

-No-

# QRP

MARCH

-18-

1951.

EDITED BY: J. Whitehead,  
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Walton-on-Thames, Surrey.

Dedicated to the  
advancement  
of LOW POWER RADIO

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## EDITORIAL.

Yes, OMs, the blue cover, in which "Q R P" has appeared since it's third issue, has had to go. We have managed to acquire a stock of white paper which, with care, should see us through the next twelve months, but the cost has been staggering and every possible economy is essential. We are sure that you will agree that, while the blue cover added a touch of refinement to our mag, it did not serve any other useful purpose. Actually we have been lucky in building up this new stock of paper, the sudden shortage and the rocketing cost of which is due, we believe, to the diversion of shipping for Korean war supplies. Unfortunately however it raises, not only the necessity of stringent economy, but the inevitable increase, for the second time, in our subscription rates. This is detailed elsewhere in this issue and the only recompense I can offer is that, thereafter, the cost of "Q R P" will be stabilised so long as our paper stocks last.

GROUP QSL CARDS.

One of the ideas underlying the original suggestion of a semi-standard Group card was that, in being able to provide the printer with an exceptionally long "run" in one of the two colours, we should be offered a quotation considerably below that of the usual short run individual cards. The estimate which I gave you last month was submitted by one of the foremost QSL card printers. No doubt it was a fair one but it gave me a sense of depression which was not relieved until I went out after a harder bargain. My conscience kept reminding me that it was, potentially, your money I was spending. I think I have clinched a deal now that will appease that conscience more than a little. Not only will the new prices be below those quoted last month (by how much I cannot say at the moment), but, a point of almost greater importance, small runs will be accepted, such as fifty or even twenty-five -- against a minimum of 150 in the other quotation. Moreover changes within reason can now be made to the lettering to suit individual tastes.

As soon as the illustration block is made production of cards will commence and orders will be executed in rotation. Now is the time to get your order in, OMs, before the quota of blank cards which I have ear-marked run out. Once they are used the prevailing paper difficulties may make repeats impossible.

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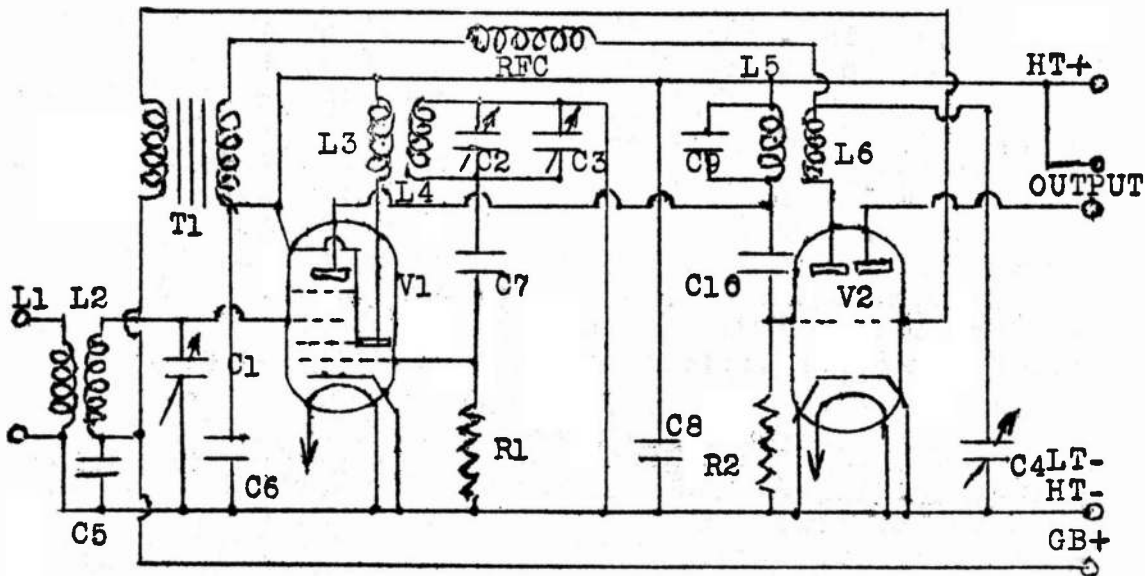
I M P O R T A N T

WILL YOU PLEASE TURN TO PAGE 358, SHORT WAVE NEWS, FEBRUARY, 1951. HQ are organising an INTER-GROUP Dx CONTEST for April 14th-15th. Teams will consist of five members, the contest being for amateur telephony on any amateur band. WE WANT TO ENTER TWO TEAMS at least IF YOU CAN COMPETE PLEASE LET ME HAVE YOUR NAME BY RETURN POST.

EXPERIMENTAL CIRCUITS, No 3: An S H 2.

This circuit is by no means a new idea and it does not produce ALL the advantages of the SH to gain which it is necessary to so many valves that the result is nearly always QRO. This little set does, however, follow the SH principle and it certainly offers a number of advantages over the TRF types, including simplification of tuning, complete stability and entire lack of dead spots, no hand capacity and considerably greater versatility in the matter of frequency coverage.

I feel strongly that experimental work spent on developing this basic circuit might be handsomely repaid.



The circuit consists actually of three stages. The first, using a triode-hexode frequency changer such as the 6K8, converts all incoming signals to a fixed frequency which is fed to the second stage. This is one half of a twin triode (6C8 or similar) which is wired as a leaky grid detector with preset reaction. The other half of the twin triode is an audio amplifier stage.

Oscillation should be obtained with C4 at about mid setting, a point which can be arranged by varying the turns on L6. When tuning C4 should be set just clear of oscillation and C1 should also be set at about mid scale. C3 can then be used as a band-set control. Having found the band C1 may then be retuned for maximum gain, and thereafter the band may be tuned on C2 alone.

Component values are:--

C1, 100 pF, RF tuning control. C2, 15 pF, bandsread control.  
C3, 100 pF, bandset control. C4, 100 pF, reaction control.  
C5, .005 uF, bias by-pass. C6, .01 uF. C7, 100 pF. C8, .01 uF.  
C9, 250 pF, IF tuning preset. C10, 100 pF. R1, 50 K,  $\frac{1}{2}$ W.  
R2, 1 meg,  $\frac{1}{2}$ W. RFC, SW choke. T1, 3:1 intervalve audio transformer.

Coil data for Top Band is approximately as follows, using  $1\frac{1}{2}$ " formers for L1 L2, L3 and L4:--

L1-- 10 turns, 24 swg enamelled, close wound,  $\frac{1}{8}$ " from E end L2.  
L2-- 56 " 24 " " " "  
L3-- As for L1.  
L4-- As for L2.  
L5-- 55 turns, 30 swg DSC, close wound,  $\frac{3}{4}$ " former.  
L6-- 18 " 30 " " " " " ,  $\frac{1}{8}$ " from L5.

Next month we hope to describe an adaptation of this circuit showing how the first stage may be switched so that the rig can be used either as the above SH2 or as a one valve O-V-1 TRF set.

As in all the EXPERIMENTAL CIRCUITS published in this series no guarantee of performance can be given.

THE KALEVELD CUP CONTEST.

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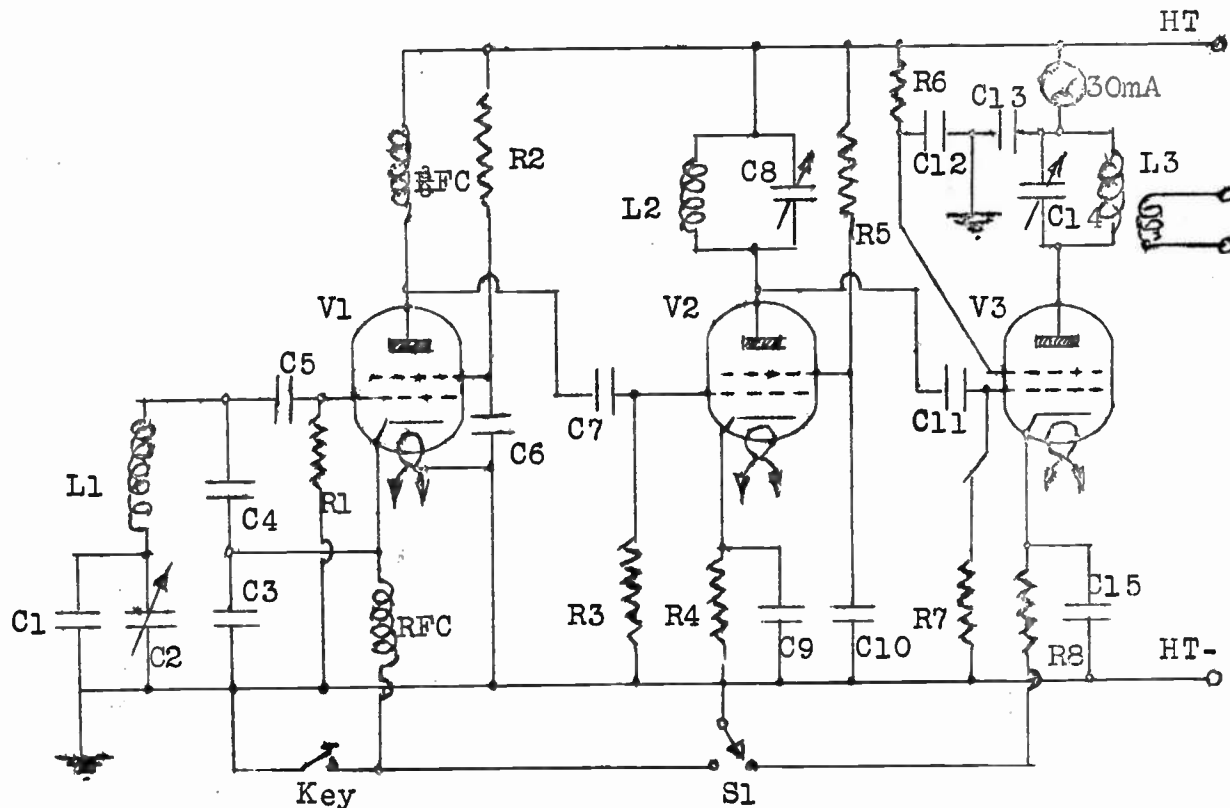
It is with very great pride indeed that I make this preliminary announcement of a new contest that will, I am sure, take it's place as a National Event within a very short period.

Organised by the Q R P Research Group, with the extensive backing of the I S W L administration, and under the patronage of Evert Kaleveld, PAØXE, to whom we owe a resounding debt of thanks for the presentation of a really magnificent silver cup, there is no doubt at all of the success of this new event.

Full details of the contest will be published in due course. Sufficient here to say that it will take place during September, the contest period being one week and the rules being based on those now existing for the QRP Trantest.

The cup will be presented to the winner, by PAØXE in person, together with an illuminated certificate to the SWL who submits the most comprehensive monitor report on the event. If possible the presentation will take place from the ISWL stand at the RSGB Exhibition, but it is too early, yet, to make any definite arrangements on this score.

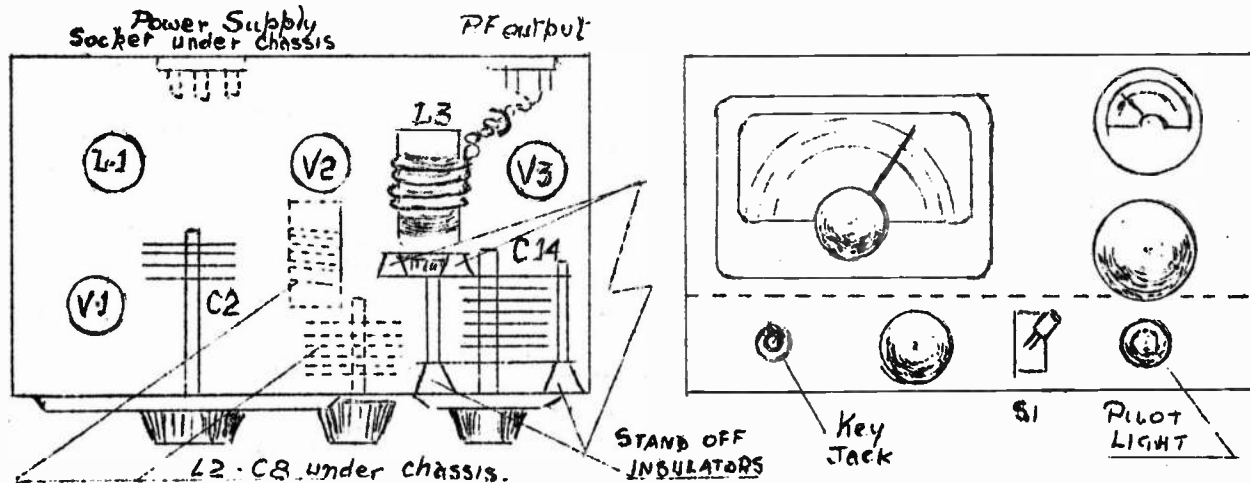
xxxxxxx On behalf of the Group -- THANK YOU, EVERT. xxxxxxx

THE Tx AT G3EDW.

This rig is still an experimental layout and it is intended to build it into an enclosed chassis and case and replace the plug in coils with fixed ones and a simple system of band switching which will be more convenient and enable a greater degree of band

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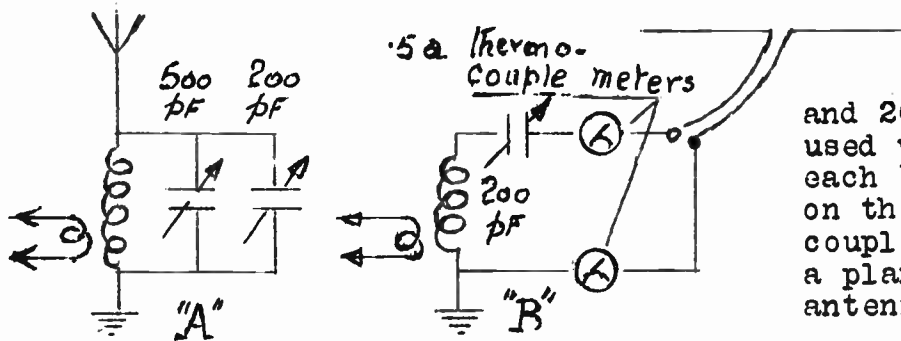
spreading to be obtained. The rig is not at all critical either as to values of components or layout and has been quite easy to adjust and operate, the note being consistently T9 on all bands. It is used with a power pack having a switched output of 75, 150, 225 or 300 volts, and with 300 volts HT it runs approx 5 watts.



It must be noted that the spindles of C8 and C14 are at full HT potential. The coils used at present are the Premier range for 320, 160, 80, 40, and 20 metres. The VFO coil, L1, should be one band lower in frequency than the desired output, except in the case of 20 metre working when the oscillator is run on 80 m, L2 on 40 m and double in the PA.

The output is taken from the PA coil, L3, by means of a three turn link coil and a short length of twisted flex to the link coil on the antenna coupler. Coupler "A" is in use on 160 and 80 with a 260 ft end fed for 160 and a 40 m dipole with both feeders connected together and fed against earth for 80 metre working.

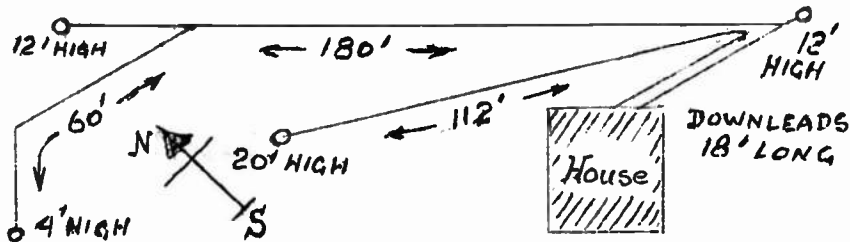




On 40 m and 20 m coupler "B" is used with a dipole for each band. The sketches on this page show these coupler units and also a plan layout of the antenna systems.

The Tx valve line-up, by the way, is EF50, 6SH7, 6AG7, in that order.

As will be seen from the sketch of the antenna system, EDW is considerably restricted in the matter of height,



but the fact remains that he manages to get out regularly and well with only two watts. For example, in the RSGB Top Band contest, he made 34 QSOs in only 2½ hours and, in the RSGB QRP contest, he took sixth place with a score of 1505 points, mainly using 0.5 W.

(Thanks for this and all your other gen, Peter. Time has beaten me for replying personally lately, but your interest and enthusiasm is none the less appreciated, OM. Your other suggestions are being incorporated, too, OM. -- ED)

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 NEXT MONTH WE SHALL TRAVEL ACROSS THE CHANNEL FOR AN INTERVIEW WITH GC2CNC. He is the most southernly of all G calls !



S W L. ACTIVITY.

This was once the most "live" column in the mag. What has happened to you all, OMs? Your reports have been more and more infrequent of recent months, until now I have only three SWL letters in front of me, and Bob Brooker is finding you just as reticent for his "Notes and News" column. When we first incorporated the Tx field into the Group one bod wrote, full of wrath, to say that he foresaw the eventual end of SWL interest in "Q R P" just as it had died in all the other amateur radio mags. I promised that this would not be so, but, without YOUR interest, OMs, there is not much I can do about it. The increase in Tx membership of the Group has been outstanding during this year, but even so the great bulk of our membership of over 200 is composed of SWLs -- the ratio is over four to one! And yet the interest shown by that large number of SWLs has dwindled to three letters while the enthusiasm of the Tx minority is simply staggering. Perhaps it is not entirely premeditated malice which has caused so many radio mags to swing in favour of Tx interest.

It is up to you, OMs.

D.W. AUTON has sent in an interesting letter from his new station at Gibraltar. He has been moving round too much lately to get in much radio, but now he has a chance to settle down he is hoping to, have a ticket before long and put his B2 Tx to work. The station is 450 ft ASL with very little to interfere with outgoing signals so he is hoping to have some good contacts and to be able to use the VFO as a QRP Tx when condx are favourable

P. HUNTSMAN has been suffering from one of those late shift spells (1630-0020 hrs) and has found the Top Band pretty well flat by the time he has got home. He has heard a number of FKSS stations lately (FKSSAA, AN, AV, AZ, AY) all on 14 Mc/s CW, and asks if

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anyone can give him some gen on them.

L. THORPE nearly gave up SW radio recently having become so disheartened at continued poor results with his QRP rig by comparison with those of a friend's S340. The friend lent him the 640 for a while and Lyndon is now happy again as he found that, at his own QTH the 640 gave no better results than his own rig! He describes it as "an absolute flop", and says it never brought in a station he couldn't have got on his O-V-1. Now he is moving to a new QTH anyway and is hoping to get out of the "dead spot".  
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S W L NOTES AND NEWS, collected by Bob Brooker.

Perhaps activity has been at a low ebb during the past month or so. Not much news has come to hand anyway. Harry Wells of Waltham Cross sends some further information about VS7SV, whose signals have been so outstanding for some time now. On page 239 of "QRP" No 15, Harry reported that the op at this station was leaving for G-land, but the station, he says, has been quite active since. It appears that it is a club rig and therefore not in the hands of a single operator. On 80 metres Harry has logged LX1DU and 1JW, and on Jan 26th at 2200, F3DI, using only 3 watts, was putting in a Q3 R4 signal through plenty of QRM. On Top Band nine stations were logged over 100 miles, including GD3UB (250 miles), G2DPZ (over 200 miles), and two GVs, received on an indoor antenna. Harry's 20 metre Dx includes PK4DA at 1547 on Jan 21st, and EL2X at 1812 on the same day. CM9AA was heard calling ZS7C at around 2100 on Jan 10th, and a VK2 at 1315 on Jan 3rd may have been AGU or ABU.

Thanks for the gen, Harry, you've got a nice lot there, and we could do with a lot more such regular enthusiasts.

(Please do make a point of writing to Bob this month, OMs.

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The address is: R.J.Brooker, 77 The Cottages, Rosendale Rd, Herne Hill, SE24. -- ED)

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Tx ACTIVITY.

G3GZA (Bristol) who, with 3HCN and 3FYX, has organized a QRP net for every Tuesday evening, makes a further interesting suggestion. He says: "It would be nice if the Tx members could have a special calling time on, say, Top Band, or 3.5 Mc/s for a chat on QRP and get SWL members to report on the signals, acknowledging these reports the next time up. As most are crystal controlled they could specify their frequencies and time of calling."

Thanks, Dudley, that sounds a really interesting scheme and we will certainly cooperate this end.

G3CHE (Huddersfield), has got a Tx on the air again since my notes last month. It is a very much modified Marconi CNYL Tx-Rx, and, in it's present form, runs about 50/60 watts, having no pretensions to being QRP. Now that this standby rig is stabilized, however, CHE and his enthusiastic ex-W/Op XYL feel they can concentrate on producing a really efficient QRP rig. When are you getting a call, Mrs CHE?

G3EKP (Darwen, Lancs) has been having a large scale rebuild which has kept him off the air most of February. He has modified the EL32 CO, added an antenna tuner on the same panel, and now has Xtals for 7050 and 7070 Kc/s, the latter "rather sluggish". One of the best "chats" he had during the month was with 3HCW who was using one watt. Their QSO was solid for a good half hour.

HZLHZ (Mecca, Saudi-Arabia), who has been in England for some months, has now returned to Mecca and we are looking forward to getting some interesting gen from him for next month's issue.

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G3HBI (Herne Hill) has gone back onto 40 metres to try and work "a bit of Dx". So far his best is OH5OE and the total score has risen to 11 countries since he got his call in the autumn. He has now acquired a 68P ex-service Tx which he is busy converting. These rigs are in plentiful supply and are cheap -- Bob gave 6/6 for his and promises to let us have full gen on the rig. Thanks, Bob, we'd like to have that.

G2HKQ (Poole, Dorset) has had a solid QSO with G5GG who was using 0.44 watt. HKQ himself was running at 3 watts and the contact was on Top Band which was rather significant as GG has done quite a lot to help HKQ make his "debut" on Top. HKQ puts up an idea which lines up with G3GZA's suggestion of a QRP net -- and takes the scheme a step further forward. He says: "Why not a Tx member's WEEKEND on Top Band or 3.5, the main idea to be in each QSO power be reduced in stages to as low as possible, starting QSO on 5 or less watts, then dropping till minimum is reached. Data built up should prove extremely interesting."

Thanks for that, Arthur, I think you've got a really first class idea there.

GC2CNC (Jersey) has the distinction of being further south than any other station carrying a G prefix. His QTH overlooks the sea on the south-east tip of the Island and he has had a QSO with the most northernly G, GM3EWC in the Shetlands. He promises to QSL all useful reports on his Top Band signals (and on 145 Mc/s) if a stamped envelope is sent. Times will not be too regular but he is never on 1.882 Mc/s until after 2345 GMT. Both bands operated CW. Monty also points out that, if there are any bods who want GC fone, there is a net every evening at 2200 GMT with 3GS, 3AVW, 3EML and sometimes 2CNC, 5OU and 2FMV on approx 14350 Kc/s.

G3GRO (South Ruislip) has been QRT for a period, but he is now persuing plans for something rather outstanding in QRP stations. The Rx will be a 1-V-1, covering 1.4 to 1.7 Mc/s, measuring

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3" x 4" x 5" and the line up is three 6F12s which are miniature B7G screened pentodes. The matching Tx will be a little larger and will run 4/5 watts to a 6V6 PA, the CO being another 6F12. Both these units will run from the same power pack which is capable of 350 volts at 60 mA, the rectifier being a 5Z4G. This certainly sounds an interesting rig, Colin, and we should like to hear more of it as soon as you have warmed it up.

G3HCW (Pontefract) has some news for the Bristol Net. 3HCN has been heard more than once, putting in a consistent 569 and on one occasion 579 on forty. Ernest has called him each time but has yet to make a contact. The frequencies at 3HCW are 7010, 7020, 7030 and 7045 Kc/s. As a matter of fact 3HCW, in conjunction with G2DPY, has already carried out an experiment on the lines suggested by 2HKQ. They made contact one afternoon at 1400 hrs on 7 Mc/s, HCW then running one watt and getting 569. He then reduced to .5W and was reported at 55/69. 0.25 watt gave 559 and, to Ernest's surprise he ever got 449 for a paltry 0.1 watt.

G2DHV (63 Lewisham Hill, SE 13) states that any member will be welcomed at the meetings of the Ravensbourne Amateur Radio Club at Childeric Road School, New Cross, SE14, Wed and Thursday evenings at 7.30 pm. DHV is Chairman of the above and is also Hon Sec of the British Two-Call Club, application forms for membership of which can be obtained from him, address as above.

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GROUP JUNK BOX.

In the days before coherers they used to say "As ye sow so shall ye reap". Translated that means "George wants to hear from those who HAVE junk as well as from those who WANT it." This Junk Box of George's is getting quite a thing and is credited with a

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number of satisfied customers. After the last one was successfully served George wrote to me saying, "I'll certainly help if I can, but the trouble is that although they want stuff out of the Junk Box they won't submit their own lists of stuff available." That is all that is wanted -- get out of that armchair on Sunday afternoon and sort 'out your shack; list all the stuff you've lost interest in (for all you know it's just what the other bod is hunting for) and post it to George Partridge, G3CED, "Brent House", 17 Ethel Road, Broadstairs. Just send him the list, that's all.

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T R A N T E S T.

The proposed amendment to the "X-factor" has met with general approval and G3EDW, whose suggestion it was, is the only one to suffer a modification of his last month's entry which, being all on 3.5, comes in for a reduction of X-factor from 5 to 3, making his corrected total 1164.

We can therefore consider the amendment carried and all entries will in future be calculated with the following X-factor:-- 1.7 Mc/s x 5, 3.5 x 3, 7 x 2, 14 x 1, 28 x 1. These new factors will operate for the next twelve months after which they, and all other rules of the contest can be reviewed in the light of experience gained during the year.

There are two points which require clarifying:-- First, the QSOs submitted should be those made during the previous month only and not from Jan 1st to the time of publication. Secondly, the column following the entrants call sign (ie, column two), shows that entrant's best one month's score so far, not a total of all his scores, nor (essentially) his previous month's score.

One final word, OMs -- PLEASE send your entries in complete, in the form laid out here, and ON A SEPERATE SHEET OF PAPER. Tnx!

	Best score to date	QSO with	-M- Miles	Mc/s	-W- Watts	X	-P- Points	Month's total
G02CNC, Jersey.	--	SP1JF VK4DA UF6KAA	900 9000 3500	3.5 14 7	2 2 2	3 1 2	1350 4500 3500	9350
PAØXE Rotter dam	--	EI8C DL2LM G3EDA	750 140 130	7 7 7	0.5 0.5 0.5	2 2 2	3000 560 520	4080
G3HCW Ponte fract	4180	DL1MK G3GCW ON4HD	400 250 260	7 7 7	1 0.5 0.5	2 2 2	800 1000 1040	2840
G3EDW Rayleigh	1164	OZ7BO G3HES G2OG	520 90 130	3.5 3.5 1.7	2.5 0.5 0.5	3 3 5	624 540 1300	2464
G3EKP Darwen	540	G3GWL G3HCW G4WK	150 220 75	1.7 1.7 1.7	2 2 2	5 5 5	375 550 188	1113
G3CED Broad stairs	--	SM7AKD I1SCO OZ5U	900 900 600	7 7 7	5 5 5	2 2 2	360 360 240	960

FORMULA :--  $P = M \times X \div W$

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"Q R P" SUBSCRIPTION RATES :-- As announced in the Editorial to this issue, the increased coat of paper has forced a corresponding increase in subscription rates once again. THE NEW SUBSCRIPTION RATES WILL BE 4/- for 6 months or 8/- a year. Current subscriptions will be unaffected, but renewal dates will be brought forward one month.



"Q R P" C - Z PANEL.

1951 Series	Megacycles				Total	
	3.5	7	14	28	C	Z
P.Huntsman	10	36	76	10	84	32
D.G.Gordon	18	11	49	11	57	19
H.G.Wells	14	4	41	--	52	18
D. White	--	1	12	3	14	6

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"Q R P" TWO - WATT PANEL.

1951 Series	Total	Counties		Countries			
		1.7	1.7	3.5	7	14	28
G5QI	54	2	24	15	13	--	--
G2CNC	53	2	2	2	14	31	2
G3EDW	7	5	1	1	--	--	--
G3JKP	5	1	1	--	3	--	--

It is very encouraging to see this Panel taking shape at last, and quite exciting to see our old friend 5QI being given such a close run for top place, but there are still a great many more of you who should have sent in an entry. It is never too late, so tot up your 1951 QSOs on two watts and under and send them along for next month's issue.

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S A L E S : E X C H A N G E .

QRP JUNK BOX.

WANTED:--

- 1:-- One 4/1 intervalve transformer. Smallest possible dimensions. Exchange any junk box items.
- 2:-- One complete set four-pin plug in coils.
- 3:-- Crystals for 1.7 to 1.8 range.

SALE:--

- 1:-- Battery operated Rx in shoulder carrying case. Will fit large overcoat pocket. American, permeability tuned, using 1.4v valves, 5-13 Mc/s, with batteries & headset complete. £3-0-0.
- 2:-- Setchell Carlson midget radio range Rx for headphones (BC1206). Uses 24v HT (no vibrators or rotary converters needed). 195-45 Kc/s. 7"x4"x4", including phones. £2-0-0.
- 3:-- Brand new dinghy radio, type SCR 578, 500 Kc/s MCW auto SOS and morse operated. Suitable for portable conversion. Complete with hand generator, aerial etc, etc. Waterproof case. £1-10-0
- 4:-- Power unit type 285. 200-240v in, 450v 200-250 out. 3x6.3v windings (2 at 5A, 1 at 3A) conservative rating, also 2000v 20 mA (no HVR rectifier included). Complete in fb case, fuses, lashings of smoothing for both HTs. 12" x 18½". Rather heavy. £2-10-0.

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Carriage extra on all the above items. Many other bargains are available including TCS Collins complete station etc, etc.

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SAE to George Partridge, G3CED, 17 Ethel Rd, Broadstairs

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