is brought nearer another conductor which has not been electrified, an electric charge will be induced into the latter. This is called *static induction*. The closer the proximity of the plates to each other the stronger will be the charge induced into the unelectrified plate; and the greater the distance between the two, the weaker will be the induction.

Let A and B represent the two plates.



A.—Charged or electrified plate.

B.—Static induction.

A has been permanently charged by touching it with an electrified amber rod. The plate B is of the same material as A, but uncharged. The two plates are insulated or protected from contact with the ground, so that their charges will not be conducted to earth. The plates are mounted on a non-conductive material such as glass.

The range of space over which A is capable of inducing a charge into B is called the *electrostatic field*.

If the plates touch, then the permanent charge in A flows into B, and the charge on the two plates is equalised.

It was stated that the strength of the charge induced by an electrified conductor in another conductor depends upon the distance between the two plates. The strength of the charge also depends upon the nature of the substance between the two bodies, which must be a non-conductor.

DIELECTRICS.

The medium between the plates is known as a *dielectric*, and all dielectrics are non-conductive substances, that is, insulators.

The facility with which a dielectric allows static induction to act through it is called

(Continued on next page.)

SHORT-WAVE NOTES

EARLY EVENING SEARCH REVEALS MANY STATIONS

On Saturday evening, October 28, a friend, keenly interested in radio, dropped in to hear my new short-wave set. Fortunately, it was a clear evening, there hardly being a trace of any interference, so I began to examine the 75-80 metre amateur band, doubting if there would be much else on, it being early in the evening. This proved very successful, as the first station we heard was a New Zealander—and later we picked up four more from New Zealand, three from America, two from South Australia, one from Victoria, one from Queensland and a large number from New South Wales.

After spending an hour on this band, my friend asked to hear some of the overseas stations, so we tuned to JIAA, Japan, 30 metres, which was coming in at fair strength with the usual one string violin type of music. We then picked up several 'phone stations, all below the 25-metre band, but were unable to identify any of them, being in foreign language.

At 10 p.m. the Empire Station, GSE, on 25.28 metres was heard. This station is now one of the best on the air, being at excellent strength, and continued until 11.45, when that station closed, and the programme was resumed from GSF, on 19.2 metres, and GSD, on 25.53 metres, the news service being given at midnight.

At 11 p.m. we heard FYA, Paris, on 19.68 metres. This station is now word perfect, being equal to the Empire Station, but rather more deeply modulated. We heard the English news service from FYA at 11.45 to 12 p.m. About this hour we picked up another station on the 25-metre band, and, although the music was very loud, announcements were very weak. Most announcements were made in foreign language, but were occasionally repeated in English—one announcement stated that the wavelength was 25.37 metres. On going through my list of stations, the only one I can find near this wavelength was K1XR, Manila, which is 25.38 metres.

Towards 12.30 we picked up REN, Moscow, on 46.6 metres, at great strength, and we also picked up PMY, Bandoeng, Java, on 58.3 metres, which was coming in much better than I have heard it for a long time. They were broadcasting dance music, which was apparently from an hotel, and we could occasionally hear applause.

The only other station heard was on the 49-metre band, at 9.30, when the station was closing down. We missed the call sign, but the location was given as Java.

Taking it all round this was a very good log for one evening and my friend went away with his mind fully made up that he would buy for himself a short-wave receiver.

On Sunday evening, the Empire Station announced that from that date programmes for the Australasian zone would commence at 7.30 a.m. and end at 9.30 English time, which corresponds with 5.30 to 7.30 p.m. Sydney time. This broadcast has been heard during the last few evenings, and has been excellent from GSF and GSE, right up until closing time. Announcements were made that there would be a special broadcast from GSG, 16.86 metres, and GSE, 25.28 metres, on Tuesday, October 31, from 9.30 to 10 p.m. Sydney time. This is to be in the nature of a relay from Palestine, and it is hoped to be able to report on this special broadcast in next week's notes. On Sunday afternoon it was noticed that FYA, Paris, on 25.63 metres, is still putting over the English news session from 1.30 to 1.45 p.m.

H. M. S.

WITH THE AMATEUR TRANSMITTERS.

By VK2WO.

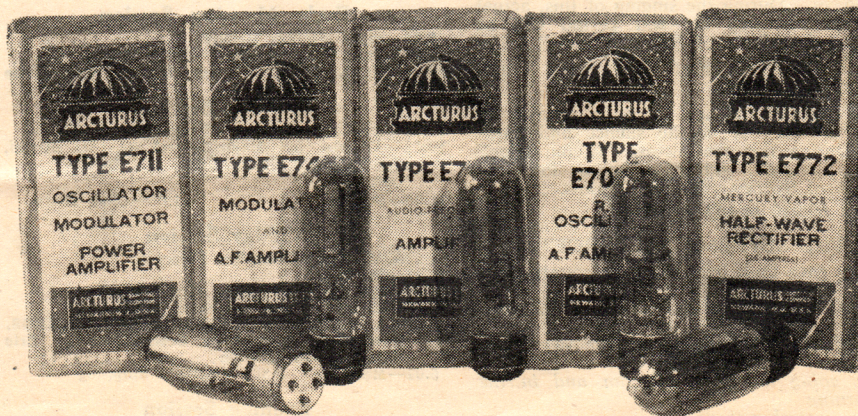
What a hectic time! The five-point relay test went off with a bang, but fizzled out after the first few days. The main trouble seems to be

that although only 30 messages were allowed no limit was placed on the number of messages to be sent to the one station on the same day! For instance, if every station was allowed to originate five messages on contacting each station, the test would run its full course. That is not more than five messages to the one station on the same day. I believe the purpose of the test is to foster traffic handling, and to find out who operates his station to the best advantage. Here are a few points regarding the test. (1) The messages run out after the first few days. (2) Most stations refuse to give many messages unless you have the same number. (3) Some stations agree to keep their messages for their friends only, although quite willing to take messages from those outside the charmed circle. I must say, however, that whilst it lasts, it is very interesting, but after that it is just a matter of "QRU ur State, QSK," which, to say the least, does not put one in the right frame of mind to write cheerful notes!

The conditions on 40 metres have been very good, but the QRM has been anything but good. After listening to the congestion on 40 and then to the vast wilderness above and below the band and the death-like silence broken here and there by a few V's and an occasional power leak—well! 4RV is doing well in the test with his crystal signals. 3KO is

contests. 2ZU's 'phone sounds very fine, but spreads a good deal. Sorry, I haven't any dope about the local gang at the moment, but as soon as this test finishes I'll do some detective work and find out what's doing. See you all again next week. Cheerio.

This week our office has been favored by an unexpected visit from Matt O'Brien, VK4MM and W. S. Argat, VK4KH. The two of them came down by car from Queensland, carrying a portable transmitter and receiver and using the call XVK4MM. Matt is most indignant. Not a single QSO resulted all the way down, and the transmitting equipment was O.K. and radiated perfectly. Every call on the 7mc. band elicited complete silence, and after examining the transmitter, we are of the opinion that probably the relay contest has something to do with it. Therein arises a point. What use would it be to anybody carrying a portable station, and being in distress anywhere, if SOS calls on the amateur bands were fruitless? There is too much of this business of looking over only the powerfully audible signal. If you hear a weak I.C.W. sig. it may be a portable outfit with a Ford coil on the job, and it may be anybody, anywhere, wanting help of some kind. What is this thing that is lacking in VK Ham radio?



COUNTRY BROADCASTING STATIONS AND AMATEUR TRANSMITTERS.

This illustration practically tells its own story. Here are a few of the Arcturus transmitting valves available from the stock held by New System Telephones Pty., Ltd., 276 Castlereagh-street, Sydney. They are to be cleared at reasonable prices, and those interested should communicate with Mr. Carey, sales manager, for full particulars and prices.

also doing well with P.D.C. signals. 3RJ is also in the forefront. 3JE and 3HQ, both with C.C., should have a good chance. Of the VK's 2OZ, 2FQ, 2DR and 2CP are piling up the points. 7CH should pull off the prize for Tassy. 5ML is doing good work for his State. Only VK6 heard here was VK6SA with T9 signals. R5. 7CD gets a good steady P.D.C. signal from his Hartley. 3HO's C.C. signals are very good, he hadn't been on for about six weeks and called a test station with dire results! 3BQ is doing good work, although his time seems limited. Some of the men seem to have stage fright, for they handled messages at ten words per minute, whereas they go much faster than that as a rule. 2DT is active in the test with good signals. 3FJ is also on with good sigs.

The ZL's are very good at present on both 40 and 80 metres. The DX being excellent also. The Japs and PK's come in well any old time, PK3BQ and JIEE being well to the fore. All American districts, South America and a few European stations can be heard on the evenings. 2RJ has excellent 'phone on 80 metres and was heard having a three-way 'phone QSO with two ZL's. 2UO, 2ZM and 2HU still keep up their marathon 'phone

"L.T.E." of Bombala, who kindly forwarded information on the "mystery station" in a letter published in "A.R.N.," 20/10/33, p. 43, volunteers the following further information.

This is the present schedule for RNE, and they stated that the schedule depends entirely on reports of reception from listeners. RNE on 25 metres is on the air with an English session on Sundays from 4 to 5 and 6 to 7 Moscow time, which is 1 to 2 and 3 to 4 G.M.T. RW59 on 50 metres, runs the English session on Sunday, Monday, Wednesday and Friday, at 9 to 10 G.M.T. PHI is 25.57 and not 25.2 metres as printed, and their schedule is at present Friday and Monday, 11.30 p.m. to 1.30 S.M.T. On Sundays and Saturdays it is 11.30 to 2 a.m. S.M.T. PHI fades a great deal after 1 a.m., and the second broadcast from RNE is only about R4, QSA3. from announcements verbally, I have RNE giving morse traffic to RTB and plainly RNE*.

* The practice of sending the call-lette the station in code should be adopted world over by short-wave broadcasting and would ensure identification.—J "A.R.N."

AMATEUR NOTES

5-Point Relay Contest

Forty-metre Band Activities—Five-metre Field Days — Instructional Classes for Budding Operators.

By MAX HOWDEN, VK3BQ

AFTER a week in which the forty-metre band was never quiet while the Five-point Relay contest was being held, things seem to have settled down again, and now most of the stations that are heard there are testing phone. It is too early to be sure of the result of the contest, but it is rumored that VK7CH is leading with well over 1000 points. Other rumors are that VK20Z, VK3HQ, and VK3ML all passed the 500 mark before the second week-end of the test started. VK2BP and VK5MK at that time had about 300 and 200 points respectively.

In South Australia, VK5JA is considered to be the most likely winner, while from Queensland and Western Australia no reports have come to hand at all. The outstanding feature of the contest from an observer's point of view was the scarcity of messages from the more active States. After the first couple of days, three out of every four contacts seemed to consist of "sorry qru here," showing that much more work could have been done had more messages been allowed to be originated at each station. In this respect, the contest did not approach the recent Victorian Reserve Relay Contest, when the only stipulation was that messages were not allowed to be handled twice by one station.

VK4DR got a new crystal for the test, and was on the air every minute that he could spare, so he should have done well. VK4RV also played an active part. A few stations used the eighty-metre band for some of their traffic, but the relative quietness of this band was surprising.