

Short Wave News



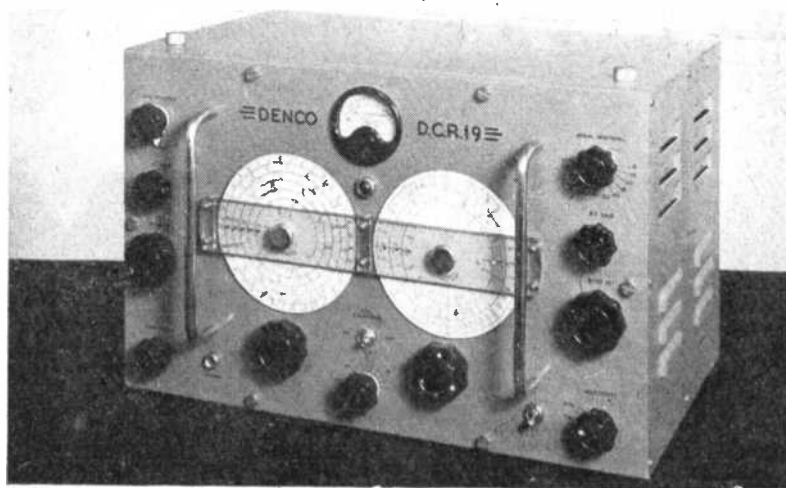
For Transmitter and Listener



Contents

- Achievements of
Broadcasting in Poland
- DIRECTION FINDING for the
RADIO AMATEUR**
(The second in the series)
- On the Ham Bands
- VHF News
- "PIBX"
- Around the Broadcast Bands
- Resonant Lines
- Around the Shacks
- Radio Melange
- A 420 Mcs. Wavemeter
- The GEC BRT400
Communications Receiver
- ISWL Notes
- Newcomers' Corner
- My Favourite Receiver

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THE DENCO DCR 19 sets a new standard in moderately priced Communications Receivers

6 ranges 0.175-36 Mcs. ● Sensitivity better than $1 \mu\text{V}$ ● Xtal calibrator
Write NOW for descriptive leaflet Xtal filter ● Noise limiter

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by the publishers of "Short Wave News"

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Published monthly for the viewer. *Television News* gives details of forthcoming programmes, criticisms of past features, articles on stars and personalities of television and details of the latest developments both at home and overseas. Essential to the keen viewer. Price 1/- monthly.

"RADIO CONSTRUCTOR"

A monthly journal for the home constructor. Articles each month cover the construction of receivers, transmitters, test gear and other radio apparatus. A series on the construction of a home built television is now in progress and it is hoped to publish further television articles when the present series has been completed. 1/3 monthly

Annual subscriptions are 13/- for *Television News* and 16/- for *Radio Constructor*. In the latter case, it has been necessary to start a waiting list for annual subscribers so please write first as we can only accept subscriptions subject to vacancies occurring.

"THESE YOU CAN HEAR"

This popular little publication has already been advertised in this magazine. An ideal intro-

duction to the mysteries of the short wave broadcasters of the world. Price 2/3, post paid

DATA BOOKLET SERIES

The first booklet in this series is called "The Basic Superhet" and it describes the construction of a simple superheterodyne receiver for use on AC mains, together with various add-on stages which make the Basic Superhet an efficient short wave Communications receiver. Well illustrated and with full details of coils, valve connections and equivalents, this book is ideal for those about to build their first superhet. Price 1/2, post paid

INEXPENSIVE TELEVISION

This is the second Data Booklet and it describes the construction of a television receiver, employing Government Surplus components and units. Complete details are given of the conversions, which are simple to the constructor of average experience. There are now hundreds of these television receivers now in use throughout the country. If you are not "technical" yourself tell your technically minded friends of this publication—they will be highly interested! Price 1/8, post paid

AMALGAMATED SHORT WAVE PRESS LTD.

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Short Wave News

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May, 1949

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THOSE of us whose chief interest is in amateur transmitting or listening on the amateur bands are inclined to forget what a wealth of interesting and enjoyable listening is to be found on the short wave broadcast bands. Quite apart from the interest to be found in DX hunting—a sphere in which many of our readers excel—there is much of real entertainment and educational value which the majority of short wave fans appear to ignore.

The writer of this editorial sleeps with a SW receiver by his bedside and it has become for him what the 'personal receiver,' tuning to the usual medium and long waves, is for most people—a constant source of relaxation and entertainment. It is quite surprising with what reliability programmes from the ends of the earth can be regularly received. As an example, the programmes directed to the British Isles and Europe by Radio Australia can be quoted. For the past month or more the 9.58 Mcs. transmissions between 0700 and 0815 hours G.M.T. have been received at full strength, without serious fading and of one hundred per cent listening value. The programmes which have been radiated have been extremely interesting, ranging from recitals of Australian pianists, descriptions of home life in Australia with their six ounces of butter per week, to a talk on the difficulties their National Health Service is experiencing, which made interesting comparison with our own. These programmes are just one example of first rate material available from the short wave broadcasters and many others can no doubt be quoted by those who do use these frequencies. It quite surprises us that so many with receivers tuning to these frequencies should ignore what is well

worth listening to. At least it appears that they do. Maybe we are wrong. If one talks to the average club member at any radio "do" or asks one's neighbours, relations and acquaintances how often they listen to short wave broadcasts, one is justified in assuming that many kilowatts are being used to little purpose. Manufacturers of domestic receivers have from time to time made efforts to popularise SW listening, and at the last Radiolympia the short wave behaviour of the new receiver models was made a selling point. But still we feel the short wave broadcasts are not being used to the extent that they should be.

EDITORIAL

SW BROADCASTING

A Questionnaire

We should, therefore, like to hear from those of our readers who do listen regularly to SW broadcast programmes. We don't want to hear from those who just tune in a station, log it and then start looking for another. We want to hear from the real SW programme fans. A p.c. will do, giving us your favourite SW station and programme and the approximate number of hours per week devoted to short wave broadcast listening. A.C.G.

THE EDITORS invite original contributions on short wave radio subjects. All material used will be paid for. Articles should be clearly written, preferably typewritten, and photographs should be clear and sharp. Diagrams need not be large or perfectly drawn, as our draughtsman will redraw in most cases, but relevant information should be included. All MSS must be accompanied by a stamped addressed envelope for reply or return. Each item must bear the sender's name and address.

COMPONENT REVIEW. Manufacturers, publishers, etc., are invited to submit samples or information of new products for review in this section.

CHEQUES and Postal Orders to be made payable to "Amalgamated Short Wave Press Ltd."

ALL CORRESPONDENCE should be addressed to "Short Wave News," 57 Maida Vale, Paddington, London, W.9. Telephone CUN. 6579.

Our monthly publication "RADIO CONSTRUCTOR" is devoted to the practical side of radio.
For viewers we publish "TELEVISION NEWS" monthly.

ACHIEVEMENTS OF BROADCASTING IN POLAND

Whilst relating primarily to normal broadcast channels, and not short wave transmissions, we feel this article, written by the Press Dept., Polish Embassy, will interest readers as it shows the extent of the problem of re-establishing a broadcasting service in the war ravaged countries of Europe.—Editor.

THE war losses of the Polish radio amounted to 3,067,373 dollars. The losses of subscribers whose sets—with a few exceptions—were confiscated by the occupants amounted to 5,389,200 dollars.

When Poland was liberated, in 1945, broadcasting practically did not exist. There operated in Lublin, from July, 1944, a station of 10 kW, a former Soviet military radio post, which had been adapted by the Polish authorities for broadcasting news and communiques to the still occupied parts of Poland. In their retreat the Germans had no time to destroy the Cracow station, and this could be re-opened in February, 1945. Gradually, more and more stations were re-opened. Within two years from the liberation eleven stations were operating, with a total of 25,727 cu.m. of transmitting posts, 86,606 cu.m. of studio space and 60,868 cu.m. of administrative buildings.

At the end of 1948, Poland had the following stations:

Station	Wavelength	kcs.
Warsaw II	1339.3	224
Gdansk	1054.0	284.6
Warsaw I	395.8	758
Poznan	345.6	868
Torun, Bydgoszcz	304.3	986
Wroclaw	315.8	950
Cracow	293.5	1022
Katowice	243.7	1231
Lodz	224.0	1339
Szczecin	216.8	1384
Warsaw III	48.25	6215

For the near future, the Polish Radio is planning the strengthening of Warsaw I to 200 kW, of Warsaw III to 100 kW, of Katowice, Poznan, and Szczecin to 50 kW. Moreover, a new station of 10 kW will be built at Lublin and a television post in Warsaw.

Before the war, there were about 1,200,000 radio subscribers in Poland. Over 1,100,000 sets were confiscated by the Germans, and, after the liberation, almost no sets were left in the country. By 1948 there were already 891,787 subscribers. This increase in numbers has become possible through the introduction of radio mains, before the war almost entirely unknown in Poland.

At present there are about 330 radio mains servicing about 250,000 loudspeakers. In regions, distant from the towns, where the installation of mains is especially difficult, so called "collective

installations" are used. These are extremely strong sets, connected by cables with loudspeakers in peasants' houses. There are 3,000 of such "collective installations" all over Poland with over 80,000 loudspeakers connected to them.

In view of Poland's backwardness before the war, where broadcasting was concerned, a Committee for the Radiophonisation of the Country was set up in 1935. In 1946 it renewed its activities. Its tasks consist in fostering radiophony in Poland, awakening interest in radio and spreading culture by means of broadcasts. The Committee, realising the great amount of work still to be done—out of 42,000 communes and villages only 3,000 have radio installations—plans the establishment of a Social Fund for the Radiophonisation of the Country, to which the Treasury, the National Councils, the Polish Radio and many social institutions will contribute.

The Committee can already boast of some fine achievements. In conjunction with the Polish Radio it has installed wireless sets in 3,000 schools, 3,500 social clubs and canteens, 400 hospitals and 700 factories. Its plans for 1949 are to connect 2,000 villages with "collective installations" and 1,000 with radio mains. On the whole as a result of this action about 100,000 loudspeakers should be installed in the countryside. Another 50,000 will be installed in workers' factory flats. 300 villages and small towns will receive street loudspeakers and 8,000 schools will be equipped with radio.

Another task of the Committee is to establish closer co-operation between listeners and the programme directors of the Polish Radio. Listeners will be encouraged to voice their criticism of the existing programmes, and suggest improvements.

With regard to the radio industry in Poland, considerable achievements can be noted. The Ministry of Industry and Trade has opened a factory of radio sets, loudspeakers, valves, amplifiers and other equipment and the Ministry of Posts another one producing and assembling transmitting and receiving sets. Moreover, the Polish Radio has its own workshops making receivers and transmitters for its own purposes. At first, in view of the shortages of experts and machinery, Swedish and Dutch parts were assembled; now everything is produced at home.

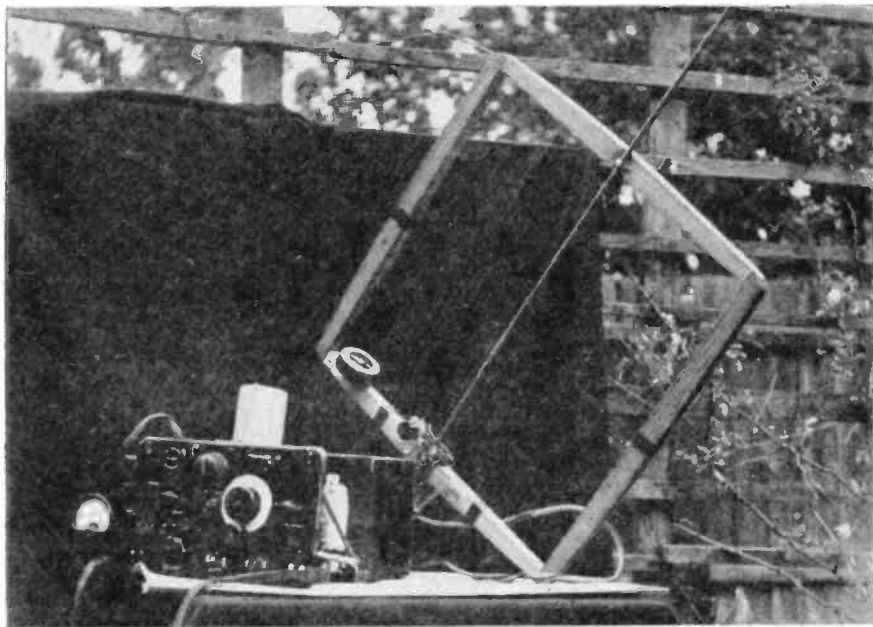
Side by side with the technical development, an improvement in the level of programmes can be observed. Educational and cultural broadcasts occupy an ever-increasing place in the programmes. The Polish radio, in conjunction with the Ministry of Education, has organised a

(Continued on page 130)

DIRECTION FINDING for the RADIO AMATEUR

The second of two articles by

S. T. SMITH, G3BSI



A Portable Direction Finding Receiver from Government Surplus

THE science of radio direction finding, lends itself to amateur radio activities as it provides, not only an enjoyable field-day but an excellent subject for original research. Most amateur DF is carried out on medium frequencies—usually 180 metres.

When the author heard of a coming local DF competition, he explored the possibilities of constructing a cheap but efficient DF receiver. The most important features of the proposed set were to be:—

Cheapness, Efficiency, Low battery consumption, Lightweight.

The place to look for cheap, first class equipment was the government surplus market. A suitable receiver was spotted, an ex-army walkie-talkie receiver No. 18 Mk. 111.

At first glance its specifications was—“just the job”.

Price 29/6.

4 valve battery superhet (RF, FC, IF, Det-O/P).

BFO's provided.

Low consumption valves (50 mA heaters).

There was only one real snag . . . the frequency range was 6.9 Mcs., so that had to be altered.

The local oscillator circuit was completely redesigned. The original circuit used a cathode coupled oscillator, necessitating coupling coils in each heater lead. The author suspected using that method on the new frequency might impair the efficiency of the set, hence the circuit chosen was as shown.

The frequency changer valve used was a Mazda T.P. 25, which is a triode pentode. The circuit used was quite conventional and the coil was an ordinary 'T' former type, MW oscillator

coil (as used in the R1155) with 20% turns removed from primary and secondary windings.

The RF anode coil was a MW aerial coil (ex R1155) with 20% turns removed from the secondary winding; the primary being completely removed.

The aerial tuning of the original receiver was in the transmitter, hence that had to be provided. A normal aerial coil would not do as it was necessary to couple the loop aerial to the input.

There are various errors which creep into radio direction finding, sometimes unnoticed, and it was essential that they were kept to a minimum. The coil used was taken from an R1155 receiver, being used in that set for the same purpose viz. DF. The coil was a screened and balanced DF input transformer and had provision for mixing an omni aerial (for sense finding). The part number is 10D/161.

The primary is centre tapped and there is a tap on the secondary for the omni aerial; between pri. and sec. is a Faraday screen. The frequency range of the coil was not intended for 180 metres but the coil was connected as shown and it tuned the entire band with 100 μ F variable capacitor.

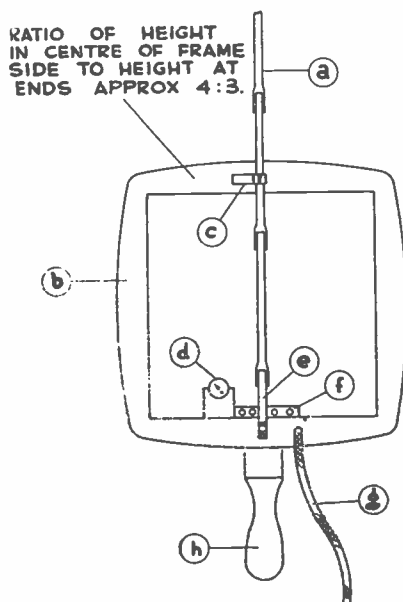
The coil was mounted above the receiver on a bracket bolted to the front panel, with its tuning capacitor below. Aerial switching was accomplished with a post-office type switch but a much simpler one can be used for it switches only the omni aerial to chassis or input. The author had an omni position also but this was an experiment and proved to be a luxury.

In order to get a good cardioid (polar diagram) of aerial with both loop and omni added) it is necessary to adjust the omni aerial input to twice that of the loop input. This is done by including a variable resistance in series with the omni aerial. (There must be some resistance in the omni aerial, for a technical reason beyond the scope of this article).

Another essential modification was the inclusion of an RF gain control, it was found that the most accurate results were obtained by using maximum LF gain and minimum RF gain, thereby working the input valve at a low level and avoiding distortion of the input signal which would give false bearings. It was found that when within 100 yards of the transmitter, the input stage was grossly overloaded and that the input from the loop should be reduced.

This was done by connecting a 100 ohm variable resistor across the loop; this should be switched out for maximum sensitivity.

In the author's equipment the loop damping resistor was mounted on the frame aerial for convenience. As a further improvement an 'S' meter was fitted, this proved useful when within 100 yards of the transmitter.



- a — Omni aerial rods.
- b — Loop aerial.
- c — Omni aerial retaining clip.
- d — Loop damping resistor.
- e — Omni aerial connecting rod.
- f — Tag terminal strip.
- g — Aerial cable.
- h — Handle.

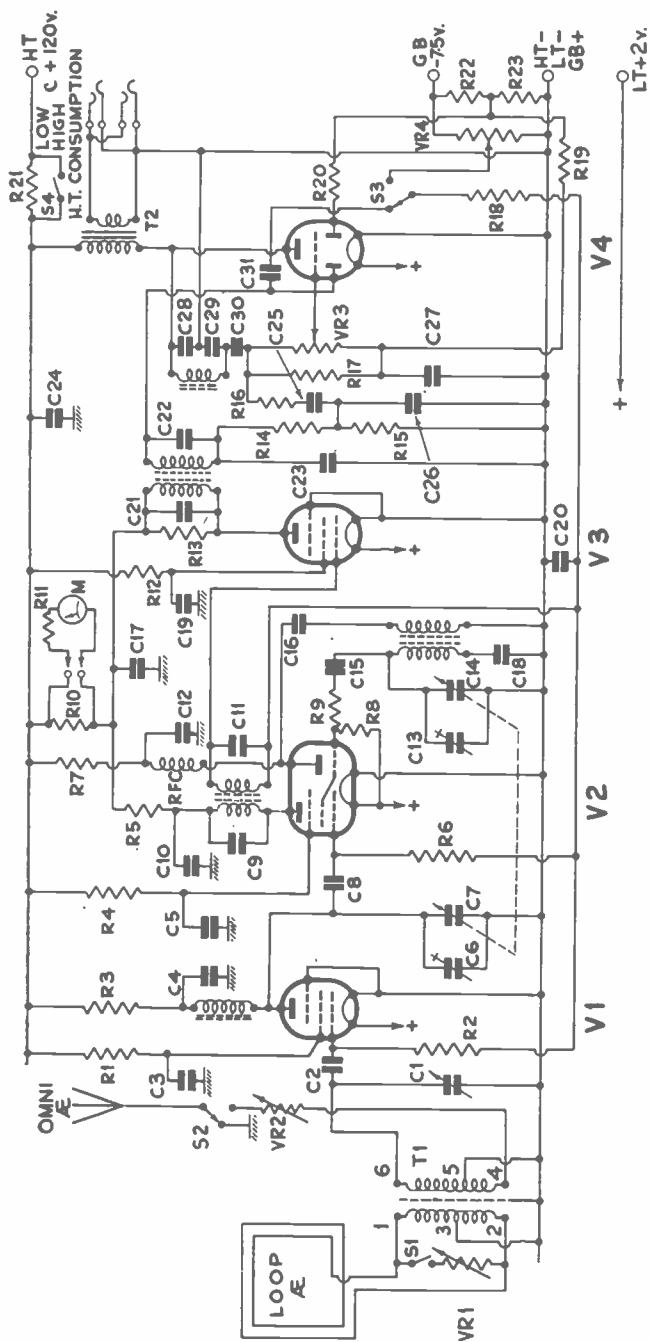
The next consideration was the loop aerial—a large one for good pick-up . . . a small one for convenience. A compromise was reached and the result was one $18 \times 18 \times \frac{7}{8}$ ins. The loop was wound with 8 turns of 20 swg enam. This was important as its inductance was 100 μ H, to match the input coil (10D/161).

The omni aerial consisted of 3 or 4 rod aeriels, as used with type 18 and 58 sets, etc. The aerial connections were brought to a tag panel on the frame, thence via a screened cable to the receiver. Care should be taken in making the frame for the loop; the four sides should be shaped as shown:— this allows the wire to remain tight on the frame.

The frame joints should be glued and screwed (gluing only, is not sufficient as it has been known to rain on DF field-days).

The author used brass screws as his compass was mounted on the frame. The omni aerial was made removable and connection obtained by using 3 ins. of $\frac{1}{4}$ in. copper rod, on which the rod aeriels were slipped. The handle, of wood, was screwed on the side of the bottom member.

(Continued from page 130)



IBF Receiver—Component Values

VR1, 100 ohms—Loop sensitivity ; VR2, 10k ohms—Omni aerial attenuator ; VR3, 1M ohms—Audio gain ; VR4, 10K ohms—R.F. gain.
 R1, R12, R14, R19—100k ohms ; R2, R17, R18, R20—1M ohms ; R3, R5, R23—1000 ohms ; R4, R16—50k ohms ; R6, R13, R15—500k ohms ; R7, R8—20k ohms ; R9—180 ohms ; R10—3k ohms ; R11—10k ohms ; R21, R22—5k ohms.

C1—100 μ F variable ; C7, C14—110 μ F variable ; C6, C13—40 μ F trimmer ; C2, C8, C15, C16, C23—100 μ F ; C3, C4, C5, C10, C12, C17, C19, C20, C24, C27—0.1 μ F ; C18—670 μ F ; C9—80 μ F ; C11—90 μ F ; C21—130 μ F ; C22—140 μ F ; C25—0.002 μ F ; C26—500 μ F ; C28—1000 μ F ; C29—110 μ F ; C30—3 μ F ; C31—20 μ F.
 T1—D.F. input transformer (10D/161) ; T2—O/P transformer (120 ohm phones) ; M—500 μ A M/C.
 S1—Loop sensitivity ; S2—Aerial ; S3—A.V.C. on-off ; S4—H.T. consumption.
 V1—ARP12 (VP23) ; V2—ARTP2 (7P25) ; V3—ARPI2 (VP23) ; V4—AR8 (HL23/DD).

On the Ham Bands



Conducted by

LES COUPLAND
G2BQC

Left—One of our Brazilian readers
P. SLEUTEL PY/1040 of Sao Paulo

Don Robertson (Wick): G3AMF, 2AYT, 2ATL, 2DTQ, G4LV, 8DZ, 6ZR, 8JM, GM3AWF, 2BAU, 4HR, GW2CUT.

3.5 Mcs.

Wm. Jackson, G2603 (Kirkby Stephen) gives us a 3.5 log with two ON4's, 4HC, and 4JN.

D. L. McLean on 3.7 Mcs.: W1BG, IFQX, 11F, 10C, 2RZ, 5AX1/2, MM ("Fullerton Hills" at Hoboken, N.J.). He certainly gets around, doesn't he?

7 Mcs.

Don Robertson sends in our only 40 metre report which is as follows: CE4ad, CM9ab, OX3mg, 3bc, VP9cc, W1nw, 4fv, 8fgx.

14 Mcs.

Sandy Cumming (Lymington): CE2CC, 3CZ, DU1AK, EA8CO, 9A1; ET3AE, HK31R, HP1RV, HZ1AB, KH6FS, NY4BA, OA4AT, 4BE, 4DH, 4M; OQ5CF, OX3MC, PJ5KO, TA3BS, TG9BR, TI2JV, 2RC; VE8PH, VK2KS, 3MM; VP2KM, 3AA, 3LT, 3MCB, 4TAY, 4JJ, 5FR, 6MO, 6SD, 9F, 9G; VU2ET, WIRAF/KL7, YK1AC, YS1GM, ZCIAZ, 6UN, and ZL4AO.

D. Pinnock (Luton): CO7PM, 7UP, 8MP; DL5AA, EA6CM, 7AR, 7BA, 8CO; GM3EMG (Orkneys), HH2S, HI6EC, HK11Y, HZ1AB, KL7BE, KP4AZ, KR6AX, M1B, MO1C, NY4BA, OQ5CF, 5CQ, OX3BC, TI2RC, UB5BG, UQ2AB, VE7HC, 8MA; VK2WT, VO2FL, 6AL; VQ2-GW, 4NSH; YQ5B, YV1AQ, 5BZ, ZD1PW, 2G, ZS1DH.

J. D. Harrison, G680 (Godalming): CN8EI, VP5AX, VE1AA, CO8MP, HK3CK, VE1FP, ZB2A, FA2FB, PY7QG, 2HV, VE2SO, PY4ZI, 7KG, also numerous W. Thanks for your first log, OB.

A. E. George, G2512 (Parkstone, Dorset) PY7QG, 2CK; ON4ZB, MB9BJ, OZ7TS, CT1UA, EK1CD, and UQ2AB.

GENERAL

WELL first of all this month I would like to stress the fact that all logs should be in GMT. Tnx fellows.

A letter from Sandy Cumming queries two new ones, CF8SN and 1Y6AI. Well OB, I do not know. Any gen, anyone? I should say the DX time is during the winter on 3.5 and 7, or during darkness in England (watch for the row now). A very nice letter from G2AJU suggests a Counties worked or heard contest for 1.7, so what do you think chaps? I think it is a good idea.

W. J. C. Pinnell says KH6VP/VR4 worked 889 stations in 85 hours of operation during his stay on Guadalcanal Island from Jan. 19th to Feb. 2nd.

D. L. McLean has cards from PZ1A and PZ1W. CPIJB has also QSL'd.

Richard Winters is now Chief Op at DL2LC. Congrats OB, hope to QSO with you.

Conditions have not been too good during the month, ten being erratic, and 20 very poor.

I would like to know how many of our readers have 100 or over reception QSL cards, so would you kindly drop me a card. Do not forget to separate your logs for the different bands. Put time and frequency where it is choice DX.

READERS' REPORTS

1.7 Mcs.

D. L. McLean (Yeovil): G2FLK, 2IK, 2MM, 2XQ, 2ZG, 3ART, 3BYV, 3DHH, 3JT, 3MT, 5IH, 6BY, 6GN, 6II, GW2UN, 3BAZ.

Bill Winchester, G2152 (Eastbourne): G2FXJ, 2MB, 3DQ, 3DW, 3WQ, 5WW, 5XM, 6LO, 6SS, GC8OK, GW2BG.

Don Robertson: CR7bb, AC4rf (zone 23), FM8ad, KH6ij, KL7um, OQ5qf, TF3zm, VE8ny, VP8ak, VU2bf, VS2ch, 6ba; VQ4sgc, VR2bl, W4DGW/KJ6, ZD9aa. A good log of FB CW stations, Don. On phone: CIPL, W7LZJ/C6, DU1AG, HI6EC, JA2BL, KX6AF, W1RAF/KL7, MO1A, OQ5CF, VE6FK, VK6PW, VP4TH, 3AR; VU2DY, 2BF, ZS3F, and 3D.

Mal Geddes, G2SO, has been working the DX on 14, UAøsj, VP6cdi, VO2cx, CR7ay, OQ5gf (first in 13 years, never mind Mal, you did it). VK7nc, VO1I, also D4AJI/AM, airborne off the south coast of England.

W. Kyle (Leighton Buzzard), sends in his first with VK2DO, 2QR, 2HK, 2AGW, 3AWN; PY7QG, CO8WM, ZB2A, HC1FG, ZL3LC, 1HY; EA8CO, EK1DI, OX3BD, VO1AF, LU6AJ.

P. Godfrey (Southgate): CE1AM, EA9AL, HZ1AB, JA2BL, 2BT; MI3BC, OX3BD, PZ1M, UQ2AB, VP2KM, 3MCB, W1RAF/KL7, YK1AC, YV4BH, ZL3OF, 3GU; TA3BS, TI2OA, on an R107 with 66 ft. long wire.

G. W. Cardwell, G1396 (Barnsley): ZS6RA, 6JF; ZB2A, YR5W, W8RHO, VK3VC, 5NP; EA3BY, CO7BC, FA8EQ, 9WC, HP4RF.

D. L. McLean:—DL4IM (airborne over North Atlantic), OA4BX, OQ5CL, TI2OH, VE7ZZ, 8MA (1923), VK2AGW, 2CX, 2HK, 3ADR, 5RN; VP9F, VQ2DH, 4ASC; XE1AC, ZC6XY, ZS3F, 6DY, 6QJ; ZL3CV, 4X4AB.

W. J. C. Pinnell, heard VP7NU (2200), HI6EC, YS1GM (2240) and W4LQQ/MD2.

Bill Hamilton (Motherwell), sends in a very nice letter and logs: VK5RN, YK1AC, 4X4CZ, VQ4HRP. RX Eddystone 640.

Wm. Jackson, logged CN8BA, 8MI; EA4HK, EK1DI, 11NU, IS1AEK, LU6AJ, MF2AC, OA6NF (OH6NF?), PY7EE, 2CK; VE4GE, VK3VC, 3NF; VP6IS, W6D1.

D. W. Waddell (Nantwich): C4wx, CM6ah, 8dl; CO2ba, 6aj; CT3aa, EL3a, FM8ad, HH2li, HK3ck, HZ1hz, KH6pm, KL7gt, 7ll, 7um; KZ5el, MD2ck, 7rcs; MI3fg, 3gh; MO1a, OA4j, OQ5av, 5bg; PX1a, ST2js, SU1er, UAøkfd, UH8kaa, VP2gg, 5hg, 6px, 8ak, 9cc; VQ4sgc, VS2ch, 6ka, 7la, 7wn; VU2bf, 2lu; XE1a, ZC1cl, ZD4ab, 9aa, all on an R1155.

P. Cole, G2803 (Hounslow): EK1DI, 1MD; FA3KC, 9HS; LU6AJ, MO1A, OQ5CB, OX3OE, PY7QG, 4ZI; SUøVB, VK2SU, 3AWN; XE1AC. Home-brewed 1 valver used as RX, and is only 14 years old. Good show.

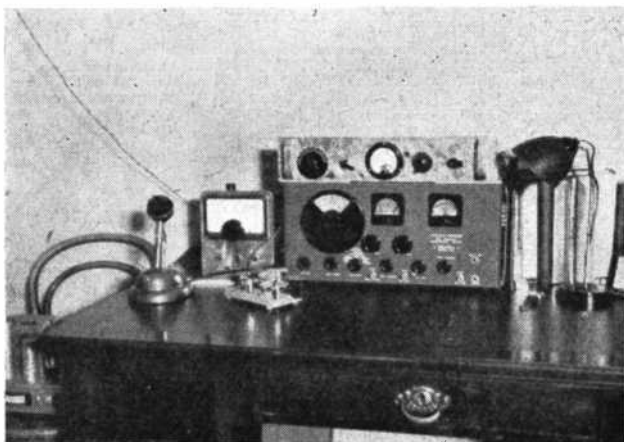
P. J. Price, G2442 (Smethwick) is a newcomer whom we welcome to the corner. He is 14 years old and uses an 0-V-0 and a 66 ft. Inverted L. His log includes IS1fic, HA1kk, EA7BA, 7CP, 8CO; KH6TX, PY2CK, VO1AB, VK2TE, 3AW, 3BH, 4VD; W6RM and 7CTK.

John St. Leger, G2885 (Blythburgh) is another stranger in our midst! Welcome, John. He is another of the low power brigade, using an 0-V-1, battery operated which accounted for CE3CZ, CX2CL, DU1AK, EA9WD, KH6CT, 6IK; MD1A, OX3BD, PY7QG, VK2HK, VP5AR, 5RS, 6IS; VQ2DH, VS2AO and on CW:—KL7gt, OQ5hg, OX3mf, UL7ab, VK3dq, 3ga, 3vj; ZC6bf, ZL3bv and ZS1fn.

Bill Winchester, G2152 (Eastbourne) has not done much DX'ing this month but mentions HI6EC, VK3AQ, 3HF, 3NZ, 5RM; XE1AC, 1CQ, 1DE and YV5AB.

28 Mcs.

Mike Wallace (London, S.E.27), sends in his first. Welcome, OB. HP5MV, ZD4AV, 4AX; HK7CO, HR1MB, KG6DP, 6KG; VP2KM, 3MCB; KR6AD, EL3A, W7LZJ/C6, VS6AM, ZP9FA, W6WVJ/KW6, VK9AK, YJ8CT, PK3KE, ZK1AA. Mike reports hearing VK5RN at S9 at 2330. He uses a 640 and RF24 on ten.



The neat little station of HB9EQ, Lausanne

Bill Hamilton lists ET3AF, KP4AZ, OQ5BQ, 5LL; VK2EQ, 2FP, 2ID, 3AQL; VQ4CRE, VU2BF, ZC1AZ, ZD2S, ZL1DW, 2BN, 3DL, 4AH.

W. J. C. Pinnell, also found ten good with C1CS, 3EN, 7TY; CE1AM, CR7AH, DU6IV, (1510) EL5B, ET3AF, FE8AB, FQ8SN, HP2RO, JA2CH, KR6AZ, PK4DA (1535), TG9AS, UD6AF, UF6AC, VK9GW, (1030) VP5EM, 5FR, 5RS; VS1AY, 7PS; XZ2KN, (1535) ZP7FA (1605).

A. O. Frearson (Birmingham), heard SU1cr on 28 Mcs. cw, also AP2F, CE2CC, CP5FB, CX4CS, EK1DI, HC2JR, HK3BJ, HZ1AB, LU3DH, PY11K, PZ1M, ST2AM, VP6JC, VS9AH, ZE2JA, ZS1B, 2CI, 6LF, all on an Eddystone 640.

D. L. McLean.—AP2F, AR8AB, C7TY, CP5FA, CR9AG, FF8FP, EK1DI, ET3AF, HH1SW, HP2RO, KR6AA, KX6BC, KZ5CH, MD2B, NY4DD, OA1C, PK4DA, PZ1OY, SV5UN, VE4CH, 5FA, 6AC, 7CN; VK2EO, 3AQL, VK9GW; VP5AR, 6HR; VQ2DH, 4RF, 7PS; W5HSO, (New Mex.) ØUSK (N. Dak).

Bill Winchester: JA2AZ, KR6AZ, VP5RS, VQ2JC, 4CRE, 5PBD; W4AXC/C6, 7KKH/KG6, ZE2JK, ZL1DK, 2BN.

G. W. Cardwell, PK6GX, ST2KR, ZC6XY, JA4JH, CX2CL, ZB2A, AP2F, CN8BA, EL5B, VE6RW, 5PB, 1ET, VS9AH, VP9F, VU2WH.

P. Godfrey (Southgate), uses an R107 with modified converter type 24. AR8AB, AP2F, C7TY, CP5FB, ET3AF, HZ1AB, HR1MB, JA2AZ, KR6AZ, PK4DA, VS9AH, YV5AY, YN1RO, CE1AH, OA4AB.

J. H. Hayden, G2865 (Tunbridge Wells), sends in his first: VE7CN, ZS8A (1730), C6XY, W7LZJ/C6, and remarks on the QRK of VE7CN, C7TY, CR9AG, ET3AF, FF8FP, HC1FG, HH2CP; HL1BJ, KP4AC, KR6AM, KX6BC, KZ5CH, OA4AN, PK4DA, ST2AM, XZ2KN (1515), ZD4AX (0918), and ZS8H (4730). Tnx OB.

Don Robertson. AP2J, C7TY, CP5FB, ET3AF, HC1JW, HK3EO, JA2AR, KR6AZ, PZ1RM, TG9RV, VP4TAY, 5AR; VQ2HW, VK9GW, ZD2S, ZD4AX, ZE2JL, YN1RO, ZS1MM.

M. Hardaker (Whitley Bay), CW: TA3gvu, UA9ha, ZE1jo, 2jv; ZS5u, 6gi; CQ7RQ, W4AXC/C6, W7LZJ/C6, HR1MB, JA2AB, VQ2DH, ZI2AK.

Sandy Cumming, lists EQ1RX, HR1MB, KR6AZ, KV4AC, NY4BA, PZ1M, ST2AM, TF3EA, VS1AY, 6AM, 9AH, XE1ID, YN1RO, YS1AP, ZE1JB.

D. Vincent (Beckenham) using an S640 and a VS1AA aerial knocked off AP2F, CX5AP, JA2BL, KG6BF, M3ZZ, OQ5DZ, PK4DA, ST2AM, VP5KG, VQ4RF, VP5PPD (who is this OM?), VS9AJ, W6WVK/KW6, W6YYT/ZS1,

W7LZJ/C6, ZB1AH and ZS6RE. Lets hear from you again, OM.

Bill Winchester clocks in with CX3BL (2250), JA2AF, LU7BH (2235), OQ5BL, VK2ADK, 2AK, 2AKR, 2EQ, 4RF; VP4TZ, 9G; ZS1P, 61H and 6LW.

DX QSL's Received

P. Godfrey. VK4XR, MT2E, AR8AB, J9ABO, ZD4AB, ZC1CL.

D. Robertson. UA9KCA, J2AHI, W7BSU, ZS1BK, V3AWN; HZ1JE, OX3XE, VP2GE, LA7N (1.7 Mcs.), LA5OA (¼-watt), CR6AI, K2UN, VK6BK.

D. L. McLean. C7TY, CE3CU, CO2LW, CO7GM, HI6EC, HK3CU, IS1AEX, C1BC, J9ABO, PY2JU, ST2RL, VE4GI, VK2ASW, VK2LG, VK2US, VK6WU, VQ4ASC, W7YYZ/ZZZ, W7YYT/CR7, ZL2GG, ZL2SW, ZL3HC, ZL3IA, ZL3KA, ZS4AM, CO7RQ, HP1LB, HL1AR, K2UN, OQ5CF, VE5RD, VE7ADJ, VE7ZM, VK4ZB, V57PS, W7ILE/KX6, W7KMW/Iwo, ZL1ON, ZS6BV, ZD4AH, ZS5DS, ZS6CZ, VU2CR.

W. J. C. Pinnell. FA3FB, KH6VP/VR4, TF3SF, VK6KW, XZ2JB, FA9IO, VE7ZM, W6ZNJ.

R. Baldwin. VP3TR, J2RLK, KG6DF, W7KMW/Iwo, VE7ZM.

L. Waine. YV1AI, ZS1ER, ZD4AH, VQ4FCA, VE8CA.

M. Dransfield. CN8BA, FA3ZG, HH3DL, KP4PA, LU2BS, LU3EB, PY2AOK, PY2ADJ, PY2AJK, PY4LZ, VE7MQ, VK3AWN, VP9WW.

C. J. Goddard. CT1EA, CT1PW, VQ4ERR, ZS6DY.

R. W. Ainge. VE7AL, W6RM, W7LQP, W6IQC, W6TKQ, PY2AFS, KL7PB.

TOPICAL DX QRA's

- AC5CS: C. Sadger, British Political Agent, Bhutan, via Bengal, India.
- CR7IZ: Box 579, Beira, Mozambique.
- HH2W: Box 117, Port-au-Prince, Haiti.
- HH2CP: c/o P.A.A., Port-au-Prince, Haiti.
- JA2AF: A.P.O. 328, c/o P.M., San Francisco, California.
- JA2AK: A.P.O. 994.
- JA2AN: A.P.O. 503.
- JA2AT: A.P.O. 994.
- JA2CH: A.P.O. 925, Box 378.
- JA3AA: 1951 A.A.C.S., A.P.O. 710.
- JA8WH: A.P.O. 309.
- HP2RD: Box 481, Colon, Panama.
- ST2AE: Box 25, Malakal, Sudan.
- ST2RL: P.O. Box 253, Khartoum, Sudan.
- ST2WB: J. Birch, Juba, Sudan.
- HZ1HZ: Ahmed Zaadan, Mecca, Saudi Arabia.
- HH1JE: B.M.M., Saudi Arabia, c/o T.A.I.F., M.E.L.F.
- VP6PC: Box 116, Bridgetown, Barbados.
- VP6SD: Box 252, Bridgetown, Barbados.
- VS9AH: Post Office, Aden, Arabia.
- VU4CN: Sgt. Forsyth, Nicobar Det., via R.A.F. Changi, Singapore, Malaya.
- YS1ZG: U.A. Embassy, El Salvador, San Salvador.



"STAN" of KAI AI fame. On the back of this photo, reproduced by courtesy of ISWL G828, the caption reads:—"Got anything you need fixed? Boy! I fix em!"

SWN QSL LADDER
(For Confirmed Reception)

Quite a peaceful month this time. We bow gracefully when we state that our forecast regarding the next Century has come off—Don Robertson has added five new countries and joins the select quintette. He also puts another couple of verified Zones to his score. Nice work, Don, you are now up to rung 6.

D. L. McLean plods on and adds another country, tying with Bill Head for 127 of the best. You want two more Zones now, OM!

Bill Pinnell jumps up from 20 to 18 by virtue of four new countries (and four new Zones for good measure). Peter Godfrey also puts on a spurt with eight new countries, bring him up to rung 21. Nice work. And finally, Bill Hamilton makes progress and gets off the bottom rung with his five new ones.

The final positions this month are as follows:—

Rung	Name	Countries	States	Zones
1	E. A. A. Hardwick (Misterton) ...	136	39	35
2	M. Preston (London) ...	130	48	38
3	W. Head (Torquay) ...	127	48	37
4	D. L. McLean (Yeovil) ...	127	48	35
5	C. G. Tilly (Bristol) ...	125	44	36
6	D. Robertson (Wick) ...	100	45	35
7	A. J. Slater (Southwick) ...	97	45	33
8	A. H. Onslow (Hove) ...	94	47	?
9	E. W. J. Field (Watford) ...	92	42	43
10	E. Caffey (Yarmouth) ...	82	45	33
11	A. Levi (Belfast) ...	81	12	29
12	D. E. F. Burney (Tring) ...	77	48	31
13	C. J. Goddard ...	68	16	22
14	R. Masters (Portsmouth) ...	65	43	30
15	L. H. Waine (Yeovil) ...	59	44	29
16	W. Winchester (Eastbourne) ...	48	?	20
17	D. G. Garrard (Ipswich) ...	45	22	13
18	W. J. C. Pinnell (Sidecup) ...	44	10	23
19	D. Shallcross (Borowash) ...	42	18	14
20	P. Bysh (London) ...	42	14	18
21	P. Godfrey (London) ...	36	2	19
22	S. Pritchard-Hughes ...	34	8	16
23	J. Edwards (Birmingham) ...	32	26	16
24	W. Hamilton ...	21	8	12
25	M. Dransfield (Purley) ...	19	1	14

COUNTRIES HEARD DIPLOMA

The first listing of successful applicants for our DX diploma will be given next month. Have

you sorted through YOUR cards yet? Remember, the cards can be for amateur or broadcast, phone or/CW..

Jottings from the Notebook

By G3AKA

WE have been asked about the mysterious POSAE. The data as we have it is that he is in Borneo and has this QRA:—W. B. Mully, c/o BPM Shell Oil Co., Tandjoeng, Bandermasin, Netherlands Borneo. Since he is not using the official prefix (PK5) we take it he is not licensed. However, he may come through with cards—anyone had any luck yet?

Worthy of mention is the fact that W2QHH has worked 41 countries on 3.5 Mcs. with only 17 watts. So, not all the W's are kilowatters! Can anyone this side of the pond beat that? I have worked 25 countries on this band with around 10 watts on a 33 ft. aerial.

YU7KX says QSL via ARRL or via Otin S. Bernard, Box 137 PC, Trieste ZC6XY says via W9HXP MD2BU via RSGB In the doubtful section we have LZ3SD who says QSL via Box 49, Sofia HZ1HZ tells us he is at Ahmed Zaadan, Mecca.

The rovers: W6PBY (ex-VQ3HGE) is now in HZ-land. QSL to Box 1651B, Dharan ZC6JG is back again in Somalia with his old call MD4GC . . . TA1BS is ex-TA3FAS . . . HRIMB is going back home to the U.S.A. . . . VS2CH is a comin' home to Blighty . . .

Active on Norfolk Island are VK9YT (Noel Roberts), VK9GM (G. E. Meaton) and VK9FD (F. Don). All may be QSL'd at Department of Civil Aviation, Norfolk Island.

Who still says that 7 Mcs. is not a DX band? Look at these for a sample of DX now active on the band (all heard here):—MP4baz, FP8an, MP4bad, Y11fc, VP6cdi, VP9cc, et al.

Has anyone any gen on these beauties:—EF8fg (14 Mcs.), AC5cs (14 Mcs.—says he is in Bhutan), VR9A (28 Mcs.) and VK1ff (14 Mcs.).

SP5BA asks for QSL's via W5KC . . . How about T19BR? He says he is in Cocus Island. He is on approx. 28380 kcs. Any data, please? . . . FD8RG says via F3RG, his home station.

To wind up this month we must quote from the "Op Aid" issued by the East London ISWL Group. This is to be a regular sheet issued to members of that club as an aid to DX logging. The information is so good that I am lifting some for inclusion in my column! Here goes . . .

Guide to difficult Zones

Zone 16: Most UA1's including Archangel.

Zone 17: Most UA9, plus UA1PA and UA1KEB.

Zone 18: Following stations are located here—UA9KOA, UA0's KAA, KBA, KSB, KTU, SI, OA, UA, VC, PA, SF, SG, VB.

Zone 19: UA0's AT, FG, KFA, KFC, KKB, KGA, LC, KQA, KFO.

Zone 39: Not easy to hear the VQ8's, but listen for ZS2MI on Marion Island (counts as separate country).

Zone 40: Apart from OX, listen for UA1KEC and UA1KED on Franz Josef Land.

The VP8's

VP8AK, VP8AP—South Shetlands.

VP8AI—Falklands.

VP8AD—South Georgia Islands.

VP8AM—St. Marguerite's Bay, Antarctica.

The VE8's

VE8A and VE8B series—Yukon Territory.

VE8M onwards—North West Territories.

Leeward Islands

Antigua—VP2A.

Montserrat—VP2M

St. Kitts-Nevia—VP2K.

Windward Islands

Dominica—VP2D.

Grenada—VP2G.

St. Vincent—VP2S.

General Data

CE7ZA and CE7ZB are on Greenwich Island and Discovery Bay respectively (South Shetlands Group) . . . EA8AD is Rio de Ora and not Canary Isles . . . SM8SU is on Novaya Zemlya—separate country . . . C8KY is Zone 23 . . . VQ8AS and VQ8CB are Chagos Isles . . . VK4VD is Papua . . .

Congrats to Editor Frank Baldwin and Research Staff A. C. V. Seymour and T. W. Eaton for their enterprise.

Before I QRT, how's this for a DX achievement . . . D ("Pop") Outram called in the office the other day and calmly informed me that one Sunday on 28 Mcs. he logged 133 countries and 28 Zones! "Mind you, I was at it all day," he explained modestly. The gear? A converted RF26 unit into an SX16 and a 60 acs. dipole and 30 ft. vertical aerials. Good going, OM. Who can top that one?

VHF NEWS

440 Mcs. Activity

F. G. Maynard, G4OU, Isle of Sheppey, in a most interesting letter reports that on Sunday, 27th March at 1205 GMT, he established "cross town" contact with G2HKU on 440 Mcs. phone. He received a report from 2HKU of Q5S9. The TX for this contact consisted of a self-excited oscillator modulated by a small two-stage modulator (6C5-6L6). The aerial was a 4-element rotary in the loft on the Yagi principle, which works well. He writes:—"My contact on 440 Mcs. with G2HKU is, I believe, the first on the Isle of Sheppey, which being a very flat island with the sea on three sides, lends itself to good cross-country contacts on that band. My own personal ideas are to try to devise efficient amateur equipment for 440 Mcs. of a simple nature, avoiding all the extra gear required to double, treble, etc., etc., for crystal control. I am a radar mechanic by occupation, and experience has taught me that while crystal control is "nice" on the VHF, it is not essential, provided due care is paid to layout and mechanical rigidity. However, that is purely a personal opinion, of course . . . I hardly anticipate jamming commercial stations on 440 Mcs. with a few watts, nor do I know of many superhets for that band likely to be troubled with reception of my signals. Later perhaps, but not at this stage."

We quite agree with you, OM, and wish you every success with your experiments. We shall very shortly be publishing an article on some of the gear G4OU has tried out recently on this frequency.

145 Mcs. Activity

Activity on this band is very much on the increase, and we have a good batch of reports in again this month. Conditions generally have once again shown that tropospheric propagation varies as it did on 60 Mcs., still, calm, anti-cyclonic weather giving good propagation conditions. The long period of fog on the East coast at the end of March gave excellent conditions for stations in that area. Unfortunately, the fog dispersed, and the weather broke up before the RSGB 2-metre Contest at the beginning of April, and conditions deteriorated severely. The settled weather over Easter produced another patch of good conditions, and there seems no doubt that the tropospheric conditions are even more marked than they were on 60 Mcs.

G2ADZ of Oswestry writes in to say that he is running the following skeds.: G3EHY in Somerset called at 1900 hrs. each evening. G3EHY calls 2ADZ at 1910 hrs. He says that any reader who wants a signal may drop him a line and he will

oblige with a transmission. Any reports which check with his log will be QSLD by return direct. He says that SWLs on 2 metres are so precious and rare that they need every encouragement. So come on boys, get listening on 2 metres.

Converting the Type 27 Units for 2 Metres.

In a very welcome letter from L. S. Yaxley, G2FLC, Newmarket, Suffolk, there is some interesting gen on converting the Type 27 Units for 2 metres. He writes: "It is not too difficult to convert. First, remove fixed and moving vanes from the three gang capacitor, leaving 2 moving and 1 fixed vane on each section. Next remove the RF, mixer and oscillator coils completely from under the chassis. New coils were made in my case from silverplated wire taken from an old TR1196 transmitter, the gauge being about 18 swg. The new coils are as follows: oscillator coil, $2\frac{1}{2}$ turns, $\frac{3}{8}$ inch inside diameter, turns spaced $\frac{1}{2}$ diameter of wire. Mixer coil, 2 turns spaced twice diameter of wire $\frac{3}{8}$ inch inside diameter. RF coil same as mixer coil, link coupled to the aerial and earth plugs by one turn, link adjusted so as to be about diameter of wire from the grid end of the RF coil. All coils are self-supporting and air spaced, and in a horizontal position about $\frac{1}{4}$ inch from the chassis. Alignment should not prove too difficult if one has a Tx already on 2 metres. This is switched on to a dummy load. The converter is connected up to the main receiver via co-ax. cable, and the oscillator trimmer under the chassis slowly turned until the carrier is heard in the speaker or phones, or till you get an indicator on the S meter of the main Rx. With this trimmer about half-way in, the oscillator is then on the low side of the signal. The other two trimmers—mixer and RF, should then be turned for maximum signal strength. Tracking of the gang capacitor is done in the usual way. In my case I set the converter so that the middle of the 2 metre band was 130 degrees on the dial, the LF end then being at 160 degrees, and the HF end at 100 degrees. One other modification I made was to remove the locating spikes at the back of the converter, and fit a Pye co-ax socket to take the output to the Rx via co-ax cable. This stops the main Rx picking up any unwanted signals on 7.5 Mcs.—the output frequency of the converter. If the converter is being used for CW only, it is as well to regulate the HT to the oscillator, using a VR150. In my case, I used VR150 in the main Rx; the oscillator plate HT lead is removed from its original position and taken to a blank pin on the Jones plug, thence fed with a regulated supply."

Many thanks for this gen, OM. 2FLC has worked the following recently using a Type 27 converted as above for receiving: G2XS (King's Lynn), G5BD (Mablethorpe, Lincs), G2CPL (Lowestoft), G3BWS, 3APY, 4DC, 5UD, 6PY, 6PG.

R. J. Appleby, G988, Clacton-on-Sea, has recently completed a converter using EF54s in two RF stages, EF50 mixer and EC52 oscillator.

First tests, using a four element beam in the attic and a universal eight valve superhet at 7 Mcs., produced G2KG and G3BWS on CW and quite a number of phone signals not strong enough to identify.

S. J. Smith, G3BSI, Westcliff-on-Sea, using his converted R1132 has heard : G3BWS (Gillingham), 3GW (Sheppey), 3ABD (Leeds?) and 3 BTL (Southend-on-Sea).

Arthur Simons, G5BD, Mablethorpe, Lines, is now active, and has worked G2PU (Cambridge). 2XS and 5UD in King's Lynn, and 2CPL in Lowestoft. He has heard 6VX, 4LU, 6NB, 3BLP, 6FH, 6YP, 3AEX, 2XV, 5MA, etc., during recent weeks. He reports that conditions and activity have greatly improved.

M. Wallace, 13 Auckland Hill, West Norwood, London, S.E.27, wants more gen. on the conversion of the 1132 and would like to correspond with others who have converted these receivers for 2 metres.

W. H. Pierce, Reigate, Surrey. Using a home-built converter (6AK5 RF 954 mixer and 955 oscillator), and a two element rotary beam rotatable from the shack, which is 800 feet above sea level, has heard 23 countries to date, the best DX being G6OS and PAØZQ.

Well, that must be the lot this month. Reports in by the 12th of next month, please.

SPECIAL ANNOUNCEMENT

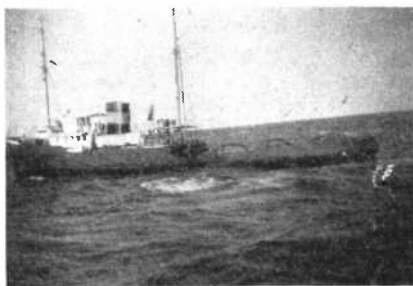
ANOTHER ISWL BROADCAST FROM WRUL

We have received a cablegram from our USA representative, Chas. Southall, to say that another programme dedicated to the ISWL will be radiated from the WRUL network on May 28th, 2100 to 2130 GMT. Programme will be on WRUW 17755 kcs., WRUL 15350 kcs., and WRUX (beamed to Europe) 11740 kcs. There may also be a 15 minute programme beamed to S. America later the same day on WRUL 18290 and WRUX 11730 kcs.

All reception reports of these transmissions to ISWL HQ please.

Make a Note of the Date!

"PIBX"



One of our readers, J. Beaunoir, ISWL ZS516, of Natal, S.A., sends us the following information about the origin of the above call, which was heard on the 14 Mcs. band recently. He writes :

"Earlier last year I logged a station in the 14 Mcs. band, giving his call as PIBX. He was trying to contact a ZS station, and eventually succeeded. During the QSO, PIBX gave his location as Holland. Imagine my surprise when this week I received a letter "veri" from him! In his letter he apologised for the delay in answering, because my report went to his home address while he was on the high seas. He states that my report was sent on to him from his home to Buenos Aires, but he had already left there before the letter could reach him. The letter was sent on to Port of Spain, Trinidad, where again it missed him! Finally he received it in Lisbon.

"He states: 'The call PIBX is that of the Ocean Tug 'Tyne,' a vessel belonging to the company of L. Smit. When you heard us, we were on the way from Cochin to Buenos Aires, towing a floating dry dock. We called at Cape Town for bunkers, and I was trying to get into touch with an amateur to meet me there. The transmitter was an all wave RCA job, giving 125 watts on CW, 65 watts on ICW, and 30 watts on phone. The only trouble I have with receiving amateurs is that the ship's receiver has not enough bandspread."



EAST SURREY RADIO CLUB

In connection with the recent local Hobbies Exhibition the Club staged a 3-day demonstration of Amateur transmission and reception as well as other electronic controlled apparatus. Great interest was shown by the public in the fine examples of ham built gear.

Among those in attendance were G5LK, 6KD, 8HH, 3CDG and 8 MP.

The Club's thanks are due to the publishers of the "Short Wave News" for their wholehearted co-operation with the literature supplied.

Around the Broadcast Bands

A Monthly Survey by "MONITOR"

All times are given in GMT
(For EST subtract five hours;
for AEST add ten hours)

● Asia.

China. Sidney Pearce of Berkhamsted reports BEF7 Chungking "Voice of China in Chungking" on 11913 kcs. now again and heard with news in English at 1400 and 1600.

C. J. Goddard of Coventry sends in a nice list of schedules including that of XGOA Nanking:

15105 kcs. 0200-0300, 9730 kcs. 1000-1300, 9605/5985 kcs. 1350-1500.

Ernie Field (Watford) logged BEF7 with news at 1600 and closing at 1648.

Hong Kong. Your Scribe has just received a letter veri from ZBW3 "Radio Hong Kong" stating their schedules is as follows:

Freq. 9520 kcs. Power 2.5 kW. Schedule: 0230-0530, 0430-0530, 1130-1230 (Sundays). 1315-1515 (Weekdays).

India. Pearce reports AIR Musical Broadcasts for Overseas Listeners at 1900-2000 and now BC on 15170/11850/11760/9620 kcs. Heard on all freqs. but the 11850 kcs. one (which appears to be near 11790 kcs.!) VUD9 11710 kcs. Delhi heard most evenings 1900-2000. Programme Mondays entitled "Make Believe Ballroom." Heard also at 1445 with station identification followed by news in Hindustani. Roy Patrick hears AIR Eng. transmissions on 9590 and 15160 kcs. with FB signals at 1500 and special SWL's request prog. on Sats. at 1500-1530. Your Scribe has heard this prog. on 17290 kcs. over VUD10 on Sats. with colossal signals and very good modulation.

Pakistan. Dacca. "Radio Pakistan" 15270 kcs. is another new one for you 'Country Chasers.' Pearce reports them with R6 signals with various types of Indian music and songs from around 1415. Gives News in English at 1530 but has a very bad heterodyne at this time from another station's carrier which apparently signs on at this time. Signs off at 1630 (Sideband QRM). Arthur Cushen down in sunny New Zealand in Invercargill (believe me OM its like winter here . . . this second week in April!) states that they have moved to this freq. from 11890 kcs. and heard there with news in Eng. at 1230.

Siam HS8PD, 6010 kcs., Bangkok, now on this new freq. and also on 11720 kcs. 1000-1200 with Eng. news at 1115 (N.Z.DX Times).

Celebes. "Radio Sario," Menado, carries the North Celebes Dutch Forces' Programme and verified by Airmail letter to Arthur Cushen from the Director Lieut. A. J. Visschedijk. States station uses 800 watts and operates as follows: 1000-1200 daily, 1000-1400 Sats. Suns. Prog. in Indonesian 1000-1030 daily, 1000-1100 on Sats. Suns. Rest of transmission in Dutch. Station opened Sept. 25th, 1946 but was recently remodelled, using Jap equipment. Freq. 9745 kcs. "Radio Macassar," Macassar, on 11084 kcs. has been heard on this channel with very good signal with popular dance music 1100-1200 daily (N.Z. DX Times).

Your Scribe has received letter veri from this latter station which mentions this data:—

Transmitters: YDQ 9550 kcs. Power: 10 kW. YDQ3, 11084 kcs. 3 kW. YDQ2, 5030 kcs. 500 watts.

Schedule: YDQ

2200-2300	Indonesian	2300-0000	Dutch.
0300-0500	"	0500-0630	"
0900-1500	"		

YDQ3 1000-1500 Dutch.

Forces' programmes in Dutch:
1000-1200 over YDQ3.

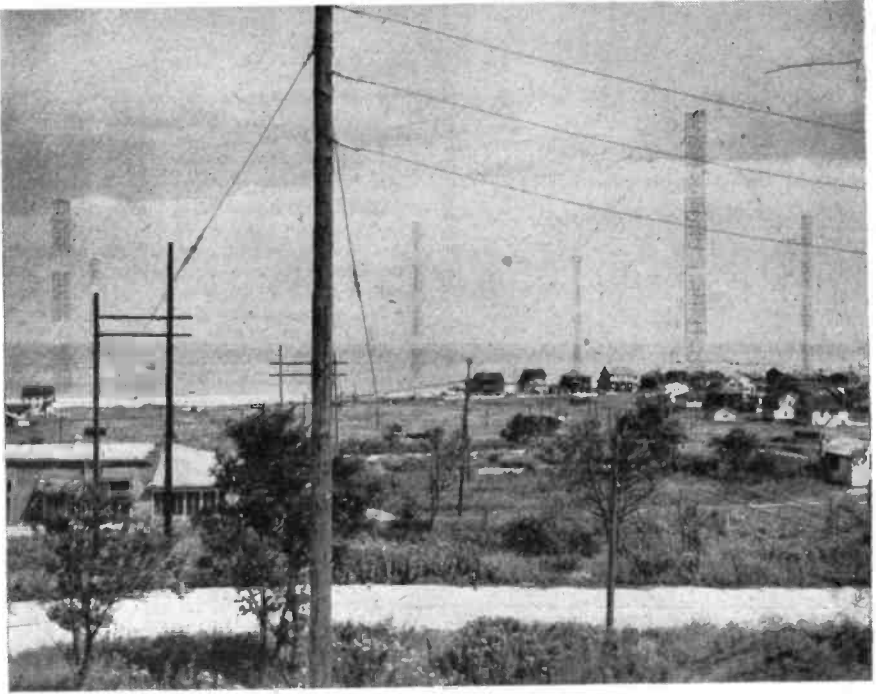
Forces' programmes in Indonesian:
1200-1400 over YDQ2.

News bulletins are read in Dutch 2330 (YDQ) 0515 (YDQ/YDQ2) 0615 (YDQ/YDQ2) 1230 (YDQ3). Indonesian: 2230 (YDQ/YDQ2), 2330 (YDQ2) 0430 (YDQ/YDQ2), 1400 (YDQ/YDQ2). Macassar language: 0930 (YDQ/UDQ2) Buginese language: 0940 (YDQ/YDQ2). Station announces in Dutch "Hier is Macassar, Radio Indonesia" In Indonesian "Disini Makassar, Radio In-Indonesia" Reports are requested to:—

Radio Indonesia, Strandweg Zuid 2, Makassar, Celebes, East Indonesia.

● Africa.

Belgian Congo. OTC2, Leopoldville 9767 kcs. The ISWL Special BC from this station was very well received indeed at your Scribes QRA. It was regretted that the programme started a little earlier than scheduled, namely: 2000-2030. A message from your Scribe was also given over the Air in this B.C. A most enjoyable programme of recorded music was given after the message, including amongst others two Native recordings. Thanks go to our Natal Rep. Jean Beauvoir for making this programme possible.



Some of the eighteen aerials at WRUL in which there are twenty-one miles of wire! (Photo: by courtesy of Chas. Southall)



Sudan. "Radio Omdurman," Khartoum. Jean Beauvoir in Natal has received an Airmail letter from the Broadcasting Officer H. H. Finch-Dawson, quoting "Radio Omdurman is now operating on 9750 kcs. in the 31 metre Band using a new Transmitter of 6.5 kW. and if approved by the Berne Convention this will remain a permanent wavelength. The other SW Transmitter in use is operating in the 49 metre Band on 5940 kcs." Jean says he receives the 9 Mcs. transmissions at QSA5, R8. Schedule as previously. QRA: Broadcasting Officer, Broadcast Service, P.O. Box 522, Khartoum, Sudan. C. J. Goddard says they give an English BC on Fridays at 1730-1800 on 9750 kcs.

French Morocco. CNR3 "Radio Rabat" 16666 kcs. heard very well of late. Times please, OM! (Goddard.)

Portuguese Guinea CQM4, Bissau. Frequencies used are as follows: 6998, 9375, 10714, 16666 kcs., according to C. J. Goddard.

Cape Verdi Is. CR4AA, Praia now operates on 6410 kcs. (Goddard.)

Bechuanaland. ZNB Mafeking 5903 kcs. Tom Williamson of St. Albans, Herts., had a good catch in this station, which by the way your Scribe would very much like to enter in his log-book! Heard on several occasions between 1730-1930 with weak signals at R3 plus very heavy CW QRM. Programmes consist of recorded music mainly dance type. QSLd with beautiful card 18 days after report was sent by Airmail stating power to be 200 watts. Tom says he has noticed a confusing signal on 5896 kcs. when he has been looking for ZNB. However he has found it to be none other than the BBC Third Prog. 2nd harmonic of 1474 kcs. transmission! Maybe we can use it for a marker, fellows, so how about chasing ZNB and let me know your results!

Portugese East Africa. CR7BE Lourenco Marques 9705 kcs. heard at 1600 giving Eng. progs. Signals were R5-6 with terrific QRM from a 'Moscovite' on 9710 kcs. (Williamson.)

Northern Rhodesia. ZQP Lusaka 9715 kcs. can be heard from 1755-1805 if free from QRM . .

from the same 'Moscovite' as gums-up CR7BE! (Williamson.)

International Zone, Tangiers. "Radio Africa" Tangier has now adjusted frequency to 7058 kcs. (Williamson) Radio International 6110 kcs. has been logged evenings by Sidney Pearce from around 2230. Progs. in Spanish, with man announcer and French by woman. Also heard with Arabic at 1930. (Pearce.)

Portugese West Africa, Angola. "Radio Clube de Angola," Luanda, sends QSL card to Pearce for CR6RN on 7142 kcs. stating this replaces CR6RN on 8090 kcs. also asks this reader to listen for CR6RL on 31.68 metres. CR6RC "Radio Diamang," Dundo, 8240 kcs. was heard R6 from around 1900 to sign off at 1930 with Portugese Nat. Anthem. Bad CW QRM. (Pearce.)

Benghazi. Forces BC Service Benghazi 4790 kcs. approx. logged with R6-7 signals from around 1945-2100 when they sign-off with Ted Lewis's "Goodnight Melody." Very bad CW QRM. (Pearce.)

● **North/Central America.**

United States of America (West Coast). KNBX San Francisco 11790 kcs. heard at 0900. Schedule 0900-1415 daily (Leytonstone Chapter ISWL) KCBF 11810 kcs. heard with R7-8 signals until sign off at 0830 in parallel with KCBA. (Ernie Field, Watford.)

Guatemala. TGLA Guatemala City 6286 kcs. often heard with a moderate signal at 2300. Announces as "La Vox de Centro America" and has marked carrier hum. TGTA Guatemala City 6340 kcs. also heard at 2350 giving call "TGT y TGT Radio Bolivar." Signals QSA3 R4 (Williamson). TGWA Guatemala City 9750 kcs. heard at 0335 with Marimba music by Kenneth Kergan, of Seaham, Co. Durham, a newcomer to this column whom we welcome, and also appreciate the nice remarks re this column in your letter. Thanks, Ken, and here's to your next report, but please list stations by Continent. It does help your Scribe and also assures mention of your loggings.

Republic of Panama. Ernie Field has received a Veri from HOLA Colon and mentions the following: "Thanks for your report of Jan. 28th. We are aware of the interference from BBC. Will ask BBC to shift their frequency, eh? Greetings from Radio Atlantico." Freq.: 9505 kcs. Power 1 kW, TX: RCA.

HP5A 11700 kcs. Panama City heard at 0115 R8 giving sporting commentary while HP5G(?) 11780 kcs. was heard with news in Eng. at 2330 and trumpet fanfare, R4. (Leytonstone Chapter ISWL London.)

● **South America.**

Brazil. Sao Paulo 11765 kcs. heard almost nightly from as early as 1645 until 2200/2300 and sometimes later (Leytonstone Chapter ISWL). Pearce reports ZYK2 "Radio Journal do Comercio" Recife 15145 kcs. with R7 signals from around 1800 to close at 1900, ZYK3 on 9565 kcs. R8 after close of Radio Algeria (9570) at 2300, with some QRM from 2345 after sign on of VUD, ZYC9 "Radio Tamoio" Rio de Janeiro 15370 kcs. R6 around 2230 with same prog. on 9610 kcs. also over ZYC8. ZYB9 "Radio Tope" Sao Paulo heard around 2200 on 15155 kcs. in parallel with ZYB8 11765 kcs. ZYN7 Ceara Radio Clube Fortaleza 15165 kcs. giving International Progs. now from Mondays to Thursdays at 1900-2100. R7. PSL Rio de Janeiro 7935 kcs. heard at 2245 with American dance recordings. R6 hetrodyingn HLKA! (7933), ZYF8(?) Manaos 4955 kcs. at 2300. Announces with three ascending chimes as "Radiodifusora Amazonas." New station? "Radio Rilawar" Sao Luiz heard R6 at 2345 on 4786 kcs. with call. Last three stations reported by Dr. T. B. Williamson, St. Albans.

Venezuela. YVMQ (ex-YV3RN) sends letter veri for 4940 kcs. reception. Now on 4990 kcs. relay of MW YVMR. This is of course "Radio Barquisimeto." (Pearce.)

YV9RA San Fernando de Apure 4820 kcs. heard R4 at 0020 with three high pitched chimes and call "Transmite La Voz de Apure," YV4RO Valencia 4780 kcs. R4 also at 0000 with announcement "En la Ciudad de Valencia YV4RO La Voz de Casabobo," YV5RM Catacas R9 signals at 2345 on 4890 kcs. with five chimes and call "Radiodifusora Venezuela." T. B. Williamson who sends in this 'gen' also mentions that there appears to be a general call sign change in YV, YV5RY 5030 kcs. is now YVKM. He also mentions YVMQ listed above by Pearce.

● **Six QRA's.**

- Compiled by Sidney Pearce for your interest:
- Burma Broadcasting Service.** 28 Windermere Crescent, Rangoon, Burma.
- OZH** etc. Danish State Radio, Short Wave Dept., Copenhagen, Denmark.
- TIPG** Perry Gerton, Gerente, TIPG "La Voz de la Victor." Apartado 225, San Jose, Costa Rica, Central America.
- ZBW3.** Radio Hong Kong, Hong Kong Broadcasting Studios, Hong Kong.
- HJXC.** "La Voz de Colombia" Apartado 2665, Bogota, Colombia, S.A.
- HP5B.** "Radio Miramar" Apartado 910, Panama City, Rep. of Panama C.A.

(Continued on page 121)

RESONANT LINES

By "CENTRE TAP"

QUESTIONS on QSL'ing constantly recur in correspondence, and it is admittedly an important part of our hobby, particularly to newly licenced amateurs and keen SWL's. After all, much of the pleasure of our hobby would be lost if there was no such thing as QSL cards, although there are a few amateurs who never send, and have no wish to receive cards, but they represent only a tiny percentage.

Most newly licenced amateurs start off by QSL'ing every contact, and then, suddenly realising they are getting far from 100% replies, become selective, and send cards only to those stations from whom they particularly want a reply, gradually reducing the cards they send to new DX only. Unfortunately, at some period during this change of attitude they fail to acknowledge the cards they receive from others who have not become as blasé about it as they themselves. This practice, which seems fairly widespread, is not only lamentable, but is contrary to the spirit of amateur radio: or shall we say, the spirit that used to prevail in amateur radio. Even disregarding the code of conduct, which once was an important factor in our hobby, failure to reply can only indicate gross lack of ordinary courtesy.

These remarks apply with equal force to listeners reports. By that I mean useful and intelligent reports. It is exasperating even to the best natured ham to receive dozens of reports telling that his signals are S9 in areas that he has been working regularly for months.

A tip, by the way, for keen listeners. Try reporting particularly on 'phone transmissions of medium powered stations on 3.5 and 7 Mcs. Many users of those bands want reports, and will gladly verify. Much fun can be had too, on recording 'skip' changes from daylight to darkness at the different seasons of the year on these bands.

Distinctive Cards

Writing of QSL cards eleven years ago, I received news from G2UV that he was the first European amateur to use them way back in '21, and he is generally acknowledged to be the European pioneer. After receiving cards from American amateurs, he issued his own, rather on the lines of a visiting card about 4 in. by 2 in., and the idea soon spread amongst amateurs. They quickly grew to the familiar post-card size, and again UV led the fashion by introducing a two-colour design.

Many cards are of great interest in themselves, containing maps, local scenes, motifs, historical events, or personal and shack photographs, but a few are essentially "individual," containing original and exclusive ideas. I recently sorted

over one or two collections, and thought the following selection of exclusive designs worthy of mention.

G3YM (Gee! Three Yesterday Morning) in topper and tails clutching at a lamp-post and waving a bottle.

G2CXQ with a cartoon of presumably himself dressed like Will Hay, chalking his call on a black-board.

G2DY with call superimposed on circuit diagram of his 140 watt 10 and 20 m TX.

F9KQ with a sketch of a figure radiating waves to a globe and slogan "Looking for you. OM."

G6MN (the home of Robin Hood) as a Sherwood Forester with poised arrow aiming at 'target' of call worked.

G4MM (Mickey Mouse) by permission of Walt Disney—with Mickey handing addressed QSL to the call worked, and a "Hi! Yah..... (handle) greeting G2DUV with a cartoon of presumably himself behind a Heath Robinson cinematograph projecting the call sign on to a screen.

ON4JN gives reports with the aid of small sketches—an old timer with an ear trumpet for QSA, a strong man weight-lifting for QRK, a child howling and a noisy BC receiver for QRM, a band of angels for QRN and a vase of drooping flowers for QSB.

Club Interval

I recently went to a local club meeting—not my own local, but nevertheless within a 100 miles of Broadcasting House. There was a goodly attendance, over 30, a dozen of whom seemed to be licenced amateurs.

While the programme was an excellent lecture, I thought the high spot of the evening was the refreshment interval—tea and buns only! For the benefit of readers who miss the friendliness of a local Club I will try to reconstruct scraps of the interval conversation, all going on more or less simultaneously.

"She might have put another leaf in it—then perhaps you'd know it *was* tea."

"Last time it was so strong I nearly bent the spoon trying to stir it."

"One thing, even if those hams here are a bit clique-y, they do not expect you to pay tuppence just to speak to them."

"Yes I know there was nothing after G4R—issued before the war, but G4ZU is a genuine call. I've seen his card."

"What is really wanted is a grading of surplus gear so you know what to expect. 'A' for brand new, 'B' for as new, and unmarked. 'C' for working order, and 'D' for stuff fit only for breaking down for parts."

"All the ON three letter calls are pirates, but there is plenty of genuine PAØ three letter calls."

"When I was in the Army a chap in our hut had an electric shaver which set up so much interference that he cut out the 8 o'clock news for everybody—not only in the Camp but in the neighbouring villages as well."

"If there were no QSL cards, I bet the number of hams would slump 80% in twelve months."

"All this DX heard stuff ought to be washed out nowadays. Anybody can do it on an ex-WD set. It was alright in the days of home-built O-v-1's."

"Its the 'countries-worked' fiend who gets under my skin. A scrappy contact and another country in the bag, even if they only manage to read the call after a dozen repetitions."

"The pirates that the Post Office don't catch up with are those who cause no BCI—and that's most of them."

"A SWL will get a better percentage of replies by using an attractive card than he will with good reports."

"I like the LF Bands. Stations there do enjoy their hobby, and not make hard work of matching mere contacts."

"The greatest menace to the hobby is this DX competition madness. I see a GI station collected nearly half a million points in a contest. No wonder the ordinary listener thinks we are even crazier than pole-squatters, or dance-till-you-drop half-wits."

"When he heard that G6PL had collected 5000 QSL cards he sent his along to help build up what must be a World's record."

"I'd like to bet if it was claimed as a record a dozen W's would pipe up claiming far higher numbers."

"At one new station every day it would take fourteen years to collect 5000 cards even if they all QSL'd—which they don't."

"There's nothing in the licence to say you have to record the exact frequency in the log. I never put in anything more than the band."

"They just pass the BC221 round to one another as each is notified the G.P.O. are coming for an inspection."

AROUND THE BROADCAST BANDS—

(Continued from page 119)

● **Honour Roll.**

Those readers who have 10 or more Countries Verified . . . SW only please . . . are requested to send in their lists for this column. Will your name be at the top of this list by December 31st next? How about it fellows.

1. Sidney Pearce (England) 113
2. A. Cushen (N.Z.) 100
3. Dr. T. B. Williamson (England) 80
4. E. Field (England) 59
5. A. Levi (N. Ireland) 50

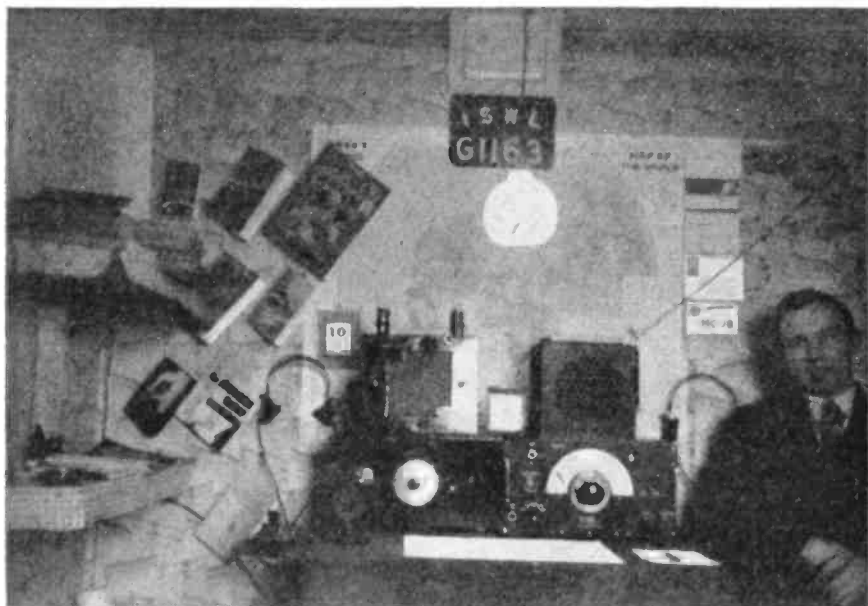
● **QSL Section.**

Verifications received by readers over the past month:—

Sidney Pearce from VUB2, ZBW3 Radio Saigon, VLG8, VLG3, VLB2, TIPG, ZYNT, Singapore (11880), CKRZ, YVMQ, Pietermaritzburg, Athens, ZL4 (Air-mail), Beirut, Batavia (19345), CR6RN (7242). Dr. T. B. Williamson: YV5RU, Radio Malaya (4825 kcs.), ZQP, ZNB (Nice work Tom indeed), COJK have sent cards while OAX4V, Radio Dakar Paris International, YV3RN, OTH, ZBW3 have obliged with letters. Arthur Levi of Belfast from FBS Cyprus. E. Field, CJCX (6010) for report sent 15/1/49 Veri 9/2! TGWA (15170), WRUX (25600 New card Tri-colour), VLA5 (15320), VLB2 (9650), VLC10 (21680), VLG11 (15200), Ernie says he has now 17 channels verified of Radio Australia's transmission. Nice going OM and we hope that will soon mount to 20 (Your Scribe has 40 if you want to start something!). Arthur Cushen sends in a long list of Veries and not only gets the 'cards' but also a little extra as you will see by this list of his! LLK Hamburg (7290), Djokjakarta (5020), PLB7, PLB4, PMW, ZJM8, ZJM4, ZJM5, UN Geneva (6675), Denmark (9520), Moscow (11630), HCJB (17890) plus a Sombrero . . . hats off to Arthur! TGWA with Travel Booklet, Batavia (15150 plus Plaited Tobacco Pouch!), KGEI (9700), OAX6B (6038), Radio Sario (9745), YDH2 (11000), YDP2 (Medan 7210), Bukit Tinggi (7455), YD12 (4370), KRHO (15130). C. J. Goddard from Madrid OTC2 (9745), KWID KWIX, FZI Radio Beograd Warsaw, HBC, HE15. Roy Patrick: OTC2, CKRZ, Luxembourg Radio, Eireann, Vatican City, SBO, VLB2. Scribe: CR7BU, CR7BV, ZBW3, YDQ, Johannesburg (4895), VUM, ZL3.

● **Acknowledgements.**

The Editors and "Monitor" wish to thank all readers who have sent along items compiled in the this month's article. Several letters have had to be held over until next month.



AROUND THE SHACKS

No. 28

Thomas H. Noble, ISWL G1163, Stretford, Lancs.

ONE of our readers who is particularly interested in short wave broadcast reception is Thomas J. Noble, ISWL G1163, of 112 Norwood Road, Stretford, Lancs.

Comparatively new to the game, Thomas has so far got only a few QSL's in ; Radio Brazzaville, Equador, Leopoldville, Sweden and Moscow being amongst his first.

Very keen on short wave listening, Thomas subscribes to most of the radio periodicals and boasts a fine radio library. The receivers shown in the photo are a V55R Radiovision Communications Receiver and a home built 1-v-1. The

latter is a battery job. Each receiver has its own set of headphones. Of the two radio maps shown, that at the top left hand corner is most useful for DX listening as it has a very convenient scale of miles.

A morse code practice set is available and progress is being made in acquiring a knowledge of the code. The key can be seen on the left of the table—Thomas being left-handed. The microphone to be seen on the left of the table is connected up to the main broadcast receiver downstairs—"in case a cup of tea is required"—as Thomas puts it! A really novel feature!

FOR VIEWERS

The May issue of our newest magazine "Television News" contains articles on the Wardrobe Department, Cinevision, Armchair Technicalities, Programme Criticisms, Trade Review, The Month's Advance Programmes and news and views of television personalities, programmes and gossip.

If you are a viewer you **MUST** read "Television News." If you are not, then advise your viewer friends!

FOR CONSTRUCTORS

The May issue of our companion journal "Radio Constructor" will contain articles on A Home Constructed Vision Unit, A "Surplus" Superhet, A Bench Measuring Instrument, Radio at the British Industries Fair, Circuit Reading (By Centre Tap), Logical Fault Finding, in addition to the regular Query Corner, etc.

If you are interested in construction, "Radio Constructor" is an essential to your book list.

Radio Melange

A pot-pourri of current topics

MULLARD PRODUCES BRITAIN'S FIRST COMMERCIAL ULTRASONIC GENERATOR

The Mullard Ultrasonic Generator (type E. 7562), now on the market, is the first commercial generator to be produced in this country. It is designed to fulfil the need for an experimental unit of wide flexibility.

The generator, comprising a control panel with meters, power oscillator, output voltmeter, relay panel and power supply, is mounted in a tubular frame. Trolley wheels are provided for ease of transport and the cover is adequately ventilated. Four pull-out handles simplify lifting the generator and a removable panel—with quick release fasteners at the rear of the cover—gives access for fuse and valve replacements.

The RF output is generated directly by a silica triode capable of producing one kilowatt of RF power. Four plug-in coil assemblies, which are rapidly interchangeable, are provided for operation around nominal frequencies of $\frac{1}{4}$, $\frac{1}{2}$, 1 and 2 Mcs.

The valve is matched to the crystal impedance by tapping the anode down the coil in the output circuit. Fine tuning of the output circuit and adjustment of grid coupling are effected by means of variometers.

The oscillator is housed in the upper portion of the frame with the control panel immediately above. On the lower deck is the power supply comprising two grid-controlled mercury vapour rectifiers, the filament transformer and the H.T. transformer.

The quartz crystal is contained in a metal case. It is connected to the generator by means of a co-axial cable. The crystal has silver electrodes fired on both sides to which the driving voltages are applied.

To give the maximum ultrasonic output in the forward direction the generating crystal is air backed. The limitations on the temperature at which the transducer can work are set by the polythene of the cable and the rubber sealing rings. If silastic rubber is used and the back of the holder is adequately cooled, the crystal can safely be immersed in liquids at temperatures up to at least 150°C.

WOMAN SILICA VALVE TESTER

Miss Frances Jackson, Mullard Silica valve tester for twenty-seven years, is the only skilled woman tester in the country.

She tests silica valves at Mullard's factory in Mitcham where she has worked for fifteen years. Before that she was with the company at both Hammersmith and Balham. She tests all

Government contract work, including silica valves turned out for the Admiralty.

Miss Jackson joined the company at the age of 14. She started her career pumping valves, and went on to testing a few years later. She lives in Hammersmith and although she has an hour's trolley bus journey to Mitcham every morning she has never been late during the past fifteen years. She estimates that during that time she has spent at least 7,400 hours travelling to and from work.

LARGE OVERSEAS ORDER FOR V.H.F. RADIO EQUIPMENT

A large order has recently been placed with The General Electric Co. Ltd., Magnet House, Kingsway, London, for the supply of two-channel frequency modulated V.H.F. radio equipment to the Hong Kong police authorities. The contract, which has a total value of £25,000, covers a comprehensive mobile-to-fixed-station communication scheme embracing two areas, each of which will be provided with a separate communication channel and radio interlinking circuits.

The G.E.C. has also recently supplied two-channel frequency modulated V.H.F. radio equipment to the Ankara police. The contract was obtained as a result of a practical demonstration of the Company's equipment against world-wide competition from other manufacturers. The scheme provides communication between cars and fixed stations, with such additional refinements as remote control of the headquarters station and linking into the Ankara telephone network.

R.C.M.F. FOCUS ON MULLARD TELEVISION UNIT

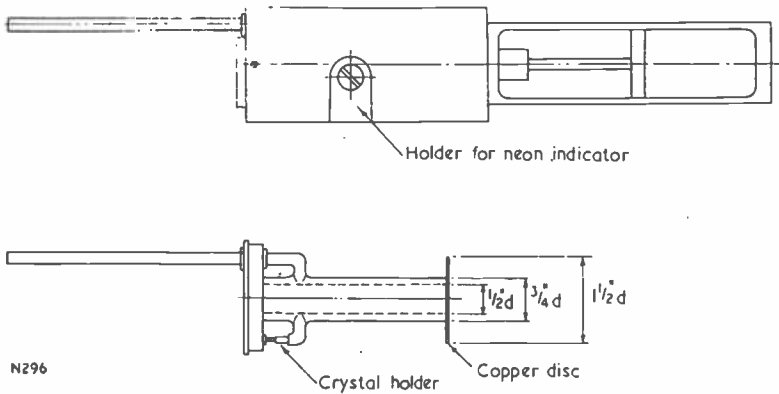
The R.C.M.F. exhibition at Grosvenor House has proved the most interesting display of its kind in which Mullard's have ever taken part.

It was the first time that the company has shown valves, flash tubes and photo-electric cells for industrial use at an R.C.M.F. exhibition.

The projection television unit was the only one displayed. It proved the most interesting exhibit in the show, and a great number of enquiries were made regarding its design and application by buyers from all parts of the world. The unit comprises the new projection television cathode-ray tube, special components and the associated optical system.

While most of the enquiries came from the home market, business men from Europe and other countries showed great interest in the latest Mullard valves and tubes for communications and industry.

A 420 Mcs. Wavemeter



Simple Conversion of the W1549-10T/644 War Surplus Wavemeter

Compiled from notes supplied by Jim Bramhill
G2BMI

The W1549-10T/644 Wavemeter is of the coax type, and tunes from about 550 to 560 Mcs., by means of a plunger. They are of superb construction, precision made, and heavily silver-plated, and they can be readily converted for use over the 420 Mcs. range. Their general construction can be seen from the figure. If the end furthest from the plunger is removed, i.e., the end with the aerial rod on it, it will be found to have a $\frac{3}{4}$ -inch diameter tube attached to it. The modification is made simply by soldering a 23 gauge copper disc on the end of the tube. The

disc must be $\frac{1}{2}$ inch diameter, and have a $\frac{1}{2}$ inch diameter hole in the end as shown in the figure. Having done this, replace the end and the wavemeter will now cover 420 Mcs. It must be calibrated from an oscillator whose frequency has been checked. Once calibrated, a most useful wavemeter is obtained for the 420 Mcs. band. Jim says all the chaps in his area have modified their W1549s in this way and the calibrations agree in each case to within 1/16th inch of each other.

THE EDITORS INVITE . .

- Constructional articles suitable for publication in this Journal. Prospective writers, particularly new writers, are invited to apply for our "Guide to the writing of Constructional Articles" which will be sent on request. This guide will prove of material assistance to those who aspire to journalism and will make article writing a real pleasure.

THE HAMBANDER

Some confusion may have arisen owing to our announcement last month that the Radiovision "Hambander" had been withdrawn, since this receiver was also advertised in the same issue.

The "Hambander" *has* been withdrawn and the advertisement was inserted in error. Our sincere apologies.

EXPERIMENTAL TV

New Zealand hams have been granted frequencies for experimental television. The bands allocated are 430-442 Mcs. and 1250-1280 Mcs.



(Photo:—Courtesy, G.E.C.)

SET REVIEW

The G.E.C. BRT400 Communications Receiver

THIS receiver, as its appearance suggests, is very definitely in the luxury class and at a price of £120 is only likely to be purchased by those amateurs who demand the very highest standards in their equipment. Built primarily to satisfy the exacting demands of the professional radio communication engineer, just about every refinement consistent with compact construction is incorporated and the appearance of the receiver, as can be seen from our illustration, would be hard to better. It 'feels' just about as solid as it looks, and one is left with the impression that even in that essentially American art of designing and building communication receivers, when British designers really get down to it, they can easily produce the best in this sphere.

The BRT 400 is a 14 valve superhet with its own built-in power pack and it can be supplied either as a table model as shown or for mounting in a standard rack. Coverage is 2000 to 857 and 560 to 9 metres in six bands. A large "Perspex"

register displays the six bands covered and operation of the range switch illuminates the particular band in use. Accurate logging control is provided by means of a tuning drive with flywheel loading, while the scale of some 3200 effective divisions gives an equivalent length of about 41 feet of bandspread.

Circuit features include two stages of RF amplification, variable bandwidth, crystal filter, semi-automatic noise limiter, signal-strength meter, temperature compensated oscillator, amplified AVC, stabilised HT supply, aerial alignment trimmer, facilities for simple diversity operation and a protected output for direct connection into a 600 ohm telephone line. In fact just about every refinement in the way of controls is to be found on this receiver.

Built exceedingly robustly, this receiver is suitable for service in any climate and we feel it will truly uphold the slogan "British is Best" wherever it may be used throughout the world.



International Short Wave League

MONTHLY NOTES
BY G3AKA

ANNUAL SUBSCRIPTION 1/-

FROM THE CHAPTERS

South Manchester : (Sec. : M. I. Wilks, 57 Longley Lane, Northenden, M/c.)

Membership is now well over the fifty mark, though, due to the long distance some members have to travel, the average attendance is around twenty; maybe the proposed East Manchester Chapter will be more convenient for some members, so those who live in that area are invited to read the notes under the heading.

A complete station is planned, though the chief snag at the moment is lack of funds. Have we any local philanthropists?

The club are applying for their own call-sign, and in the meantime are still using G2BLA/P.

Recent activities have included a talk by G3EON on the coming Radio Amateurs Exam, a visit to Kemsley Newspapers and a tour of the Manchester Fire Station. For the future, a talk by "two back-room boys" on "Electronics" should be an interesting highlight. An arrangement has been made with a local radio dealer by which a discount of five per cent. on all purchases by members is credited to the club for use in purchasing gear for its planned station.

For the information of new members, we would like to mention that the Chapter caters for all tastes in amateur radio.

East Manchester : (Sec. : R. Giles, 1560 Ashton Old Road, Higher Openshaw.)

Glad tidings. The projected East Manchester Chapter has now been formed. The first meeting was held at the secretary's home, with nine members in attendance, but a new clubroom will soon be available (details of which may be obtained from the secretary).

At present the club is catering for the SWL, although the transmitter will be represented in the near future. The only officials at present in existence are the secretary and treasurer (W. Pearce). Others will be elected when the club is more established.

Will members in the area please contact the secretary? Thanks, OMs.

Stockport : (Sec. : G. Symes, 5 Torquay Grove, Woods Moor, Stockport.)

Plans are afoot for the formation of a Stockport Chapter and the acting secretary would greatly appreciate support from local members. The exact location of the club has not yet been fixed but Gordon Symes would like to hear from readers in the following districts who would be willing to support the club:—Adswood, Bramhall,

Cale Green, Cheadle Heath, Davenport, Edgeley, Great Moor, Hazel Grove, Heaviley, Heaton Norris, Heaton Moor, Offerton, Portwood, Poynton and Woods Moor.

Enfield : (Sec. : D. M. Tilley, 97 Swan Way, Enfield, Middlesex)

The Chapter is making progress, though, perhaps not so rapidly as the secretary would wish. He asks that all members in the area do their utmost to get along to the meetings. What say, chaps?

Future meetings are on May 13, June 10 and July 8 (all Fridays) and are held at 23 Browning Road, Enfield. Meetings start at 7.30
Chelmsford : (Sec. : W. C. Mills, 3 Elm Cottages, School Lane, Broomfield, Chelmsford)

A general meeting of Essex members is scheduled for June 18th. One of the subjects tabled for discussion is the formation of a Chapter in the Chelmsford area. There will also be discussions on the Essex activities generally. It is hoped that every Essex member who can reasonably travel to the general meeting will do so, and the CR has asked me to appeal to every member to do his very best to attend. The details are as follows:—

Essex General Meeting to be held at The King William IV, New Street, Chelmsford at 3.00 p.m. on Saturday, June 18th. An invitation is extended to all Essex members.

Workington : (Sec. : F. Chidlow, 9 Wedgewood Street, Siddick, Workington)

Taking advantage of the increasing membership in the district, an attempt is being made to launch a Chapter at Workington. It will mean the co-operation of the majority of members in the locality and we ask every one of you to write to the secretary for further details. The fate of our first Cumberland group depends on YOU, so rally round, OM's.

South Woodford : (TR : J. H. Smith, 40 Woodville Road, South Woodford, E.18)

John Smith, who is acting as TR for Wanstead and Woodford, feels that a local group in the area would be opportune. He has had little success so far in his efforts and he would appreciate any support from members in his province. What say, chaps?

Southwick : (Sec. : A. Slater, 72 Underdown Road, Southwick)

We hear of a slackening off of SWL activity in Southwick, this despite the committee pressing

for a more active interest in short wave listening and in CW in particular. This seems strange in view of the magnificent performance of the Chapter's team in the first DX Contest, Maybe it's the weather!

However, secretary Al Slater and G5ZQ are to demonstrate their home built televisors and the club TX is taking shape, so perhaps things will get back to normal again. Incidentally, Al is hoping for his own ticket soon. Good luck OM.

New "customers" are always welcome—Al will supply the details of meetings on request.

West London: (Sec.: J. Hedges, 6 Littlejohn Road, Hanwell, W.7)

The Chapter is not too happy about its new clubroom at Hanwell and it was agreed to renew the search for one with better facilities, preferably in the Ealing area. Perhaps some local member can help? In the meantime, meetings will continue to be held in Hanwell on every second Friday. We would like to see any new member at our gatherings at Hanwell Public Library. The next meetings are on May 20, June 3, 17, July 1. Starting at 8.00 p.m.

Other Chapters

News from our other Chapters has been sparse. Frank Baldwin writes "Our activity this month can be summed up in two words—The Contest." And that about covers most of the clubs, I think. So, this month we will leave it at that! Don't forget that next month's issue will contain the full details of the Second Inter-Chapter DX Contest.

Oddments

Our congrats to Essex, CR Ken Goodley on his recent marriage. Good luck, OM, and may the QRM not be too heavy! Incidentally, blokes, make a note of Ken's new address. It is 72 Bush Road, Buckhurst Hill, Essex.

We are sorry to hear that Chris Carr has had to resign his position as TR for Ramsgate as he is now living in London. We would like to hear from any members who would care to take over in Ramsgate.

Services Section

Sad to say, we have to report a poor response to the proposed section for members in the services and away from home. The RAF has been particularly lax in coming forward—bad show, chaps! For those who did not see the original notice, may we remind you that this section was proposed in order to form a link between members in the Forces. Providing sufficient support is forthcoming it may easily be possible to have a duplicated regular newsletter. May we again ask all of you so affected to contact the sponsor and secretary of the scheme and drop him a line? Don't put it off till

"tomorrow" but DO IT NOW! Address your letters to D. W. Anton, DIJX381388, 1 Mess, HMS Wizard, c/o F.M.O., Davenport.

THE ISWL QSL BUREAU

Report of Activities

Business is brisk—both incoming and outgoing. We have seen some interesting cards and many reports. Of the latter, we could say much; some are good, some are excellent, but many are poor. Not a few have been made out to stations that do not exist! By this we mean that some reporters do not take enough trouble in their logging and often get the call signs wrong. Our well-known stations it is easy for us to sort them out. For instance: VP2MVCV and VP3NCP are obviously meant to be VP3MCB; likewise: FT2AM is ST2AM, ZB1SW is ZD1SW, PK2AGU is VK2AGU, and so on. We get 'em in shoals! But when it comes to others not so obvious, it is anyone's guess. Don't blame us if you don't get replies in these circumstances—we are not psychic! So, please make sure you have the call signs right before you make out the reports.

Another grouse is the sending in of reports to obvious phonies. It is not necessary to give a list of them, they are quite obvious to the reporter. If we had our own DF establishment and army of secret agents it might be possible to deliver the cards. Until that happy day—no can do! Finally, once again we must mention that we cannot take reports from members for W stations and G's, except in the case of overseas members when we can pass on G reports.

Now to the brighter side. Here are the calls of some of the stations who have recently obliged with cards for members. We have picked these out for their DX value and/or attractiveness.

C7TY, CN8BA, 8BB, 8MZ, C07GM, 7VP, 8JB; CT1GJ, 1PM, 1PW, 1UU; D2MU, 5AA; EA3AE, 3BP, 3IC, 4HK, 4LA, 7AV, 9AI; F8SK, 9HG, 9LX; FA3FB, 3GZ, 8JO; HB9BR, 9EW; HH3DL, H18WF, HK1DZ, 1FQ; HR1MB; 11CS, 1MU, 1UA, 1BEY, 1FFG; IS1EH, 1AHK (new card); LA7K, OH2OP, 20V; OK1GA, 1MP, 1TJ; OQ5CF, 5CQ; OZ3U, 3PO, 4AL, 4KX, 5Q, 5BW, 5CJ, 5KP, 6B, 9G; PA0AD, JG, LR, PB, PG, QP, UA, VA; PY1ACQ; SM5WI, ST2AM; UA1BE, 3AW, 3AX; UB5KAG, 5KBA, 5KBD; UF6KAB, UQ2AE, 2AH; VE2AJ, 3AUQ, 4LF, 5RD, 6LA, 7EL; VK2NG, 2TE, 4WI; VP2GE; VQ4ERR, 5PBD; VO2BX; W2AMK, 3MYL, 4ESP, 5ALB, 5AVI, 6VIQ, 7EAI, 7JMY, 9BSG; YU7RC; ZE1JO, ZLICD, 1ON, 2GX, 4GA; ZP7FA, ZS1EO, 5DS, 6Q, 6DY.

From the QSL Managers of the Incoming Section, Frank and Vera Baldwin, we often get harassed requests. This time it is a request that when members send along SAEs that they be, as stated in the rules, of convenient size for

(Continued on next page)

ISWL NOTES—(continued)

QSL cards. That is to say, commercial size envelopes (6 in. by 3½ in. approx) are definitely out. But we have had even smaller than that! Again we have had envelopes come in without stamps. So, please, we beg, help us and yourselves at the same time by complying with our requests. And don't forget your number in the top left hand corner—nice and large!

To wind up with, here is a list of members for whom we are now holding unclaimed cards. Some of them have only one card, but many have more. In fact our good friend G415 now has no less than 14 cards waiting for collection! So, run down the list and if your number is there—well, you know what to do if you want your QSLs.

G54, 170, 173, 217, 255, 329, 347, 395, 415, 486, 501, 515, 555, 598, 638, 647, 670, 710, 760, 786, 815, 823, 847, 858, 893, 950, 1019, 1036, 1065, 1156, 1217, 1249, 1259, 1296, 1459, 1504, 1552, 1553, 1556, 1585, 1692, 1707, 1716, 7124, 1834, 1837, 1879, 1984, 2057, 2315, 2345, G1-552.

ISWL Exchange Holiday Scheme

May we remind readers of the ISWL Exchange Holiday Scheme. Last year we were able to arrange for several exchange holidays between amateurs in this country and those in Holland in co-operation with the Travel Bureau run by V.E.R.O.N. Readers will remember that the scheme consists of accepting hospitality from amateurs overseas in exchange for providing hospitality here. Each party pays his own travelling expenses. We have attempted to make similar arrangements with France, but so far/have not been successful. Several of our readers made their own arrangements with French amateurs however and should any of our readers wish to exchange with French amateurs we may be able to help. So if interested, please write in, marking correspondence "ISWL Exchange Scheme."

A somewhat ambitious scheme is suggested by Geoffrey Pennington, Secretary of the Birmingham Chapter. Geoff asks "Why not organise a grand holiday for members of the ISWL? A camping site in a suitable position could be booked for a week, say in August, and members could bring along their own tents. Throughout the week DF and similar competitions could be held."

Well, it IS an idea, but it obviously calls for a fair amount of support from interested members. Are there enough members in the League who would be willing to join the scheme? Perhaps you would drop us a line if interested. And, of course, pass along any useful suggestions.

NEWCOMERS' CORNER

A New Series for the
real beginner

EDITORS are often inclined to forget that their readers grow in age—as they themselves do. And with this ever-aging readership there goes a gradual influx of new readers, readers who have not had the experience the majority of readers have had. It behoves every editor therefore, to occasionally break off in the regular progressive path along which he leads the majority of his readers, and to remind himself that without him knowing it, a number of newcomers have joined the circle; readers who have not been in at the commencement of the story. Sometimes he receives a rude awakening when one of these asks a question, a question so elementary that he is staggered that he has forgotten to cater for the needs of the real raw beginner. Such a question as "Please would you supply the wiring diagram of such and such a receiver as I am a real tyro and do not yet know how to wire a set from a theoretical circuit?"

So we propose starting a real raw recruits' column every month. Sometimes as necessity demands it may go over the column. We may be able to spare a whole page at times for the feature. A year ago we featured a similar series in our companion journal the *Radio Constructor* under the heading "Making a Start." This was particularly popular, and from our correspondence it is perfectly apparent that a number of SWN readers would like something similar. "Newcomers' Corner" will differ substantially from "Making a Start," but the idea is essentially the same.

It is often difficult for those who have come a good long way along the path to remember just what troubled them most in the early days. So we ask the real newcomers to drop us a card, letting us know what topics they would like dealt with. We want to make this feature as practical as possible, so please avoid theoretical questions, and keep to the really simple things such as the letter already quoted.

And now to take our own advice, we will end this first instalment on a practical note. A very new reader recently asked your editor the following:—"I have always liked making things, but so far I have kept to woodwork. I have got interested in shortwave radio through listening on the BC set, and I should like to try and build a receiver of my own. What tools and workshop facilities shall I need, and do you think I am capable of doing the necessary metal work?" So next month we shall answer this young reader's query

MY FAVOURITE RECEIVER

No. 24

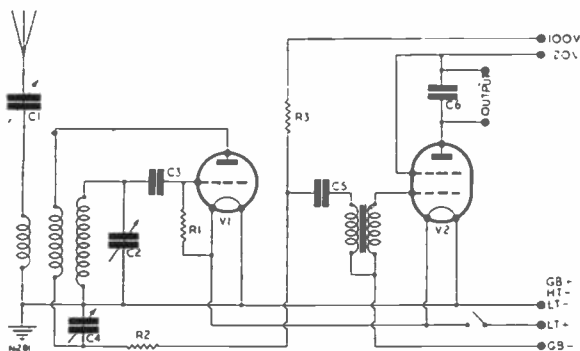
F. H. McGee, ISWL/G18

A SIMPLE receiver, giving good results on amateur bands from 7 Mcs. to 60 Mcs., is the claim of G18. As he says, the receiver is simple to build and is easy on the pocket—most of the components being available from the junk box.

It is a normal leaky grid detector plus output stage. A 1,000 ohm resistor is used instead of the more usual RF Choke (R2) to avoid resonant peaks. The detector stage is coupled to the AF stage by a 1:4 ratio parallel feed coupling transformer. The valves are HL2K for the detector

and an HPT 220 for the output. though, of course, several alternatives come readily to mind.

Standard 6-pin plug in coils are used, though home wound one would be made to suit the ranges desired. Using a minimum of components this receiver presents a good proposition to those just embarking on radio construction and we need only refer to our DX pages or to QRP Receiver Section to see just how surprising an amount of DX can be heard on these small receivers.



Component Values

C1	5-30 $\mu\mu\text{F}$ trimmer.	R1	4M Ω
C2	100 $\mu\mu\text{F}$ variable.	R2	1,000 Ω
C3	100 $\mu\mu\text{F}$	R3	50,000 Ω
C4	200 $\mu\mu\text{F}$ variable.	V1	HL2K, or equivalent.
C5	0.01 μF	V2	HPT220, or equivalent.
C6	0.006 μF .		

Wanted

(1) "My Favourite Receiver": What does your pet receiver look like? Perhaps it has some unusual features that other readers would be interested in. Why not send along the circuit to us, with a brief description? It may be mains, battery, superhet or straight. All we ask is that it is an actual receiver in working order!

(2) "Around the Shacks": Have you a photo of your den? If you have then send it along with a description of it and details of yourself and your interests in radio. Other readers will be interested.

German Nationals Licenced

Our German Correspondent, Waldemar F. Kehler, DL1IX, writes to say that German Nationals have at last been licensed to go on the air. Authority was published in the British and U.S. Zones on March 22nd last. The German Post and Telegraph Dept., will be issuing licences at once to all those who have passed the German amateur radio examination—about 748 amateurs to date. Call signs will be allotted from the groups DL1, DL6, DL7, DL8, DL9 and DL0.

TRADE NOTES



The Eddystone Semi-Automatic Morse Key

There can be few CW operators who do not eventually reach the stage of changing from a straight key to a "bug." It is the logical sequence of development and there is no doubt that the improvement in sending, style, and ease of manipulation are constantly attracting more and more CW operators to this type of key. Realising this trend, Stratton & Co. Ltd. very wisely developed their Eddystone Semi-Automatic Morse Key, Cat. No. 689.

There are a number of points about this key which make it superior to any other we have tried. First of all, it is heavy enough to sit firmly on the operating desk without "walking" about—an infuriating habit of many bug keys! It is not always convenient to screw them down to the table. This feature has been obtained by using a heavy base and a heavy cover, together with well shaped "feet" of soft rubber. The cover itself is a useful feature not found on many other bug keys, as it protects the operator from accidental contact with "live" parts.

The second feature which caught our attention was the very comprehensive number of adjustment controls available. It is very essential that each individual operator should be able to set his key just to his own liking, and unless spacing and tension can be well controlled it is difficult to get the best out of this type of key. Detailed instructions are supplied with each key on the adjustments which can be made.

The manipulating paddle is well shaped and blends nicely with the general appearance of the key, which, as our illustration shows, is pleasing and up to date. Available through all Eddystone agents, this key at £3 17 6 will suit the most discriminating CW operator.

POLISH BROADCASTING (cont. from p. 106)

new type of educational broadcast—on an academic level. Regular classes are held on the air by eminent sociologists, economists, historians and naturalists. Listeners to these courses can pass examinations before a commission of the Ministry of Education.

Among the other programmes, broadcasts for schools, for farmers, press and educational reviews, and language classes should be mentioned. Radio publications include a weekly, *Radio and the World* and the monthlies, *Radio* and *Radio Gazette* the aggregate editions of which amount to 40,000 copies.

☆ ☆ ☆

STOURBRIDGE & DISTRICT AMATEUR RADIO SOCIETY

Meeting held on Tuesday, May 3rd, 8 p.m., Ring Edward's School, Stourbridge. Very good attendance—90% of members. Excellent talk entitled "Amateur Transmitter Construction," given by J. N. Walker, G5JU, of Stratton & Co. Points stressed were decoupling, interstage coupling, and parasitics. Next meeting, June 18th (Saturday), visit by G2MI, Arthur Milne.

D/F RECEIVER (cont. from p. 108)

Power required was:—

- 120 volts H.T. at 10 mA.
- 2 volts L.T. at 0.35A.
- 7.5 volts G.B.

obtained first by ordinary batteries and accumulator, then later by a 2 volt vibrator supply.

The receiver proved very sensitive as was shown at an RSGB DF event, where the author received a strong signal and obtained good bearings, whilst other competitors failed to get any signal.

Finally two corrections to last month's article. On page 83, wL and wC should read Xl and Xc. In Fig. 2, lower of the two figures should read 'min' pick-up.

☆ ☆ ☆

SUCH IS FAME

In a recent issue of a daily newspaper, G8IG was shown at his rig and the caption, instead of reading that 8IG had worked 170 countries said that he had worked 170 stations! On those figures even the DX starved staff of "Short Wave News" could be gloriously depicted on the front page! However, we do feel that hams are getting much more recognition from the lay press than hitherto.

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Mains Supply Unit. This neat and handy unit in black enamelled case 9 x 6 x 6 ins., contains heavy duty transformer, Rectifier valve, smoothing choke, condensers, fuses, panel light and switch. Input 200/260v AC. Output 6-3v at 3.5 amps. HT 350v at 80 ma. Larger output available by changing rectifier valve. Price £3/5/0.

250 watt Double Wound Transformers. 230v/110v. Made by G.E.C. with steel shroud. New, each £2/7/6.

R.1132A. This grand 10 valve Super-Het, covering from 100 to 126 Mcs., is easily adapted for 144 Mcs. band by simply moving connection on tuning coils. Large Slow Motor Dial. S Meter, etc. Case measures 20 x 12 x 12 ins. Price £5/10/0.

Test Set, Type 46. We still have a few of these excellent battery operated frequency meters covering from 2 to 23.5 Mcs. Made by Marconi Instruments. Can be adapted to all wave by inclusion of MW and LW Coils. Circuit supplied, each 40/-. Aluminium Rods Aerials for use with same, extra 3/6.

U.S. Signal Corps 15 Watt Amplifiers. Complete in handsome enamelled green steel cases. Complete except for power pack. Contains tapped input and output transformers, etc. Two 1619 Metal Valves. Price 50/-. T17 Carbon Microphone as used with these sets 10/- extra.

12x v. Vibrator Unit with push-pull audio Amplifier. Complete for 30/-. A bargain.

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Midget Mains Transformers : Primary 230v 50 cps. Secondaries 240v. at 60mA, 6.3v at 1.5A. Size 3½ in. x 2½ in. x 2½ in. 10/- each.

Selenium Rectifier, half-wave, 250v 60mA 3/11 each.

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"S.W.N's." required urgently. January to August 1948, inclusive. State price.—Goddard, 11 Handcross Grove, Greenlane, Coventry.

NEW RCA TE149 WAVEMETER. Uses 1.5 volt battery valves. Crystal controlled. Complete, but less batteries. £4. 10. 0.—Box 1060.

TELEVISION AND TRANSMITTING HAM must sell large stock equipment and parts. S.A.E. list. Cole, 3 High Street, Wing, Leighton Buzzard, Beds.

WANTED URGENTLY—Wire Recorder. Full details and price to G2DUV, 51 Kingscourt Rd., London, S.W.16.

FOR SALE. 3.5 and 7 Mcs. crystals, both $\frac{1}{2}$ and $\frac{3}{4}$ inch holders, certified. 10/- each. Box 1059.

EXCHANGE. Claude Butler bicycle, perfect condition, newly sprayed and re-chromed, S.A. 3-speed, new tyres, cantilever brakes, for BC221 frequency meter in good condition. London preferred. E. W. Jordi, 103 Gloucester Road, London, S.W.7.

HALLICRAFTERS S20 8 valve Communications Super-Het, 45 Mcs.-550 kcs., in 4 bands. 2 converters. Eddystone preselector with plug-in coils. Spare valves and condensers. All the above in good condition at Birmingham. £20. Box No. 1058.

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The Quotation from the Bible is to-day literally being made true by thousands of enthusiasts who are converting war surplus Radar gear into a peacetime use—TELEVISION.

At a cost of only a few pounds it is possible to build a Television Receiver utilising ex-Govt. Radar Units. FULL CONSTRUCTIONAL DETAILS containing 26 large pages of data, photographs, and wiring diagrams, can be purchased for only 7/6d., but if the undermentioned units are ordered the data is supplied gratis. Alternatively, the cost will be allowed if the units are purchased within 14 days.

UNIT 1 is a Vision Receiver IF Strip at 55/-.

UNIT 2 is a Radar Indicator containing CR tube etc., at 75/-.

A combined HT & EHT mains transformer is specially made and costs 110/-, but if this is ordered with the above units the total cost is then ONLY £11 10s. 0d., showing a saving of 10/-. Customers ordering by post are requested to add 12/6d. carriage, plus 10/- deposit on a returnable packing case.

The receiver is of course designed for reception from the Alexandra Palace, but for use in the Birmingham Area when transmissions start it will be only necessary to utilise coils having slightly less turns as the Birmingham station is of a higher frequency. Midland Constructors are advised to purchase now, even if they do not intend to build immediately. Supplies of the Radar Units at the moment are ample, but the demand is very great. Please bear with us if there is a few days delay in delivery, as all orders are dealt with in strict rotation.

In addition to the above, optional items which are available are an Indoor Television Aerial at 15/- and a Magnifying Lens at 29/6d. (Postage on either 1/6d).

For those who would like to see a made up receiver in operation we are two mins. from High Holborn (Chancery Lane Station), and 5 mins. from King's Cross (buses 18b, 613, etc.). We are open from 9-6, Saturdays 9-1.

CWO please

SAE for lists.

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As a 9 valve communications receiver for 200/250 v. A.C. mains.

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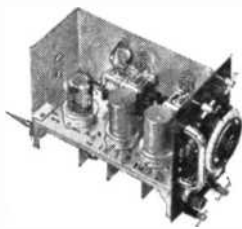
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FOR THOSE 144 Mcs. EXPERIMENTS

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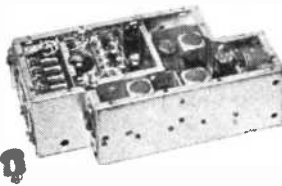
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