

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



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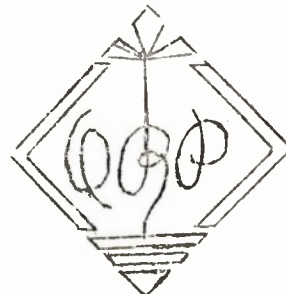
THE JOURNAL OF THE

Q R P RESEARCH SOCIETY

ISSUE 42, MARCH 1953

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Q R P



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HON SEC, TREASURER & EDITOR.

John Whitehead, 92 Ryden's Ave, Walton-on-Thames  
Surrey.

..... EDITORIAL .....

Since the announcement last month of our increased subscription we have been accused, from a quarter which we little expected to find antagonistic to amateur endeavour, of commercialism.

During our four years of existence we have, from time to time, received indictments on a variety of scores. But, until now, no one has doubted our integrity as a purely amateur, non-profit making Society. The basis of this latest accusation against us is obscure for it is obvious that our only income is from member's subscriptions -- even our humble magazine, the circulation of which is restricted entirely to members of the Society, and which is not "published" in the accepted sense, is too small an affair to draw subsidiary income from advertisements. It must be remembered that the costs of producing this magazine are not the only expenses involved in running this Society -- quite a heavy expenditure is involved each month, for instance, in paper and postage for answering incidental correspondence. Notwithstanding the fact that the essential supplies for the production of the magazine are obtained in the cheapest possible market the previous rate of subscription was leaving me with a balance to finance from private sources. In fact, taking all aspects into consideration, it is a fact that, since the first issue of "Q R P" appeared, I have expended well over £30 of private funds on the venture which do not appear on any balance sheet. For the advancement of our amateur movement I have been happy to do so.

If this is commercialism I am a PAØ !

Briefly, no proof of our integrity could be more conclusive than that the Vice-President of the RSGB has been pleased to accept Presidency of our Society for the second year running. This accusation of commercialism reflects upon him and on the Parent Society which has done all in it's power to aid and foster our movement throughout it's growth.

.....: CONTEST COMMITTEE REPORT. :.....

A first report has been completed by our Contests Committee in which they provide amended rules for the Kalevald Cup, a decision on the allocation of the Partridge Cup and the layout of a new monthly contest for both SWL and transmitting members.

I feel that our Committee have done a good job in circumstances more difficult than those of "local" club circles by the necessity to carry out all discussions by post. It is very doubtful if everyone interested in competitive radio will ever find the rules of any contest ideal for them, but our Committee have done their best to cater for the majority.

Let those who would say simply "These rules are no exclamation good" save their 2½d stamps. But a word from anyone who has any constructive ideas on any contest question at all will always be welcomed with pleasure and given every consideration.

.....: MONTHLY SET - BAND CONTESTS. :.....

Each month, under this heading, we shall publish a selected band upon which the contest for the following month will be based. One point will be awarded for each country worked, or each country heard, on the month's Set Band.

RULES FOR LISTENERS:--

(a): Logs will be submitted in any form provided that the following information is available -- Date; times; phone or CW; station heard; whom working; report given by station heard to station it is working (or other proof in the form of remarks made by that station); report of signal of station heard.

(b): Details of equipment used.

(c): Scoring by countries. One point per country per month. This means that at the end of each period the scores will start over again.

(d): Monthly scores will be published in the magazine, plus the

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addition of previous months. The final score will be the sum of the monthly scores.

(e): The times of the contest will be 1900 to 2100 hours on every Sunday. Thus during certain months there will be ten hours operating, whilst in others there will be only eight.

(f): A bonus of one extra point will be awarded whenever a station is heard working a QPP Research Society member.

RULES FOR TRANSMITTING MEMBERS:--

(a): The logs submitted will be adapted to transmitting requirements.

(b), (c), (d), (e), are all the same as in the SWL section.

(f): A bonus of one extra point will be awarded to members working other members of the Society.

THE BAND ALLOCATION for the complete year is as follows:--

April . . . . .	3.5	Mc/s
May . . . . .	7.0	"
June . . . . .	14.0	"
July . . . . .	21.0	"
August . . . . .	14.0	"
September . . . . .	14.0	"
October . . . . .	7.0	"
November . . . . .	3.5	"
December . . . . .	1.8	"

DON'T FORGET -- START NEXT MONTH: APRIL 5th, 12th, 19th and 25th ON 3.5 Mc/s.

::::::::::: SOCIETY NEWS & ACTIVITY. :::::::::::::::

Vic Cundall, G3FAI (Stratford, E15) is active on Top Band, CW, each Monday and Tuesday evening and would welcome letters from anyone interested in a sked. Any SWL member who uses an RL224 is advised to contact Vic who has a good spare set of bottles which he has put aside

"for some deserving case". The address is 93, Chandos Rd.

Ted Trowell, G2HKU (Sheerness) regards "Don't Forget The Diver" as his signature tune now. He has shovelled all the mud out of the ground floor rooms at last, but he has found an awful lot of good radio gear beyond redemption and he will be QRT for quite some time as a result. (WHAT ABOUT A WHIP ROUND THE JUNK BOXES, CHAPS -- I'm including a list of some of the u/s gear in a later paragraph).

Peter Huntsman (Hexham-on-Tyne) has had his work shifted to Newcastle and the extra travelling involved has had a bad effect on his listening periods. Like so many others of us he has been caught without a portable in operation, but he hopes very soon to rectify that. (Yes, do let us have that gen, Peter -- there's no time like the present!)

Walter Baker, G3AFL (Berwick) has got his WABC certificate and is threatening to put in more time on that Top Band SWL Panel, just to see what can be done there.

F.J.Harris, G2BOF (Sutton, Surrey) is a very welcome new member. His QRP to date has been done mostly on NED transmitters, but he has almost completed a half-watt battery Tx/Rx which sounds a very interesting little job (we should like to hear more about this when you have time, OM.)

Mike Delany, G3JMD (Putney) will be on Top Band for three weeks from March 27th and would like SWL reports. He will QSL (direct only) 100 % providing SAE is enclosed.

Bob Eldridge, G3AGQ (Gomeldon) has put out his last call as a G and has disposed of his entire station. On April 15th he sails on the "Seythia" and hopes that it won't be long before he collects a VE7 call from Vancouver. (I know that you will have the best wishes of all our members, Bob, and we shall all be looking forward to keeping in close touch with you -- DON'T FORGET THAT! You won't be able to keep up your "200" entries, but the Monthly Set-Band Contests should be OK for you. You can still have a go at the Kaleveld Cup again, too). We are sincerely looking forward to regular news from VE7 now.

Robert Whitfield (Hexham) has started the construction of a QRP SH5 which he hopes will soon replace his O-V-2 for 14, 21 and 28 Mc/s. Judging by his C-Z results last year we are likely to see some startling reports once the SH settles down.

Norman Bason (Peel, I.O.M.) says "In an isolated spot like this one gets lonely so far as the hobby is concerned..." Well, what about dropping him a line, some of you SWL members to fill in the long gap between arrivals of the mag? I have no doubt that Norman would appreciate a closer contact with some of the "names" he has come to know in "Q R P".

Peter Webb (Tiverton) has offered to monitor the 3.5/3.545 QRP Society Net on the first Sunday of each month (CW only) between 1130 and noon. Thanks, Peter, and I hope that your example will quickly be followed by many more of our SWLs.

Allan Herridge, G3IDG (Balham, SW 12) would like SWL reports on his Top Band and 10 metre transmissions. On the latter he is using an indoor dipole and doubles in the 807, the freq being 28,350 Kc/s.

Sam Hall, G2AOL (Otford, Kent) has spent a lot of time lately on VHF gear but without greatly successful results so far (Patience, Sam, it will come!)

.....: NEWS FROM VQ2W. :.....

Peter Gollidge (ex G3EDW) joins us again this month by air mail. He always manages such an interesting letter that I am sure you would all like to have it verbatim, especially the many members who knew him personally. Peter says: --

"My gear arrived from home early in January and I lost no time in putting it on the air. Operating sporadically from 11th Jan to 17th Feb with inputs of between 15 and 20 watts on 7 and 14 Mc/s I have bagged 28 countries and all continents, the best QSOs so far being KH6ES and VP8AU. The Tx in use is the one I have already described to you, fitt-

ing into a case 15" x 7" x 6" and including HT and bias supplies. VR150 stab and 5Z4 rect, with a six valve line up - 9003 VFO, 9003, 6SH7, 6SH7, 6AG7 and 807 PA. It sounds rather a complicated affair for a low power rig but the VFO is run continuously at a very low level and is completely screened so as to enable full break-in working with amplifier keying. Band coverage is 7, 14, 21, and 28 Mc/s. A QRP-switch is installed to select different HT and corresponding bias voltages for the PA. With the self contained power supply it runs at 1.5W or 9W and when switched to off a separate 400v supply will run it at 20W. I have been off the air for the last few days while changing the VFO circuit from Clapp to ECO. Unfortunately the rig is so compact that I have had to remove several other components before I could get at the VFO sub-chassis, but even so I should be on the air again next week (letter dated 23.2.53). Just before making the alteration I had a go with 1.5W on 14 Mc/s and received the following reports:-- ZS7D (599), ZS3T(569), CR7CK(579), ZS3U(559), ZS6AGB(599). It seems quite encouraging especially as my 14 Mc/s dipole is only some 12 ft high owing to lack of suitable trees.....Our rainy season is still in full swing here and Top Band and 3.5 are just blotted out by continual QRN; 7 Mc/s is very noisy most of the time and, when we have our daily thunderstorm, even 14 Mc/s becomes impossible. I just have to disconnect the aerials and switch off. However I remember that last July while listening on my battery 1-V-1 I heard several Europeans on 3.5 Mc/s so very likely the LF bands will be OK once the dry season comes again. Although I have worked a number of European countries on 14 Mc/s the G stations here have been conspicuous by their absence and I have only had one G QSO. Friend Evert PAØXE has been worked when he was using 50W and his ground plane aerial....Well, that's enough for one month. I'm getting back into form again aren't I? -- 73, Peter VQ2W."

Thanks for a grand letter, Peter, I'll answer those othwr points as soon as this issue is clear. Re contests-the "100" is OUT, but what about the Set-Band job in this issue? And there's no reason why you can't take the Kaleveld Cup to VQ2! All the very best, OM, in every way.



.....: KINGSTON & DISTRICT A. R. S. - QRP SECTION :.....

With very great pleasure indeed we hear that the Kingston Amateur Radio Society is expressing it's interest in QRP by the formation of a special Section devoted to low power Rx and Tx gear. Starting with seven members meetings are to be arranged and plans laid for the construction of various QRP equipment.

We shall watch the growth of this Section with very keen interest and we wonder if there is not many another Local Club which might not follow suit. Many of our own members are also members of their "local", WHAT ABOUT IT CHAPS? -- WHY NOT GET TOGETHER and form QRP Sections in your own clubs throughout the country where you can discuss your QRP rigs and help each other over the inevitable snags.

WE WILL GLADLY CO-OPERATE WITH SPACE FOR CLUB REPORTS and it might even lead to an Inter-Club QRP League.

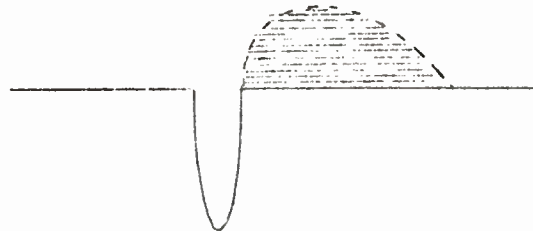
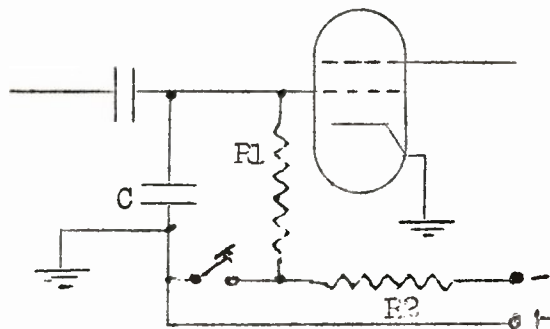
.....: "BLOCKED - GRID" KEYING :.....

Derek Williams, GW3HZZ/A, has supplied the answer to Den Auton's query in our last issue. He says that 3IHI's method of keying is not "blocked grid" at all, but Cathode Keying.

Quoting Derek:- "...The method used, is a pot across the cathode to earth terminal...passes current to the verge of oscillation in the VFO valve, thereby giving a cleaner signal out of the oscillator valve. In the grid block keying method a fixed voltage battery etc is put in the grid of buffer or PA valve to prevent the valve operating the key from shorting the whole to ground. In the diagram (page 9) R1 is the normal value grid leak, 5K - 75K and R2 the limiting resistor for the battery etc, about 50K. C being varied to give best keying characteristics. By varying R2 class A, B or C output can be had."

"A point 3IHI may find useful is to put a pot in the grid leak for the oscillator valve so that it operates at it's most efficient mode and removesthe hump which is usually found in the tuning but in-

icates incorrect operating. If, however, he uses a pierce xtal circuit a variable capacitor of 5/100 pF is usually the answer."



..... GOOD NEWS .....

It has been announced in the daily press that the price of dry batteries is shortly to be reduced by 10% following upon the reduction in costs of raw materials.

..... FLOOD ECHO ! .....

As mentioned in Society News, G2HKU suffered some pretty heavy losses of radio gear. We are enclosing a list herewith of the major items in the hope that some of our members, individually or through the Society Spares Service, may be able to find replacements for Ted. The address is E. H. Trovell, 4a Clyde Avenue, Sheerness, Kent.

His losses include 15 meters of various ranges, an HRO 6 Volt vibrator unit, an AC power supply for HRO, several DC power packs (he is on DC Mains), a 100 watt rotary converter and a quantity of various block condensers.

.....: A VERSATILE RF VALVE :.....

Den Auton (G3IHI) sends the following recommendation for 713A valves. "These octal base miniatures," he says, "available for 3/- from Alfa Radio, Leeds, make a fb RF stage. They run under the same conditions as the 6AK5, yet will plug in for 6SH7 or 6SG7 and only need a supressor change for 6SK7. They are a really nice bottle for QRP and have a far lower noise resistance than 6SH7 etc and are better than the very similar 717A. They make it possible to read anything which isn't smothered by QRM and local noise....I have tried 6K7, 6SH7, 6SG7, 6AB7, 717A and 6SK7 in the first RF stage, but the 713A has the lot beaten. The 6AC7 gave by far the best gain but was very noisy, the 6SH7 was pretty good but cut off too fast and suffered from cross mod. The 6AB7 and 6SG7 were also noisy for the gain, The 6SK7 and 6K7 need a lot of 'juice' and then don't produce much gain. The 717A was quite good but it didn't like 210v which I put on the screen and went gassy -- that was an accident! The normal voltages for 713A are 180 plate, 120 screen and 200p/120s max. I operate mine under the following condx with gain wide open: 210v plate, 90v screen and 6 mA cathode current. I have tried loosely coupling a xtal detector to the grid and anode. On the anode most sigs which are S8 or better on the whole Rx are quite readable if no QRM is present. On the grid only very occasionally is a signal audible."

.....: E R R A T A :.....

We seem to have excelled ourselves in making silly errors last month. We really must get into print so that we can blame the compositor for this sort of thing, hi!

On page 41/3, third line from bottom, RC-FC-IF-IF should of course read RF-FC-etc. On page 41/4, lines 16 and 17, 90 Mc/s should read 30 Mc/s. In the diagram on page 41/9 the antenna symbol should be deleted, and, re the same diagram, G3FAU points out that R7 cannot be

1/2 watt if it is going to carry the necessary current (should be glad to have your comments on this point please, G3IDG).

.....: H Q Rx. :.....

We have been forced to postpone further practical work on the HQ Rx for a short time owing to an ultimatum from the XYL and Junior Ops who say we MUST have a portable ready for the holidays.

In the meantime we have had still further comments on the QRP communications Rx.

DEB ANTON, G3IHI, says: "In answer to Bob Kenyon -- I don't know if he has done much on 14 Mc/s with an Rx having 465 Kc/s IF and no RF. I have, and the image problem, while present, is not very serious. I managed a couple of thousand QSOs with such an Rx and the number of times I wished for more RF selectivity (image rejection) were outnumbered 100 to one by the times I wished for more ACS (narrower IF) In fact I introduced regeneration on the 2nd IF but I never found it necessary to make the mixer regenerative. On 14 Mc/s a precisely cut & matched dipole will give a 6 dB reduction in images over a long wire. However, with a simple or comparatively simple Rx you can't have your cake and eat it. Whatever single IF you use is a compromise. Incidentally, referring to the 14 Mc/s case and 465 Kc/s IF, a good deal of image rejection can be obtained by shifting the local oscillator BELOW the signal instead of above as in most receivers. This gives 13070 to 13420 as the possible range of images instead of 14465 to 14815. The former range contains far fewer QSO stations than the latter and thus greatly reduces the images. The tracking problem is not important if the range covers the 20 metre ham band only."

"On the AVC question I am in agreement with Bob and E.S. Smith. I think that the layout and circuit that you now have looks very promising, though, as you will probably be using ordinary double circuit IFs I don't see why you shouldn't use both halves and have 8 tuned circuits Regarding the remark about 'get enough amplification to winkle a signal

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through that lot', well, if they are all lined up 'spot on' the amplification at 465 Kc/s should be as great as with normal IF circuits, but the amplification a couple of Kc/s off resonance (say 460 or 470 Kc/s) will be way down so that, with the sigs 'springing' out of the background instead of gradually building up as in the normal circuit, they will give what appears to be greater amplification.

BOB ELDRIDGE (G3AGQ) thinks that the only method that will give results really comparable with "a modern single signal super" is double conversion. "This" he says, "doesn't lend itself to QRP very well and is a sticky problem indeed for the home designer/constructor. Failing that my personal preference would be for RF-RF-V- followed by an audio end which would be in fact a built-in Selectoject circuit."

Thanks for your continued suggestions and advice, OMs. It really is most encouraging to know that so many of you are interested in our plans regarding this Rx (we have had 32 letters expressing such interest this month). I hope that by the next time I write I shall have got the Holiday Portable completed (it is well advanced already and requires little more but wiring up) and I shall then be able to report more progress on the "HQ Rx"

..... 1953 QRP C - Z PANEL .....

	COUNTRIES					C Total	Zones	Grand Total
	5.5	7	14	21	28			
1: P.Huntsman	12	27	70	7	-	76	25	101
2: E.W.Gardiner	20	8	56	17	-	69	22	91
3: N.Bason	5	12	33	1	-	37	11	48
4: A.Stonestreet	6	15	25	-	2	29	9	38

Peter Huntsman has certainly made a grand effort this month and

deserves his return to top place, but he will have to glance over his shoulder now and again as we have had several promises to give him a "run for his money".

WE ARE VERY PLEASED TO BE ABLE TO ANNOUNCE THAT THE SOCIETY CONTESTS COMMITTEE HAVE DECIDED TO AWARD THE PARTRIDGE CUP TO THE WINNER OF THE C - Z PANEL.

This should certainly give encouragement to those who have been feeling that, perhaps, the SWL is not given as much consideration as are the transmitting members of this Society. It is a handsome cup having a 3½" diameter bowl and standing 6" high upon a 2" high black base.

For the benefit of our many newcomers the rules of this contest are extremely simple:-- (1) All competing receivers must conform to the Society's rating (ie, 1½ watts MAX HT consumption). (2) The five columns under "Countries" show the countries heard under each of the bands indicated. (3) The "C Total" column is the total different countries heard IRRESPECTIVE OF BAND (ie, a country heard on two or more bands counts for one only in this column). (4) The "Zones" column is, similarly, the total of zones heard irrespective of band. (5) The "Grand Total" column is the sum of the "C Total" and Zones columns. (6) The PARTRIDGE CUP will be awarded annually to the winner, to be held by him for one year.

.....: QRP FREQUENCIES :.....

Some interest has been aroused by the suggestion of "pre-set" frequencies for use by the Society on each band. Eight members have agreed to try the original proposition that we adopt 1840, 3540, 7040, 14040, 21040 and 28040 Kc/s. There have, however, been a couple of amendments suggested which are well worth further consideration.

From G2ZC we have the suggestion that a small tolerance be allowed on either side of the fixed freq to fend against the eventuality that the "spot" freq is smothered in QRM.

G3IHI suggests that, while 40 Kc/s inside each band is handy to remember, it doesn't give the rock-bound gang much help. He says that

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"...at least on the three lower bands harmonic relationship would be a great help, say 1765, 3530 and 7060....Even with VFO it would be handy to have the frequencies harmonically added. It could be put spot on, say 1765 and a check made at that spot on the dial followed by a quick check on harmonics."

Well, that gives you something further to think out, QMs. Will you please let me have your comments for next issue without fail? I'd like to get this point settled and a final ruling published.

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

	COUNTIES WORKED (Mc/s) --			TOTAL
	1.8	3.5	7	
1: GSAGQ	54 (-)	47 (..)	9 (-)	110 (-)
2: G2ACL	51 (41)	44 (8)	3 (-)	98 (49)
3: G2BOF	28 (28)	35 (35)	17 (17)	80 (80)
4: G2UTL	- (-)	38 (13)	- (-)	38 (13)
5: G3BAU	16 (-)	- (-)	- (-)	16 (-)
6: G3HCW	12 (-)	- (-)	- (-)	12 (-)

Welcome to 2BOF who is certainly way up ahead on this year's scoring. G3AGQ will, of course, be dropping out shortly owing to his change of QTH to VE7-, but he may yet have a few new counties to add before he goes. That will leave Sam Hall to fight out the top place with 2BOF and, by the look of that first entry, Sam had better watch out!

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DON'T FORGET THE SET-BAND CONTEST ON 3.5 Mc/s NEXT MONTH.

XX

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

	COUNTRIES	COUNTIES	TOTAL
W.B.Baker	8 (7)	60 (39)	68 (46)
H.G.Wells	7 (-)	39 (-)	46 (-)
P.Huntsman	9 (9)	32 (32)	41 (41)
D.G.Gordon	5 (-)	35 (-)	40 (-)
E.Gardiner	4 (-)	35 (-)	39 (-)
J.Godfré	6 (-)	28 (-)	34 (-)
N.Bason	4 (4)	15 (15)	19 (19)

Now come along all you chaps with (-) in this year's total! I do realize that the higher you get the harder it is, but seeing that Monty GC2CNC WORKED 60 countries on Top Band last year, I do feel that only W.B.Baker can feel happy about his score here. At the other end of the list Norman Bason (I of Man) and Jean Godfre (Jersey) are least well placed for a county contest, but Norman is putting up a good show so far. I suggest that Jean might drop over and see Monty who, I have no doubt would be able to give some very useful advice on the subject.

.....: A CHASSIS OFFER :.....

Den Auton (G3IHI) informs us that he is occasionally able to get hold of battery Rx chassis, with or without valves, which do not need a great deal of work to convert them to good SW Rxs. Anyone interested should contact him direct (34 Redcliffe St, Swindon, Wilts). Terms, cost plus carriage. State type and condx required.

As an example: Three valve, 4 band job, less speaker, rugged steel chassis, battle-ship grey, good appearance -- £1.



.....: QRP DIRECTORY :.....

In response to a large number of requests which have been repeated over quite a lengthy period, we propose to compile an alphabetical list of Society members, devoting one page per month to this purpose.

FULLY ACTIVE MEMBERS: --

- ALBAN, Eric J. (G3JEA) 85 Inverness Terrace, London, W2.  
ALMUTT, J. (G4QW) 38 Chatsworth Ave, Merton Park, London, SW 20.  
AMY, P. (ex GC3IDP) 'Z' Flight, 349MU, RAF, Heany, Bulawayo, S. Rhodesia.  
ASHEY, Ernest (G3HCW) "Ash Dene", Springfields Ave, Knottingly, Yorks.  
ATHERALL, C.E., 4 Winston Scott Ave, Longton Green, Tunbridge Wells.  
AULT, Ted, Church Green, Woodford, Kettering, Northants.  
AUTON, Don (G3IHI) 34 Redcliffe St, Swindon, Wilts.  
AYRES, John R., The Nook, Thorndon, Eye, Suffolk.  
BAILEY, F.R. (G3HJL) 41 Drayton Rd, Boreham Wood, Herts.  
BAKER, Walter (G3ATF) 4 Devon Terrace, Berwick-on-Tweed.  
BANKS, Ernest (GC2CNC) La Mabonnerie, States Experimental Farm, Trinity, Jersey, Channel Islands.  
BASKERVILLE, G.T., 65 Hazon Way, Epsom, Surrey.  
BASON, W.N., 30 Bridge Street, Peel, Isle of Man.  
BERY, Arthur (G2BDP) 8 Denzil Rd, Guildford, Surrey.  
BENJAMIN, D.W., Glyn Rheidol, Cwm Rheidol, Capel Bangor, Aberystwyth.  
BLATHERWICK, C.N. (G3VU) "Villette", 20 The Drive, Roundhay, Leeds 8.  
BOLLARD, J.S., 57 Sanghall Rd, Chester.  
BOLTON J.J.W., 109 Prince Albert Sq, Earlswood, Redhill, Surrey.  
BRADLEY, Howy S. (W2QHH) Hamilton, N.Y., U.S.A.  
BRAND, V.E., 137 Surbiton Hill Park, Surbiton, Surrey. *G3FNB*  
BRAY Ronald, 2 Wisewood Ave, Sheffield 6, Yorks.  
BRIDGWATER, E., 3 Council House, Aberley, Worcs.  
BROOKS, J. (G4KC) 48 Roberts St, Grimsby, Lincs.  
BROWN, L.H. (G3CHE) 16 Neville Grove, Almondbury, Huddersfield.  
BUTCHER, R. (GC3FSN) 5 Valley Gds, Bel Royal, Jersey, Channel Is.

(To be continued)