

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

EDITED BY: - J. WHITEHEAD
THE RETREAT, RYDENS AVENUE
WALTON-ON-THAMES, SURREY
Telephone: - - WALTON 1619



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Q R P

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EDITORIAL.

First, our thanks to all those who wished us a happy holiday -- we carried out your wishes to the letter, CME! Next, our apologies to those who did not see the announcement (in the June issue) that we should be absent in August. We are sorry for the obvious disappointment which we have given you, CME! Finally, a brief note that this month records our third anniversary. I like to remind you of this because I want you to share my pride in the amount we have done and the distance we have travelled in so short a time.

Ahead lies a bigger programme than ever -- a programme that will require a genuine effort from every active member of the Society, both licenced and SWL -- a programme that, if we can carry it through, will put QRP technique right into the forefront of International Amateur Radio. The plans are laid and it is time to start. All we need is just a little extra urge from each and every individual member. If your professed enthusiasm is reality you will find it well repaid.

Let's go!

.....
Some members have not claimed their badges yet. They are post free 2/6
.....

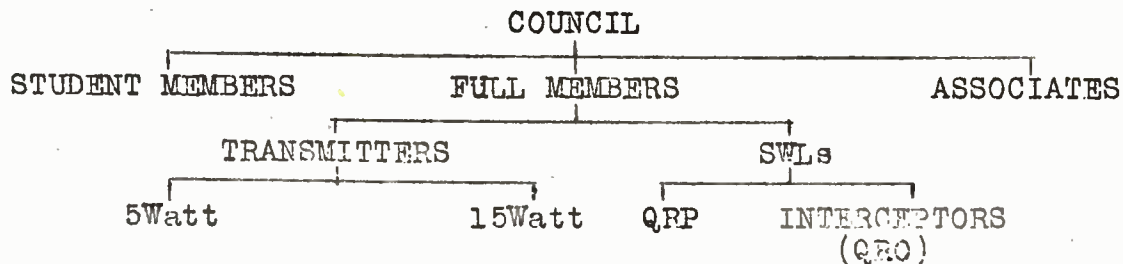
O U R S T R U C T U R E .

This is an opportune moment in which to review our internal economy and make any advisable changes before we add new ventures to our lists. Every member of the Society is entitled to have his or her say in the organization by putting forward any suggestion affecting any function of it in which they are interested. The Hon Sec will always give your views full consideration and will, where necessary, put any suggestion before the Society Council. So please do not hesitate to write.

Surveying our position at the end of our first three years shows a most satisfactory and encouraging picture. Our membership is steadily growing and is still spreading further overseas; our magazine is carrying more and more interesting and informative matter each month; our Spares Service, thanks to the grand efforts of G3CED, is doing a really valuable job (are YOU on the Spares Rota, by the way?); our Student Adoption scheme, guided by Tom Carter, seems to be serving it's purpose admirably; our contests are running, with one exception, steadily and with undiminished enthusiasm -- the exception is, of course, the "100" contest and, as this had never drawn a useful entry, we propose to delete it forthwith (not forgetting to thank the two solitary members who have endeavoured to make it 'pay').

With this issue you will be receiving a supplement which is, in effect, an additional page to our "Membership Data" leaflet. It contains a number of points which are of considerable importance regarding our present layout, and it touches on several new projects which we must consider in rather greater detail here.

MEMBERSHIP. Probably the best way to get an overall view of our membership is the "family tree" which I have drawn on the opposite page. There is nothing remarkable about this until you reach the bottom row where you will notice mention of 15 watt transmitters and QRO SWLs. The first of these were initially announced last month in



connection with our new International Circle. The QRO 'Interceptor' SWLs we hope to recruit, not only among our own SWL members (of whom many possess excellent QRO Rx gear as well as their QRP rigs), but also from clubs and Societies anywhere and everywhere throughout the world. The purpose which we hope to fulfil is to build up a really keen staff of monitors, prepared to watch scheduled frequencies at prearranged times and report on QRP member's transmissions. We are not asking anything of these 'interceptors' other than their Goodwill in spending a few minutes a week searching for specified signals. We do not expect them to join our Society, though, if they do care to do so, we shall extend a most hearty welcome to them -- we just want those few minutes of their time and the expenditure of 2½d per month in postage of their report to QRP HQ. If we could get such an Interceptor staff organized on a world-wide basis we should have achieved something which could be of the greatest possible value to our Tx members. Incidentally, there is no reason whatever why our existing QRP SWL members should not join in this increasingly necessary function, but to maintain it's value it must encompass a coverage and selectivity beyond the capacity of the average QRP Rx,

SCHEDULES. From the above it will be apparent that it will be essential for us to be informed of schedules arranged by our Tx members and of frequencies and times at which such members would be available to accept schedules offered by other transmitters. On or just before

36/4

the first of each month (ie, in time for publication in "Q R P") every active transmitting member of the Society should inform the Hon Sec of dates, times, freqs and any other points (such as beam directions etc) regarding schedules which they have already booked or which they are prepared to book during the FOLLOWING month. To take a specific case: On October 1st 1952 information should reach HQ re schedules for November 1st to 30th inclusive. There is no doubt that, once the organization has begun to function smoothly, special cases will be able to receive immediate attention, but, in the main, this delay is necessary to allow the normal system to operate. And, please do note that it does not matter if it is only possible to promise a few minutes a week (10 minutes on Sunday morning is not too short, nor is two hours every evening too long!), providing only that the promise is kept and the signal does go out as arranged. It is hoped by this means to build up, through "Q R P", a directory of regular schedules which should be of great benefit to all concerned. If the initial stages prove successful it is proposed to submit the monthly list to other journals so that a wider field be reached and more Dx may be waiting to come back to member's calls.

Q R P NET. The above raises a second point on the subject of schedules -- a point which has been suggested on a number of occasions but for which the time has not appeared ripe until now. This is the inauguration of a regular weekly QRP net. Will EVERYONE WHO IS INTERESTED please drop me an answer on the matter, stating their preferred day, time and frequency, together with any points of procedure

CONTESTS. It is hoped, from now on, to be able to raise regular entries for all major contests open to teams. Volunteers are urgently and earnestly sought so that teams may be arranged for the next round of contest activity. In our very early days a team of our SWLs won a silver cup against unlimited opposition. It is time our transmitters put up a similar performance. It is also time our SWLs repeated the dose. We want to be represented in every possible contest next year. Please do your bit to help us to success here!

CONSTRUCTION. I am repeatedly being asked if I know anyone who can spare time to do a little constructional work for other members. I have made enquiries but, so far, have never had any success. It does seem to me that, with an organization increasing as widely as ours, we should be able to offer at very least restricted facilities for this sort of work. If any member feels he could spare the time for an occasional job of this kind (with all expenses refunded, of course) I should be most grateful if he would let me know. In many cases such a volunteer would have the added satisfaction of knowing that he had brought help and enjoyment to some less fortunate being. One recent request came from a cripple, unable to stand at a work-bench; another came from a blind SWL. Surely, among us all, we can spread a little joy in this way? I should like to hear, not only from anyone who can accept occasional complete constructional jobs, but also from any member who who may have special facilities for certain types of work--for instance, panel bending, chassis drilling, or coil winding.

QRP CALLS LIST. Eighteen months ago we made a start at compiling a list of QRP transmitters from QSOs worked and heard by members. It fell into disuse owing to the great pressure of other matter, but it did prove it's potential worth (and, incidentally, at least three of our present members were gained as a result of the list). Will you please assist in reopening and maintaining these lists (which will be published from time to time in supplement form) by supplying all possible data gained on any such calls. The essential data is : callsign, time, frequency, power. and, if possible, QRA, if on a regular sched and any details of the station.

.....
 Please submit all matter for next month's "Q R P" to reach HQ
 by Wed 1st Octber. - - - But there is nothing to stop you writing
 sooner if you have anything interesting to report!

SOCIETY NEWS & ACTIVITY.

Ex - ZB1GBP, R.F.Hawksley, (Malta): Yes, the ZB1 has been cancelled already and GBP is now across the water in N.Africa. Before the move he managed 134 QSOs on 18 watts or less and collected 90 QSLs as a memento of his short stay on the GC Island. GBP hasn't long to "do" now, but there is a chance that he may add a 5A2 prefix for what little time remains.

G3HJL, Fred R.Bailey (Boreham Wood): Fred hasn't a lot of news this time, but his reports are to hand on the "dot" as always! He has had a couple of fb QSOs with Monty and it seems that, between them they are cooking something up! (Could it be a Society Supper?) More of it later!

Harry Wells (Waltham Cross): A Rx for 144 has taken up much of Harry's time this month, but the results have proved interesting. On one of his rare visits to 14 Harry was rewarded with a VK5 and a VK6.

E.W.Gardiner (Diss, Norfolk): Two new countries were logged with calls from AP2K and VP7NT on 14 Mc/s, but Top Band has received most of E.W.G's attention this month.

A.E.Stonestreet (Willesden Green) has got "Old Faithful", the O-V-0 for 145 Mc/s which appeared in our very first issue, going again after a period in dock. Fred mentions a point about Phillips concentric trimmers -- in some of them the the long ceramic stem is apparently not ceramic at all, and this may lead to one of those mysterious "shorts" which can be so difficult to trace.

J.I.Meardon (Newton Abbot) is getting together an all-dry O-V-1 as he will be doing a good deal of travelling shortly. He expresses great interest in our VHF section.

Bob Kenyon (Liverpool, 8) has won a first class pass in the C & G exam in Radio (1), which gives him exemption from the RAE. (Sincere congratulations, Bob - fb show, OM!) He is starting on a very ambitious programme of test gear construction in units suitable for a QRP station (Please do let us have full descriptive articles as you go along, OM).

G3HCW, Ernest Ashby (temporarily Leeds) has got married, got mains and got a new QRA, all in a single-page letter! Congratulations on the first item, OM -- and we do mean that. The second item has made most of Ernest's battery gear redundant and he has very sportingly sent us along a big parcel of battery valves for distribution to our Student Members or other deserving no-mains cases. Thanks a lot, OM.

Peter Huntsman (Hexham-on-Tyne) has re-built his O-V-2 on a steel chassis and panel and finds the rigidity very beneficial. He has made one or two slight mods which have added to the general improvement. We hope to have actual details shortly. Peter has found 20 very fair of late and has heard quite a bit of Dx on 40, too, as his C-Z score shows

Ronnie Huntsman (Hexham) is still getting worthwhile results from the SH4 but finds that, if he happens to be at the same end of the band as Peter, he is completely swamped if Peter happens to oscillate. Which is still further proof, if any more were needed, that the TRF can and does reradiate!

Ian Glen (temporarily Carlisle) has got himself posted a little nearer home and, infact, manages to get home every weekend, so that quite a lot of work is going on in the shack. At present attention is centered on antenna construction.

C.E.Atherall (Tunbridge Wells) is another who has had a change of QRA this month and has benefited by much improved shack facilities with mains and room to sling a decent antenna. Good luck, OM.

Norman Bason (Peel, I.O.Man) moved into his new quarters back in July, and he is still getting straightened out, but aerial erection is proving a difficulty. We regret that we misprinted his query last month. It was FKS8BC on which he wanted gen. Can anyone help?

E.Bridgewater (Abberley) sends in an interesting log of which the best are: 2C4RX, SVØWX, PY2CK, KV4BB, LU8FA, VS1DQ, KP4AV, VQ4CO, YU2CL, ZP5AC, YI3BZL, HZ1TA, HZ1MY, OX3MW, and 4W1MY.

G3IDG, Allan Herridge (Balham) has sent us the gen on his QRO/QRP switched layout which we shall get in just as soon as possible for it appears to offer some excellent suggestions. Many thanks, Allan.

VQ2W, Peter Golledge (Box 249, Chingola, N. Rhodesia): Yes, this is ex-G3EDW, ex-D2DW! Peter has decided to settle in VQ2 and has found himself a nice job in Chingola and has certainly worked himself a call in double quick time. As yet Peter is not airborne as gear is very hard to come by in VQ2 and his own gear will be a couple of months reaching him from G, but his plans are all laid and he is passing the time searching out the most likely channels with the aid of his 1-V-1 Rx. (Thanks for the letter, Peter. Am looking forward to hearing from you regularly. You can be of vital help to us now with the new plans mentioned elsewhere in this issue.)

G3AGQ, Bob Eldridge (Salisbury) has been trying out Clamp modulation. With this and a shortage of spare time Bob has found it difficult to keep up his "working average", but he has still managed to find a few for his "200" score.

G2HAW, T.C. Turner (Hounslow) is getting out on Top and 80 with 0.5 to 2 watts from a 6G6 ECO. He was very pleased with a 100% contact with Monty (GC2CNC) on 3.5, 2 watts each way.

Geoff Hollebon (Southampton) is very anxious to get hold of an EF9. Can anyone help? (Have you contacted the Spares Service, OM?)

G.H. Tillet (Rainham) has completed and is now trying out a new SH4 all-dry Rx, line-up being 1R5, 1T4, 1S5, 1S4. Coverage is 10, 20, 30 & 160 at the moment with prospects of medium wave to be added. It sounds an interesting little job for portable.

Vic Brand (Surbiton) has passed the RAE (We are watching the New Call lists, OM!). Good luck, OM! Why not drop in at HQ one evening -- you know the way.

G3ETQ, G. Whitfield (Doncaster) has been very surprised by his first venture into QRP (a O-V-1 with 1T4s) -- so much so that he is intent on completing the combination with a 1T4 Tx. He is also interested in the VHF section.

Chris Carr (Ramsgate) is one of the several members who are anxious to get some constructional work done for them. Can anyone help? Volunteers for our new constructional section are urgently needed.

A.D.H.Looney (Liverpool 14) sends an interesting letter this month concerning his /P experiences on holiday in Wales. The Rx was a 1-V-1 (1T4/1T4/3Q5) with a 9ft whip lashed to the roof of the caravan. On 14 Mc/s the snips from his log were: YI3BZL; VE2CL; PY4RJ; PY5BB; VE1EI; OE13AL; 5A2TY; 5A2TG; LUGAJ; PY6CN; VP6SD; CE2CC. Arthur is doing a fb job as our Northern Rep and would like to see any member or anyone interested in finding out more about the Society. His QRA is: 81 Alstonfield Rd Knotty Ash, Liverpool 14.

G3CED George Partridge (Broadstairs) is building a 1T4 CO with 90 volt HT for LP NFD. He hopes to run a 137 ft Kite antenna if weather and other conditions permit. George is doing a real job with the Spares Service organization.

GC2CNC Ernest Banks (Jersey) has been suffering from Channel gales again - the halyards of his longwire mast have snapped and is now hung from the garden fence! Monty will forsake LF work almost entirely once he has achieved the necessary score in our "200" contest and proposes to concentrate almost exclusively on VHF. He is finding new counties very scarce now -- as he says himself, 'The pot is almost dry now'.

! S H O C K I N G -- !

- (1) An MB9 on phone, working a G6 on 7 Mc/s, and coming through at S9 on 3.5 AND 7.0
- (2) An F on phone calling CQ 40 on 80 and listening on 40 ... then bitterly complaining about lack of QSOs.
- (3) PJ2AD, calling CQ Europe on 14 Mc/s CW, being answered by three W3s, a VK and a ZL.
- (4) EA9AI calling CQ EA on 14 Mc/s CW, being answered by DL, SM and numerous Gs (of whom eight calls were recognised!). 9AI repeated his CQ EA call and the mob came back plus a G6 who sent "pse om fer mi DXCC".

16/10

.....: THE SUPPLEMENTS :.....

Included with this issue you will find two supplements. The first is an additional page to the Membership Data Leaflets which we send in answer to all enquiries for membership or to anyone who has expressed interest in our work. It is included here as it contains much new information of interest to all existing members.

The second supplement is written by G3ANQ and is a most important and most readable introduction to one aspect of research for which our Society is peculiarly adapted. DO, PLEASE, READ THIS ARTICLE AND THEN-DO NOT JUST LEAVE IT AT THAT-take action at once. Write and let the Hon Sec know if you are interested. Let the second supplement urge you to do something about the first one. DON'T SIT BACK AND WAIT FOR THE OTHER CHAP TO DO IT FOR YOU!

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THE V H F SECTION.

CORRECTIONS: Thanks are due to G03FSN for pointing out two sets of errors which we perpetrated in our last diagram -- the circuit of the super-regen for 145 Mc/s on page 34/18.

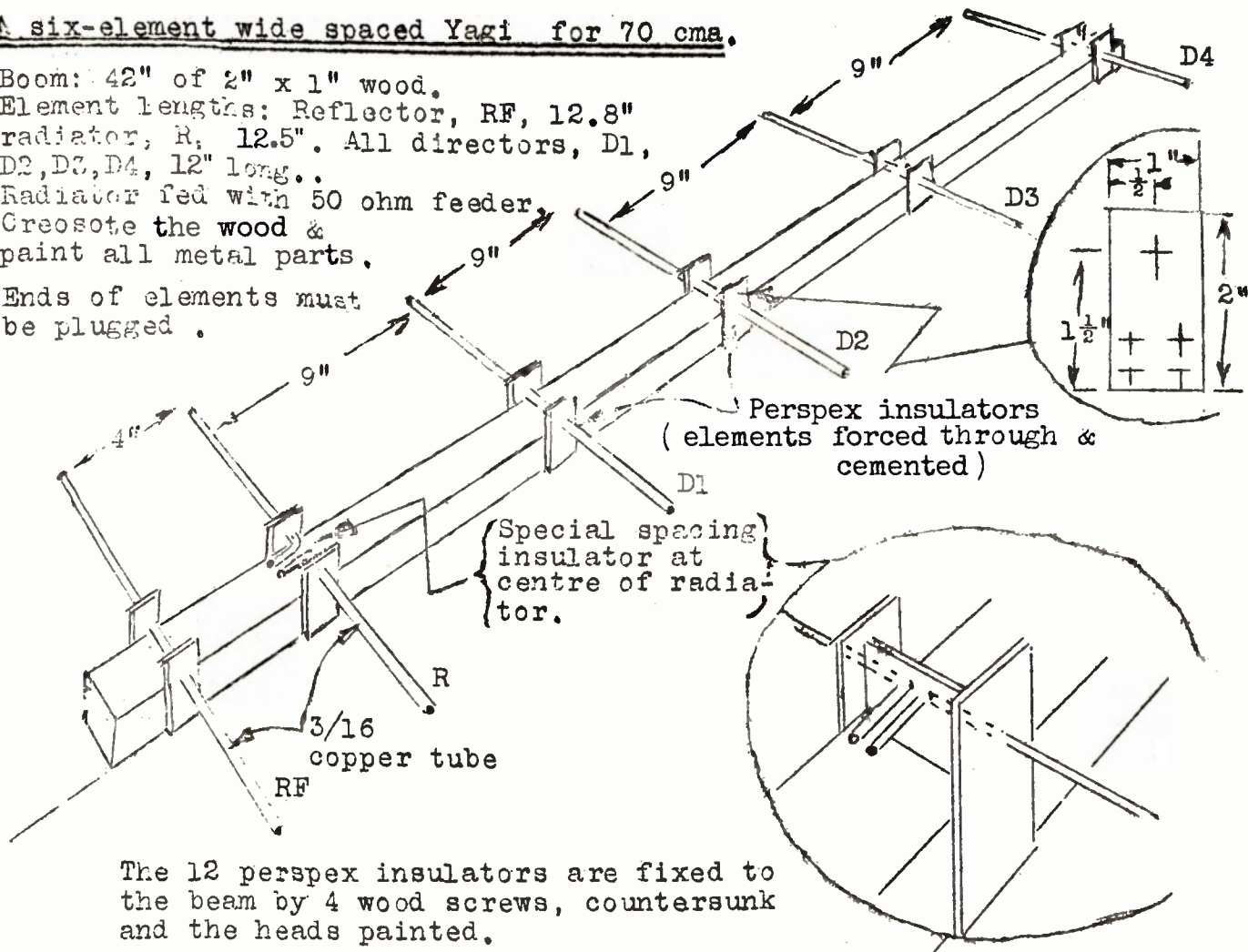
(1): The secondary of the transformer between the 6J6 and the 6J5 (1e, the winding with R3 across it) should be connected to earth.

(2): The cathode of the 6F6 is shown connected to the negative heater lead. This would, of course, short circuit the bias circuit. In fact the cathode should come out to R12 and C7 only.

IN REPLY TO G3EKP: G3EKP has enquired about the 7193 as a VHF valve. The matter was referred to G02FMV who very kindly supplied the following information. The 7193 is equivalent to the 2C22 indirectly heated triode transmitting valve. The filament volts are 6.3 with 0.3 amps, and the plate volts 300 with 11 mA current. Grid voltage is -11 and the amplifying factor is 20. The valve is octal based and the pin

A six-element wide spaced Yagi for 70 cms.

Boom: 42" of 2" x 1" wood.
 Element lengths: Reflector, RF, 12.8"
 radiator, R, 12.5". All directors, D1,
 D2, D3, D4, 12" long.
 Radiator fed with 50 ohm feeder.
 Creosote the wood &
 paint all metal parts.
 Ends of elements must
 be plugged.



The 12 perspex insulators are fixed to the boom by 4 wood screws, countersunk and the heads painted.

36/12

connections are as follows: 1,blank; 2,heater; 3,4,5,6,all blank; 7,heater; 8,cathode; top cap 1,anode; top cap 2,grid. As far as is known a circuit appeared in SWM some time ago, built around this valve. Perhaps someone could give G3EKP the dates and gen.The attraction of the 7193 is it's price, but be careful to get in a stock incase the demand exceeds the supply in the near future.

"FIRST STEPS ON TWO": The June issue of the "Bull" carried an interesting article on "Two" written by G5UM. It's main attraction was it's simplicity and appeal to receiving enthusiasts as well as transmitting hams. Complicated circuits and articles are all very well for the more scientific type of person, but the average chap wants something good but easy to follow. This is one of the main attractions of QRP.

70 CMS ANTENNA: On the opposite page appear details of a 70 cms antenna. Bearing in mind the cost and simplicity this antenna is worth a trial. As it stands another similar Yagi can be made at a later date and stacked on top or alongside. The measurements given for the elements are roughly suitable for the middle of the band and constructors can experiment by inserting copper wire into the open ends in order to increase element lengths. Unlike the super-regen circuit of our last issue, this antenna has been made, tried and does load!

V H F SUPPORT: This column depends upon your support. If you read it you must be interested and therefore you must have something of interest in the VHF line. You need not be a journalist or a draughtsman (this is John's job). So drop the poor VHF pen-pusher a line.

73, Monty (Ernest Banks) GC2CNC.

(EDITOR: There are a lot of members who read this column and who are interested in your comments, news and features, Monty. Quite a number have admitted as much in letters to me this month. What I want to get them to do is to write to YOU on VHF subjects --- Will you do that, OMs? Monty's QRA is: 'The Ripples', La Rocque, Jersey, Channel Islands. The postage is still only 2½ d.)

::: THE KALEVELD CUP CONTEST, 1952 :::

This contest for the cup presented by EVERT KALEVELD, PAØXE, is an annual event open to members of the QRP Research Society only. The present holder is GC2CNC who won the contest in Sept 1951 with some outstanding contacts on fractional power, and thereby demonstrated the ability of QRPP to take it's place as a useful means of communication.

The idea underlying Evert's original presentation of the cup was rather wider than this however and aimed to prove the value of QRP for unrestricted communications, ie, the passing of intelligible messages over long distances at powers of five watts or less. The proof of the usefulness (or "intelligibility") of any message passed during any contest is not easy to obtain, but, in an endeavour to arrive at some assessment of this value, and also to bring the contest rather more into line with it's original aim, we have introduced some amended rules this year, two of which are somewhat original in conception.

RULES: For 1952 the duration of the contest shall be from 0000 hrs Sunday 26th OCTOBER to 1200 hrs Saturday 1st NOVEMBER.

No transmitter used in this contest shall exceed an input of five watts to the final stage and no preceding stage shall take more.

The cup will be presented to the entrant providing the THREE BEST Dx QSOs DURING THE WEEK, the merit of all entries being assessed by taking THE PRODUCT OF THE DISTANCE between the stations in miles (M), THE NUMBER OF "OVERS" during the QSO (N), and THE TOTAL LENGTH OF THE QSO in minutes (L).

Thus: POINTS = M x N x L.

The PERMISSABLE MINIMUM figure for M is 500 and the PERMISSABLE MAXIMUM for either N or L is 10.

Entries should be sent in as early as possible after the conclusion of the contest to the Hon Sec.

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

	COUNTRIES				C Total	ZONES	GRAND TOTAL
	3,5	7	14	28			
1: Huntsman, P.	16	54	147	6	152	36	188
2: Gardiner, E.W.	26	16	93	22	99	32	131
3: Huntsman, R.	1	34	90	-	102	27	129
4: (Read, B.J.	12	8	95	7	97	29	126
(Stonestreet, A.	18	23	82	8	101	25	126
5: Gordon, D.G.	22	18	86	23	92	30	122
6: Kemyon, R.L.	2	-	80	-	80	26	106
7: Garrard, D.	10	3	70	-	82	20	102
8: Bason, N.	11	16	67	-	70	20	90
9: Wells, H.G.	-	16	59	9	66	23	89
10: Bridgewater, E.	-	4	66	-	66	21	87

It looks as if there is quite a battle developing in the middle of this contest, with only 9 points seperating six men and a tie for fourth place as well! There is a great improvement throughout over the scores for the same period last year and, what is the most encouraging point of all, the regular reporting of all the entrants does show a really keen interest.

.....: W A N T E D :.....

There is a chance that we may be permitted to exhibit, as a body, one or two pieces of QRP gear at the RSGB Exhibition in November. Will any member who has any suitable exhibit please contact me as soon as possible. Don't fail - this is an opportunity which we must not miss.

.....: THE QRP "200" CONTEST :.....

COUNTIES WORKED DURING 1952 ON:	1.7 Mc/s	3.5 Mc/s	7 Mc/s	TOTAL
1: GC2CNC	52	58	61	171
2: G3AGQ	44	30	-	74
3: G3EDW	30	10	5	45
4: G3HJL	-	30	-	30
5: G3FAU	16	-	-	16
6: G3HCW	12	-	-	12

So EDW is finally out! Since the max power for the "200" is two watts, even the most optimistic QRP enthusiast could not expect much more from VQ2. It is a pity and we are really sorry to lose Peter from this contest, but he is sure to join us again in an International Circle contest which we are brewing. Monty has got his qualifying scores, but he has some hard searching to do yet and, though, on his showing so far, he should get his 200 in the twelve months, he is bound to slow up towards the end. It will certainly be a very highly deserved effort if he does get there in the year.

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

I am really very surprised that more members do not use the Society's own service for sale, exchange and "wanted" items of radio gear. The service has been in the hands of George Partridge, G3CED, of 17 Ethel Rd, Broadstairs, Kent, since the very early days, and he has built it into a most efficient, self-contained organisation. The variety of radio gear that is listed is quite exceptional and there are unrepeatable bargains continually cropping up. You really should write to George and find out about the rota-list which he runs.

..... TOP BAND SWL PANEL

HEARD

DURING 1952: Countries. Counties. TOTAL.

Wells, H.G.	5	36	41
Gardiner, E.	4	29	33
Baker, W.B.	4	22	26

E.Gardiner has certainly made an effort this time, but a comparison with the "200" contest records shows up a very unexpected position.

Three leading hams have WORKED more counties than listeners

have HEARD. The hams show a total of 126 (average 32) against the SWLs total of 87 (average 29). This should never be as under all circumstances it must be easier to hear 'em than work 'em. Come on, SWLs!

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S - P - A - C - E.

We regret very much that such an amount of interesting gen has had to be held over from this issue, but the matter which is included here and in the supplement is of very great importance and must be circulated at the earliest possible moment.

Unfortunately the cost of production is, normally, so high that little extra space can be afforded - and the supplement is in effect equivalent to an increase in space. Produced as a separate sheet, however, it has the advantage of being available for despatch separately.

A further supplement will, we hope, appear next month, but, at the same time, we do hope to be able to include in the next mag much of the matter left over from this month. We cannot afford a regular expenditure of paper at this rate, therefore we are forced to postpone any increase in the mag itself.

Do, please, repay our endeavours by sending in your reactions to the ideas put forward this month.

RADIO

AMATEUR

The publishers of RADIO AMATEUR announce a PRICE REDUCTION!

THE "R A" WILL BE 1/6 FROM OCTOBER ONWARDS

This price reduction puts the magazine well within the means of every Radio Amateur and will contribute still further to it's rapidly increasing popularity. The "Radio Amateur" is of interest to both the SWL and the transmitting fraternity as the list of contents for the October number will show:-

A MAGNETIC TAPE RECORDER FOR THE AMATEUR.

Full constructional details.

A FREQUENCY METER FOR THE AMATEUR STATION.

AN EFFORTLESS KEYING SYSTEM.

THE DESIGN OF MAINS TRANSFORMERS. Practical data.

FACTORS IN THE DESIGN OF A SUPERHET.

WORKSHOP PRACTICE.

V. H. F. F. M. EQUIPMENT.

Topical feature.

Together with the usual regular news features:- AMATEUR BAND
COMMENTARY - SW BROADCAST BAND REVIEW - ON THE HIGHER
FREQUENCIES PRICE 1/6.

SUPPLEMENT TO THE AUGUST 1952
ISSUE OF " Q R P "

Q R P AS AN INSTRUMENT OF RESEARCH ::::::::::::::::::::
:::::::::::::::::: AND COMMUNICATION, by CECIL E. SUTTON, G3ANQ.

It has become obvious in post war Amateur Radio that two schools exist side by side -- QRO and QRP, yet no attempt has been made to combine them as essential attributes. With increasing numbers, higher power, the rise of competitive Dx and the influx of many who can only be described as untutored or unskilled, a situation has been created which needs to be tackled promptly and decisively.

There is need for what may be termed "Operating Research" -- a thorough and systematic investigation into the whole fabric of our actual communication. This is very real research. It is pioneering. No one yet has taken the thing we do (our Working) and subjected it to such a close and minute analysis as is here suggested.

The scope of the work can be classified under several headings. The first, which is of immediate and permanent importance to the whole, is UNITY OF MIND AND METHOD ACROSS SPACE. Amateurs have always gorked as individuals, not on a basis of common operational understanding. Considerable attention should be devoted to this point since, without a perfect knowledge of what one's fellow operator will do under all ordinary circumstances of communication, no real research work of a technical nature can be achieved. Complicated procedure is not necessary. The essential is to reduce all working to extreme simplicity and this makes the establishment of a common understanding of primary importance.

Given this basis (strikingly absent from almost all amateur contacts at the present day) some impressive operational and technical work can be begun. The first and most urgent job in this category is the

demonstration by QRP means of rational power control for both Dx and national working, on the principle of minimum power and correct frequency for effective communication -- a vital principle, virtually unknown in amateur working, yet commonplace at sea for over 30 years, where, as receivers and aerials have improved in gain, transmitting power has steadily decreased.

By the persistent and determined working of schedules on minimum power and appropriate frequency for Dx and local contact, and by the continual publicising of these schedules and results in Club circles & the Amateur Press, the Society should, in time, be able to exert a powerful influence on the principles and practice of our hobby.

Apart from the operating technique there will be problems of transmitter design, involving power level variation with efficiency, stability of a high order, efficient radiation and aerial gain. On Dx increased power is often necessary for initial calling, but members listening under common understanding may raise and work each other on a few watts when ordinarily 1kw might be considered none too large! On the receiving side there will be a demand for something highly selective and specialised -- superior to the best communications Rx, yet comparatively simple and cheap.

This is a different concept of the Society's work than hitherto and it involves the marshalling of the devoted QRP men as a competent and powerful body to practise and demonstrate operating principles. It may be argued that the established National Societies are more fitted to initiate and develop this work, but it is from amateurs themselves that the lead and the effort should come, and the QRP Research Society is uniquely fitted for the task. The world-wide disposition of it's members, with their characteristic unity of mind and enthusiasm, and the coordination afforded by the circulation of their magazine, "QRP", gives the Society an outstanding opportunity to do, perhaps, the greatest service that has ever been done for Amateur Radio. The QRP Research Society's affiliation to the R.S.G.B. can, however, be regarded as ideal terms of reference, for this use of Low Power as an instrument of research into the whole structure of amateur CW commun-

ication, both in regard to equipment and method, demands not only a world-wide team of enthusiastic specialists working on a basis of perfect unity (coordinated through the circulation of data and instructions to all), but also requires the organised publicity and world-wide coverage of it's results and findings.

When Dx workers hear and see in print that their own efforts have been successfully duplicated by QRP operators the World over, using as basic minima, powers ridiculously smaller than their own, they may revise their opinion as to what is necessary to raise and work continents. When QRP men reveal in print and otherwise that their phenomenal efforts are based upon specialised transmitting and receiving equipment and, above all, upon a world-wide unity of mind and method, then they will become a force instead of a body -- a force that National Associations can call upon with confidence to be the nucleus and the driving power of that general improvement which they can then begin to effect in the executive side of our hobby.

Let us then make a practical start.

If you are interested in this work, as I feel sure you will be, please SEND YOUR QSL CARD TO THE SOCIETY'S HON SEC: J. Whitehead, The Retreat, 92 Ryden's Avenue, Walton-on-Thames, Surrey, England, Detail on the card your rig, the bands you know and whether you could work national or Dx Schedules. If you run a sked, say so -- we will give it a number and ask your monthly report. If you want one we will fix it. If you can only "co-operate" you are still useful you know! Whatever you can do LET US HEAR FROM YOU so that we can build up a universal picture of our resources.

With the next issue of our magazine a unified method of working will be outlined, to establish perfect understanding. In the meantime please SIGN "QRP" ON YOUR CQ OR VA, so that others may come to know you and so start to build up that unity which is the foundation of this work. Once such operating is fairly under way then will come the real technical problems -- thick and fast. But by initially subordinating the technical to the practical we avoid that over emphasis of the former that will surreptitiously side track the resounding work we can do so easily for our hobby.

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GET IN TOUCH WITH THE Q R P RESEARCH SOCIETY THROUGH

the Editor & Hon Sec:

J. Whitehead, "The Retreat", 92 Ryden's Avenue,
Walton-on-Thames, Surrey, England.

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THE RATING OF QRP TRANSMITTERS.

It is impossible to create an arbitrary line between high and low power or to say that half a watt over a certain power is "out of bounds". On the other hand, for matters of comparison and for the general guidance of members, some ruling is essential. So far as this Society is concerned it has been agreed to regard 5 WATTS INPUT TO ANY STAGE OF THE Tx INCLUDING THE FINAL STAGE as the QRP maximum for general inter-county G QSOs.

For International and world-wide working 15 WATTS INPUT TO ANY STAGE OF THE Tx INCLUDING THE FINAL STAGE has been accepted as the top limit for normal communications.

In the Society's contests specific power requirements are laid down and must, of course, be strictly adhered to, but, for casual QRP communications it is suggested that the above maximums should be adequate. While it is hoped that all transmitting members will respect these limits it should be understood that they are not in any way bound to do so by virtue of their membership.

THE RECEIVING SIDE.

A point which has caused some misunderstandings in the past should be clearly stated here.

THERE ARE NO RESTRICTIONS WHATSOEVER TO SIZE OR POWER OF THE Rx USED IN CONJUNCTION WITH QRP TRANSMISSIONS. It is strongly recommended that, particularly in 2-way QRP QSOs, the utmost selectivity should be available in the Rx. In favourable conditions the world can be spanned by a couple of watts, but "you can't work 'em if you can't hear 'em" and, in normal circumstances, the best possible Rx is recommended to accompany a QRP Tx.

THE SWL MEMBER.

There is a tendency in some circles to regard the SWL, and most particularly the QRP SWL, as a useless, senseless and needless annoyance. In fact the SWL is the embryo of almost every first class operator. How much useful, often essential, work can be done by the SERIOUSLY interested SWL is not generally considered; nor do many transmitters recognise or accept the valuable assistance which can be offered in monitoring and many other ways by the picked SWL. It is an aim of the Society to so foster both aspects of the QRP hobby that they will combine in a mutually useful and single minded union having a common outlook and equally sharing the desire for the advancement of QRP radio.

Keen SWL enthusiasts of both QRP and QRO beliefs can find much of vital interest to them in the QRP Research Society. Those with a leaning to QRO activity being able, if so inclined, to fill an endless number of vacancies for "interceptors" or monitors of scheduled transmissions.

THE QRP RECEIVER.

The Society was founded as a QRP Receiver organization and has steadily increased it's activities in this direction ever since. It is not surprising, therefore, that the QRP receiver figures so prominently in Society affairs.

As in the case of Tx power it was early felt necessary to suggest a maximum rating for QRP receivers and this figure was eventually set at 1.25 WATTS HT CONSUMPTION.

Although some licenced members do use receivers of these ratings in conjunction with their QRP transmitters this practice is not recommended for fixed station QRP communications purposes where, usually, every advantage should be made of the greatest possible Rx selectivity.

The function of the QRP receiver falls into a number of quite different categories where space, weight and current consumption are at a premium. Examples such as "personal" receivers, portable direction finding rigs, radio control of models and the like cover only an outline of the applications where QRP Rx technique is essential. But by far the strongest SWL interest still lies in the constant and widespread endeavour to find ever greater efficiency with fixed-station QRP.

THE INTERNATIONAL CIRCLE

The overseas membership of the Society has increased so rapidly, and has so greatly extended our territorial coverage, that it has become necessary to extend our organization in step with these new fields of activity.

It is mentioned above that the Society has suggested 15 watts as an adequate maximum for international QSOs among it's members, and it is with the object of encouraging world-wide interest and experiment at this power and less that the Circle has been formed. A great deal of valuable work can be achieved by the concerted endeavour of such an organization, quite apart from the design and constructional aspects. One of the most important functions is to maintain the most extensive QRP schedules possible. Only by this means can it be proved that QRP CAN span the world - and, moreover that it can do it in bad condx as well as the QRO signal. All schedules and all contacts resulting will be reported in the Society's journal.

It is hoped to build up a chain of QRP RS Representatives for all major call areas, each of whom would be responsible for encouraging QRP activity in his area and for passing on schedules, reports and news to the editor of the Society's journal. Not just in order to "be different", but because it is a more apt description of the function of these representatives, it has been decided to call them LIAISON MEMBERS. The Chief Liaison Member will be responsible for the selection and appointment of all Liaison Members, and for the vetting and approving of all amendments and modifications to the rules of the Circle, subject in each case to the overall approval of the Society Council. The Chief Liaison Member will be appointed annually by general vote in the same way as the Council members. He will serve on the Council during his term of office.

The International Circle is not a development exclusive to the transmitter. SWLs are required throughout the World who are keen enough to devote time regularly to the monitoring of selected transmissions, scheduled each month in the journal and to reporting results (a) to the

scheduled each month in the journal and to reporting results (a) to the transmitter concerned and (b) to QRP HQ for recording in "Q R P".

While there is nothing to prevent the use of QRP type receivers, there is, for this purpose, no restrictions as regards Rx power and it should be noted that the greatest service in this instance can be done by SWLs in possession of sensitive, highly selective communication type receivers

A list of Liaison Members can be obtained from QRP HQ and amendments and additions will be published in "Q R P" each month.

OVERSEAS SUBSCRIPTIONS.

Wherever possible subs will remain at 8/- as for "home" subscriptions, but there may be cases where heavy postage will necessitate a small increase. The Society's monthly mag, "Q R P", is still free to all overseas members just as it is to those in the London area, so it will be appreciated that there is often little left from the sub to cover incidentals.

As in the case of ordinary members you should send your subs to the Editor and Hon Sec: J. WHITEHEAD, "THE RETREAT", 92 RYDEN'S AVE, WALTON-ON-THAMES, SURREY, ENGLAND.