OFFICIAL REPORTS



Q R P :::::

:::::: OF THE

RESEARCH GROUP

No 16

JAN 1951

EDITED BY: J. Whitehead, 6, Abbot's Tilt, Hersham, Walton-on-Thames, Surrey.

Dedicated to the advancement of LOW POWER RADIO.





No 16



JAN 1951

EDITORIAL.

January editorials have a habit of sliding backwards to add stars and asterisks to all the "outstanding successes" and "noteable advances" which have been achieved during the passed year. I always fancy that there is a shade of malice in these harangues, aimed impressively at contemporaries or, perhaps, tauntingly at competitors. For myself, however, the success of one year only stimulates my desire to look further ahead to a still better year in store, and leaves me neither time nor space for retrograde romance.

1951 shows prospects of golden opportunities. In my notebook I have collected many ideas for the consolidation and expansion of our Group and of our journal; we are very fortunate in having the unstinted backing of the World's finest League organization; we have the great satisfaction of knowing that, already, we have built up, within our Group, a spirit of comradeship and cooperation that is second to none; and, which is probably most important of all, we have a remarkable stock of real live enthusiasm.

1951 also shows indications of a trend which may develop into a veritable struggle. Early last year paper for "Q R P" was to be had in just sufficient quantities at 10/- a ream; that situation rapidly improved until suppliers were glad to sell large quantities of identical paper at 8/-; suddenly the price shot up to 12/-; and now any paper, irrespective of quality, is practically unobtainable at any price.

I have no doubt that we shall weather the storm and you can

rest assured that I shall get out the monthly copy so long as there is a fag paper to print on; but, if the mag comes to you one month on a grease-proof sandwich wrapper, don't condemn me without a thought. The outcome which I regret most of all is that, whereas I had hoped to be able to reduce the cost of "Q R P" to you, I am forced instead to raise it. This increasing cost of paper is, infact, only the latest of a series of rising production costs which have hit us at every turn in keeping "Q R P" in it's present form. To balance this position, OMs, I have got to put annual subs up to 6/- (or 3/- for six months). In effect that is only a penny a copy, though it means something like £10 on the year's production even at our present circulation.

The chance to increase the quality of our layout has been forcibly postponed, but there is still no restriction on the quality of the matter which we print. That, I can promise you is going to improve more rapidly than ever and I am sure that you will find that extra penny well worth spending.

Finally, just one glance back into 1950....a glance at the rows of Christmas cards which decorate my work bench. Thanks for the thought, OMs. I doubt if I shall be able to thank you all individually but my appreciation is none the less sincere.

I S W L AMATEUR BAND Dx CONTEST RESULTS.

The first ISWL Individual Amateur Band Dx Contest, a full report of which will of course appear in the January S W N, has indeed hoisted the banner of the QRP Research Group well and truly to the mast-head. There were thirty entries for the contest and no limit on the power of the Rx used, yet a QRP RESEARCH GROUP member took first place with 0.5 watts, and another Group member was fifth with 0.8 W.

Official results show the following placing of QRP members:-lst.; A.E.Glass, O-V-1 (0.5 watts), 66 ft long wire antenna. 5th.; R.J.Brooker, 1-V-1 (0.8 watts), " " " " " 10th.; L.H.Waine, Rx details at present unknown. 26th.; H.G.Wells, " " " " " "

The January S W N, in it's report of the Comtest, makes the following comments on this very excellent performance

"From the outset let it be said that this contest has proved several very interesting points. It has also been a triumph for the ISWL QRP Group.....The winner, with his O-V-1, consuming only 6.5w, succeeded in logging 94 countries in 31 zones--surely a remarkable achievement by any standard....Bob Brooker, with his 1-V-1 (0.8w) also came high in the list (66 countries, 29 zones) and is to be congratulated for his performance...."

"4 R P" TRANSMITTING CONTEST, 1951.

For some time I have been anxious to devise a series of contests for our Tx members and here, thanks to the much appreciated help and suggestions of G3CED, is the first of our Tx events, which, for brevity, we propose to call the QRP TRANTEST.

The period of the contest will date from 0000 GMT, Jan 1st 1951 to 2359 GMT December 31st 1951.

The target is the THREE BEST Dx CONTACTS DURING THE YEAR.

The rules are as follows: --

- (1): MAXIMUM power shall be 5 watts input to PA.
- (2): The distance, in miles, between the stations in any 480 shall be devided by the contestant's Tx power in watts.
- (3): The frequency in use shall be effective by using the following multiplying factors,--

160	metres,	multiply.	result	bу	10.
80	11	"	11	#	5.
40	II .	. 11	•• .	**	2.
20	11	11	15	. #	nil.
10	99	11	98	#	nil.

- (4): Contestants must forward MONTHLY details of "the best to date", so that the build-up can be recorded in each issue of "" R P" and in our "", RP Notes" in S W N.
- (5): The monthly returns called for in Rule (4) must be accompanied, in the first instance, by details of the rig in use and exact antenna specification, and thereafter by any alterations to these items which may have been made in the interval.
- (6): Entries MUST BE VERIFIED by (SL card and all contestants must be prepared to produce such cards upon request by the judges.

Note: In the case of Top Band entries counties count equally with countries by virtue of the multiplying factor (Rule 3).

Now come on. OMs. this contest could be a really exciting event if enough of you come in on it. It is perfectly fair and even for everyone, whatever the rig or wherever you live, and there is a special certificate waiting for the eventual winner. Moreover, if the number of entries warrent it I will see what can be done about a cup or shield. Already we have enough transmitting members in the Group, as will be seen elsewhere in this issue, to make a most fb event of this, and our list of Group calls is becoming longer and more widespread every month. SWL members have proved the efficiency of our QRP receivers over and over again since the Group was launched. Now I hope we shall be able to show the sceptics (and there are still far too many of these gentlemen) that the QRP transmitter is not just a beginner's toy with a red "L" hanging from the aeriel. nor yet a poor man's apologetic attempt to get on the air. Any QRO bod who has tired of easy radio will be welcomed if he comes down to 5 watts max. He will probably wonder why he never did before.

-16/5-

QRP GROUP Tx MEMBERS LIST, JANUARY 1951.

G2AJU: J. Cowles, Ipswich. G2ATV: (Group President) C.W.C.Overland, London W9. G2BTO: G. Openshaw, Bolton, Lancs. G2DHV: G. V. Hallock, London S E 13. G2HKQ: A. R. Knight, Poole, Dorset. G2HL: J. Woodage, London N W 1 2 G3CED: G. A. Partridge, Broadstairs. G3CHE: L. H. Brown, Huddersfield. G3EAZ: E. M. Wills, Exeter. G3EDW: P. R. Golledge, Rayleigh, Essex. G3EEM: A. E. Cooper, London N 1. G3EKP: J. E. Whittle, Darwen, Lancs. G3ESX: Fred Hadley, Worcester Park, Surrey. G3FAU: V. Cundall, London E 15. G3FJW: Ron Finch, Ilford. G3FVE: E. G. Norris, Mere, Wilts. 'G3FYX: R. Emery, Bristol. G3GBP: R. F. Hawksley, Bulmer, Suffolk. G3GRO: C. S. Hebden, South Ruislip, Middlesex. G3GZA: D. J. West. Bristol. G3GZJ: F. J. Crisp, London S E 18. G3HBI: R. J. Brooker, London S E 24. G3HCN: W. G. Clapp, Bristol. G4QW: J. Allmutt, London S W 20. G5GG: L. G. Young, Bournemouth. G5QI: W. S. Carter, Henley-on-Thames, Oxon, GC2CNC: E. Banks, Jersey, C. I. GI2DZG: W. E. Coughley, Belfast. GW2DDX: F. C. Smith, Cadoxton, Barry.

HZ1HZ: Ahmed Zaidan, Mecca.

PAØXE: Evert Kaleveld, Rotterdam,

VESOM: Don Matheson, Southampton Is., Manitoba. (Hudsons Bay).

TRANSMITTER - RECLIVER FROM SURPLUS TUNER, by C.E. Clark, WIKLS.

(Editor: - We have had special permission from Radio and Television News of Chicago to reprint this interesting article which first appeared in their Nov 1947 issue of RADIO NEWS. The TU6B and other units of the same series are well known and are still easily obtainable on the surplus market at about 17/6 or £1.)

Many of the war surplus items on the market offer intraguing possibilities for conversion to ham use. The compact transmitterreceiver discussed here is an interesting illustration. Here, a piece of equipment, officially known as TU6B, has been converted to a table top transmitter-receiver -- a worthwhile project for either the beginner or advanced amateur. The former will find it an easy as well as economical means of getting on the air. The amateur who has a phone transmitter will find this little outfit the answer to an occasional urge to operate on the CW bands without the bother of retuning his phone rig. The CW men who are running 100 watts or more may use this rig for local contacts and will find that this shift to lower power is a favour to fellow hams. Beginner or old timer, those who enjoy the construction phases of amateur radio will find this project well within the scope of their ability and finances. A breakdown reveals, simply, a two-tube regenerative Rx and a one-tube crystal-controlled Tx. Both units were selected with the idea of simplicity and economy in mind. All usable parts of the original unit are employed, the balance of the required parts are either surplus components or are from the indispensible funk box. It is not newessary to adhere to the choice of tubes used here.

Similar types at hand will do as well. Types 6J7GT/G, 6K7GT/G, 7V7, etc, may be used as detector. In the audio stage, pentodes such as the 6V6, 7B5, 6M6G, may be used.

The plug-in coils of the reveiver have only a single winding, thus simplifying what is sometimes an onerous task. In operation, the receiver will be found surprisingly stable, and capable of delivering a respectable amount of gain for good headphone reception. Condenser ClO in the audio output circuit eliminates the plate voltage in the phones, also leaves the phone cord free from stray RF currents which sometimes annoy. Finally, perfect shielding is provided by the aluminium cabinet.

The transmitter is conventional, which is to say, tried and true. Single tube transmitters using the 6L6 tube are still heard on the air today, sufficient endorsement of their performance. When the transmitter-receiver is completed the builder will find he has a bonus in the form of a number of high quality parts which will, no doubt, eventually find their way into subsequent projects. Since obviously the first step is to procure a tuning unit a few lines regarding their availability will be helpful. Originally part of the BC-375-E transmitter, these units saw service in the bombers of the AAF. Some of them are brand new, some slightly used. The BC-375 -E used seven of the units to provide rapid QSY, each one being calibrated and locked to a certain frequency. To conveniently hit the 80 and 40 metre amateur bands, the TU6B, which covers 3000/4500 Kc/s is the logical choice. With this unit no revamping of coils is necessary. Next choice in case the TU6B is unavailable, would be the TU5B. This unit has a range of 1500/3000 Kc/s. The TU7B has a range of 4500/6200 Kc/s, the TU8B, 6200/7700 Kc/S.

(Circuit diagrams of the converted rig will be found on page 16/8, and next month we shall complete this article with full constructional details as laid out by WIKLS).

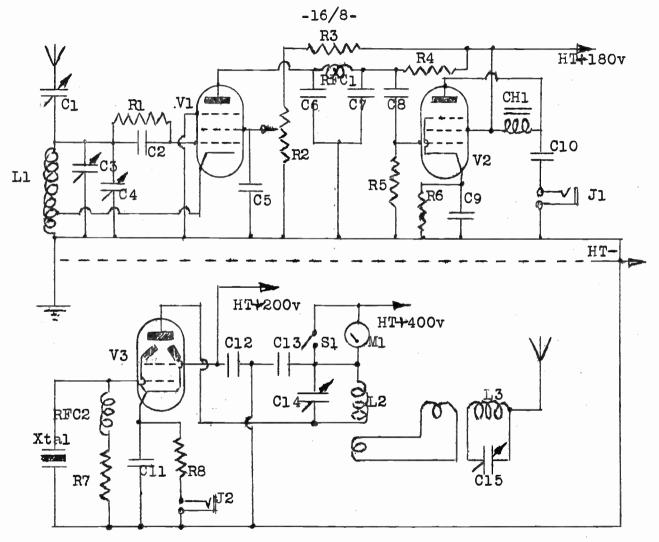


Diagram of the transmitter-receiver after conversion. FIG 1.

World Radio History

Component values for the transmitter-receiver:R1; 3 mag, $\frac{1}{2}$ watt.-R2; 50 K.-R3; 25 K, 1 watt.-R4; 100 K, $\frac{1}{2}$ w.
R5; 500 K, $\frac{1}{2}$ w.-R6; 500 ohms, 2 watt.-R7; 20 K, 1 w.-R8; 200 ohms, 2 watt.-C1; 3/30 pF, trimmer.-C2,6,7; 100 pF mica.-C3; 100 pF.-C4; 2-plate variable.-C5,10; 0.1 uF, 400v.-C8,11;0.01 uF, 400v.-C9; 10 uF, 25v, electrolytic.-C12,13; 0.01 uF, 600v.
C14; PA tuning cond. ex surplus unit.-C15; MO tuning cond. ditto.
J1; open circuit jack.-J2; closed circuit jack.-RFC1.2; RF choke ex surplus unit.-CH1; 40mA midget filter choke.-M1; 0/200 DC milliampeter.-V1; 6K7.-V2; 6K6.-V3; 6L6.

Coil data; -

L1; (3.5 Mc/s) 28 turns, 24 dcc, tapped 1½ turns from E end, 1½" dia former, winding spaced out to 1½" overall.--(7 Mc/s) 14 turns, 24 dcc, tapped ½ turns from E end, 1½" dia former, spaced to 1½".

L2; PA coil, ex sur¾lus unit. L3; MO coil, ditto.

Coupling Links; 3 turns each, pushback wire, wound round E ends of L2 and L3.

Tx ACTIVITY.

We want ALL our transmitting members to send in news as regularly as possible for this feature. It is of interest to every reader, not only the licenced ones but the SWLs too for already they are going out of their way to monitor Top Band for fellow members signals. With regular support this feature could become a "Directory To QRP Activity".

GI2DZG; Temporarily QRO (at 50 watts) owing to rebuilding the QRP rig which should be in action again by 1st Feb.

G3GZA; With G3FYX and G3HCN GZA has started a regular QRP (2 watts max) night each week, mostly on 1.7 Mc/s. Please let us

have approximate scheds, OM--and, of course, reports of results.

G3BHI; When last heard of Bob was "rockbound" on 7025 Kc/s, but was hoping to beg, borrow or obtain one or two alternatives. Also he was hopeful of proving a method of mixing the frequencies of two crystals (having in mind those surplus xtals whose fs lie outside ham bands) so that the sum and/or difference fall within our bands. As he says, even if a pair of such xtals produce only one usable frequency, they would still be cheaper than a new rock.

PAØXE: An interesting Nov/Dec log from Evert is shown in this issue. His best ever, he says, was 35 minutes solid with W6DUC, Los Angeles, on 14 Mc/s at 55/69 with input of 2 watts to a Zepp antenna. He has worked 7 continents on 2 watts (7 Mc/s CW) always using a Zepp. There are no beams at ØXE!

GC2CNC; "Monty" uses a 6C5 CO with 80v HT. He gained 970 points in the RSGB Low Power Contest in 7 hours with 0.4 watts. He points out the disadvantage of his QTH is that he has to span 100 miles of sea before he gets any mainland QSO. Let's hear from you again, OM, and we'd like a full account of your gear.

G3FAU; QRT at present due to re-building.

G3BEC; Active on 3555 Kc/s with CO-PA, 220P-230XP, 125v HT, 3 watts input. His Rx is a 1-V-1 with untuned RF stage and FL8B audio filter which he says gives "unbelieavable" results.

G2HKQ; Active on 1.7 and 3.5.

G5QI; Active on 1839 Kc/s daily at 2200 GMT.

VESOM; Still no news. Are you snowbound, OM? K-please.

S W L ACTIVITY.

Owing to that ever present complaint, lack of space, I have not been able to include this column as regularly as I should have liked. Consequently some of my data may not be right up to

date. Let's have your latest news before next issue, OMs, and if you would include it under a clear heading "Activity" it would save a lot of sorting out at this end.

Bert Glass (Plymouth) is concentrating on 1.7 Mc/s, hoping to put QRP well up on the S W M Zones and Countries Roll. (You have certainly excelled yourself in that contest, OM!). Bert is using his 0.5 watt O-V-l exclusively now. Incidentally he asks for any information as to what USSR stations are in Zone 19?

John Pennington (Preston) has an interesting line in experiments. He has a 58 set mounted in his car and, parking at the top of a "shap" ("hill" to non-residents), he tunes in a steady sig, then drives to the bottom and rechecks sig, carefully noting the difference in reception.

G.H.M.Yule (London, NW 10) is not likely to be much on the air this winter as he is taking his final AMIEE exam in May. He promises to be back with us as soon as circumstances permit, however, and, if it's any encouragement, I know he can be sure of best wishes for success from every member of the Group.

A.E.Stonestreet (London, NW 2) is still experimenting with a new 1-V-O rig using 1T4s. It will cover 28 to 3.5 with plug-in coils. The size is only 6" x 3" x 2" and the twin of it, which he has heard, is, he says, "the real job".

P.White (Rushden, Northants) has made an identical copy of R.J.B's SH4 and says that it does all that is claimed for it. He is using 40 metre coils at present and is working on a pack to switch 10, 20. 40, 80 and 160 metres. He has also made up a "quite good" 1-V-1 for twenty and is now experimenting with a mains 1-V-1 using 6SH7, 6SH7, 7193 which is quite efficient at 95v HT for a total consumption of 1.2/1.3 watts.

Les Waine (Yeovil) has had heavy business commitments and hasn't been very active (a good try in the contest all the same

OM). He has, however completed an aerial matching unit which has given good results and which appears later in this issue. He says "....talking of QRP I have a QSL on the wall that I received in 1948, using a 1-V-1 (KF35, KF35, KL35) from VQ4FCA (3 watts)..." Well, that shows it can be done!

George Parrott (Glenalmond, Perth) has joined forces with Bob Murray to form the Glenalmond Wireless Club (ISWL) of which we hope to have much to report in the next issue. In a postscript George reminds me of some comments I made "way back" on the subject of typing "I" and "l". He says the inevitable has happened and he has actually received a QSL from IlII, the (as I then thought mythical) station to which I referred.

QRP CW. by G3CED.

In the November issue of "Q R P", Bob Brooker, in his "Notes and News", put his finger right on the spot when he said: "There is little doubt that, as things are at the moment, the CW fans score heavily over the phone boys". Now, our Editor will probably confirm my guess that there are more phone reports than CW submitted to him each month. This is due to the limited number of readers who are experienced CW men. Now, a word in the ear of the uninitiated.

The CW signal scores hands down over the phone signal. It requires a much smaller channel and has very much greater penetrating power. The "winkling out" of the CW Dx signal calls not only for skill on the part of the operator, the receiver must be both sensitive and selective and, last but by no means least, STABLE. These qualities on the part of the operator and receiver alike are necessary when dealing with phone signals, but when it comes to tackling CW Dx they are vitally essential.

Thus it becomes necessary for the truly QRP CW operator to build himself a QRP receiver capable of fulfilling all the above conditions and in addition it must be capable of NOT receiving more than a small percentage of transmitted RF from the nearby transmitter. This calls for efficient screening of the receiver to enable a true zero of the transmitted signal to be heard in the Rx. This is a problem, especially where the Rx has no RF stage, and as the frequency in use increases so does this particular problem. A simple reduction of HT in the detector stage will not solve the difficulty. A possible solution would be to completely screen the receiver and to incorporate a switch that isolates the antenna and substitutes a compensation inductance inside the Rx screen.

The QRP Rx scores over it's big brother in some ways, not the least of which is sensitivity. However it fails rather badly where selectivity is concerned. The selectivity of the receiver is often the key to efficient communication as the experienced operator, and particularly the CW man, is fully aware. But it is doubtful if all SWLs recognise this point. This shortcoming can, however, be overcome by the use of an efficient audio filter, such as the war surplus FLSA. A fair degree of selectivity can also be achieved, at the expense of sensitivity, by reducing the antenna coupling to the minimum. This will also help to improve stability and reduce "dead spots".

Lastly there is the question of economy, both in power consumption and in the size and weight of the equipment, particularly as regards portable eperation. A phone transmitter, in order to push the same amount of RF "up the spout" will consume several times the "juice" required by a CW Tx and even so will not compete with the CW type in roping in the Dx reports.

I do not mean by this that phone reports and phone operating are overrated. Rather is it my intention to point out to the uninitiated the vast amount of research, in the QRP sphere, that is open to the man with a working knowledge of the morse code.

"Q R P" C - Z PANEL.

Well, OMs, here ends the 1950 session of what, to many of our readers, has been a most popular feature. Next month we shall start from zero again with the 1951 lists, so please remember that your next entries must be 1951 calls ONLY.

There was little change during December in the placings, and as was probably expected BOB BROOKER maintained his position at the head of both lists with 146C/38Z heard and 38C/19Z verefied, Second was BERT GLASS with 140C/37Z, but Bert had failed to send in any entry since September. Third place changed in the last lap, Mike Wassell coming up with 137C/37Z, while D.Gordon dropped back to fourth with his previous entry of 119C/31Z unchanged.

Congratulations, Bob, and thanks for your regular and enthusiastic support. Your certificate will be coming to you in due course.

Now, I have cleared the decks for a real onslaught at the 1951 Panel, and we're all set to go.

NOTES AND NEWS, by G3HBI.

No doubt, by now, most of you will have sufficiently recovered from Xmas and New Year festivities to be able to devote your attention to radio matters again, especially as condx seem to be slightly improved of late, on twenty at any rate.

Mike Wassell has sent his usual fb report and mentions KW6AO, on Wake Island, as being active on Xmas Eve, so there's a chance of a new country for those who haven't got KW6. Also heard was VQ4AA complaining about CW QRM on 14 and saying that this band is now very much like 7 Mc/s. How true this is, unfortunately. Mike would like to know if XU2CX is zenuine; he gave his QTH as Peiping. It is

hard to tell with so many pirates around these days, and news from China is so scarce now.

Harry G Wells is rebuilding his station at the moment and he hopes to get going an all bands in the new year. He did, however, hear ZS6Q telling VEINH that his QTH is PO box 745, Jo burg. Thanks Harry, these items are always welcome especially as not everyone has a Call Book.

Peter Huntsman asks about the 9S4 prefix. Well, OM, this is alleged to be the prefix for the Saar which, before the war was a seperate country with the prefix TS. It is almost certain that these people are operating from the Saar but under cover as the 9S4 prefix does not appear to be official. The territory is now a part of Germany and not therefore a seperate country.

And now, to conclude, a few QTHs and QRGs which I hope will be helpful. They are all from Mike Wassell. (They are all additional

to the Summer 1950 Call Book -- ED:).
ZE3JO; Mal Geddes (Ex G2SO of the ISWL QRP Club), Box 1976,
Native Administration Dept. Salisbury. S. Rhodesia.

CR5AD; Box 206, Bissao, Portugese Guinea.

FF8EP: Gilbert Pijeau, Chef de Station, Goa.

VP6HM: Box 252, Barbados, British West Indies.

VP9D; J.A.Mann, St George, Bermuda.

TI2TG; Howard M. Gabbert, Apartado 1649, San Jose, Costa Rica.

EAØAA; 14350 Kc/s. OQ5CF; 14350 Kc/s. TF5TP; 14235 Kc/s.

VE8MP; 14320 " VE8MB; 14320 " VE8SQ; 14170 "

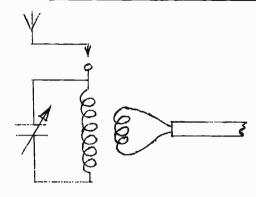
VQ3BVF; 14225 " YN4CB; 14210 " ZS6JM; 14375 "

VP3HAG: 14120 "

There is some nice Dx for you. By the way, VE8MP is in zone 1 and VE8MB is in zone 2. That's all for this month, so "good huntring" and best wishes for the New Year, 73,

R. J. B.

-16/16-An ANTENNA COUPLING UNIT, by L. H. Waine.



The capacitor is a .0001 or .00016 uF variable and the coils are standard Denco, unmodified, RF stage types for 28, 14, 7. 3.5 and 1.7 Mc/s. These feed via 300 ohm "Telcon" twin cable to a two or three turn coil coupled to the grid winding of the normal coil in the first stage of the Rx.

No earth connection is used on the coupling unit. It has been found that, when using .00016 capacity the 7 Mc/s coil will cover both 7 and 14 Mc/s band.

Also the 3.5 coil will cover 3.5 and 7 Mc/s bands. But better L/C ratio is obtained with the appropriate coils for each band.

It is not necessary to modify the coils in any way.

CARTER SHIELD 1950 RESULTS.

This contest has provided yet another win for G3HBI, Robert J. Brooker of Herne Hill, a certificate going to G3FJW, Ron Finch, of Ilford, as runner-up.

It will be remembered that the contest was devided into four categories: "Personal" SW receivers, UHF QRP receivers, QRP mains receivers and QRP super-hets. No entry was received during the year in either the "personal" or the UHF category which is rather surprising in view of the obvious potentialities of the QRP type to use in highly portable layouts and also in view of the large amount of varied applications to which QRP gear was put during the war in the VHF and UHF ranges. I do hope that, during the 1951 Carter Contest, we shall be able to encourage more interest in both these types.

In the QRP mains receiver section there were two entries, that of Ron Finch and one from A.J.Bennett who submitted an excellent rig which ran Ron's entry a very close second. The fourth section, QRP super-hets, drew only the one entry, that from Bob Brooker, but there is no doubt that it was the most outstanding entry received during the year both as regards design and layout and also on the score of it's proved efficiency.

The remaining entries consisted of two battery 0-V-Os and three battery 0-V-ls, all very worthy rigs, more than one being quite outstanding enough to have taken an award. Unfortunately, however, there was no category in the contest which covered these types as they none of them had any pretentions to "personal" or UHF awards.

So much for the 1950 episode! In expressing our congratulations to the winners let us also express our hope that 1951 will produce an even stronger contest and will give us many receivers of still more outstanding merit.

A PRECISION FLY CUTTER.

I wonder how many of you enjoy that early stage of construction during which large holes have to be produced in chassis and panels for valveholders, coilholders, meters, tuning scales and so on. The last time I did such a job I had no special tool handy and was forced to drill dozens of 1/16" holes round each circumference. I swore I would never repeat that process (it was an eight valve job!) and I was therefore interested when, the other day, I came across a Lufbra Fly Cutter. Possibly the first thing that caught my eye was the price -- 12/6 seemed very reasonable in these days. On further investigation I found the tool a really solid, well produced job, made to an excellent design which gives a vernier adjustment right up to it's maximum of $4\frac{1}{2}$ " diameter. And it does

do the job! I tried it on 16 swg aluminium and on 18 swg steel and was so fascinated with the ease with which true, perfectly fitting holes can be produced that I wrote to The Rigid Tools Supply Co, who make the job, and asked them to let me have a bundle of leaflets so that I could pass the gen along to you. It is the No TS, square tapered shank type, that I have got and I can most highly recommend it as the best device I have come across for constructional labour saving.

I have made special arrangements with Messrs Rigid Tools to supply any of our Group direct and POST FREE if you will please remember to mention "Q R P" with any order you may send in. Besides, who knows, if they get a few orders from our Group we might be able to persuade them to stand part of the cost of a nice primted cover for our mag (if we can find any paper to put between the covers!).

SPARES! SPARES!! SPARES!!!

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Ray Aldridge of "Aprillis", New Road, Amereham, Bucks has a large quantity of spares for disposal among which are the following bargains:--

24 assorted resistors, 3/-...14 various valveholders, 2/-...1 ceramic 7-pin Eddystone, 1/-...Various switch wafers and parts, 5/-...1 Eddystone quench coil, new, 2/-...5 HF chokes, 2/-...6 assorted potentiometers, 5/-...8 intervalve transformers, 10/-...1 SW coil unit, 4 ranges, 10-160 metres (cost 30/-), 12/6...6 used chassis, useful for try-outs, 5/-...1 parcel (coils, condensers, chokes, resistors, etc (a real bargain), 10/-...1 similar parcel of addments, 5/-...8 Wearite 'P' coils, 10/6...1 parcel of various coils and coil formers, 3/-...24 slightly flexible plastic rods, 8" x 8", suitable for spreaders, 3/6...1 twin gang brass variable

condenser, .0002 uF, ceramic insulation, $2/\dots$ 1 Westinghouse metal rectifier, about 200v at 40 mA, $3/\dots$ 3 small metal rectifiers of unknown rating, approx 2" $\times \frac{1}{2}$ "...2 Westinghouse type W6, $1/\dots$ 1 meter rectifier, $3/\dots$ 1 variable 3-gang, 30 pF, $2/6\dots$ 1 variable 2-gang, .0005, $1/6\dots$ 6 various variables, 7/6.

VALVES: --NEW 12SG7(1), 6SS7(1), 6SJ7(2), 5/6 each...EA50(1), 6H6(1), 3/- each...9003(2), Ž12, RG12D60(1), 5/- each... X24, met(1) 12/6...USED BUT GOOD SP61(5), 3/- each...12Z3(1), 2/6...25Z5(1), 3/-...EF13(3), UBF11, EF14(2), 10/- the lot...2v battery valves(16), 3/- the lot...6L6(1), 3/-...KT66(1), 6/-...1A7(2), almost new, 5/-each.

Many more similar bargains as well as a variety of complete receivers and units and a quantity of text books and radio mags are available. We have not space to include them this month. Why not write to Ray Aldridge, "Aprillis", New Road, Amersham, Bucks?

LOGS.

During 1950 the policy of "Q R P" to encourage a higher standard of "Dx logs" met with support from every Group member who regularly submitted logs. There is no question at all that a great improvement resulted during the second half of the year and it is interesting to note that more than one of the national journals received letters urging a similar campaign for better quality in their "log" pages. This may or may not have been instigated by our lead, but it is certain that we were the first to take action in that direction.

Once again we propose to lead the way in 1951.

We fell that the time has come when the QRP SWL should be encouraged to give less attention to the "easy" Dx bands and to turn his enthusiasm to the official QRP frequencies of Top Band.

We are sure that, once the QRP SWL has "got his teeth into" the G-Dx available on Top and finds that there is much greater interest up there (especially when he finds himself able to report on the sigs of his own Group members) he will wonder why he had not specialised in "1.7" before.

Thus, in 1951, we want all the Top Band logs we can get and we want them to be as detailed as possible. Remember that, whereas the 14 Mc/s logs of last year were of interest to other SWLs, any accurate, detailed Top Band log may be of great value in addition to the QRP transmitters who use the band.

Any exceptional Dx on other bands will, of course, be given the credit it deserves, and every encouragement will always be given to those hardy spirits who launch out on the VHF and UHF bands. These are very much less easy for the QRP Rxs and call for a truly pioneering spirit on the part of the SWL.

But we feel sure that, once again, we shall receive unanimous backing in our decision to restrict this space, as from next month, for the collection of Top Band Reports.

Q R P GROUP QSL CARD.

From the numerous excellent suggestions reveived for our Group QSL card we have eventually selected that submitted by G3CED as being the most practical and original idea we have seen. The design is not merely very effective but also is USEFUL in pin-pointing the exact latitude and longitude of the senders station. The whole of the left hand column is interchangeable for any combination of gen relative to individual requirements, both in respect of any transmitter or of any SWL user. In the latter case the call sign would be replaced by the SWL is ISWL number.

QRP RESEARCH GROUP STATION F O C. TOPS::: C.W.CLUB EI VERON::: R S G B: ISWL/G983.	GI GD GW	Your Sigs at BST SB to Q S RM
73C "Brent House" 17, Ethel Rd, Broadstairs, Kent.	GC PSE. Q.S.	ANT Ft.High Rx It above sea level.

THE WINNING GROUP Q S L CARD ENTRY, by G3CED.

The card will be in yellow (my XYL says it's "primrose"), with the outline, prefixes and the whole of the right hand column in black lettering. The left hand column and the "long and lat" lines will be in red, the whole of the red section being variable, as explained, for different users.

In order to obtain estimates it is necessary for me to know how many are likely to be wanted. Let's hear from you, OMs.