

**JOURNAL OF THE
Q R P
RESEARCH SOCIETY**

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Q R P
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Q R P

.....
ISSUE No. 37
OCTOBER 1952
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..... E D I T O R I A L

If only expense was no object! Comparing the endeavours of this Society with the work of official research establishments is inclined to make one despair of ever achieving useful results. I know of one large firm whose chemical research department has just been granted thousands of pounds for one year's work -- a sum that would be a staggering fortune to me for the rest of my life! I know a relatively small firm where, although the production departments are tied to a tight budget, the electronics research department has permission to spend any amount necessary to obtain the desired results. How, then, can we expect to get anywhere on our very restricted pocket money? Well, it's a peculiar thing -- and a proud one, too -- that a great deal of the tremendous development of radio has been due to the work of unpaid and far from wealthy amateurs who had no encouragement but their own enthusiasm and determination. Where a subsidised department will place an order for some piece of apparatus, the amateur will settle down and make an equally efficient part himself. It may take him months longer to reach achievement, but he gets there in the end. Moreover, there are some kinds of research which are peculiarly the amateur's province. Such a line has been suggested by G3ANQ in the supplement which we presented last month. Every one of you can lend a hand here. Do let us have your cooperation.

.....: THE SOCIETY'S COUNCIL FOR 1953 :.....

In December the present Council of our Society complete their term of office and a new council must be elected. The present council was elected on a basis of area representation, an idea which has proved ineffective in so much as, being still a relatively compact organisation, individual requirements can always receive individual treatment by direct contact with headquarters. It has been decided, therefore, to build the new council on a more practical foundation, giving each member of it a certain function to carry through, thus relieving to some extent the increasing pressure which has been falling upon your Hon Sec due to the rapid and continuous expansion in the variety of our activities. Some nominations have already been received for the new Council and these are set out below together with those members of the existing Council (names set out in brackets) who are eligible for re-election:--

PRESIDENT: -----(Mr A. O. Milne, G2MI)

CONTESTS COMMITTEE: ----- Mr E. Banks, GC2CNC
 Mr R.C. Eldridge, G3AGQ
 Mr P. Huntsman
 Mr H. G. Wells

CLUBS LIAISON OFFICER: ----- (Mr A. D. H. Looney)

V. H. F. SECTION SEC: ----- Mr E. Banks, GC2CNC

SPARES SERVICE MANAGER:----- Mr G. Partridge, G3CED

GENERAL ADVISORY COMMITTEE: ---- Capt A.M.H.Fergus, G2ZC
 Mr G.Partridge, G3CED
 Mr E. Banks, GC2CNC

STUDENT SCHEME MANAGER: ----- Mr T. H. Carter

PRESS OFFICER: ----- Mr Vic Cundall, G3FAU

Any further nominations must be received at headquarters by November 3rd at latest and a voting form will then be sent to all members with the Nov issue of "Q R P". If no further nominations are

received then the above members will be considered as unanimously elected to the positions indicated.

Briefly the duties of the Clubs Liaison Officer will be to keep in touch with other clubs and Societies and note any occasions upon which mutual cooperation could be beneficial. The Press Officer will fill a most important function, it being his duty to submit regularly, concise news of our activities to the editors of all National Radio Periodicals in sufficient time to meet their respective publication dates. The Contests Committee, consisting of two licenced members and two SWLs, with the Hon Sec holding the privilege of a casting vote, will be responsible for the organisation of contests, judging of results and the selection of teams for entry in contests other than those of this Society. The General Advisory Committee is devised to watch over the progress of the Society and to advise any means by which it's advancement and usefulness may be increased.

.....: YAGI FOR 70 CMS - CORRECTION :.....

Monty, GC2CNC, points out a serious error in our diagram of the 70 cms array last month. The length of the directors was given as 9" whereas it should have been 12" in each case. Sorry, OMs!

.....: T R O P H I E S . :.....

We have received a really magnificent silver cup, presented to the Society by George Partridge, G3CED, to whom our most sincere thanks are due. George has an excellent idea brewing by way of a contest for this cup -- but more of that later. Many thanks, George!

We also have a promise of a cup from Monty, GC2CNC, to be presented annually to the winner of the "200" Contest. That will make the "200" even more worth while, so very many thanks to you, too, Monty.

G3FTQ, Gerry Whitfield (Doncaster) has had his plans crossed out by a demand for his presence at Locking. (It looks to me as if we'll have to start a Locking Old-boys Section!). The new QRP Tx has had to be laid up while still needing initial adjustments and the VHF schemes have been postponed altogether. Gerry sends in very full gen on the FKS8BC query -- he is ex-F8TK, QTH: Innsbruck, Tyrol, French zone of Austria; QSL via R.E.F. Thanks, OM, and all the best at Locking.

PA0XK, Evert Kaleveld (Rotterdam) has been QRO with 50 watts on the Dx bands and has collected 139 countries, with 109 confirmed, and is hoping for DxCC. Later in the year he will be using a bandswitched 2 watts Tx in an attempt to make WAC on 2 watts. (Thanks for your nice letter, Evert, and I hope to see you at the Exhibition).

G3JEA, Eric Alban (London, W2) is using a 4 watt 6V6 CO on 3.5, a 10 watt Tx for Top Band and a VFO/ba/pa on all bands (1.7 to 14) with 8 to 10 watts. The receivers vary from O-V-O to BC 348.

G3CED, George Partridge (Broadstairs) has been on the air (7 Mc/s) occasionally lately after an extremely busy summer which has kept him well away from the key. He is using 5 watts to a CO feeding 137 ft N/S via 300 ohms twin tubular and Pi coupler. Best QSO to date is I1AOH who gave George RST 599 using a BC312 WITHOUT ANTENNA. Elsewhere in this issue we have mentioned the cup which George has given to the Society and, once again, I would like to thank him on behalf of us all for an extremely fine gesture in giving us a really magnificent trophy. Thank you, George.

G1EDZG, Walter Caughey (Belfast) hopes to be active again in November with 5 watts to a 6V6 CO. (Thanks for the long letter, OM. I will answer as soon as I get a moment, but you will find most of your points already answered in this issue).

G5GC, L.G.Young (Bournemouth) still runs one of our few 100% QRP stations. His Tx is a 1vCO with a max of 2 watts while the Rx is

a O-V-1 with 0.4 watts HT. There is also an R1224a with 1.2 watts which would still come well within the limits of our QRP SWLs. The antenna at G5GG is a 36 ft vertical Marconi (Skyrod and lead-in) and the bands covered are 160 and, occasionally, 80.

GW2BCH, J. P. O'Brien (Llandudno) is, for the moment, rather QRO with 30 watts, but he is finding great difficulty with local condx since an open-air transformer station graces the field facing his house. Even in face of these discouragements a new QRP Tx is being laid out and, though business commitments are making it a long job, we do hope to hear of its air test before long.

G2AOL W. S. Hall (Otford, Kent) runs $\frac{1}{2}$ watt to the PA stage and slightly less to the VFO of his 80 metre rig which is part of a complete station re-build. A QRO transmitter is in the planning stage as a separate unit, but the QRP job is a permanent feature.

Bryan Read (Liverpool) has been suffering from the school master's pet aversion -- exams (even more abnoxious, it appears, to the master than to the pupil!). Consequently his listening has been very much restricted and he is getting a bit worried about his C-Z scores. Bryan, in supplying an answer to the EHS3 query, comments on the large number of apparently indiscriminate calls which are being dished out to all and sundry lately.

E. W. Gardiner (Diss, Norfolk) has done well with his C-Z log this month and has, besides, found time to get a new antenna rigged. This one is longer and higher and seems to favour the west country so that notification of any skeds from the Bristol members would be welcome.

Norman Bason (Peel, Isle of Man) has got his new shack finished at last and has managed to squeeze in a 50 ft antenna. He has, unfortunately had his aim of 100 points in the C-Z panel curtailed by an attack of 'flu (Hope you're OK again by now, OM, and don't worry about the C-Z - - there's plenty of time yet)

J. Heinrichsons (Dumfries) has been very busy putting it over on the City and Guilds people. He has collected a first class pass in Radio 1 and a second in Radio 2 and is now preparing to attack maths &

37/6

Radio 3 (J.H. is a Latvian and has only been in this country a few years -- another of those cases which amaze me of a person being able, not only to master a foreign language, but walk with honours through technical exams which would be pretty stiff even in ones natural tongue. Imagine having to take Radio 3 in Latvian!)

G.H.Tillett (Rainham) has run into a number of difficulties with the new QRP SH4. One or two components protest that they need different orientation, and two 1S4s have cracked right across the base for some unspecified reason. These are now being examined.

With deep and very sincere regret we record that Mrs Harry Wells met with a fatal accident on Friday the 26th of September. We know that every one of our many members will wish us to pass on to Harry and to young Andrew their sympathy in such an overwhelming loss.

Ian Glen (Home QTH, Coldingham) has had yet another move, this time for a temporary stay at Chelveston near Higham Ferrers. Unlike Locking, where Ian found a congenial atmosphere in the very active amateur radio club, his present station fails to offer even the hospitality of a local ham.

Bob Kenyon (Liverpool) has finished his new DC multimeter and also the audio oscillator. Now under construction is a xtal oscillator and, in due course, we hope to get constructional articles on all this gear. Bob suggests that, in last month's paragraph on The Structure of The Society, we might have included a place for fully QRP stations (ie, both Tx and Rx) such as G5GG. He also feels that the permissible limit for receivers could be increased to 1.5 watts to allow scope for greater development in QRP super-hets (What say, OMs? Hands up for a half watt increase!)

G3JEA, Eric J. Alban (London W2) has received his call at last and will be active on Top, 80, 40 and 20 any time now with 10 watts max. He is anxious to get in touch with anyone who might care to give him helpful gen on 20 metre working and 20 metre rigs.

G2HL, John Woodage (London NW1) paid Monty, GC2CNC, a visit while on holiday in Jersey and is most enthusiastic about his reception and about the simple efficiency of Monty's gear. He would like to see much more detailed accounts of the latter in these pages (Can you oblige, Monty?). John was very impressed by Monty's QTH - "it's a case of having the sea in one's back yard!" he says. John himself suffers from particularly difficult local condx as his block of flats backs on to Euston station

K. Smith (RAF, Yatesbury) writes us a very nice first letter full of enthusiasm for the friendly and cooperative atmosphere of our Society. He volunteers his services in connection with our Student Scheme and, since he is an RAF Radar Instructor any such help should be most valuable indeed and will be more than welcome.

Peter Huntsman (Hexham-on-Tyne) has got the O-V-2 working really well now on all bands, fed from a 48ft end-fed running NE/SW. Peter and his brother, Ronnie, have offered to take over the "panel bashing" side of our proposed Constructional Section as they have a suitably equipped workshop (Many thanks for the offer, OMs. It is very much appreciated and I hope we shall be taking advantage of it before long. I will take care that we do not overload you.)

J.I.Meardon (Lustleigh) puts forward a number of suggestions on a variety of subjects and his letter is too long to answer in detail here, but it is appreciated none the less, especially the various offers of assistance (I'll get round to a personal answer as soon as this issue is complete, OM.)

John A. Tipping (Brighton) is particularly interested in our VHF Section (GC2CNC would like to have a letter from you, OM). John is anxious to find a source of supply for 958A acorn valves which he finds to be a very fair substitute for the 955. Can anyone help?

37/8

4X4CJ, Bob Avigor (Orleans, France) should have been on the air for several weeks now using the call F7CS. He will be operating with 50 watts on all bands, but will also run 5 watts on 3.5 and 7 Mc/s & will be on the look out for Gs, especially QRP members. I hope to get more definite gen on his times before next issue.

G3AGQ, Bob Eldridge (Salisbury) has been getting surprisingly good reports on his clamp modulated phone using $1\frac{1}{2}$ watts on 80. Following the adverse criticism of clamp mod in "Bull" correspondence he has carried out careful tests and has found no trace of spread on the transmissions or whixkers on the sidebands. Local hams have confirmed this from their own observations of his signals. Bob suggests that most of the bad clamp mod signals may be due to the ratio of audio to the quiescent carrier being too high, giving blasting effect.

G3IMG, Ron Turner (Brierly Hill, Staffs) has been out of touch for some time, but is getting things sorted out again now, though transmissions are restricted to early mornings on 80 and Sunday afternoons on 160.

GWSWJ, J.P. Evans (Prestatyn) who is Hon Sec of TOPS and editor of "QMF" sends us a most encouraging letter regarding last months new schemes. In stressing that "it can be done on QRP" he quotes his own record -- he has worked, with 8 watts max, (on 14 Mc/s) all districts VE/W (43 states), VK, ZL, KP6, KH6, KL7, ZS6; (on 7 Mc/s) ZC6 (now 4X4), W1,9; (on 3.5 Mc/s), VK, ZL, KP4, OX, OY, ZB1, W1,2,3,4,8,9, VE1,3. The rig is 59/CO and 6V6/PA, antenna W3EDP.

G2ZC, A.M.H. Fergus (Farnham) reports that his annual Ham Party, which took place on Sunday 28th September, was an outstanding success despite the worst that the Wx could do (nearly an inch of rain during the afternoon). Quite a number of "old QSO friends" met in person for the first time -- an always enjoyable event, and there was much wrag chewed in consequence. Beside his QRP badge Fergie wore the pre-1925 emblem of the RSGB, much to the interest of many who had only seen the present black diamond badge. (Regrets again at not attending, OM).

.....: A NOTABLE Q S O . :.....

On the 2nd of October, at just after midday, a most interesting sked took place. At 1300 BST, on 7040 Kc/s, the first of a series of "Round Britain" skeds was brought off with great success by --

GM3JDR in John O'Groats

G3HRD at Lands End

G3CED, the most South Easterly station in Great Britain.

This is undoubtedly a record for a three-way sked on the mainland of Great Britain and the fact that G3CED was using QRP was not apparent to the other two participants who reported him 579.

We hope to be able to give advance information on future skeds.

.....: OPERATIONAL RESEARCH . :.....

It is too early, yet, to anticipate any replies on this subject from our Overseas members (in some cases last month's QRP will hardly have reached them yet), but the reaction among more local members is quite astounding. No suggestions which I have ever put forward have been met with such immediate and wholehearted response. The general consensus of opinion may be summed up by quoting one letter which says "...the last issue of the "journal" contained the best constructive ideas I have ever seen in any book or magazine on radio. It has certainly put 'QRP' in large letters." Letters are still coming in daily which echo G3NA's remarks that "I am most interested in the article by G3ANQ in the supplement and do hasten to add my support to it".

G3ANQ has thus laid the foundations to what will most certainly become a world-wide influence. All that is now required is to formulate the practical procedure and this we hope to be able to include, once again as a supplement, in the next issue. Having presented that, activity will undoubtedly build up in ever increasing stages.

37/10

In the mean time the first few schedule arrangements are presented below.

.....: SCHEDULES .:.....

GC2CNC / G3HJL: On the first Sunday of every month, from 11.30 to noon. CW only. Frequency between 3.502 and 3.542 Kc/s

G3NA / _____: Weekdays 1830 to 2000. CW only. Freq 7 Mc/s band (& occasionally 160, 80, 14 and 70 cm/s)

G3AGQ / _____: Any morning, 0700 to 0715, on 80 or 160. Also Wed, Thur or Fri evenings, 2130 to 2200, CW only. (Unreliable beyond 500 miles due to high radiation antenna)

G3CED / _____: Can sked at fixed time every third day. Details later.

G3IMG / _____: Early mornings on 80. Sunday afternoons on 160. VFO both bands.

GW8WJ / _____: Will cooperate where possible.

GW3HZZ / _____: Will cooperate. (Time & freq details, please, OM?).

F7CJ / _____: On 3.5 and 7 Mc/s bands.

Please let us have further details, OMs, including days, times, frequencies and whether phone or CW. Suggest 3IMG and 3AGQ might be able to fix morning skeds. We really do want to see those blank spaces filled in. Get together on it and let us have the complete gen for next month. QRAs are as follows:--

GC2CNC, Mr E. Banks, "The Ripples", La Rocque, Jersey, C.I.

G3HJL, Mr F.R.Bailey, 41, Drayton Road, Borcham Wood, Herts.

G3NA, Mr E.H.D.Coates, 21, White Horse Square, Hereford.

G3AGQ, Mr R.C.Eldridge, "Fair View", Gomeldon, Salisbury, Wilts.

G3CED, Mr G.A.Partridge, 17, Ethel Road, Broadstairs, Kent.

G3IMG, Mr R.Turner, 63 Tennyson St, Pensnett, Brierly Hill, Staffs

GW8WJ, Mr J.P.Evans, Westcroft, Meliden Rd, Prestatyn, Flints.

37/11

GW3HZZ, Mr D.M.Williams, 26, Seymour St, Aberdare, Glam.
F7CJ, Mr R.Avigor, Hotel Du Chapon, Ibis, Rue Du Chapon, Orleans,
France.

And please remember to let us have data on any skeds you fix between you, OMs.

.....: THE QRP NET :.....

At least four concrete suggestions have come to hand on this subject. Bob Eldridge, 3AGO, after some pertinent remarks about existing Sunday nets, proposes 1780 Kc/s at 2000 hrs on two evenings a week. If anyone feels like joining him we will pass the word around and others will undoubtedly follow suit. On the other hand, Monty Banks, GC2CNC, favours Sunday morning on 3.5 between 1100 and noon. Although there is no reason at all why we should not make use of both suggestions, there is much in favour of the Sunday proposal as two QRP RS stations will be active (see Skeds) on the first Sunday of each month between 1130 and noon, thus giving other members a chance to foregather on the band and providing the certainty that at least two stations will be active.

THE FIRST SUNDAY NEXT MONTH IS NOV 2nd -- TRY IT, OMs !

.....: CONSTRUCTIONAL SECTION :.....

Here again the response has been very encouraging, quite a large number of offers of general help having been received. Two in particular are very gratifying since they offer specific operations. The first was from Peter and Ronnie Huntsman who have a workshop well equipped for panel and chassis bending. The second came from Derek Williams who is prepared to tackle special coil winding and dipping. Many thanks indeed, chaps. Any further offers will be welcome, too.

37/12

::::: IMPORTANT ----- KALEVELD CUP RULES ----- ERRATUM :::::

With regret I must own to committing an error in the wording of the rules in the last issue. Referring to N (the number of "overs" during the QSO) and L (the total length of the QSO in minutes), these were quoted as having a maximum of 10 for either. This should have read:--

THE PERMISSABLE MINIMUM FOR N IS 10

THE PERMISSABLE MINIMUM FOR L IS 10 WITH A MAXIMUM OF 60.

Sixty minutes in QSO with a station on QRP really means something, and ten "overs" gives three minutes per transmission each.

DON'T FORGET THE DATE: 0000 hrs SUNDAY 26th OCTOBER TO 1200 hrs SATURDAY 1st NOVEMBER.

::::: EXPERIENCES OF A NEWCOMER TO V H F :::::
by H. G. WELLS.

Wishing to try my hand on a two metre receiver, I chose, for simplicity, a super-regen. The circuit, shown in the diagram, is straightforward. The valve, a 955, was selected for two reasons, it's low cost on the surplus market and it's low HT consumption.

The few components needed having been assembled, all that had to be done was to mount them and add a few bits of wire -- or so it seemed to me. I made my first mistake when I ran an earth wire all over the place to make sure every earthy point made a direct connection. The result was that, when I touched an insulated screwdriver onto the cathode, which was apparently earthed, the Rx burst into a terrific howl but gave no sign of the notable hiss. This trouble

vanished after I had rewired the whole thing, rearranging the components to get the shortest possible connections everywhere and taking all earth leads direct to the chassis.

I first tried a 3 turn coil for L1 and found that the hiss only appeared with a low capacity in parallel, so I disconnected C4. Everything then seemed OK, so now came the test. I had borrowed a 2 metre oscillator from a friend and picked up another from a junk store which, on test, was shown to tune from 45 to 72 Mc/s. Armed with these two pieces of equipment I set to work. To my delight I found I could pick up a signal from the two metre oscillator whilst, from the 45/72 Mc/s osc., I could receive a signal at three points of the oscillator dial. This presumably meant that the oscillator was giving harmonics which were picked up by the Rx without retuning -- but, why three? I expected the second and third harmonic from 72 and 48 Mc/s respectively, as I was confident I was on 2 metres!

I accidentally touched the 75 ohm twin feeders, and the hiss vanished. I moved my fingers further along and the hiss returned, only to disappear again as I moved along further still. Here, then, was a clue! The distance between the two points of minimum hiss was approximately 20". By drawing a comparison between my feeders and a pair of Lecher wires I concluded that I must be tuned to 288 Mc/s, which, of course, agreed with the result from the 45/72 Mc/s oscillator. I was receiving the 4th, 5th and 6th harmonics from 72, 57.5 and 48 Mc/s respectively.

Now my worries were of a different order. How to get UP to two metres, having landed on 1 metre with the Rx squegging. More capacity was ruled out as previously suggested, so I added one turn to L1, making 4 turns and brought back the capacitor C4. To my satisfaction it worked! I received several stations at good strength and, tuning round, I found I could receive Wrotham, 30 miles away, at over R9, even though I was using a horizontal dipole only about 12 feet from the ground, my QTH being 65 ft above sea level.

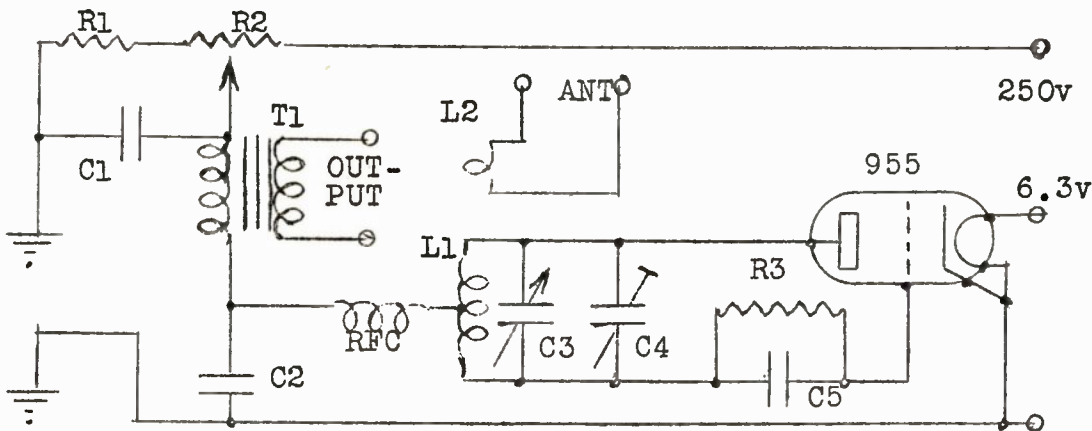
37/14

A useful piece of apparatus, used to find the 2 metre band after having located one metre, was a quickly knocked up absorption metre consisting of 4 turns of wire of the same dimensions as L1, connected directly to 30 pF variable capacitor and calibrated with the aid of the 2 metre oscillator.

Having found the band and got the Rx working, I now intend to fix up an RF stage to prevent re-radiation before all the local hams come down on me!

The component values for the Rx are :--

L1, 4 turns, $\frac{3}{8}$ " internal diam, length $\frac{1}{2}$ "...L2, single turn loop made from the ends of the feeders...RFC, 20" of 28swg enam, wound on $\frac{1}{4}$ " dia former, shellac varnished and the former then removed...C1, 2 uF electrolytic...C2, .002 uF...C3, Single plate variable condenser...C4, 5/40 pF semi-variable...C5, 47 pF ceramic...R1, 47 K, 2 watt...R2, 50 K pot...R3, 5 meg...T1, Intervalve tranny, lead to grid of LF amp screened.



..... V H F S E C T I O N

(VHF Sec: Mr E Banks, GC2CNC.)

As mentioned elsewhere in this issue, an error crept into the drawing of the six-element 70 cms yagi published last month. All the directors should be 12" long, not 9". Incidentally, this particular antenna can be modified to work on 145 Mc/s by simply multiplying all measurements by three, but the resultant beam will be too cumbersome.

At GC2CNC a new 145 Mc/s antenna is under construction. To start with it will be a 4 over 4, and probably, later on, a further 4 over 4 will be added. The wood and copper tube has already found it's way into the shack. A recent discussion with the local wise-men of radio centred around 4 over 4 stacks. The only consolation your contributor got was to be told to study the elementary principles (hi!).

A recent issue of the Short Wave Magazine (Sept 1952) contained two very interesting circuits of QRP transmitters for 145 Mc/s. The one which used a single 6J6 was certainly worth experimenting with. News from anyone who has made the rig work will be welcomed. It is, however, not suggested that a single 6J6 constitutes an efficient Tx. The more efficient rig would seem to be the 6J6/Z77 effort, and this could be improved with an 832 PA. G3CVO is to be congratulated on producing two circuits worthy of experimental consideration. (Someone should persuade G3CVO to join us). Would it be possible to make the 6J6 rig with an output on 145 Mc/s, and use the Z77 as a PA? If so it would be easy to produce a good modulated carrier from a single 6V6 or 6L6

(This issue is being sent to G3CVO. Perhaps he will be good enough to let us have his comments on this.-- Editor)

AN INTERESTING PORTABLE EXPERIMENT.

Here is an experiment which is well worth the trouble involved. The requirements are a listener with patience, a 2 metre portable Rx,

37/16

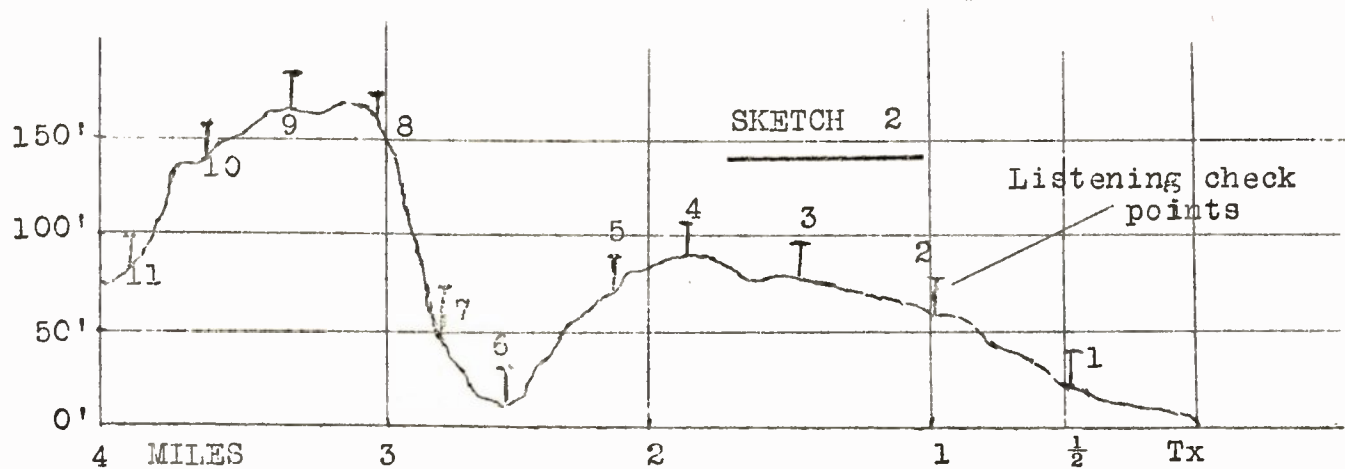
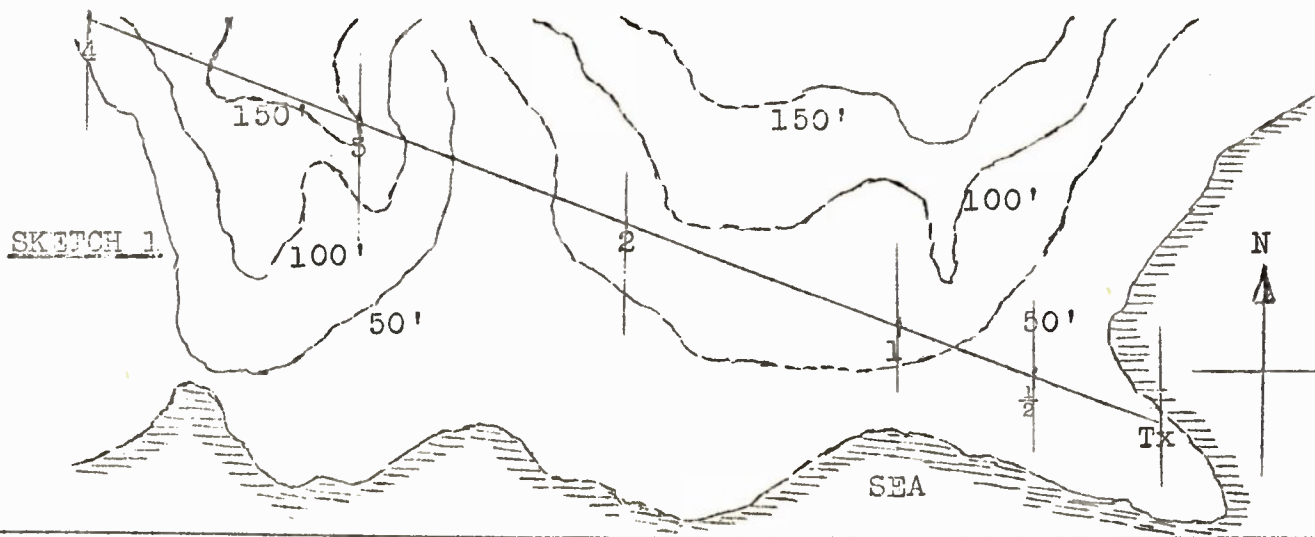
a dipole antenna and a means of accurately checking signal strengths -- Oh yes...and good weather!

First of all, obtain the support of a VHF 'ham' who will keep his Tx on the air (at intervals) during a morning or afternoon. Then refer to a Survey map and draw a line from a point about $\frac{1}{2}$ a mile from the 'ham' to another point some three or four miles away. Go out and take measurements at about a dozen points along this line, and keep a careful check of those points. Return home and draw the line in a cross section map with the points of listening clearly marked. Now compare the signal strengths with the surrounding country. You may be surprised! To make the project clearer a section of an imaginary map is attached together with the appropriate contour graph and a graph of signal strength comparisons. It should be realised that the contour graph (Sketch 2) is very much distorted owing to the horizontal measurements being in miles and the vertical ones in feet -- to get a true picture of the contours of the country involved the base measurements would have to be in feet as well and that would involve several hundred sheets of paper!

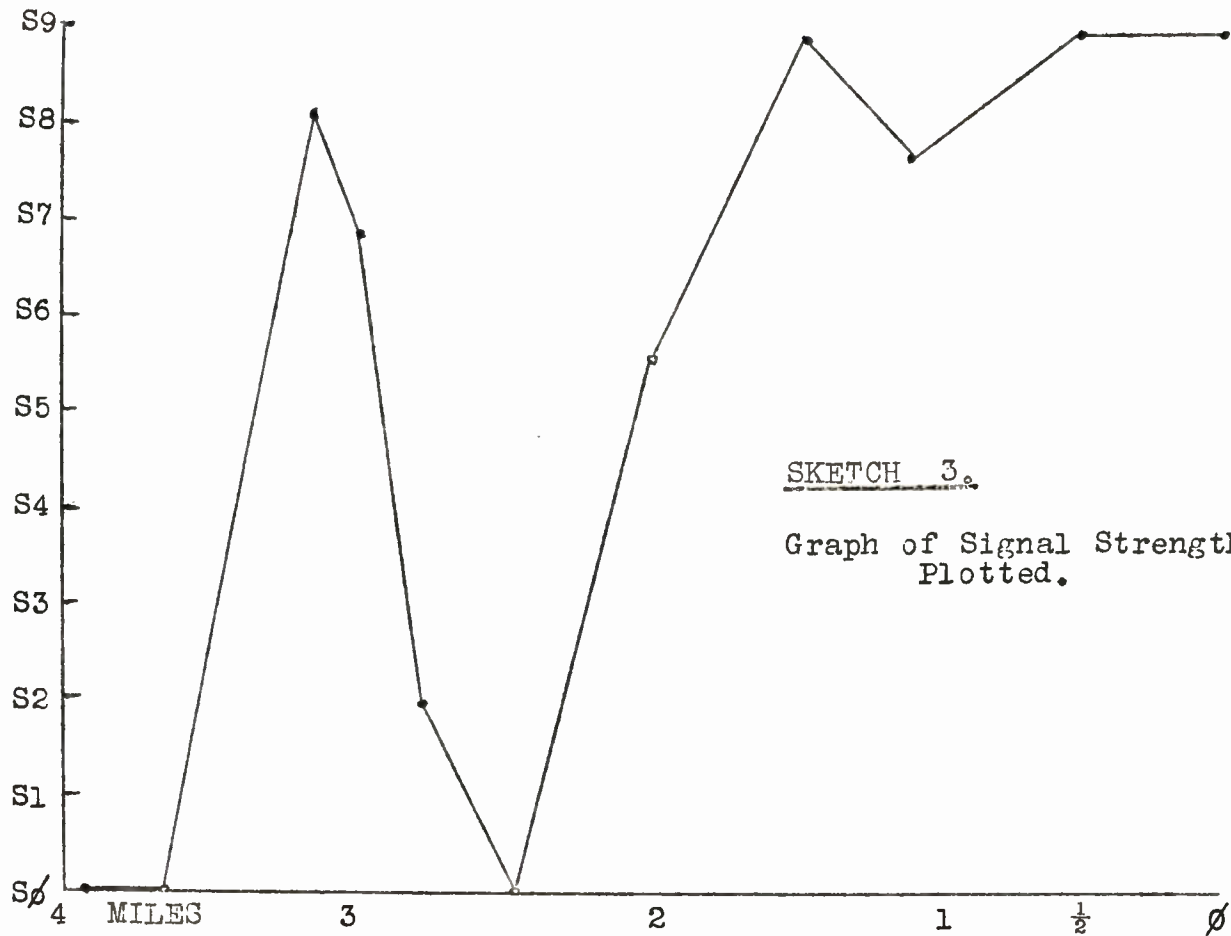
Now, change in signal strength over such a short distance is not due to big weather changes quite so much as over a greater range. If you can obtain a geological map of your area you may be more surprised still -- it is acknowledged that the geological structure has a lot to do with a ground wave signal. For instance you may find a local volcanic intrusion which might cause signals to fall, or an area of modern or dune sands where signals increase (or disappear) and so on.

Results would be appreciated and would be published fully in this column together with maps and graphs -- what about it?

(EDITOR:-- Please let us have a greater response to this VHF Section, OMs. A lot of our members have remarked to me of their interest in it and I know that "Monty" would be most encouraged if they would write to him direct. His QRA is Mr E. Banks, GC2CNC, 'The Ripples', La Rocque, Jersey, Channel Islands.)



37/18



SKETCH 3.

Graph of Signal Strength
Plotted.

37/20

..... THE QRP "200" CONTEST

COUNTIES WORKED DURING 1952 ON:	1.8 Mc/s	3.5 Mc/s	7 Mc/s	Total
1: GC2CNC	57	64	64	185
2: G3AGQ	46	33	-	79
3: G3EDW	30	10	5	45
4: G3HJL	-	30	-	30
5: G3FAU	16	-	-	16
6: G3HCW	12	-	-	12

..... S P A R E S S E R V I C E

All members are invited to join in the Spares Service Rota. A postcard to G3CED, 17 Ethel Road, Broadstairs, Kent, will bring you a monthly list of real bargains in radio equipment. Send a list of your own wants and sales, reasonably priced, to include postage and packing.

NO ADVERTISING COSTS

SPEEDY RESULTS

and the Service is FREE to members !

..... B A D G E S

If you are going to the RSGB Exhibition at the Royal Hotel in Woburn Place (Nov 26th to 29th) you will identify fellow members by the "GREEN DIAMOND" -- HAVE YOU GOT YOURS ? -- they are 2/6 post free.

.....: THE QRP C - Z PANEL :.....

	COUNTRIES				C Total	Zones	GRAND TOTAL
	3.5	7	14	28			
1: Huntsman, P.	16	54	148	7	153	36	189
2: Read, B.J.	12	8	110	7	112	31	143
3: Gardiner, E.W.	26	17	101	25	105	32	137
4: Whitfield, R.	-	-	103	-	103	30	133
5: Huntsman, R.	1	34	90	-	102	27	129
6: Stonestreet, A.	18	23	82	8	101	25	126
7: Gordon, D.G.	22	18	86	23	92	30	122
8: Kenyon, R.L.	2	-	88	-	88	26	114
9: Garrard, D.	10	3	70	-	82	20	102
10: Basch, N.	11	16	71	-	74	22	96
11: Wells, H. G.	-	16	59	9	66	23	89
12: Bridgewater, E.	-	4	66	-	66	21	87

Much change again, this month! And another new member to boost the panel with an excellent first entry direct to fourth place.

.....: TOP BAND SWL PANEL :.....

	COUNTRIES	COUNTRIES	TOTAL
Baker, W.B.	6	42	48
Wells, H.G.	5	36	41
Gardiner, E.	4	35	39
Godfre, J.	3	8	11

Welcome to Jean Godfre of Jersey, and a word of apology for having thoughtlessly addressed him as a YL -- was my face red! Good going, W. B. B.