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OCTOBER 1948
VOLUME 2 • NUMBER 11

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THE SHORT WAVE LISTENER

A MONTHLY MAGAZINE FOR THE LISTENING AMATEUR.

VOLUME 2

OCTOBER 1948

NUMBER 23

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EDITORIAL

Broadcasting

A large number of SWL's are interested in the reception of DX broadcasters on the short wave bands—indeed, some listeners specialise in this to the exclusion of amateur-band reception.

The important point is that in the great majority of these cases this interest in the distant transmitter is for its DX rather than its programme value. With the possible exception of some of the more important American BC chains, no country in the world gives better *programme value* to the British listener than our own BBC.

Hence, if it is true (as would appear to be the case) that listeners in other countries also are not particularly interested in the *programme value* of distant short wave broadcasters, then it must follow—as we have said before in another place—that much of the S/W BC effort of most countries is just so much waste of energy and ether-space.

Of course, as we all know, the main reason for the existence of the great majority of the powerful short wave stations of the world is for their alleged or hoped-for propaganda value. So we find a jam of stations from end to end of the broadcast bands, all busily engaged in plugging this or that cultural or political view-point. But the bulk of their listeners are DX enthusiasts, and the main weight of their mail requests for QSL cards !

However, this suits the SWL fraternity very well, as it all helps to increase the interest in DX listening. But it is a shocking waste of effort and frequencies !

The R.1116 Receiver

An ex-FAA Unit Suitable for
General Short Wave Reception

by P. F. DUNCAN

(The R.1116 will be of particular interest to many readers because it is a battery-operated receiver with a wide short wave coverage. This article discusses the possibilities.—Ed.)

THE equipment known in the Fleet Air Arm as the R.1116 was used with an associated transmitter (Type T.1115) as a general-purpose aircraft receiver for telephony and CW/ICW working. Frequency coverage is arranged in two sections—the one referred to as "LF" extends from 142 to 1,600 kc (118-2,113 metres), while the "HF" section covers the 2 to 20 mc bands (15-150 metres).

The rather unusual circuit results in a high degree of selectivity—the receiver is, in fact, a double-frequency superheterodyne. It is a battery-operated set requiring 120 volts HT, 2 volts LT and 10.5 volts GB, the output being from two pentodes in quiescent push-pull, giving a strong signal into high-impedance headphones or just enough power to operate a loudspeaker. There are eight valves in the R.1116 and as the frequency calibration is accurate it offers interesting possibilities for use as an amateur communications receiver. It is helpful in this connection to find that the first valve (a special diode) is connected across the input circuit to serve as a damping resistance which prevents the generation of excessively high currents and voltages during "break in" operation with an associated transmitter. On the other hand, there is no transmit-receive switch but one can easily be added in the form of an SPST switch to break the HT supply.

In Service use, the R.1116 was also employed for D/F, with a loop aerial; the relative circuits, however, are completely self-contained and the only effect from the amateur view-point is that certain control knobs and switches are redundant. The transition from "LF" to "HF" is effected by a 2-position change-over switch so that

there is in fact a form of spot-tuning, since the actual tuning controls are duplicated.

Inter-Com. Working

A further point of interest with this receiver is its ability to provide two-way telephone facilities; this is, of course, the well-known aircraft "inter-com." service. By connecting up two sets of headphones and microphones in parallel it is a simple matter to provide a telephone circuit between, for example, the shack and the living room—although the keen operator may not relish so obvious a method of permitting the household to prise him out of a super DX contact!

By omitting the coil switching, the remote volume control arrangement and the D/F circuits, we obtain the simplified diagram given here. It will be seen that there is no cheese paring over the decoupling or filtering. The valve V1 (VU33) is a special diode with an internal resistance of 0.25 ohm in the negative filament lead; there is no commercial equivalent, but the receiver functions equally well with this valve removed—except, of course, that there will be the loss of the protection provided by the diode against saturation.

Circuit Arrangement

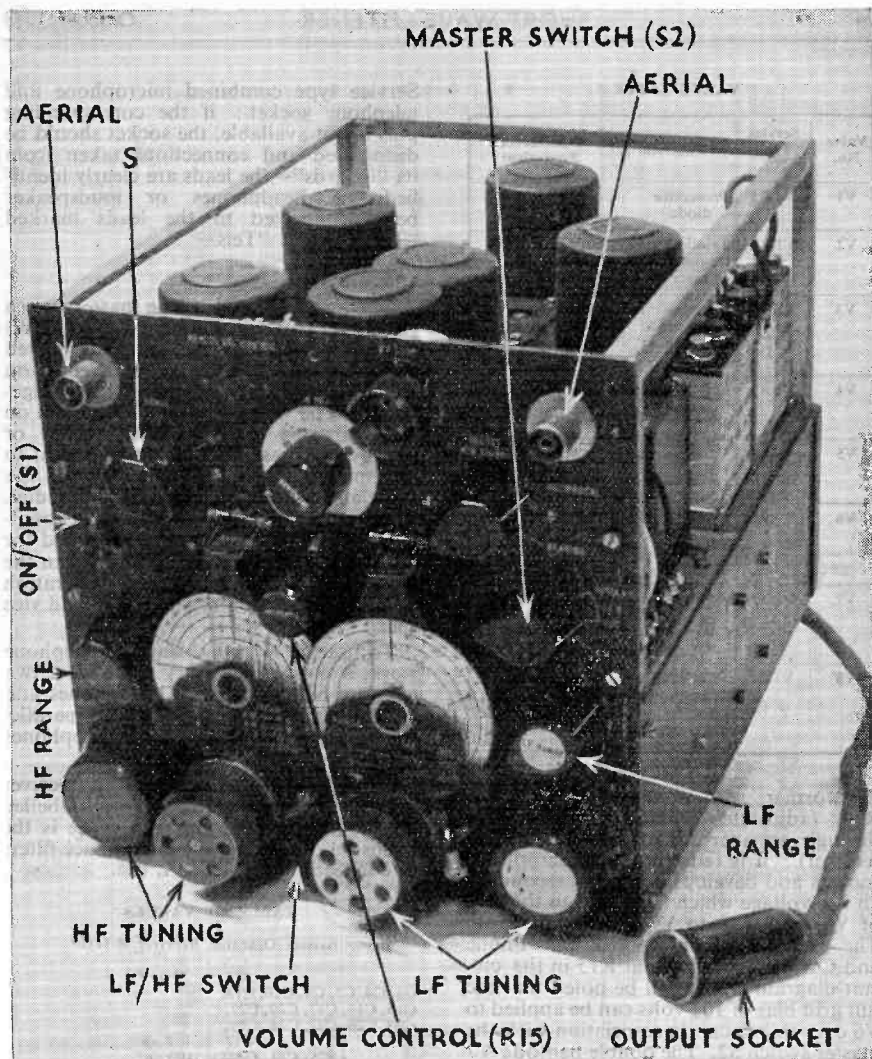
Each of the two frequency changes is effected by a triode-heptode valve (V2 and V4), the intermediate frequencies being 1,700 kc and 100 kc respectively. The rather high value of the first IF ensures a good image ratio even at the highest signal frequency of 20 mc, while

FREQUENCY COVERAGE

L.F. (Yellow)	Range 1	142-315 kc
	2	315-700 kc
	3	700-1,600 kc
H.F. (Green)	Range 1	2.0-4.4 mc
	2	4.4-7.3 mc
	3	7.3-12.0 mc
	4	12.0-20.0 mc

the second IF is low enough to give adequate channel selectivity and at the same time provide sufficient bandwidth for good quality. The triode V8 is the oscillator for CW operation.

The 3-position switch near the aerial socket is not shown in the circuit diagram. In operation, it is left permanently at "Traffic", the other two positions being for "Sense" and "D/F" working. The on-off switch S1 in the circuit diagram breaks HT, LT and GB as well as earthing the aerial when in the "off" position. The master switch S2 provides for Phone, CW and ICW working and also serves as the AGC on/off switch. The "LF" or "HF" band is selected by a two-position switch



General view of the R.1116, with panel controls identified. Those not marked are mainly for the operation of the set under D/F conditions, and so do not have any general receiving application.

omitted (for simplicity) in the circuit diagram. This is the switch which provides the spot tuning mentioned above, since with it, if two stations are tuned in, one on each band, either may subsequently be selected at will. The duplicated aerial and oscillator tuning controls are colour coded—yellow for “LF” and green for “HF.”

The heterodyne oscillator (V8) functions at a frequency of approximately 101 kc and is switched on by the master switch

S2 which also controls the grid bias arrangements. It will be seen that only one diode of V6 is used—for detection and AGC. The voltage developed across the condenser C33 possesses an AF component corresponding to the signal modulation (or to the beat frequency on CW) and this component is passed by the decoupling network R31, C34 to the triode portion of V6, whence it is fed via the transformer T1 to the output valve V7.

The transformer T2 is a microphone

VALVE TABLE

Valve No.	Service Type No.	Function	Commercial Equivalent
V1	VU33	Protective diode	None
V2	VR82	Triode-heptode frequency changer	Cossor 220 TH Mullard TH2 Osram X23
V3	VR83 ₂	Variable-mu RF pentode IF amplifier	Cossor 210 VPT Mazda VP 210 Mullard VP 2 Osram VP 21
V4	VR82	Triode-heptode frequency changer	As above
V5	VR83	Variable-mu RF pentode IF amplifier	As above
V6	VR44	Double-diode triode detector, AGC and AF amplifier	Cossor 210 DDT Mazda HL21DD
V7	VR35	Double-pentode QPP output	Cossor 240 QP Mazda QP 230 Mullard QP 22B Osram QP 21
V8	VR21	Triode heterodyne oscillator	Cossor 210 LF Mazda HL 2 Mullard PM2DX Osram L 21

transformer with preset volume control R34 (adjustable with a screwdriver through an aperture at the rear of the receiver); it is fed from the microphone sockets and develops across its secondary an AF voltage which is applied to the grid of V6, and then to V7 for amplification. The manual volume control for 'Phone and CW/ICW is shown at R15 in the circuit diagram and it will be noted that the full grid bias of $10\frac{1}{2}$ volts can be applied to V6 over this circuit in association with the master switch S2. The double-pentode V7 provides a QPP output of about 1 watt.

The LT consumption is approximately 1.6 amperes, while the mean HT current varies from about 14 mA quiescent to about 25 mA on full load. The grid bias battery is housed on the upper surface of the chassis and is readily accessible by taking off the cover of the receiver (removed in the photograph). Valve numbers, by the way, are clearly marked on the valve holders.

The receiver works well with an ordinary inverted-L aerial which may be connected to either of the two aerial sockets. Battery supplies are taken *via* a 4-pin plug at the back of the receiver. The output is by a

Service type combined microphone and telephone socket; if the corresponding plug is not available, the socket should be dismantled and connections taken from its "innards"—the leads are clearly identified—the headphones or loudspeaker being connected to the leads marked "Tels+" and "Tels-".

Operation

Operation is simple: The master switch (S2) is set to R/T ('Phone) or CW (ICW) as required, the LF/HF switch is moved approximately, and the range selected on either the yellow or the green range-switch. The wanted station is tuned in on the calibrated oscillator dial (yellow or green as the case may be) and brought to maximum volume by adjustment of the associated colour-coded aerial tuning dial. The setting in degrees of aerial and oscillator tuning dials should be recorded for future use. It will be found that when the receiver is switched to "LF" operation of the "HF" tuning has no effect, and vice versa.

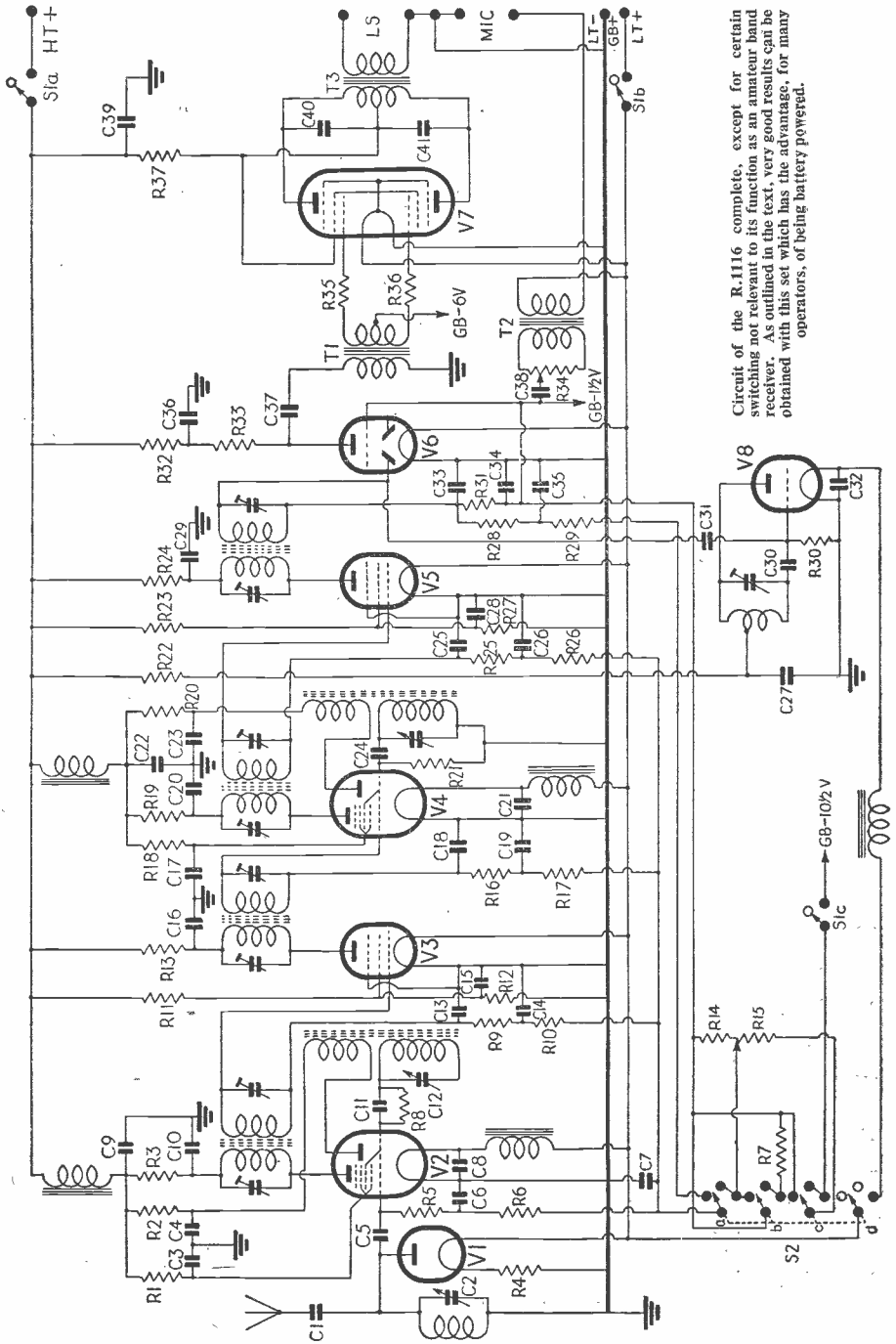
To use the R.1116 2-way for telephone work, it is only necessary to connect two or more high-impedance headphones and electromagnetic microphones in parallel to the output socket. The microphones will be energized by the LT battery.

An alternative version of this receiver may be encountered: it is labelled "R.1116A" but the only difference is the inclusion of special anti-interference filters in connection with F.A.A. use.

TABLE OF VALUES

Battery-Operated Receiver R.1116

C1 = 70 μ F
C3, C4, C7, C9, C10, C14, C15, C16, C17, C20, C22, C23, C26, C27, C28, C29, C37 = 0.1 μ F
C5, C11, C24 = 100 μ F
C6, C8, C13, C18, C19 C21, C25, C35, C38 = .01 μ F
C31 = 1.5 μ F
C32, C36 = 0.5 μ F
C33 = 300 μ F
C34 = 500 μ F
C39 = 2 μ F
C40, C41 = .001 μ F
R1 = 60,000 ohms
R2, R8, R33 = 30,000 ohms
R3, R13, R19, R24, R32 = 1,000 ohms
R4 = 750 ohms
R5, R28 = 1 megohm
R6, R10, R11, R17, R23, R26, R29, R30 = 100,000 ohms
R7, R15, R21, R22 = 50,000 ohms
R9, R16, R25, R31 = 250,000 ohms
R12, R20, R27 = 200,000 ohms
R14 = 10,000 ohms
R18 = 150,000 ohms
R34 = 500,000 ohms
R35, R36, R37 = 5,000 ohms



Circuit of the R-1116 complete, except for certain switching not relevant to its function as an amateur band receiver. As outlined in the text, very good results can be obtained with this set which has the advantage, for many operators, of being battery powered.

Further Notes on the RF-27

Adjusting Frequency Coverage without Rewinding Coils

by **E. J. HATCH, Grad.I.E.E.**

JUDGING from the correspondence received by the VHF sections of the *Short Wave Magazine* and *Short Wave Listener*, there is hardly anyone who is not using, or at least, has not heard of, the RF Unit Type 27! Those to whom it is unfamiliar are referred to the May issue of the *Magazine* or the July issue of the *Short Wave Listener*, wherein will be found articles and circuit diagrams.

To recapitulate, the unit consists of RF-Mixer-Oscillator using EF54-EF54-EC52, and in its unmodified state covers 65-85 mc at an IF of 7.7 mc. Series tuning circuits are employed, an arrangement which permits a high L/C ratio to be achieved, and which gives constant bandwidth, independent of frequency.

Changing the Coverage

The usual method of bringing down the frequency is to rewind the coils, a somewhat tedious procedure of cut-and-try, which is aggravated by the necessity of correct tracking. However, inspection of the coil formers reveals that their interiors are threaded, which immediately suggests the possibility of using dust-iron cores to increase the inductance. It was found that an Aladdin core $\frac{11}{16}$ in. long, and threaded $\frac{5}{16}$ in. B.S.F. fitted perfectly, and what is more, these cores appear to be readily available from a number of London dealers. Their use modifies the range so that the unit will now cover approximately

47.5 mc-62 mc, thus including the 5- and 6-metre bands. The fact that the coil inductances are variable permits very accurate tracking to be obtained.

Alignment

The method of alignment to be described does not necessitate the use of a signal generator.

With the main receiver set to 7.7 mc, feed in the converter (without an aerial connected), and proceed as follows:

- (1) Set the mixer core to maximum inductance (centre of coil), and the panel trimmer to half-mesh.
- (2) Set the converter dial to 90 deg., and adjust the oscillator and RF cores for maximum noise.
- (2) Reset the converter dial to 20 deg., and adjust the above chassis trimmers to maximum noise.
- (4) Now set the converter dial to 160 deg., and adjust the under-chassis trimmers to maximum noise.
- (5) Repeat 1-4, but do not touch the mixer core.

Tracking will be found to be excellent, no detectable difference in noise level being observed on rotating the converter dial.

Using an IF of 7.7 mc obviates the necessity for retuning the IF anode coil, which is very thoroughly sealed with wax. No breakthrough is likely at this frequency, but the output lead should be screened to prevent noise pick-up by the main receiver.

Should the aerial matching coil be dispensed with (and its use does not seem to make any difference), an earth return should be made for the RF grid by shunting a 500,000 ohms resistor across the RF above-chassis trimmer.

HUNGARIAN AMATEUR RADIO

From Hungary comes official notification that all amateur activities have been co-ordinated under the M.R.R.E., or "Hungarian Shortwave Radioamateur League," with address Postbox 185, Budapest 4. It is to be presumed that the private addresses of HA operators will no longer be published and that—as in the case of the Soviets with their Box 88, Moscow—all correspondence both ways must go through this Budapest address. At any rate, there is an ominous remark in the notice to the effect that "Bureaux in private hands no longer exist."

GATHERING AT SLOUGH

An Amateur Radio gathering is being organised for Sunday, October 3, at the Crown Hotel, Slough, to which all interested are invited. Please write direct to E. J. T. Tuckfield, G2HOX, 13, Quaves Road, Slough, Bucks., for details.

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THE RADIO AMATEURS' EXAMINATION

BELOW is the Paper set for the last Radio Amateurs' Examination, which will be of great interest to all who have yet to take their R.A.E.

The questions are again fair and reasonable, and this time we are able to quote as follows from the Examiner's Report: "Candidates' work as compared with the previous examinations was generally of a much higher standard both technically and in the manner in which the questions were answered. It was apparent that more adequate preparation had been made for this year's examination . . ."

The total number of candidates, home

and overseas, was exactly 700, of whom 528 passed, giving a failure figure of about 24 per cent.—still too high, in our estimation, but a great improvement on the 1947 R.A.E., when 37 per cent. of the 326 candidates were failed.

These results are of particular interest to us in view of the space given in the *Short Wave Listener* during the early part of this year to advice and guidance for candidates taking the Examination. We have had a number of very encouraging letters from readers who said that these particular articles were of the greatest assistance to them in passing this year's Radio Amateurs' Examination.

CITY AND GUILDS OF LONDON INSTITUTE

DEPARTMENT OF TECHNOLOGY

1948

54.—RADIO AMATEURS' EXAMINATION

Wednesday, May 5, 1948, 7 to 10 p.m.

All questions should be attempted. Use should be made of diagrams where applicable. The maximum possible marks obtainable is affixed to each question.

1. How is a low-power transmitter likely to interfere with broadcast reception? What steps would you take to prevent such interference? (15 marks.)
2. What steps should be taken by the holder of an amateur transmitting licence to ensure full compliance with the requirement that a full record should be kept of all transmissions? (15 marks.)
3. Give a brief description of a suitable receiver for the 58.5 to 60 mc frequency band, and explain how it works. (15 marks.)
4. How is the input power to the last stage of a transmitter measured? What is understood by the "efficiency of operation" of this stage and how is this connected with the permissible anode dissipation? (15 marks.)
5. Describe briefly how the ionosphere influences the propagation of radio waves, and how propagation differs between the 1.7 to 2.0 mc band and the 58.5 to 60 mc band. (10 marks.)
6. What advantage is gained from using a piezo-electric crystal oscillator in a radio transmitter? Give a diagram of a crystal controlled stage for a short-wave transmitter. (10 marks.)
7. Describe a transmitting aerial suitable for one of the amateur bands, indicating the main features of the design and any directional properties. Illustrate your answer with a diagram. (10 marks.)
8. What is the effect of connecting two condensers (a) in series, and (b) in parallel?

What is the total effective capacitance when four condensers, each of 100 μF , are connected in a series-parallel arrangement consisting of two parallel paths, each of which contains two condensers in series? (10 marks.)

Have you heard?

This has been a record month—not so much for the DX but for the volume of correspondence and the number of Calls Heard lists received! Normally, one looks upon August as a month with rival attractions that diminish radio activity; but I suppose the weather has been so bad that short-wave listening has attracted those who otherwise would have depended on outdoor occupations!

So here is your Scribe, almost buried in letters, and, of course, faced with the constantly recurring problem of which Calls Heard to publish and which to reject.

These Calls Heard!

This month, I regret to state, several rejections have been almost automatic. From time to time the amount of notice that readers take of those few words at the top of the first "Calls Heard" page seems to fall off. This time it fell with a vengeance. So, in the first weeding, out went all Calls Heard lists consisting of higgledy-piggledy masses of call-signs, with neither alphabetical nor numerical order about them. Next time through found out those who had either repeated the prefix every time or left the figure out nearly every time. And the third filtration disposed of those who sent 14 mc lists full of W1's, 2's and 3's and all the stations we (regular correspondents and your Scribe) have decided should be excluded.

The lists remaining are (a) all those sent in for the SLP's, with just a very few exceptions; (b) most of the lists for general reception on 28 mc; (c) some of the general lists for 14 mc; (d) one each for 7 and 3.5 mc (why doesn't someone else take some interest in these bands?), and (e) as many 1.7 mc lists as there may prove to be room for at the end.

Once more, then, if you have sent in a list and it doesn't appear, first search your conscience! And if that is quite clear, then you have just been crowded out by weight of numbers. Hard luck—but you don't *always* manage to get on the first bus that comes along.

Set Listening Periods

The Sunday morning period on 3.5 mc was well supported, but yielded little more than G's for most listeners. Some, how-

AMATEUR BAND COMMENTARY

by the

DX Scribe

ever, collected quite a number of ON's and PA's, as you will see from the lists.

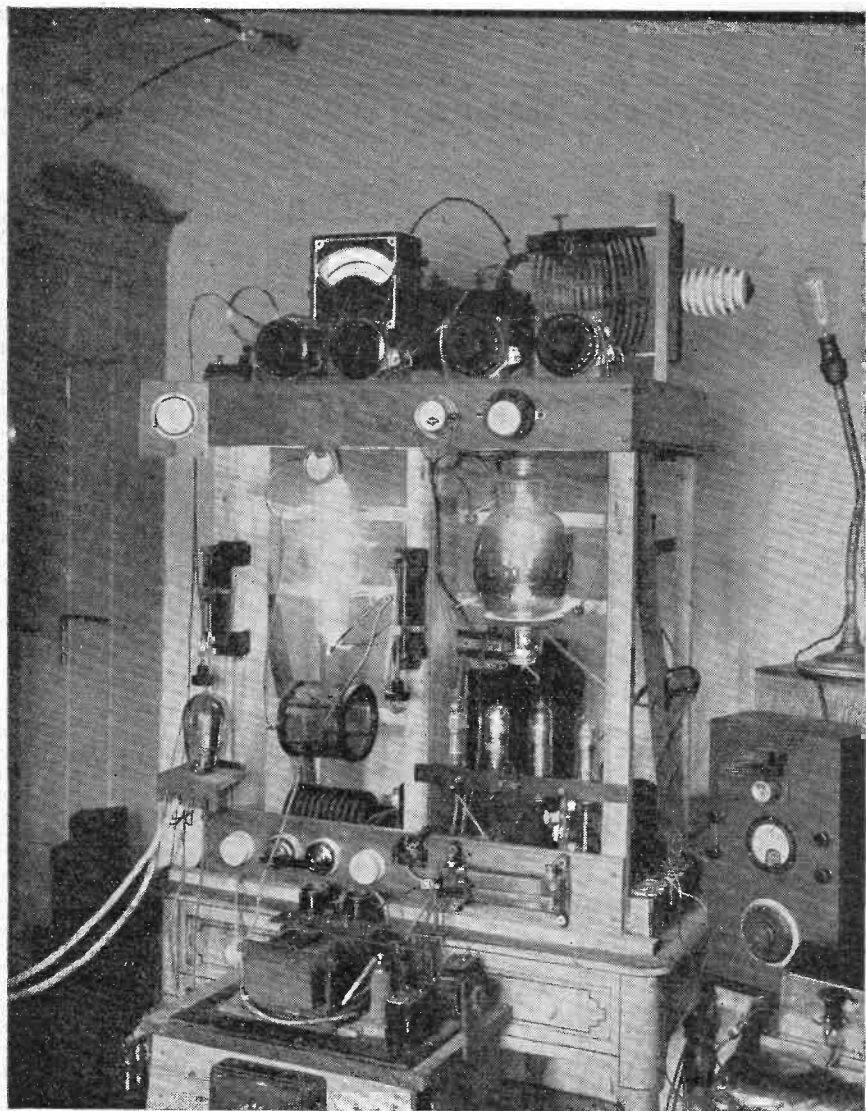
The Saturday evening period for 14 mc, however, has shaken your Scribe considerably. Reports are, in the main, very much on the poor side. Practically everyone blames "conditions." But I listened myself for the last hour of it, and thought conditions were excellent, although admittedly the band was very noisy and full of static.

By far the best list received was from N. A. Phelps (London, N.10), and in his accompanying letter he says that we could hardly have struck a *better* time and that conditions were extraordinarily good! If he were to add the Europeans to the stations he logged, the total would be 51 countries in 19 Zones—not bad, you will agree, for a two-hour period! Admittedly, very few others went in for CW listening, although I should have thought that was just what one *would* do with a band full of noise and static.

Still, there it is: N. A. Phelps has produced a list for all to see as an example of what *can* be done through noise. Those who gave it up as a bad job after the first fifteen minutes might study this effort with profit.

The 28 mc Band

While I am delivering a mild lecture I should like to pass on to 28 mc. Lots of readers have glibly remarked "the 28 mc band is still dead or nearly so." If it's dead it most certainly is not lying down. And this is *not* a case where the skilled CW boys have it all their own way, because there really has been very little CW on the



The 200-watt transmitter, using T.250-T.450 grid modulated with a DET-1, at G2DX (Camberley, Surrey) in 1927.

band. At least ninety-five per cent. of the 28 mc activity during the month has been on 'phone.

For the benefit of those upholding the "dead" theory, here is a list of the DX prefixes I myself have heard during the last thirty days on 28 mc 'phone: AP, CE, CO, CR9, CX, EL, ET, HC, HK, HL, KA1, KG6, KH6, KP4, KZ5, LU, MD4,

MI3, OQ, PK4, PY, PZ, ST, TG, TI, VE5, VE6, VE7, VK4, VK6, VO, VP4, VP5, VP6, VQ2, VQ4, VQ5, VS7, VS9, VU, W6, W7, XZ, YS, ZB2, ZD4, ZE, ZS.

Not too bad for a "dead band"? And several readers' Calls Heard lists contain large numbers of the above, which, in my case, represents about one hour's listening per day, mostly between 0800-0900 or

ZONES HEARD LISTING

Listener	1948		Post-War	
	Zones	Countries	Zones	Countries
'PHONE and CW				
N. A. Phelps (London, N.10)	40	192	40	204
A. Baldwin (London, N.11) ..	40	183	40	195
D. W. Bruce (Eltham) ..	40	181	40	196
M. E. Bazley (Birmingham) ..	40	181	40	182
L. Collis (Banstead) ..	40	167	40	179
W. S. Hall (Oxford) ..	40	165	40	192
O. A. Good (Oswestry) ..	40	160	40	186
C. S. S. Lyon (Liverpool) ..	40	158	40	177
W. J. C. Pinnell (Sidcup) ..	40	153	40	167
R. S. Scott (Upminster) ..	39	165	39	165
F. N. Baskerville (Southport) ..	39	132	39	132
L. N. Goldsbrough (Wirral) ..	38	139	40	175
R. A. Hawley (Goostrey) ..	38	139	39	167
T. W. Jones (Birmingham) ..	38	137	39	156
G. P. Watts (Norwich) ..	37	123	39	160
A. Studley (Harrow) ..	35	120	35	120
A. W. Robertson (Cranford) ..	35	118	36	139
D. W. E. Powell (Wilton) ..	35	100	36	111
J. E. Hosking (London, S.W.11)	35	94	35	109
D. A. Pullen (Colchester) ..	35	87	37	108
N. A. S. Fitch (London, E.10)	34	111	35	120
D. I. Cruse (Sisicup) ..	34	107	34	107
J. G. P. Butler (Portsmouth)	33	116	35	124
D. G. Martin (Cheltenham)	33	93	34	97
'PHONE ONLY				
E. J. Logan (Hertford) ..	39	139	39	168
D. W. Bruce (Eltham) ..	38	140	38	160
B. Needham (London, W.11)	38	135	38	139
L. Collis (Banstead) ..	36	136	36	148
A. Bannister (Manchester) ..	36	132	36	140
D. L. McLean (Yeovil) ..	36	130	36	146
D. Kendall (Potters Bar) ..	36	128	36	132
J. M. Graham (Glasgow) ..	36	125	36	125
G. Braithwaite (Belfast) ..	36	123	36	132
O. A. Good (Oswestry) ..	36	122	37	136
R. A. Hawley (Goostrey) ..	36	121	37	150
E. Nottingham (York) ..	36	112	36	112
L. N. Goldsbrough (Wirral) ..	36	109	37	137
T. W. W. Dearlove (Frimley Green)	35	116	35	116
R. S. Craig (London, S.E.1)	35	97	35	125
K. R. Toms (Boreham Wood)	35	95	35	108
C. S. S. Lyon (Liverpool) ..	34	120	35	134
K. Parvin (Thornton Heath) ..	34	112	34	112
F. L. Rogers (London, N.W.1)	34	111	34	111
W. S. Hall (Oxford) ..	34	110	36	122
G. P. Watts (Norwich) ..	34	106	35	136
A. W. Robertson (Cranford) ..	34	105	35	125
D. W. E. Powell (Wilton) ..	34	96	35	104
T. W. Jones (Birmingham) ..	34	89	36	124
N. A. S. Fitch (London, E.10)	33	106	34	117
L. Shearlaw (Camberley) ..	33	94	36	123
L. Corder (Hadleigh) ..	32	113	33	117
H. M. Graham (Harefield) ..	31	93	31	94
J. R. Cooling (Manchester)	31	88	33	100

1700-1800, but with occasional minutes at other times.

7 mc Band

Strange that only one reader should seem to be doing anything about DX on this band. That reader is friend Phelps again, and his 7 mc list speaks for itself. He says that 40 metres has been better than in 1946 or 1947, and that there has been little from VK, ZL or the Northern Hemisphere, but Central and South America and the West Indies have been good. He has also heard all Russian districts on 7 mc now, with the logging of UM8KAA. Finally, N.A.P. says that PJØX, in Curacao, is genuine but "under cover."

How Many Countries ?

K. Parvin (Thornton Heath) has been carrying out some interesting research during the month and presents the following statements: The "possible" post-war total of countries heard is 233, from a maximum, in the agreed lists, of 262. No one, of course, has actually heard 233, which is a composite figure. So anyone with a post-war score of over 200 has nothing of which to be ashamed! Since January, 1947, the 3.5 mc band has shown activity in 76 countries and 28 Zones; for 7 mc the figures are 142 countries and 39 Zones. From *QST*, K. P. quotes a statement that AC2MA is active in *Bhutan* and has been worked by a W station.

Super-DX

F. N. Baskerville, from Southport, has joined the Merchant Navy again, and is on a trip which will take him a thousand

miles up the Amazon. By the time he reached Pernambuco he had heard AC4YN, ZD8AB, ZP3AW, ZD9AA and several other nice ones, and says that the G stations are best down there at about 1700 GMT, after which the USA wipes them up.

O. A. Good (Oswestry) has been unearthing some mysterious ones, such as C3EA/C3 (if he has the call right) in Formosa, on 14315 kc 'phone. Then there was W7KMV/Iwojima (14270 'phone) and the better-known KX6AF and a slightly doubtful KW6BG. Other fairly unusual ones were VP8AD (14 mc CW), ZD8B and CE7AA.

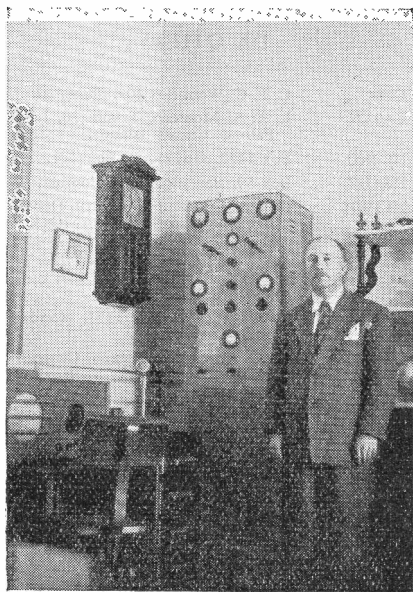
M. E. Bazley (Birmingham) contributes FM8AD, PK2KK, ZP3AW, HZ1AW, VP8AD, YN1AA and ZD9AA. From F. L. Rogers (London, N.W.1) comes a list containing HI6EC, HL1AB, KX6AF, VP5AS, ZD1BD, to mention only a few. T. W. Jones (Birmingham) supplies a dash of the unusual with FP8AF and FO8AA, and E. J. Logan (Hertford), dealing with 'phone only, adds KP6AA, KV4AB, PK6AB, PK4KK, PK3EJ, VR2AP and such "puzzle-corner" efforts as HB1UW, HZ3D and J8R. He also heard EZ7CW, but he gave his QTH as Stuttgart!

D. L. McLean (Yeovil) heard MD4JG, ZS3F, ZD1BD, ZD2RGY, CP5EA, all on 14 mc 'phone, and a nice selection on 28 mc—for which see his list. He, and several others, comment on the occasional openings of 28 mc for West Coast Americans. The most spectacular were on August 17 and 27; on the latter occasion the band suddenly filled up, at about 1530 GMT, with W6's, all at S9 plus.

S. J. Chapman (Leicester) started listening during the latter part of April, and since then has logged 102 countries in 30 Zones. During August the pick of his list seems to consist of C1CH, C7TY, HH3DL, HI6EC, HP1LL, KX6AF, NY4BA, VP2GG, VP5AR and a whole bunch of YV's. Looks as though we can expect some competition from the direction of Leicester.

D. W. Bruce (Eltham) mentions reception of six KA stations on 14 mc 'phone, five HH stations, ten VS stations, and CN1BD and ZT3SS, the last two on CW. Between August 20 and 30 he logged 101 countries in 35 Zones, all on 14 mc 'phone and CW. On 28, the best were VU2GB, TI2OA, CX4CS and some East Coast W's.

D. Kendall (Potters Bar) logged three new countries on 28—TI2RC, YS1AC and VP5AS. Good signals were also heard



An impression of CO5CX, Mantanzas, Cuba.

from VE, VP4, VP6, LU, PY, ZS, PZ, CE, TG and ZD4. A. Studley (Harrow) found PJØX, PZ1NB, VP5MU, VP4TL and VS9AL, all on 14 mc CW, and SHF1X and HK3EO on 14 mc 'phone. He also heard VP8CV on 7 mc CW at 0440 GMT, and would like the QTH of ZD7AA if anyone can provide it.

J. M. Graham (Glasgow) heard ZP1X/MM on 28 mc—a ship off the coast of Uruguay, and also caught most of the 14 mc DX.

Exit VR6?

A. W. Robertson (Cranford) forwards a newspaper cutting which says that the Pitcairn Islanders are now cut off from the outside world because the only man who knows how to operate the radio has got tired of life on the island and departed! A. W. R. has wheeled in some nice DX, including PK4PQ, KX6AF, VP6MO, XE1CQ and some HC's.

H. M. Graham (Harefield) comments on the amazing signals from PY4BU and LU6AJ (both 14 mc 'phone). I agree, but the strongest DX signal I have ever heard was, I think, OQ5BA on 28 mc. His 'phone, for more than half an hour, had

DX QTH's

C1BC	C. P. C. Wen, Box 409, Shanghai.
EA8AN	J. R. S. Montero, Triana 76, Las Palmas, Canary Islands.
HC2KQ	Box 1453, Guayaquil, Ecuador.
HK1DZ	Box 59, Barranquilla, Colombia.
HL1WH	Col. W. D. Hamlin, 0-17819, Dept. of Communications, USAMGK, APO 235 Unit 2, c/o PM, San Francisco.
KG6CS	W. Roberts, VR-6, Navy 943, c/o San Francisco.
KH6LF	C. H. McInnis, Box 1377, Honolulu, Hawaii.
KW6AG	c/o C. A. A., Wake Island, Central Pacific.
KZ2MB	Staff-Sgt. V. H. Beaver, USAF, France Field, Canal Zone.
MT2E	H. Orrell, c/o Cable & Wireless, Ltd., Box 400, Tripoli.
TI2JC	Box 774, San Jose, Costa Rica.
TI2JV	Box 242, San Jose, Costa Rica.
TI2KW	Box 1634, San Jose, Costa Rica.
VP3ACS	Bill Garner, 184 AACs Sqdn., APO 859, c/o PM, Miami, Fla.
VS9AL	S/L E. A. Luckhurst, RAF, HQ British Forces, Aden.
VU2BF	N. Lane, R. Sigs., GHQ Sig., New Delhi.
ZC1AZ	RAF Amman, Transjordan.
ZE2JK	Box 80, Umtali, Southern Rhodesia.

my S-meter right off the scale, and it reads 60 dB above S9 before it gets to the end!

Can anyone elucidate VQ8D (14 mc 'phone) for D. I. Cruse, of Sidcup? Sounds fishy to me. There are so many of these doubtful ones about that we really shall have to start a special corner for them.

Competitive Section

Last month I mentioned the low-power 3.5 mc Contest that is taking place very shortly; the dates are from September 18 to 25. D. W. E. Powell (Wilton), who made the original suggestion about this contest, asks me to make clear that it is for CW only. Sorry I overlooked this, although it was pretty clear by implication.

Now here are some more suggestions from readers. M. Harrison (Goring) thinks a "Counties Heard" Marathon on 1.7 mc would be quite fun. This could, of course, be run for CW and 'Phone. What do you all think about this? I, personally, think it would be quite a useful and searching sort of test, because weak-signal reception on the Top Band is not as easy

as some think. With sufficient promise of support I will start something of this kind going.

P. Butler (Portsmouth) is in favour of a friendly contest of some sort each month, and thinks that a few 3.5 and 1.7 mc events would stir up some more interest in these bands. L. Shearlaw (Camberley) has the rather unusual and interesting idea of at least one contest based on actual QSL cards—for the benefit of those listeners who *are* really keen on them. Despite all the apparent snags, such a thing is possible—imagine a "listening week" during September, to be judged on applicable QSL's submitted before, say, December 1. There would be a lot of luck about it, since some of them do take an awful time to come back—but it would be fun, just the same, for those who are keen.

K. R. Toms (Boreham Wood) also puts up an ingenious idea. He suggests that I allot a "letter of the month," and that competing listeners should log all calls whose prefix begins with that letter. The final list to be sent in would include one call-sign from each country heard, and the winner would be judged on the number of countries. This kind of competition would be divided into the various bands, and also into 'Phone and CW, and individual listeners would only be allowed to enter for one section (*e.g.*, one band and either 'Phone or CW, but not both). The number of amusing initial letters would be somewhat limited, but "K", "V" and "Z" all spring to mind as fruitful bringers of DX.

A Dummy Run

Let us, then, without further ado, give this one a trial. Take the month of October; log all calls beginning with "K," on either 28, 14 or 7 mc; decide on 'Phone or CW as your medium. Then, immediately after October 31—in time for the December issue—let me have your list of countries heard *on a postcard*. State band, 'Phone or CW, and give one representative from each country. Suitable laurel wreaths for the various winners. If this comes off we will do something of the sort each month.

Miscellany

D. G. Martin (Cheltenham) listened for two hours on 28 mc and for fifteen minutes on 14 mc. This yielded ZD4AB, AP2R and ZE1JM for three new countries on 28, and KA1FH and M1B on 14. J. D. Thorn (Lincoln) rejoiced at the word "All In" referring to that 3.5 mc SLP, and reminds me that the tyros are always glad of such concessions! W. J. C.

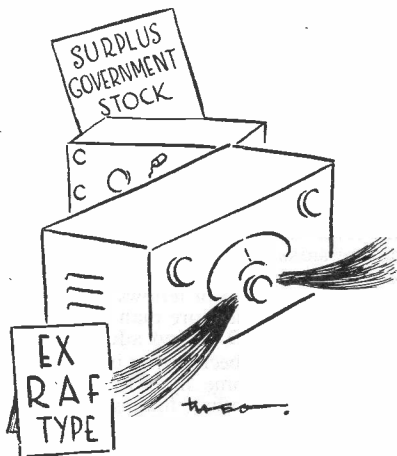
Pinnell (Sidcup) has a preselector/convertor and is now exploring the 28 mc band for the first time. On August 17, he caught the first break-through of W6's and logged 8 of them. He gives top marks for consistency to VP6CDI, AP2F, ST2AM and W5AXI/MM, and was also very pleased to hear VQ5PBD and W4FVI/KX6.

TA3FAS in Ankara has been joined by another, according to J. R. Cooling (Manchester), who logged W3NCV/TAI. He also heard C3EA, who seems to be in Formosa. H. Alford (Burnham-on-Sea) logged his first 28 mc W's and VE's of the season on August 22, and first W6's on the 25th—so there have been plenty of East-West openings.

B. Needham (London, W.11) is a permanent night-worker, so listens at some unusual times. During the 14 mc SLP, in which he found many dull spots, he switched over to 28 mc and logged VP5AS, KP4FO, TG9CH, HC2OA, HC2JR and VP6MR. B.N. tells me that he could "live on Contests" and that we can organise them by the dozen if we feel like it!

A. Bannister (Manchester), who put up a good contest idea last month (which I still have up my sleeve), has been looking over 28 mc and says that VP8AD is now on the band with 'phone; he heard him working CX4CS. He also comments on the terrific signal from KG6DO. And he remarks on the unpredictable nature of short-wave listening. Just as he thought he had closed his country list for this year, up came PX1A, G6AJ/AP and KV4AB in quick succession! Regarding G6AJ/AP, I have not yet found out whether he is still in Oman and using the AP prefix, or whether he has moved off into Pakistan. The latter is more likely, I should imagine.

N. A. S. Fitch (London, E.10) is stepping up his CW effort and, therefore, appears in the combined list for the first time. He, too, comments on the terrific signal from KG6DO on occasions. Best time for these KG's is about mid-day, generally at the LF end of the American 'phone band. N. A. S. F. is going the whole way with beam aerials; they won't be wasted, he hopes—from which you will gather that a new call-sign is practically hovering over him! W. J. Young (London, E.10) has been keeping a watch on 28 mc and remarks on the constantly changing conditions. On several days there was short-skip activity, giving very strong signals from I, OZ, OH, SM and so on, but the DX has been there in be-



tween—not forgetting those bursts of W6's.

W. J. Y. would like to know the frequencies of these South American commercials: LQC7/LQC5, LQB/LSC6, and LSA 10/LQC5. They make good markers and serve as an indication of the trend of conditions on the 28 mc band.

Another Phoney?

Last month I mentioned W6ODD/FI8 and W6ODD/CR8. Now J. E. Hosking (London, S.W.11) recalls that last year there was a pirate on 14 mc signing W6ODD, CR8AC, FL8AE and LI1A, who led the W's a dance until someone mentioned in *QST* that the real W6ODD had been off the air for some time. J. E. H., continuing the subject of possible phoneys, asks whether VP3MCB is genuine. Can't answer that at the moment—but last month someone asked a similar question about VP3ACS, and his full QTH is in this month's list—so that's one query duly answered.

R. A. Hawley (Goostrey) has had a letter from ZC1AL/ZC6, telling him that ZC1AL was in Palestine from May 15 to May 31 and would welcome reports on his transmissions during that period. Others from R. A. H. are SHFIX again, C7TY (not Zone 23), HZ1AW and SV4UN. VP3MCB is yet another—but see query above!

T. W. W. Dearlove (Frimley Green) caught some of the openings on 28 mc and logged twenty W6's in an hour on August 17, as well as CE, KG6, OQ, VQ5 and

some VU's, all outside his usual listening time.

The old subject, "What is DX?" comes up again in an interesting letter from E. C. Palmer (Bath). As he says, ZD1 is not so far in mileage as W6, but compare the few stations and their low power with the thousands of kilowatts available in W6—and you know why ZD1 is "DX." E. C. P. likes the 1.7 mc band, "where Yorkshire is relative DX for Somerset," and finds that good reports referring to transmissions on this band usually bring back interesting letters. He says, "One finds a good bunch of fellows working on this band, which is more than one can say for some of the DX-band addicts!"

Well, we have been trying in our gentle way to arouse some interest in the Top Band, and will continue to do so. It should form part of the Complete Short Wave Listener's repertoire, and one can become a DX King on that band if one insists on having such a title. So look out for Top-Band listening contests before long.

Set Listening Periods, September and October

September 25, 1500-1700 GMT—28 mc CW and 'Phone.

September 26, 0800-1000 GMT—14 mc CW and 'Phone.

October 30, 2000-2200 GMT—14 mc CW and 'Phone.

October 31, 0900-1100 GMT—28 mc, 'Phone only.

On these two latter dates there will be a world-wide DX Contest ('Phone only), organised by CQ, so these two October periods should be full of interest and DX.

Closing date for next month is October 5, first post. Please address everything to DX Scribe, *Short Wave Listener*, 49 Victoria Street, London, S.W.1—and as this is a month with plenty of time, don't leave them all until the last minute, if you can remember to get them in earlier. Keep an eye on the top of the Calls Heard page, please, newcomers—and use our Calls Heard Report Forms. Good Hunting until then!

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Ref. No. 2709. (*After completing only first five lessons, writes:*) "I would like to say how pleased I am with the course; I can send a comfortable 16 w.p.m., and receive 12 to 14 w.p.m., which I think you will agree is fairly good as I was a beginner at the start of the course."

Ref. No. 3048. (*Excellent progress.*) "I am pleased to report excellent progress; and many Hams have said with what ease they can copy my sending."

Ref. No. 2245. (*Glad to announce.*) "I am glad to announce that I recently passed the P.M.G. Special Exam., and as you will see on my report, my speeds are now far ahead of the speeds needed in the examination. I therefore walked through the telegraphy part."

Ref. No. 3795, says:—"I recently passed my G.P.O. Amateurs' Morse Examination after your first five lessons."

Ref. No. 2573. (*A really wonderful course.*) "I feel it my duty to express my appreciation for a really wonderful course. Before taking the course my 'solid' receiving speed was about 16 to 18 w.p.m., this I copied letter by letter—and was I nervous.' To-day I can copy 25 to 26 w.p.m. at one word behind. I can read 30 to 35 w.p.m. as easily as reading a book. Frankly I think that all the 'profit' I have gained from the Candler System cannot be represented by—so many words per minute; but, rather as a lifetime's experience gained in a few weeks. It has been said 'you have to pay to learn'—true, but with Candler you pay so little and learn so much."

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Type	Length of Test	Duration of Test	Sending		Receiving
			Max. No. of Erasures	Max. No. of Un-corrected Errors	Max. No. of Errors
Plain Language	36 words	3 minutes	4	Nil	4
Figures	10 groups of 5	1½ minutes	2	Nil	2

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CALLS HEARD

Please arrange all logs strictly in the form given here. Note, in particular, that the prefixes must be in alphabetical order, and that the number but not the prefix must be repeated with each callign (e.g., W1AZ, 1BCR, 1CQL, 2DY, 2EF, etc.). The calligns, after the number, must also be in alphabetical order. Where listening has been on more than one band, a separate list should be sent for each band, under the appropriate heading. In other words, study the layout of the lists below, and make yours exactly like them.

SET LISTENING PERIODS

14 mc

Aug. 28, 1900-2100 GMT

C. S. S. Lyon, 15 Ullet Road, Liverpool, 17.

PHONE: CN8MZ, FT4AP, LU6AJ, PY4BU, VU2GB.

CW: CN8MI, LU7AZ, PY1AHL, 1GJ, 6AG, UA6KSA, UC2LA, UG6AB, UQ2AD, 2BA, VK2FG, 2QL, VS6BD, 9AL, ZB1AR, ZC1CL, ZD2RGY, ZE1JS, ZL4GA, ZS6BV. (Rx: 1-V-1.)

N. A. Phelps, 17 Leaside Mansions, Fortis Green, London, N.10.

CW: C1BC, CR6AN, 7BC, CT3AA, EA8AM, 9AI, EK1AB, FT4AN, OY3IGO, PY1AHL, 1BG, 1FH, 1GJ, 1LQ, 6AG, 6AK, UA4HB, 6KSA, 6SF, UC2AIA, 2CB, UN1AB, UQ2AB, UR2AA, VE7ZZ, VK2FG, 2PX, 3EG, 3WW, 4WF, 5FD, VP8AD, VS6BD, 9AL, VU2MD, W5QL, ØTAV, YU7IL, ZB1AR, 1AV, ZC1AZ, ZD2RGY, ZE1JS, ZK2AA, ZL2IA, 2NC, 3GU, 3JA, 4GA, ZS6DV, 6NW, 6QG. (Rx: 1-V-2 TRF.)

B. Needham, 31 Bomore Road, Kensington, London, W.11.

PHONE: CN8MZ, CX1VD, 2CF, EK1AD, KP4CL, LU6AJ, 7DH, OQ5CF, PY7CO, TF3EA, VK1AD, 2AGU. (Rx: R208.)

R. A. Hawley, "Torriew," Brookfield Crescent, Goostrey, Cheshire.

PHONE: CN8MZ, EK1AD, FA3AR, IS1AEW, LU6AJ, MB9BH, PY7VB.

CW: CN8MI, CT3AA. (Rx: 504 and Sky Champion.)

P. E. Woolmer, 30 Swinegate, Grantham, Lincs.

PHONE: CN8MZ, EK1AD, PY7QC. (Rx: MCR1.)

K. R. Toms, 63a Aldon Avenue, Boreham Wood, Herts.

PHONE: CN8MZ, OQ5CF, YV3AL, ZD1BD. (Rx: Phillips PCR.)

D. I. Cruse, 9 Woodlands Avenue, Sidcup, Kent.

PHONE: CN8MZ, CX1VD, D4AYO/airborne, FA3BK, 3GZ, 9HS, LU6AJ, OQ5CF, PY4BU, 7QG, SV4UN, VK2AGU. (Rx: 14 valve superhet.)

G. P. Watts, 62 Belmore Road, Thorpe, Norwich, Norfolk.

PHONE: CN8MZ, EK1EA, LU6AJ, MD7BL, OX3GG, PY7QG, 7VB, VU2GB, ZD1BD. (Rx: Hallcrafters S20.)

W. E. Bachel, 24 Hill Road, Prittlewell, Essex.

PHONE: CN8MZ, FA3GZ, 9HS, KX6AF, OQ4CF, VK2AGU, ZB2E, ZD1BD. (Rx: Hambander.)

W. J. C. Pinnell, 40 Melville Road, Sidcup, Kent.

PHONE: CN8MZ, FA3GZ, 8BE, LU6AJ, OX3GG, PY7QC, W3NCV/TAI.

CW: LU9EV, OY3IGO, VE7ZZ, ZB1AR. (Rx: V55R with Labgear Preselector/Converter.)

T. W. W. Dearlove, Lattices, 138 Coleford Bridge Road, Frimley Green, Surrey.

PHONE: CN8MZ, CX1VD, EK1AD, LU6AJ, OQ5CF, OX3GG, YV3AL. (Rx: CR100.)

D. W. Waddell, 25 Hillfield Place, Nantwich, Cheshire.

CW: CN8MI, CT3AA, LU7DJF, OY3IGO, PY1BV, 6AG, UG6AB, VQ4SGC, ZB1AR, ZC1CL, ZL2IA. (Rx: Modified R1155A.)

J. D. Boatwright, 37 Grant Street, Norwich, Norfolk.

PHONE: AP2E, 4B, CN8BB, 8NZ, HLIAB, KA1FH, LU6AJ, OX3GG, PY4BU, 6CO, 7QG, UA1KBA, VK2AGU, 2AML, 2ARG, ZB2A, ZE2JG. (Rx: Hallcrafters S-40.)

J. R. Cooling, 337 Princess Road, Manchester, 14.

PHONE: OQ5CF, PY7QS, VK2AGU, W3NCV/TAI. (Rx: Marconi CR100 into BC453.)

D. Garrard, Ceaque, 17 Hill House Road, Ipswich, Suffolk.

PHONE: CN8MZ, LU6AJ, MD7BL, MF2AA, OX3GG, PY7UQ, 7VB. (Rx: BC-342-N.)

R. Spice, Sunnybank, Jevington, Sussex.

PHONE: CN8MZ, LI2UB, MF2AA, VK2AML, ZE2JB. (Rx: BC-348-P.)

3.5 mc

Aug. 29, 0900-1100 GMT

J. D. Thorn, 11 Queensway, Lincoln.

PHONE: G2BUX, 2HOP, 2HX, 2LG, 2VO, 2VY, 2XK, 2YY, 3AAT, 3ANM, 3AYS, 3BHV, 3BNZ, 3BSA/A, 3BTS, 3FD, 3MV, 3WQ, 4RT, 5AQ, 5GS, 5IX, 5SX, 5UF, 5WW, 6KJ, 6OZ, 6YP, 8CB, 8QX/A.

C. S. S. Lyon, 15 Ullet Road, Liverpool, 17.

PHONE: G2YY, 3BAE, 3CFY, 8QX/A.

CW: G2BCC, 2FIX, 3ACP, 3AJV/A, 3BGH, 3CLT, 3CNS, 3DEX, 3DIV, 4JT, 6NM, 6GZ, 8DV, 8IP/P, 8RQ, GW8WJ, ON4PA. (Rx: 1-V-1.)

R. A. Hawley, Torriew, Brookfield Crescent, Goostrey, Cheshire.

PHONE: G2BHV, 2DQ, 2HOP, 2HY, 2LG, 2XK, 3AMN, 3BAE, 3BSA/A, 3BTS, 3CFY, 3PY, 3WQ, 4KZ, 4PL, 4RT, 5GS, 5JX, 5, 5XM, 6DQ, 8CB, 8GL, 8QX/A, 8SG.

CW: G2CNK, 2VY, 8RL. (Rx: 504 and Sky Champion.)

R. E. Smith, 1 Holly Cottages, Gustard Wood, Wheathampstead, Herts.

PHONE: G2AJV, 2AVR, 2AHP, 2DQ, 2HX, 2KT, 2TP, 2UQ, 2XK, 3BNZ, 3CFY, 3BTS, 3FD, 3HOP, 3WQ, 4RD, 5AQ, 5IX/A, 5JY, 5MM, 5SX, 5TU, 5UF, 5WW, 6DY, 6KG, 6OZ, 6YP, 8PN, 8YK, GC2FMY, GW8CT, ON4BT, 4PE, 4MK, 4SET, 4VE. (Rx: R107.)

W. J. C. Pinnell, 40 Melville Road, Sidcup, Kent.

PHONE: F8PY, 8SF, 8YZ, G2ABR, 2YY, 3AAT, 3BHR, 3BQF, 3BSA/A, 3BZV, 5AQ, 5WW, 6OZ, 6YP, 8QX/A, 8VN, ON4VEZ, PAØBC, ØHT, ØNC, ØVG.

CW: F8SF, G2AND, 2BCC, 3ABG, 3ACP, 3AKW, 3AUR, 3BGH, 3CLT, 3CNK, 3CVX, CDEY, 3DIV, 3DUH, 3DZP, 3EJN, 3NM, 4JT, 5LC, 6DH, 6GM,

CALLS HEARD—(contd.)

6KQ, 6NM, 6UR, 6ZG, 8CJ, 8DV, 8HR, 8JR, 8RQ, ON4PA, 4VS, 4ZX, PAØTH. (Rx: V75R.)

D. W. Waddell, 25 Hillfield Place, Nantwich, Cheshire.

'PHONE: G2ABR, 2HOB, 2VO, 2YY, 3AAT, 3ANM, 3BAE, 3BSA/A, 3CFY, 3WO, 4KZ, 4PL, 4RT, 5GS, 5JX, 5SX, 5WW, 6DQ, 8CB, 8QX/A.

CW: G2BCC, 2CNK, 2FLK, 2VY, 3ACP, 3AJV/A, 3AUR, 3AXT, 3BGH, 3BKT, 3BTA, 3BYL, 3CNB, 3CNS, 3CPR, 3CYL, 3DEW, 3DEY, 3DIV, 3DRP, 3DUH, 3DUP, 3DZP, 3EJN, 5VF, 6GB/P, 6LB, 6NM, 6GZ, 6ZG, 8DV, 8IP/P, 8JR, 8RL, 8RQ, 8US, 8VN, GW2FYV, 8WJ, ON4PA, PAØTH. (Rx: Modified R1155A.)

L. Shearlaw, Kaduna, Frimley Road, Camberley, Surrey.

'PHONE: G2AVR, 2DP, 2HX 2XK, 3AAT, 3ANM, 3BHR, 3BOF, 3BTS, 3BZV, 3FE, 3WO, 4IG, 4KZ, 5AQ, 5JX, 5SX, 5XM, 6DQ, 6DY, 6OZ, 8VN. (Rx: Collins TCS.)

D. Garrard, Ceaque, 17 Hill House Road, Ipswich, Suffolk.

'PHONE: G2AFX, 2AJV, 2AVR, 2DT, 2FK, 2FLK, 2FLX, 2FM, 2HF, 2HK, 2HP, 2HR, 2IC, 2VO, 2XK, 3AAT, 3AHP, 3AMN, 3ARZ, 3BOF, 3BOH, 3BSR/A, 3BUX, 3CET, 3CFI/A, 3FD, 3MV, 3PY, 3WO, 4FM, 4KZ, 4QD, 5AQ, 5DS, 5JX, 5SX, 5WW, 6DQ, 6DY, 6IL, 6MV, 6OZ, 8GI, 8LP, 8VN, ON4PLA, 4VE, PAØNP. (Rx: BC-242-N.)

D. W. E. Powell, Louhrigg, Shaftesbury Road, Wilton.

'PHONE: G2JX, 3BSA/A, 3WQ 5GS, 5WW, 6DY.

CW: G3ACP, 3AXT, 3CLT, 3DRP, 3DUH, 3ECU, 3EJN, 3FU, 6NM, 6UR, 6ZG, 8DU, 8FO, GW2FYV, ON4PA. (Rx: 0-V-1.)

A. E. Cameron, 10 Moor Park Road, Northwood, Middx.

'PHONE: G2ABK, 2AHP, 2BNZ, 2DLO, 2HOP, 2XK, 3AAT, 3BHR, 3BHV, 3BOF, 3BSA, 3BTS, 3BZY, 3FD, 3PY, 4RT, 5AQ, 5CS, 5IX/A, 5SX, 5UF, 5WW, 6BY, 6DQ, 6NB/P, 6OZ, 6YP, 8CB, 8LT, 8YN. (Rx: Eddystone 640.)

GENERAL

7 mc

N. A. Phelps, 17 Leaside Mansions, Fortis Green, London, N.10.

'PHONE: CM2AN, 2WA, COIAM, 1MS, 2AJ, 2AK, 2DP, 2EM, 2FM, 2GC, 2HH, 2JL, 2PE,

2SE, 2SV, 2YK, 5ER, 5FL, 7AJ, 7CG, 7RQ, 8MC, 8MO, CX1DU, 4EG, LU4DG, PY2JO, TG8GL, XE1DL, 1VQ, 2AC, 2GJ, 3AA, 3AW, YN1OS, YV5ACX, 5AR.

CW: CM2AN, 7MP, 8AZ, CO2LN, 2VM, 5FL, 6FH, 6LP, 6PP, 6WW, 8BF, CT2AG, 3AC, EK1MM, HR1AT, KP4DH, 4EX, KZ5CK, 5MB, 5OJ, LU6DJK, 7AZ, 9LE, OX2KR, 3ME, PJ3X, PY1AHP, 1AIF, 2ACT, 2ADA, 2AJT, 2CS, 2QL, 2TD, 4ACF, 4LR, 4ZG, 6BT, 6AK, SL2AD, TF3EA, TG8ND, UA9WB, UD6KBB, UF6AA, 6AB, 6AC, UG6AB, 6WD, UL7BS, UM8KAA, VK3MO, 3XD, W5CSU, 5CVW, 5KLC, 5LWL (N. Mex.), 5MSY, 5YJ, YV1AE, 3AC, ZL2MM, 3FG. (Rx: 1-V-2 TRF. July 14-August 23 2200-0600 BST.)

3.5 mc

C. S. S. Lyon, 15 Ullet Road, Liverpool, 17.

'PHONE: PY1AB, 4AD, 4DW, 4QE, 4ZI, VE1KF, VO1Y.

CW: FA8BG, VE3DF, W1AYG, 1RID, 4MSO. August 20, 21 and 23. (Rx: 1-V-1.)

28 mc

A. Frearson, 66 Wheelwright Road, Erdington, Birmingham, 24.

'PHONE: HC1JW, MD3MB, ST2AM, VP4TZ, VQ4ERR, 4HRP, 4SC, VS7PS, 7PW, VU2CQ, 2GB, W2LDH/MM, 3KIF/MM, 5AXI/MM, ZE1JM, ZS1BH, 1BV, 1DH, 1FB, 2AZ, 6LW, 6NZ. (Rx: TRF all Sendor. 3 hours. 1800-2000 GMT.)

A. Bannister, 58 Demesne Road, Whalley Range, Manchester, 16.

'PHONE: CX4CS, KG6DO, ST2AM, TI2OEC, VP4TZ, VQ2JT, 4NSH, ZE1JO. (Rx: R108.)

H. Alford, Sunny Mead, Berrow, Burnham-on-Sea.

'PHONE: CO7RQ, CX3AD, 4CS, HC2OA, LU3AA, 7FA, OA4BK, OQ5AB, 5BH, 5CL, 5HL, PY2CD, 2CK, TG9AD, 9RV, VP4TZ, 6CDI, VQ2DH, 4ERR, 4HRP, VS7PW, VU2BF, 2CQ, 2GB W3ITZ/MM, W5AXI/MM, W6AOR, 6CHJ, 6MBD, 6YMD, ZS1BV, 1CN, 1EO, 1FD, 1IP, 1T, 6JB, 6LW, 6Q. (Rx: TRF all EF 50's. 18-20-18-50.)

R. A. Hawley, Torvieve, Brookfield Crescent, Goostrey, Cheshire.

'PHONE: CO7RJ, KA1ACF, KG6DO, MD3MB, ST2AM, TG9RV, VO2B, VP6CDI, VQ5PBD, VS7PW, VU2GB, W6AJH, 6AOR, 6CGQ, 6CHY, 6ERT, 6MBD, 6PEN, 6PXH, 6OZH, 6TY, 6UVD,

6YMD, 6WLQ, 6ZGC, ZS1FD, 6NZ. (Rx: 504 and Sky Champion. August 26-27. Odd Times 1430-1730 GMT.)

J. M. Graham, 2 Kelvinside Terrace West, Glasgow, N.W.

'PHONE: AP2R, EL3A, 6A, HC1FG, 1JW, HI6EC, OA4AM, OQ5BA, 5HL, ST2AM, TG9RV, TI2RC, VP5FB, 6CDI, VQ2JC, 4ASC, 4ERR, VU2CQ, W2ED/MM, 2RI/MM, 3KIF/MM, 5AXI/MM, ZD4AB, 4AH, ZP1X/MM. (Rx: Marconi CR 100.)

D. G. Martin, 65a Winchcomb Street, Cheltenham, Glos.

'PHONE: AP2F, 2R, CX4CS, HC1FG, HK4CO, 4EB, KP4AC, 4AY, MD3MB, OQ5CL, PY1JB, 5AO, VP4TO, 6CDI, VU2CQ, 2GB, W1PPH/MM, W7RNT/MM, ZD4AB, ZE1JM, ZS1AJ, 1BV, 1DH, 1EO, 1T, 6LW. (Rx: Eddystone "640". 1200-1300, 1700-1835, 2040-2105, GMT; 2 hours.)

D. Kendall, 40 Aberdale Gardens, Potters Bar, Middlesex.

'PHONE: AP2F, CE3AB, 4BD, CN8BK, CR9AG, CX3AB, 4CS, G2DEZ/AP2, HC1FG, 1JW, 20A, 20L, HK3EO, KP4ES, LU3AA, 3BR, 3DH, 3ER, 5AX, 6AJ, 6ES, 7FA, OA4AM, OQ5AB, 5BA, 5BH, 5BR, 5CL, 5HL, PY1AGP, 1FR, 1JY, 2AMT, 2CK, 2OS, 4EI, 4RK, PZ1M, ST2AM, 2FU, TG9RV, TI2RC, VE5EA, VQ2N, 6AF, VP4TO, 4TZ, 5AS, 6CDI, VQ2DH, 4ASC, 4HRP, 4SC, VU2BF, 2CQ, W1PPH/MM, W2RA/MM, 5AXI/MM, 7RNT/MM, 9ZJZ/MM, YS1AC, ZB4AB, 4AH, ZS1EO, 1KH, 1P, 1T, 2AF, 2CI, 6LW, 6Q. (Rx: Home built 14-valve Superhet.)

W. J. C. Pinnell, 40 Melville Road, Sidcup, Kent.

'PHONE: AP2F, 4R, CX2CL, ET3AE, KG6AAF, 6DO, KH6DO, KP4FQ, MD4JG, OQ5LL, ST2AM, 2JR, VK6HL, VP4TZ, 6CDI, VQ2JC, 5PBD, VU2BF, WØ1AX/MM, 1PPH/MM, 3KIF/MM, 4FV1/KX6, 5AXI/MM, 6UDZ/KG6, ZC6LA, ZS1EA, 6EB, 6JW. CW: MI3AB, VS9AL, W3JAK/MM, 3KIF/MM, 8QOH/MM, ZS2AW, 6OY. (Rx: V75R with Labgear Preselector/Converter. 6½ hours. 1200-1400 GMT.)

T. W. W. Dearlove, Lattices, 138 Coleford Bridge Road, Frimley Green, Surrey.

'PHONE: CX4CS, EL6A, KP4ES, 4EZ, LU3DH, 4EC, OA4AM, 4BK, PY1FR, 4CL, ST2AM, VE1EL, 1CR, VQ2M, VP4TZ, 6CDI, VQ4ERR, 4SC, W2LDH/MM, 5AXI/MM. (Rx: CR100, 3 hours. 1800 to 2000 GMT.)

J. D. Boatwright, 37 Grant Street, Norwich, Norfolk.

'PHONE: W6HK, 6PA, 6TY, 6AOR, 6AVJ, 6CHY, 6DAE,

6JRA, 6MBD, 6NIG, 6PKI, 6QUD, 6REM, 6UBD, 6UTD, 6VLC, 6WNA, 6WNH, 6WTG, 6WTJ, 6YMD, 6YYZ, 6ZIO, 6ZLA, 6ZRO. (Rx: *Halicrafters* S40. August 27. 1730-1930 GMT.)

D. Heaton, 1 Jer Lane, Horton Bank Top, Bradford, Yorkshire.

'PHONE: CX4CS, HC1FG, 1JW, KP4AC, KZ5AN, LU2BR, 5AX, PY1HW, 1JY, 2CK, 2OE, 2AMT, 3BX, PZ1N, TI2OA, 2OEC, ZE1JZ, ZS2DY, 6CN. (August 15, 1800-1915.)

CX4CS, LU3DH, PY1AHW, W6HK, 6IR, 6AOR, 6BCK, 6DFM, 6PCK, 6UTS, 6Y1Y, 6YMD, 6YZV, 6ZSC. (August 17, 1800-1915.)

AP2F, 2R, CR9AG, CX2CL, 4CS, HLIAB, KG6DO, 6DW, 6AAF, PY1CQ, 2AMT, VQ2BR, 4ERR, VU2CR, 7BW, W3MKS/ZS2, W5OCN/MM, W6UBZ/KG6, ZS1BV, 5BS. Rx: 14-valve home-built Superhet. August 18, 1145-1430.)

D. W. E. Powell, Loughrigg, Shaftesbury Road, Wilton.

'PHONE: CX4CS, LU3BH, OQ5BA, PY1FR, ST2AM, 2RL, VSTEW, 7PS, VU2BG, W6QUD, 9ZJ/MM, ØØLU/MM, ZS1EO, 2DY, 6CY. (Rx: 0-V-1. 3 hours. 1715-1915 GMT.)

D. L. McLean, 9 Cedar Grove, Yeovil, Somt.

'PHONE: CE2CO, 3AB, CN8BK, CX2CL, 4CS, EL3A, HC1FK, 1KG, HK4AR, KP4AY, 4ES, LU4AN, 4DD, 4EB, 6AK, 7FA, MD4JG, OQ5AB, 5BA, 5CK, 5CL, 5HL, PY1FR, 1JY, 1JY, 2CK, 2JJ, 2NX, 4RK, ST2AM, 2RL, TG9RV, TI2OA, VP4TO, 4TZ, 6CDI, VQDH2, 3ERR, 4SC, 5PBD, VSTPW, VU2CQ, 2GB, W5OYH, 6AOR, 6CHY, 6MBD, 6OPM, 6OZM, 6PEN, 6PXH, 6QYE, 6REH, 6TY, 6UPC, 6UVD, 6WNH, 6ZHW, ØGUV, W3KIF/MM, 3NKS/MM, 4LFC/MM, 5AXI/MM, ZB2A, 2E, ZD4AB, 4AH, ZE1JH, 2JA, 2JK, ZS1AG, 1AJ, 1AX, 1BV, 1DH, 1DM, 1EO, 1FD, 1KH, 1P, 1T, 2AF, 2AZ, 2DY, 5CD, 5BZ, 5U, 6CY, 6DW, 6DY, 6LB, 6LW, 6Q. (Rx: AR88LF. 7 hours. 1630-1830 GMT.)

14 mc

D. I. Cruse, 9 Woodlands Avenue, Sidcup, Kent.

'PHONE: AR8AB, C1CH, 7TY, CE3CU, CM2AB, CN8EQ, CX1AG, 2CN, 2CO, D4AYØ/airborne, EK1MD, EL5A, G6AJ/AP, HH2PD, H16EC, HK4EB, KA1FH, LU1JC, 4BH, 4DD, 6AJ, 7BU, PY1ACQ, 1AKM, 1AKR, 1CT, 1DC, 1IK, 1FR, 4BU, 4CB, 4CT, 4IK, 4PI, 4TI, 6AO, 6CO, 7QG, SHF1X, TI2KW, VK2US, 3LD,

VP3NTB, 9F, 9G, WQ4ERR, 4SC, 8D, YV1AC, 5ABW, 5AY, ZA1A, ZC6LA/1, 6XY, ZD2RGY. (Rx: 14-valve Superhet. 2100-2300 GMT.)

O. A. Good, 1 Western Drive, Oswestry, Shropshire.

'PHONE: G6AJ/AP, W4JUC/CI, C7TY, HLIAB, J9ABW, 9ACN, 9ACS, W7KMV/Iwojima, KA1ACJ, 1AF, 1AI, 1CD, KG6DE, 6DI, 6DL, VK3JD, 3OP, 4VD.

CW: AP4A, C7LT, 7ST, UAØPA, UH8KAA, U18AE, VK6PJ.

(3½ hours. 1500-1600 GMT.)

'PHONE: AP2X, G6AJ/AP, FO85N, KA1ACJ, 1AI, MD4JG, OQ5CA, 5CF, 5CL, 5CQ, PK4PQ, VK3WK, ZD1BD, ZS1GB, 3F, 3G, 4H, 6JS, 6Q.

CW: AP4A, UJ8AF, VS6BD, ZD8B. (3 hours. 1800-1900 GMT.)

F. Lockton, 10 Featherston Avenue, Manton, Worksop, Notts.

'PHONE: HC1FG, 2KJ, H16EC, HK1DZ, LU2BB, 4LN, 6AJ, 7BU, PY2CK, 2OEC, 4CT, 4PI, 7VB, TG9AM, TI2OFR, UA1BE, VK2HT, 2UG, 2US, 3JP, 3JT, 3SV, 4UL, VO4Q, VP6MO, YN1LB, YV5AY, ZB1FK, ZC6LA, 6XY, ZL2BT, 3BV, 4GA. (Rx: *Hambander*. 0600-0900 and 2000-2400.)

A. E. Robinson, 42 Cretan Road, Liverpool, 15.

'PHONE: CN8AB, 8EM, 8EQ, EK1AD, FA3GZ, HH3DL, LU4BH, 4BW, 6AJ, MF2AA, OX3BD, PY1CQ, 2AK, 2AMT, 2CK, 2XJ, 3CR, 4IK, TA3FAS, TI2OA, TRIP, UA1BE, VK2AGU, 3LG, VO1AB, 2AG, 2AQ, 2BH, 2BN, 2GS, VP6MO, 9F, W6E2P, YR5C, YT1SM, ZB2A, ZCIAZ, 6LA. (Rx: *Halicrafters* S-19 R.)

D. L. McLean, 9 Cedar Grove, Yeovil, Somt.

'PHONE: KA1AC, MD4JG, OQ5CA, 5CF, ST2FU, TA3FAS, TRIP, VQ2JD, 4CRE, 4DF, 4NSH, 5WCP, ZC6LA, 6XY, ZDIRD, ZS1GB, 3F, 4D, 6AJ, 6BV, 6KW, 6JS, 6Q. (Rx: AR88LF. 1½ hours. 1800-1900 GMT.)

N. A. S. Fitch, 79 Murchison Road, London, E.10.

'PHONE: EK1AD, SHF1X, TG9RV, TI2OA, VK2AJC, 2NO, 2US, 3ABC, 3ND, 3OP, 3WU, 3XD, W6FTU.

CW: CN8MI, FT4AN, HK5FL, IS1AHK, KZ5AK, VESF, VK2PX, 3FE, 3RW, 3YD, 7OM, W6CYE, 6PFD, 7AMX, ZL2BV, 4FO. (Rx: *Mains* 1-V-1. 4 hours. 0600-0800 GMT.)

A. Baldwin, 28 Wallwood Road, Leytonstone, London, E.11.

CW: AP4A, 4MC, C7LT, 8YR, CP1AP, CR6AI, 6AQ, 7BC,

EASMA, EP2BE, FE8AB, FMSAD, HC1ES, HL1AE, HP1BR, HZ1AW, J9ATT, KB6AD, KG6DG, KH6CD, KS6LR, KV4AA, KZ5DZ, OA4DX, OQ6RA, PZ1FM, 1NB, 1OY, 5CP, ST2HG, TG9JK, VK77L, VPIAA, 5AO, 6CDI, VQ5ITW, 8AY, VR2BD, VS2CH, 6AE, 7AD, 7KR, 7LA, 9AL, VU2CQ, ZCIAZ, ZD9AA, ZP3AW, 8PW. (Rx: *Hambander with Preselector*.)

E. C. Palmer, 4 Chestnut Grove, Englishcombe Park, Bath, Somerset.

'PHONE: C1CH, 7TY, CE3CU, HC1FG, 7KD, HH2X, 3DL, H16EC, HP1LS, KP4CL, PY1AKR, 1FR, 2GS, 4BU, 4IK, 7IG, ST2FU, VE7ZM, VK2APR, 3HF, 3HG, 3HW, 3IG, 3JT, 3LL, 3UQ, 6DD, VPSAR, VQ4DF, XE1MS, YS3PL, ZD1BD, ZS3F. (Rx: BC342N.)

1-7 mc

M. Harrison, 215 Goring Way, Goring-by-Sea, Sussex.

'PHONE: G2AK, 2AON, 2OOI, 2OSB, 2HR, 2OO/A, 3APU, 3AZT, 3BEX, 3BMD, 3BOC, 3BCM, 3BUB, 3ND, 4JH, 4MI, 5CM, 5HC, 6JB, 8OS, 8RO, GC4CI, GW2BJ, 8CT. (Rx: 6-valve superhet with external battery RF stage.)

E. C. Palmer, 4 Chestnut Grove, Englishcombe Park, Bath, Somerset.

'PHONE: G2AUU, 2BAR, 2BCX, 2BH, 2BOJ, 2FLK, 2HFP, 2HP, 2TZ, 3AIL, 3ANM, 3AQM, 3ART, 3BGU, 3BML, 3BWT, 3CJS, 3YA, 4NM, 5LC, 5MM, 5SK, 5UF, 5XB, 5XM, 6PN, 6GU, 6HF, 6HN, 6JB, 6GY, 8CC, 8GJ, 8WF, GW2BG. (Rx: B.C. 342-N.)

M. Neale, 93 Tring Road, Aylesbury, Bucks.

'PHONE: G2AK/P, 2AUU, 2CZM, 2DGP, 2DJD, 2DPO, 2DWM, 2FUU, 2GG, 3ARZ, 3AZT, 3BP, 3BSZ, 3DGS, 3MI, 4GT, 5BS, 5HO, 5LO, 5XD, 6HG, 6UT, 6CJ, 8DG, 8LG, 8VI, 8VZ. (Rx: "*Hambander*")

D. L. McLean, 9 Cedar Grove, Yeovil, Somerset.

'PHONE: G2AH, 2ANX, 2DQ, 2FLK, 2HAX, 2HR, 2LV, 2TZ, 2UH, 3AAZ, 3APV, 3AZT, 3BMD, 3BYV, 3C7MI/A, 3DKS, 3HM, 3TA, 3YA, 4AQ, 4GA, 4MI, 4OK, 6AB, 6MB, 6NB, 8BA, 8CL, 8TK, GW2BG, 8CT, 8QJ. (Rx: RCA AR88LF. 1½ hours. 21.15-22.15 GMT.)

D. W. E. Powell, Loughrigg, Shaftesbury Road, Wilton.

'PHONE: G3APV, 3BMD, 4PL, 5SK, 8DG, 8SR, GW2BG.

CW: G2AYC, 2CXW, 2FRH, 2HR, 2JF, 2SC, 3AEP, 3ARS, 3DSW, 3DUQ, 3LP, 3NT, 3OA, 4DH, 8RB, GM2HHD. (Rx: 0-V-1. 2045-2245 GMT. 2½ hours.)



PSE QSL

The operators listed below have informed us that they would like SWL reports on their transmissions, in accordance with the details given. All correct reports will be confirmed by QSL card. To maintain the usefulness of this section please make your reports as comprehensive as possible.

- AP2H c/o 26 Church Street, Langold, Worksop, Notts. QSL's all reports on VFO-controlled 14 mc 'phone and CW, operating 1300-1930 GMT.
- G2AWA 38 Kipling Avenue, Wellsway, Bath, Somerset. VFO-controlled 3-5.14 and 28 mc CW and 'phone, operating 2100-0100 GMT, and week-ends.
- G2BV 82 Swinley Road, Wigan, Lancs. 'Phone and CW on 7122, 7200, 14244, 14300 and 28300 kc, also VFO-control, operating 1800-2345 GMT.
- G2FJR 76 Bridge Road, Sutton Bridge, Spalding, Lincs. Reports over 200 miles on 'phone operation in band 3556-3570 kc, at 1730 GMT.
- G2FPC 35 Aberdeen Road, Edmonton, London, N.18. Operating CW in band 14010-14100 kc.
- G2OI 25 Boothfield, Winton, Eccles, Lancs. Requests reports on 58770 and 59760 kc CW and 'phone, operating 2100-0100 GMT.
- G3AAQ 6 Blakebrook, Kidderminster, Worcs. Asia, Africa and C. America reports on VFO-controlled 14 mc CW, 1830-2100 GMT, and week-ends.
- G3AEX 99 Plaistow Lane, Bromley, Kent. Reports over 50 miles on VFO-controlled 59 mc CW and 'phone, 1830-2030 GMT, and at week-ends.
- G3AHE 52 Priory Avenue, Southend, Essex. CW on 3500-3565 kc, 0500-0615 and 2100-2200 GMT.
- G3BFP 5 Ridgemount Avenue, Shirley, Surrey. VFO-controlled 14 and 28 mc CW and 'phone, in evenings. Reports on drift appreciated.
- G3CSP 89 Tideswell Road, Sheffield, Yorks. Reports, especially from W6, VK and ZL, on VFO, controlled 14 mc CW, 1700-2300 GMT.
- G3CWH 25 Queen Margarets Road, Canley, Works. 7005-7100 kc CW, 1700-2300 GMT and week-ends.
- G3DFD Westway, Caterham, Surrey. Reports, especially from VK and ZL, on 7015 and 14030 kc CW, operating evenings.
- GW3DIX Siabod, Capel Curig, Caerns., Wales. QSL's all reports on VFO-controlled CW operation, all bands, evenings and week-ends.
- G3DWT 25 Ashleigh Road, Solihull, Works. Requests reports on CW operation, all bands.
- G3DUA 9 Morris Street, Radcliffe, Lancs. Reports from outside U.K. on CW transmissions.
- G5LC 3 Summer Avenue, East Molesey, Surrey. QSL's all reports over 50 miles on 58-92 and 59-44 mc 'phone and CW, 1800-1930 and 2130-2230 GMT.
- G6CZ 23 Harrowdene Road, Wembley, Middlesex. Reports on 7 and 14 mc 'phone transmissions.
- G8IB 43 Crotch Crescent, Marston, Oxford. Operating 3780, 7056, 7275, 7290 kc, and also 1-7 and 14 mc, CW and 'phone.
- G8UA 406 Higher Brunshaw, Burnley, Lancs. QSL's 100 per cent. reports on 3526, 3888 and 7022 kc CW, operating most evenings.
- G3YMM A/T Simons, P., A Coy., AAS Arborfield, Reading Berks. Reports over 100 miles on 3-5, 7 and 14 mc CW and 'phone, 1700-0001 GMT.
- HC1KP V. F. Scott, U.S. Embassy, Quito, Ecuador. Reports on VFO-controlled 28 mc CW and 'phone, operating 1300-0300 GMT.
- IIABR Via Pisa 34/9, Genova, Italy. Operating 56-60 mc 'phone, 1900 GMT onwards.
- NY4BA Navy 115, Box 55, F.P.O., New York City, U.S.A. Reports on 14020, 14285, 14325 and 14390 kc 'phone, operating 0001-0800 GMT.
- OKIAW Mestec Kralove, 9, Czechoslovakia. 56-60 mc CW and 'phone, evenings and week-ends.
- OK1CW Praha VII, Bubenska 7, Czechoslovakia. Reports on 3-5, 7, 14, 28 and 56 mc CW and 'phone, operating at week-ends 0400-2200 GMT.
- OK1VW 550 Smetanova, Cesky Brod, Czechoslovakia. Reports, giving details of Wx, on 50-54 and 56-60 mc CW, ICW and 'phone, at 0700-0900 GMT.
- OK2MV Hodonin, Stalinova, c.22, Czechoslovakia. Requests reports on 58-59 mc CW operation.
- OK3RR Bratislava IX, Budkova 59, Czechoslovakia. 3-5, 7 and 14 mc CW, respectively, at 1700-1900, 0001-0600, 1300-2200 GMT. QSL's all reports.
- OZ7CH/OZ3CH Phistersvej 39, Hellerup, Denmark. Reports on 3-5, 28 and 59 mc CW and 'phone.
- OZ7EU Vesterbyvej 9, Gentofte, Denmark. VFO-controlled 59 mc CW and 'phone, evenings.
- PY2AL P.O. Box 4283, Sao Paulo, Brazil. Reports on 14 and 28 mc CW and 'phone, operating 0900-1000 and 2100-0001 GMT.
- SMSMN Nya Tanneforsvagen 35 A, Linköping, Sweden. VFO-controlled 'phone in 58-5-60-0 and 50-0-52-0 mc bands, operating 1900-2100 GMT.
- TG9AD P.O. Box 299, Guatemala City, Guatemala. VFO-controlled 7, 14 and 28 mc 'phone.
- VE3AGV 388 Regent Street, London, Ontario, Canada. Reports on 28216 and 28472 kc 'phone, operating Wednesday evenings and Sundays.
- VESLM 1420 Lorne Street, Regina, Sask, Canada. VFO-controlled CW and 'phone, all bands.
- VK2AMB 31 Murdoch Street, Cremorne, N.S.W., Australia. QSL's all reports on 14000, 14020, 14050 and 14108 kc CW, operating weekdays 0930-1230 GMT, week-ends 0600-0800 GMT.
- VK2KW 18 Dewrang Street, Lidcombe, N.S.W., Australia. Requests reports on 28400-28450 kc 'phone, operating 0800-0900 GMT.
- VK2NO 43 Yankou Avenue, Waverley, N.S.W., Australia. 14 mc CW and 'phone, 0800 and 1900 GMT.
- VK2TH 127 Gurwood Street, Wagga Wagga, N.S.W., Australia. 7, 14 and 28 mc CW and 'phone, VFO.
- VK3PA 5 Collins Street, West Preston, N.18, Melbourne, Australia. VFO-controlled 14 and 28 mc CW and 'phone, operating 2200-1200 GMT.
- VK4FJ P.O. Box 6381, Brisbane, Australia. VFO-controlled 14 and 28 mc CW, operating 1900-2100 and 0500-0800 GMT.
- VK5FQ Harrow Road, Somerton, Brighton, South Australia. Operating CW and 'phone on 14115, 14164, 14170, 14177 and 14286 kc, doubled for 28 mc, during period 0700-0800 GMT.
- VK5XO 95 Unley Road, North Unley, South Australia. Operating 14340-14380 kc 'phone, 0730-0830 GMT.
- VO2AX Lt. J. F. Maloof, General Delivery, Navy 103, F.P.O., New York City, U.S.A. Operating CW in the band 14000-14150 kc.
- VQ4MHA P.O. Box 155, Kisumu, Kenya. Requests reports on VFO-controlled 14 and 28 mc CW.
- VQ5PBD BCM/QSL London, W.C.1. Operating 28356 and 28392 kc 'phone. Enclose reply coupon.
- XEIVA P.O. Box 1138, Mexico D.F., Mexico. 14352 and 28244 kc phone, at 2000-0001 CST.
- YV8AC Calle Bolivar 69, Maturin, Venezuela. Reports on 14140, 14280, 14375, 28280 and 29500 kc CW and 'phone, at 1900-2300 hours.
- ZD1BD Royal Signals, Freetown, Sierra Leone. Reports on 14 mc CW and 'phone, 1700-2000 GMT.
- ZL3JO 3 Hereford Street, Timaru, New Zealand. Operating 28404 and 28484 kc 'phone, 0600-1000 and 1900-2300 GMT.
- ZS4BL Box 959, Bloemfontein, O.F.S., S. Africa. Operating 14087, 14222, 14328, 28174 and 28444 kc 'phone, 1600-2000 GMT, and week-ends.
- ZS6JS P.O. Box 66, Standerton, Transvaal, South Africa. Operating 7185, 14370 and 28740 kc CW and 'phone, 1700 GMT, and week-ends.
- ZS6MD 104 Yeo Street, Bellevue, Johannesburg, South Africa. VFO-controlled 7, 14 and 28 mc CW and 'phone, evenings and Sunday mornings.

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SWL STATIONS

No. 15

HERE is a good view of the station operated by J. W. Lee at 3 Crosby Road, Northallerton, Yorks. The receiving equipment includes the well-known R.1115, modified for speaker reception, an R.208 for the 28 and 58 mc bands, and a converter, to the Eddystone design, for improving 10-metre working.

The aerial system consists of a 60-ft. long-wire for 1·7, 3·5, 7 and 14 mc; for 28 mc a 15-ft. vertical copper tube; and on 58 mc a two-element rotary beam. Results on 5 metres have been disappointing to date, but J.W.L. puts this down to his poor location, with a range of high hills to east and west.

Like many other listeners, J.W.L. is working for his transmitting licence. There are no QSL cards on view because he keeps all his album-fashion so as to prevent them getting dirty.

We are always glad to see SWL station stories, the essentials being a good clear photograph, any size and either print or negative; a description of the receiving equipment and aerial system; results achieved, if possible in terms of Zones and Countries heard and verified; special SWL interests; whether intending to become an amateur transmitter, and any other relevant details.

GERMAN NATIONALS LICENSED

With effect from September 1, after many years it has again become possible for German nationals in the British and American Zones to obtain amateur transmitting licences officially—instead of working “under cover,” as has been the case during the last two years or so! The power limitations are 50 and 25 watts, and the regulations affecting operation very much the same as our own. It is understood that the call-sign sequence will be DL1AA-DL1ZZ, DL2AA-DL2ZZ, and so on. The official QSL bureau notified to us is: D.A.R.C., Postbox 99, Munich 27.

MEDWAY TOWNS RADIOLYMPIA

An enterprising event is being arranged for the period November 24-27, at the New Corn Exchange, Rochester, Kent. This promises to be the largest Radio Exhibition ever staged outside London itself, and good Trade support has already been promised. Write S. A. Howell, G5FN, Hon. Secretary, Medway Amateur Receiving and Transmitting Society, 39 Broadway, Gillingham, Kent, for further information. The Amateur Radio interest at this Exhibition will be covered in the January issue of our *Short Wave Magazine*.

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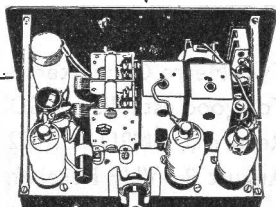
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The VHF End

Two-Metre Converters—SWL

Towgood establishes GDX Reception Record ; GM2DAU, 402 miles, August 8—VHF Receiving Contest—Individual Reports

by A. A. MAWSE

WHILE we are writing this, in the early days of September, news is trickling in of the first amateur working on our new 145 mc (2-metre) band. G2BMZ (Torquay) and G6LK (Cranleigh, Surrey) have made a good GDX contact. G2AJ/P on Dunstable Downs has worked G5MQ (Liverpool), G2XC has worked G6VX (Hayes) and heard G8GX (Northwood). So far, no listeners' reports have reached us, but we know some of you were ready, or nearly so, and doubtless next month there will be a story to tell of SWL achievements on what promises to be a most fascinating band.

Last month we outlined a method of checking VHF oscillator frequency by using the station communication receiver. This assumed the main Rx oscillator to be tuned 465 kc below signal frequency (which it was in the Rx we used), but if yours has the oscillator above signal frequency then the mathematics must be adjusted accordingly. The miniature triodes such as the 9002 oscillate easily in the 140 mc region. In fact, when we first built our converter for 145 mc it was found that the 9002 was oscillating on 260 mc! With careful and rigid wiring and layout good clean notes are obtainable, and in our opinion, crystal controlled converters can be considered a luxury and not a necessity on 2 metres. Using the 9002 oscillator, CW reception is as easy as on five metres. By the way, some valves give cleaner notes when they are mounted horizontally than in the more normal vertical position, and it is worth trying this if you cannot get T9 by any other means.

Adequate injection to the mixer is often obtainable without any direct connection. Just place mixer and oscillator within sight of each other and a few inches apart and you will probably find plenty of oscillator volts get into the mixer. This method minimises loading of the oscillator and reduces the tendency of the mixer tuning

to pull the oscillator frequency. For a mixer, use any of the well-known VHF RF pentodes, such as 954, 6AK5 or EF54. These valves can also be used in the RF stage of the converter. Good screening between input and output of the RF valve is essential if self-oscillation of this stage is to be avoided. A point to watch carefully in constructing a 145 mc converter is to avoid supply leads which are common to several stages, otherwise severe instability may result. Remember that even an inch or two of wire common to two circuits may serve to couple them together at these frequencies. A generous sprinkling of VHF RF chokes and bypass condensers (.0005 μ F mica) also helps to keep the RF from straying into the supply leads.

A converter design embodying the points discussed above will be described in an early issue of the *Short Wave Listener*.

Individual Reports

First of all, congratulations to P. J. Towgood (Bournemouth) on the achievement of a GDX reception record. On August 8, with the help of the Aurora, he logged GM2DAU in Cupar, at a distance of 402 miles. The full details of what he heard on that memorable afternoon will be found in the Calls Heard column. Unfortunately for us, P.J.T. is due to go into the RAF any time now, so his VHF activities will be somewhat limited, but we hope to hear from him now and again.

Five-Metre

Counties Heard

Starting Figure, 10.

R. Rew (Birmingham)	35
P. J. Towgood (Bournemouth)	34
W. H. Pierce (Reigate)	33
G. E. Magrow (Dawlish)	31
G. Elliott (Chard, Som.)	29
L. C. Blanchard (Coulsdon)	28
D. Parker (Huddersfield)	21
A. H. Onslow (Hove)	19
B. and D. Kendall (Potters Bar)	17
M. Taylor (Tooting)	17
N. Harris (Cheam)	16
D. L. Courtier-Dutton (Herne Bay)	13
G. V. Haylock (Lewisham Hill)	13
W. S. Hall (Oxford)	13
A. J. Slater (Southwick)	12
F. H. Herridge (Balham)	11

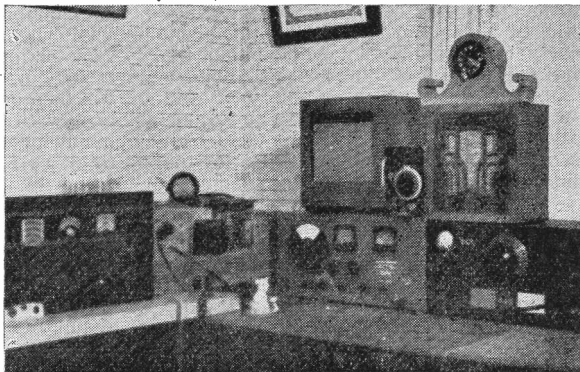
D. Parker (Huddersfield) was also listening during the amazing August 8, and pulled his counties total up quite a bit. His best DX was G3KX/A in Somerset. He has also heard a station signing EI9Z, but is suspicious of its origin. It's too good a signal, he thinks, to have come all that way!! In all, D.P. has logged 138 stations on 5 since May 25, which is good going indeed.

S. Chadwell (Slough) hopes to have a converted R1132A on 145 mc by end of September, while the Kendalls, of Potters Bar, also expect to be on that band before long. On five, they have heard OK1UQ using 0.6 watt 'phone. M. Taylor (Tooting) can only get his beam up to 17 ft., owing to Council regulations. He intends to modify a Type 27 unit for 145 mc work, using the second harmonic of the oscillator for increased stability. Up north, J. R. Cooling (Manchester) is busy converting a R1147B for the new band, while E. Nottingham (York) is ready with a 6J6 pre-amp and a 4-ele. beam.

D. J. West (Bristol), with considerable experience of operating RAF VHF equipment, is hoping to get busy with a 145 mc Rx as soon as he can find a good circuit. In the meantime, he has a Type 27 for 58 mc. J. K. Wright (Rotherham) has a home-made converter (EF54-EF54-EC52 into a home-built super) and having passed the R.A.E., hopes to be providing us with another signal on the band before long. D. T. Bradford (Denham) is planning for 145 mc and visited some EDX during his holiday in Sweden. G. E. Magrow (Dawlish) found August 29 the best day of the month for GDX, with August 14, 18-21, and 27-28 also good. R. Rew (Birmingham) logged GM3BDA (Airdrie) on August 1 for an excellent piece of tropospheric GDX.

Calls Heard

Due to space considerations, some of the lists have had to be cut this month. We would suggest to those who receive GDX signals with fair consistency that they restrict their lists to signals from over 50, or in a good month, over 100 miles. This does *not* apply to 145 mc signals for



G5PP, Coventry, has a Type 26 converter modified for use with his HRO.

which there is, at present, no limitation on mileage and we hope to see some lists very soon now.

Counties and Countries

Several readers are submitting claims for increased totals in the tables without giving us the details. Before entering these claims, we must know what counties and countries you have heard and the call of the station on which your claim is based. Verification is normally required if nobody else has heard a particular station on which you are claiming a county. These simple rules make it fair and square for everyone, as readers will agree.

The VHF Listeners' Club

New members continue to be enrolled, but in order to conserve space in these columns we are no longer printing

Summary of European Reception

AUGUST 1948

For identity of listeners see "Counties Heard" list and general text

August 2	OK (D.P.)
August 11	SM (G.E.M.)
August 12	F, I, OK (D.P.)
August 14	OK (G.E.M.)
August 18	F, HB, I, OK (G.E.M.) F, I (R.R.)
August 20	OK (G.E.M.) SM (R.R.) I (D.P.) OK (P.J.T.)
August 21	OK (G.E.M.) F, I, (J.R.C.) D4, HB, I (D.P.) D4 (N.H.)

membership lists here. Instead, a circular will be forwarded to all Club members every two months and will contain the full QTH's of you all. A small Advisory Committee has now been appointed and we are glad to report that the following, all experienced VHF listeners, have consented to serve on this Committee for the first year:

L. C. Blanchard (Coulson, Surrey)
G. E. Magrow (Dawlish, Devon)
E. Nottingham (York)
R. Rew (Birmingham)

If you have occasion to write to any of these Committee members, please enclose a stamped addressed envelope for the reply.

VHF Contest

There will be a Receiving Contest covering both the 2- and 5-metre bands in November (probably November 12-14), and we shall be giving the rules in full next month. This Contest will be run in

conjunction with the *Short Wave Magazine* VHF Transmitting Contest during the same period, so there should be plenty of activity on both bands. Three winners will be proclaimed, one for each band and one with the best results for both bands together. This Contest will be open to all VHF listeners, without restriction.

In Conclusion

We are looking forward to receiving some 2-metre logs for next month's issue. Please keep your 2-metre and 5-metre calls separate and label them clearly. Also, county claims must be kept separately for the two bands. May we again remind you that the Calls Heard Report Forms are applicable to VHF calls as well as the DX Scribe's feature. The address is as usual, A. A. Mawse, *Short Wave Listener*, 49 Victoria Street, London, S.W.1, and the latest date for the next issue is October 8. So 73 and GDX.

FIVE-METRE CALLS HEARD

G. E. Magrow, Sherwood, Exeter Road, Dawlish, Devon.

F8BG, G2AJ, 2AXG, 2BB, 2CIW, 2CXQ, 2KI, 2MC, 2MV, 2RY, 2XC, 3AGA, 3APY, 3BLP, 3CFR, 3CQC, 3FP, 3ID, 3KX/A, 3PZ/P, 3TN, 4IG, 4MR, 4OS, 4RX, 5HN, 5JM, 5OA, 5US, 5VB, 5WP, 6CJ, 6HD, 6LK, 6NK, 6OH, 6UP, 6VX, 6XM, 8FA, 8JB, 8KZ, 8LY, 8UZ, 8WC, 8WP, GW2AVV, 5SA, HB9BZ, IIDA, IQX, OK1AA, 1AW, 1FF, 1VW, 2EO, 2HX, 2MV, 3ID, 3IS, SM7BE.

P. J. Towgood, 6 Guildhill Road, Southbourne, Bournemouth, Hants.

Over 150 miles: G3ALD, 3ALY, 3APY, 4LX, 4MH, 5BD, 5UF, 6CV, 6TF, 8VV, GM2DAU, 3BBW, G13ZX, 5SJ. (All during August 8, Aurora Dx.)

R. M. James, 1 West Drive, Maidstone Road, Chatham.

F8ZF, G2AJ, 2CIW, 2FZR, 2MV, 3BSI, 3BWS, 3NR, 4IG, 5AM, 5UM, 6YP, 8GX, 8KZ, 8SK, SM5RT, 5VL. (July 16-August 24, Type 27 into 1-V-2.)

R. Rew, 14 Shrublands Avenue, Quinton, Birmingham, 32.

Over 100 miles: G2AXG, 2CIW, 2MV, 2XC, 3BLP, 3BW, 3HW/P, 4LP, 5LC, 6OS, 6VC, 6VX, 6YP, GM3BDA.
EDX: F3JB, 3WE, IIAAW, 1XQ, 1XW, SM5VL. (July 29-August 30, 3-stage converter into comm. Rx: 3-element beam in roof space.)

J. McGreevy, 240 Braidcraft Road, Pollok, Glasgow, S.W.3.

GM2DI, 3BDA, 3NK, 3PB, 4JO, 5BG, 5VG, 6KH, 8AH, 8MJ.

H. J. Tyson, The School House, Hillfield, Cheddar, Somerset.

G2BMZ, 3ABH, 3HW/P, 4GR, 5BY, 5UF, 8OO, GW5SA. (July 18-August 12, Type 26 into AR77E: dipole in roof.)

D. Parker, 7 Park Mill, Clayton West, Huddersfield.

50-100 miles: G3ABA, 3ALD, 3ALY, 3CUJ, 5BD, 5PP, 6OS.
100-200 miles: G2CIW, 2KG,

3BLP, 3DCV, 3OS, 3KX/A, 4LX, 5MA, 5VB, 5WP, 6LK, 6NF, 6VX, G13ZX, 5SJ, GM3BBW, 6XI.
EDX: D4ADD, F3HL, 9FT, 9OP, HB9HV, IIAABR, 1ANG, 1AY, 1JG, 1UE, 1XQ, 1XW, OK1FF, 1VW, 2MV, 3ID. (Rx: RF27 into BC455. Indoor 3-element C.S. beam. August 1-29.)

M. Taylor, 159 Coteford Street, Tooting, London, S.W.17.

50-100 miles: G2XC, 3DCV, 4AP, 5JU, 5PP, 6KB.
150-200 miles: G2ADZ, 3HW/P, EDX: F8CT, 8MG, 9BQ, OK1FF, 2HX, 2MV, 3ID. (Rx: RFU 27 into 11V home-built Super, 3-element rotary beam. July 25-August 25.)

S. Chadwell, 72 Richmond Crescent, Slough, Bucks.

*PHONE: G2AX, 2CIW, 2MR, 2KI, 2BB, 3AHB, 3DZI, 4KD, 5KH, 5BB, 5MA, 5WP, 5AA, 5LC, 6NF, 6KB, 6LK, 6XM, 6GP, 6SM, 6JK, 6NK, 8GX, 8KZ. (Rx: R.F. 26 into R.109 Rx, rotary dipole in roof. August 21-25.)

SOVIET ZONE ACTIVITY

Private advices from Germany suggest that, as part of the pressure to which the Western Powers are being subjected in Berlin by our "Soviet Allies," the Russians have suddenly authorised amateur operation in their sector, with unlimited power: the call-sign sequence for these stations is said to be "US1, 2, 3," and so on, and holders of the licences are all members of the former German Communist Party.

"CQ MCC"

During the period December 4-12, the *Short Wave Magazine* Third Annual 1.7 mc Club Transmitting Contest takes place. The rules will be circulated in good time to the secretaries of all Clubs on our Active Club Register. Last year's winners of this popular Top-Band event were West Cornwall, Warrington and Coventry.

A.C.S. RADIO

THIS MONTH'S SPECIAL ITEMS include:—

"V.H.F. Technique" Manual, 3/6.
"Valve Technique" Manual, 3/6.

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The number of broadcast receiving licences in force in Great Britain and Northern Ireland at the end of July, 1948, was approximately 11,292,750. This number includes 58,250 television licences, an increase of 3,400 over the previous month.

Prosecutions in July for operating wireless receiving apparatus without a licence numbered 440.

TAYLOR VALVE TESTER

To accompany the comprehensive instruction manual issued with the Taylor Valve Tester, a Valve Supplement is being made available tabulating some 160 different types of valves with their respective switch settings: the intention is that this Supplement should be used with the Tester Instruction manual. All this material is very comprehensive and careful consideration has been given to both technical and non-technical readers: the instruction manual is beautifully printed and may be bought separately at 3s. 6d. Also available is a wide range of adaptors of various kinds—shunt, valve-base and transformer—for use with the extensive series of Taylor Instruments. Taylor Electrical Instruments, Ltd., 419/424 Montrose Avenue, Slough, Bucks.

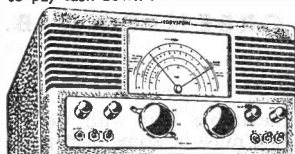
EDDYSTONE OVERSEAS COMPETITION

The winning essays in the Overseas Section of the Eddystone "640" Competition were those by W. G. Collett, Dunedin, New Zealand ("Relative Merits of British and American Communications Equipment"), C. Holmes, ZL3DK, Christchurch, N.Z. (the same subject), and H. Owen, ZD4AM, Tafo, Gold Coast Colony ("Band Planning").

As in the case of the Home entry, the standard was high and views of the competitors on the subjects set for the essays extremely interesting and instructive.

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THE CALL BOOK

The Summer 1948 issue of the *Radio Amateur Call Book*, our copies of which have recently come in, is another "monster production" of some 320 pages. The G's now listed total about 4,300 and include all those printed in "New QTH's" up to and including the June issue of our *Short Wave Magazine*. These figures compare with 3,700 G's shown in the Summer 1939 edition of the Call Book, of which about 1,000 were AA calls, i.e., holders of non-radiating permits. The present edition is still some 2,000 behind with the G licences actually in force at the moment. The latest issue of the *Radio Amateur Call Book* is obtainable through Dale International Publications, Ltd., 105 Bolsover Street, London, W.1.

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MONTHLY COMMENT

DX

by

R. H. GREENLAND, B.Sc.

broadcast

It is inevitable that with the holiday period there must be some disruption and, indeed, delay in collecting and compiling this monthly comment. Apologies are therefore offered to all correspondents who may find their news items held over to the month following.

Australia

July 25 was a red-letter day for the Australian DX'ers, for it marked the completion of two years of intense activity. Graham Hutchins, their DX Editor, was at the microphone in person, and thanked all listeners, both at home and overseas, for their excellent co-operation. Incidentally, the writer heard this birthday broadcast over VLA5, 15320 kc, at 0525.

Reference was recently made to the service just opened in New Guinea; there are, apparently, two short-wave transmitters at Port Moresby; they are VLT7, 9520 kc, heard mornings after 0630, and VLT5, 7270 kc, in service daily 1000-1230.

Asia

J. C. Catch (South Shields) has difficulty in picking up Chinese stations, one of which heard here operates on 9645 kc and is situated in Nanking. J. C. C. says that this one has been heard with a half-hour English programme at 1400 with an S9 signal. A new Chinese station, XGSW, on 21450 kc, is on the air daily, 0300-0445. The address is: XGSW, c/o The Central Broadcasting Station, Nanking.

XGOA, also in Nanking, broadcasts daily from 0800 to 0940 on frequencies of 17765 kc, 9730 kc and 5985 kc. More information on Chinese stations will be appreciated!

J. C. Catch logged PLE6, Batavia, 17630 kc, at 1700 with a news in English. The British Far Eastern Broadcasting Service is still well heard on 6770 kc before 1630, when it closes with frequency announcements and *God Save The King*. For those listeners who derive enjoyment from a programme of variety we recommend the South-East Asia Command's

World-wide reception of Short Wave programmes

special Sunday evening broadcast to the United Kingdom, heard on 15120 kc from 1730 to 1930.

A typical transmission is: 1730-1800, In Concert Style (Popular Melodies); 1800-1845, Classical Requests; 1845-1900, Folk Songs; 1900-1930, Roundabout of Song and Entertainment.

D. O. French (Norwich) logged the Israel station ZCA (Zebra Canada America), Tel-Aviv, with a point-to-point transmission to WRHN in Tangier. Our information is that ZCA operates on 18890 kc, ZCB on 18350 kc, and ZCC on 14700 kc. It is stated that these transmitters have been constructed from odds and ends! D. O. F. mentions EPB, Teheran, 15100 kc, now broadcasting from 1830 to 1930. Its clock chimes are a distinguishing feature. J. P. Burden (Portsmouth) gives the present schedule: 1830-1900 Arabic, 1900-1910 Russian, 1910-1920 English, 1920-1930 French. The writer logged EPB at 1910 on August 4 with some news of the Shah's recent visit to Great Britain; at the conclusion, the following announcement was made: "And with that we come to the end of our broadcast from the Iranian Radio."

Africa

J. P. Burden appears to be an expert on South Africans in particular. In the first instance he points out that the Angola station on 8090 kc mentioned last month is CR6RF, Radio Club de Benguela. He has received signals from other rare South Africans recently, including: Johannesburg III, 3450 kc; the programme in Afrikaans at 2000 has been heard at S8. Pietermaritzburg II, 4878 kc (200 watts); logged on July 18 at 2100 (S5), and closing at 2105 after the Epilogue and the two

ALL TIMES GIVEN IN THIS ARTICLE ARE GMT EXCEPT WHERE STATED

TABULATED SCHEDULES

United States of America—Pacific Coast Stations

Call	Location	Freq. (Kc)	Schedule
KCBA	Delano	15150	0315-0830
KCBA	Delano	15330	0900-1430
KCBF	Delano	17850	0315-0830
KCBF	Delano	9700	0900-1430
KCBR	Delano	15130	0000-0330
KCBR	Delano	15130	0900-1505
KGEI	San Francisco	15210	0530-1030
KGEI	San Francisco	9530	1045-1445
KGEX	San Francisco	17880	0000-0330
KGEX	San Francisco	17780	0530-0845
KGEX	San Francisco	11730	0900-1505
KNBA	Dixon	21460	0000-0330
KNBA	Dixon	9650	0730-0845 nm—0900-1505
KNBI	Dixon	11770	0000-0330
KNBI	Dixon	15130	0730-0845 nm
KNBI	Dixon	9750	0900-1505
KNBX	Dixon	15250	0000-0330—0530-0845
KNBX	Dixon	11790	0900-1505
KWID	San Francisco	17760	0000-0330
KWID	San Francisco	11900	0530-1130
KWID	San Francisco	9570	1200-1505
KWIX	San Francisco	9570	0315-0845
KWIX	San Francisco	11860	0900-1430
KRHO	Honolulu	17800	0730-0845 nm
KRHO	Honolulu	15250	0900-1505

nm = Not on Mondays.

Radio Australia. Overseas Service.

VLA, VLB and VLC transmitters are located at Shepparton, Victoria. VLG transmitters are located at Lyndhurst, Victoria.

- Forces Broadcast. Daily : 0300-0400, 0200-0400 Saturdays.
Stations. VLB5, 21540 kc ; VLC9, 19840 kc ; VLG11, 15210 kc ; VLA6, 15200 kc on Saturdays and Sundays only.
- Sports Service. Saturdays only. 0315-0730.
Stations. VLB5, 21540 kc ; VLG11, 15210 kc.
- Service to West Coast of North America and to Africa. 0430-0545 daily.
Stations. For America. VLA5, 15320 kc ; VLC9, 17840 kc.
For Africa. VLB5, 21540 kc ; VLG11, 15210 kc.
- French Broadcast. Daily : 0600-0645.
Stations. VLA8, 11760 kc ; VLG6, 15240 kc. VLC, 15200 replaces VLG6 on Saturdays. VLA8 is directed to Europe ; VLG6 to Tahiti.
- Siamese Broadcast. Wednesdays only : 0630-0650. VLC, 15200 kc.
- First daily English broadcast to the British Isles. 0700-0815.
Stations. VLA6, 15200 kc ; VLB3, 11760 kc (not used on Saturdays) ; VEC10, 21680 kc (Closes 0745 daily).
- French Broadcast, directed to New Caledonia. 0745-0845. Daily.
Stations. VLG3, 11710 kc ; VLA4, 15320 kc (0800-0845 only).
- Forces in Asia Broadcast. Daily : 0830-1615.
Stations. VLB3, 11760 kc (0830-1145) ; VLA4, 15320 kc (0855-1145). VLA6, 15200 kc (0830-1615) ; VLG3, 11710 kc (0855-1500)
- Service to East Coast of North America. 1200-1345. Daily.
Stations. VLB, 9540 kc ; VLC7, 11810 kc.
- Second daily English broadcast to British Isles, Europe and Asia. 1400-1500.
Stations. VLB3, 11760 kc ; VLB9, 9615 kc (Europe) ; VLA6, 15200 kc ; VLG3, 11710 kc (Asia).
- Service to West Coast of North America and to Africa and Asia. Daily.
Stations. For America. VLC3, 11760 kc ; VLC9, 9615 kc (1500-1615).
For Africa. VLG, 9580 kc (1515-1615).
For Asia. VLA6, 15200 kc.
- Third daily English broadcast to the British Isles. 2000-2155.
Stations. VLA8, 11760 kc ; VLB2, 9650 kc (Both close at 2130) ; VLC, 15200 kc (Closes at 2155).
- Broadcast to Forces in Japan and to East Coast of North America, with additional transmissions to South America and British Isles.
Stations. To Japan. VLC11, 15160 kc, 2145-2315, daily.
To America. VLA8, 11760 kc, 2145-2315, daily.
To South America. VLC, 15200 kc, 2210-2315, daily.
To British Isles. VLG6, 15230 kc, 2210-2315, daily.

National Anthems. J. P. B. says Pietermaritzburg II has an English programme after 2000. Johannesburg IV, 4800 kc, has been logged with its English programme at 2000.

J. P. B. logged another signal from the Union on 4895 kc. This was previously the channel used by Johannesburg III, which is now on the alternative frequency mentioned above. J. P. B. suggests that it may have been Pietermaritzburg II off its assigned frequency of 4878 kc. In Mozambique, CR7BU, 4935 kc, was heard with an S5 signal at 2005.

J. C. Catch has logged VQ7LO, Nairobi, Kenya, 4860 kc, with BBC News at 1805, local News at 1815, then a weather report at 1820, and, two minutes later, a programme of dance music. L. W. Lewis (St. Leonards-on-Sea) mentions that his latest verification from the Sudan Broadcasting Service in Omdurman gives the following schedule : Daily, 0415-0445 ; 1630-1800 ; 1900-1930 ; Fridays, 1630-1730 ; 1900-1930 and 0800-0930 ; 1400-1500. On Fridays only there is an English broadcast from 1730 to 1800. The frequencies used are : 13320 kc, 9650 kc, 572.5 kc, and the address is : Public Relations Office, P.O. Box 282, Khartoum, Sudan.

D. O. French gives the news that FIA6, Radio Douala, French Cameroons, 9160 kc, has a French news at 1900 (shorter than the bulletin of CNR3, Morocco, 9082 kc, which helps in identifying both), after which a musical programme follows. Signal strength improves rapidly after

1900. Radio Dakar, Senegal, now on 11898 kc, works on the following schedule: Daily, 0700-0730; 1215-1330; 1830-2200; Sundays, 1215-1400.

J. P. Burden logged CR4AA, Praia, Cape Verde Islands, 5895 kc, on July 18 from 2100 to 2200, when it closed with Portuguese announcements and anthem; it was R4-5 but S8 throughout. Lastly in Africa, J. P. B. mentions that Radio International in Tangier has again changed frequency to 6215 kc, where its daily English broadcast from 1900 to 1930 can be heard if interference from Warsaw III is not too bad.

Europe

D. O. French has logged a station in Germany on 15105 kc (announced) using the call-letters DTFC at 1500. DTYC, Munich, 5302 kc, using a power of 100 kW, can still be heard irregularly in the afternoons. With reference to our mention last month of Hamburg on 6115 kc, it was reported to be working on 6360 kc and latterly on 7290 kc; can anyone confirm this? D. O. F. has also heard Radio Wien, 11785 kc, with an English lesson for schools on certain Fridays; and Warsaw, 11710 kc, with a good signal between 1000 and 1100. Warsaw III, 6215 kc, has an English News at 1945 each evening. LZC, Radio Sofia, Bulgaria, has moved to 9396 kc. It runs English broadcasts daily at 2030 and 2150, and one in French at 2140.

Both J. P. Burden and L. W. Lewis send news of the new Danish transmissions. The former gives OZH, 15165 kc, testing 1400-1600 on weekdays with musical programmes to suit all tastes. The latter has received a letter from Statsradiofonien, Kortbølgeafdelingen, Radiohuset, Rosenørns Alle 22, København V, which includes the following extract: "In the last days we have finished the new Danish short wave station and we are now making tests and then we hope, I think in September, to send programmes in English."

On August 2, E. Strangeway (Malton, Yorks) heard OZH on an announced wave-length of 19.75 m (15190 kc) between 1400 and 1600, when it was stated that in the near future, this broadcasting station would be moving to a new wave-length of 31.51 m (9520 kc) during the same hours of transmission. This is undoubtedly OZF, which has already been heard recently on this channel between 1000 and 1100.

L. W. Lewis's verification from ORY, Belgium, gives the following wave-lengths:

48.39, 44.1, 31.65, 31.04, 25.6, 25.32, 25.22, 19.63, 19.56, 16.8, and 13.85 metres. The address is: INR, Place Eugène Flagey, 18, Bruxelles.

Then we have further information about the former CSW4, now given as CS2MT, 15325 kc, from D. O. French. The schedule for CS2MT and for CS2MQ, 15110 kc, is 1415-1705, but only the latter carries the 1730-2130 transmission, presumably together with CS2MK on 11027 kc.

J. P. Burden says 6374 kc (CS2MA) is also used from 1730 to 2300. The direction, which for all broadcasts is preceded by a gong note, is "Aqui Lisboa, Emissora Nacional."

The United Nations organisation's broadcasting station was logged on 6672 kc at 2100 on August 7 with a talk on the work of the Economic Commission for Europe. Using 18450 kc simultaneously, it can be heard each evening from 2100 to 2110 with an English broadcast. Comments and suggestions may be sent to: United Nations Radio, Geneva, Switzerland.

Latin America

J. C. Catch leads off with some first-class news of Venezuelan stations in the 80-metre band. He has heard YV5RX, Caracas, 3505 kc, at 0215 when relaying a programme of dance music from the United States. Next came YV7RB, Cumana, 3470 kc, giving a play interrupted by the Spanish call at 0230. YV4RQ, Puerto Cabello, 3480 kc, and YV2RC, Merida, 3420 kc, both gave typical Latin American dance numbers around 0245. In the same band, the writer logged YV6RC, Barcelona, 3515 kc, at 0329 on July 28, when closing directions in Spanish and a final March were heard. YVKO, Radiodifusora Nacional, Caracas, 5019 kc, caught our attention when closing at 0330. With 10 kW power it certainly makes itself heard!

J. P. Burden asks for a correction of his information on Colombian stations; he writes: "Stations with the HJF prefix are located in the West Central districts of Colombia;" i.e., not only on the West Coast as we previously stated. We logged HJCT, 6200 kc, with its usual powerful signal, on August 4 at 0405 when news in Spanish was being broadcast. At 0413 came the direction: "Radiodifusora Nacional de Colombia en Bogota," then a programme preview for the next day (in Spanish) and finally: "Muy buenas noches" at 0415.

In Ecuador, HC4EB, Radio Manta, 6870 kc, has again been found after a long

interval, closing with Spanish direction and a March at 0330; another station in Manta, and a new one, is HC4NL, using 9870 kc and the slogan: "La Voz de la Democracia, Manta, Republica del Ecuador." HC4NL signs off at 0500. The missionary station HCJB was a grand signal on 12455 kc on August 4 at 0505 with an excellent programme of Ecuadorean Folk tunes; the announcer described the location as: "Quito, just south of the Equator, almost ten thousand feet above sea level, and lying amid massive mountain cathedrals!" Of topical interest, we listened to HCJB's ambassador to the countries of Europe, speaking from Stockholm in the Swedish DX broadcast on August 7. He is making a survey, visiting listeners to HCJB in ten different countries (including England and Scotland) before he leaves for Ecuador in October. He describes how HCJB started with one small transmitter as the world's pioneer short wave missionary broadcasting station on Christmas Day, 1931. Now there are six transmitters, one with a power of 10 kW; part of the time two separate programmes are broadcast simultaneously, and in all, 18 different languages are used. However, the programmes are projected primarily to the Spanish-speaking peoples of Latin America.

OAX4V, Lima, Peru, 5907 kc, was noted on one occasion with the slogan "Radio America" at 0450, after which it continued for another half-hour or so with what appeared to be a speedway racing commentary, but normally it closes down at 0445. CXA3, Montevideo, Uruguay, 6075 kc, known as Radio Ariel, has been heard with weak signals at 0300. J. P. Burden again gives us hot news of Brazil, where he has logged two new stations which carry the same programme and are located in Pernambuco. One operates on approximately 9565 kc, the other on 6085 kc; the direction is: "Radio Jornal do Comercio" and the callsign, PRL6 or PRA6. These broadcasters carry the Brazilian National programmes 2230-2300. R. Iball (Langold, Notts) has logged the same station on 15145 kc (August 4) around 2030, and signals are consistently S7. Also in Brazil, PRA8, Recife, 6015 kc, has been heard by J. C. Catch with an English broadcast at 2305. Then we have PZH5, Paramaribo, Dutch Guiana, from whom L. W. Lewis has received a pictorial verification featuring the Avros studios there. It is

described as the "Prins Bernhard Tx" and operates according to the following schedule: Sundays, 1310-1640, 2040-0140; Weekdays, 1310-1440, 2040-0140; on a frequency of 5757.5 kc, and on 15400 kc from 2210 to 0140.

J. C. Catch has logged a doubtful one on an estimated frequency of 8200 kc from 2330 to 0000. When first heard at 2330, this station was giving request items of music, with announcements in both English and Spanish, but CW QRM prevented identification, though a postal "Box 199" and mention of the word "Colonna" were heard. The station closed down at midnight with a march. Can anyone enlighten us as to the identity of this station?

In the West Indies, the Willemstad, Curacao, station on 7250 kc is definitely PJC1, the Prinses Juliana Zender, operating daily 1630-1730 and 2130-0230 with a power of 3 kilowatts. PJC2 works in parallel on 2315 kc with the same power. HH3W, Port-au-Prince, Haiti, 10130 kc, was heard recently between 0030 and 0200 by J. C. Catch, and here are the details: 0030-0100, Victor King and his Orchestra relayed from CBS, New York; 0100, Call in French and English, followed by the news in French; 0115, Bing Crosby recordings; 0130-0200, Various musical items; 0200, Call in French only, vibraphone notes and Sousa March.

Here are Central Americans for the month:

Panama—J. P. Burden has logged a new station in HOLC, Panama City, on 6060 kc. Its direction is: "Esta es HOLC, Radio Inter-Americana en Cuidad Panama" usually S8-9, closing just before 0330. We have HOFA, Radio Atlantico, Colon, listed on this channel! J. P. B. also gives HP5K, Colon, 6005 kc, which has an English programme until 0315 (News at 0300), after which the Spanish language is used until the close at 0400.

Costa Rica—TIGPH, San José, 5870 kc, has been heard on occasions during early mornings around 0400 when it has been logged closing, using the slogan: "Estaciones Comerciales" followed by a short organ transmission.

Guatemala—The comparatively recent addition, TGZA, Za-capá, 6660 kc, was logged at 0400 on August 4. With a brief reference to: "Radio Oriental" and the word "Adios," it closed abruptly at this time.

Honduras—Our new discovery on 5940 kc, namely HRA, Tegucigalpa, has been logged several times during the past month. It has been noted at 0400 with its slogan: "La Voz de Lempira," and on July 29 it continued until 0415 with a sports commentary. Formerly on 6048 kc, HRA is reported to be operating also on 9045 kc, but there is no confirmation of this information so far.

North America

KWIX, San Francisco, 9570 kc, has been well received in the mornings with a sports round-up, 0615-0630. On August 3, just prior to 0530, the following words were heard: "WRA17 on 18695 kc—This is the United Nations Station at Lake Success." A broadcast in Arabic followed. Finally, L. W. Lewis sends a further list of VHF broadcasting stations on 3 metres, all of which use frequency modulation and are located in the United States. They are, in ascending order of frequency:

KSPI	Still Water, Oklahoma	93900 kc
WLOU	Detroit, Michigan	96500 kc
KSEI	Pocatello, Idaho	96500 kc
WMFM	North Adams, Massachusetts	97500 kc
KCZY	Kansas City, Missouri	98100 kc
WASH	Washington, D.C.	98900 kc
KFXD	Boise-Nampa, Idaho	101300 kc
WCFC	Beckley, West Virginia	101700 kc
KONG	Alameda, California	104900 kc
KSBS	Kansas City, Kansas	105900 kc

From time to time, our readers have reported reception of signals from WWV, the United States Bureau of Standards station at Washington, D.C. This service is on the air continuously, day and night, on the following frequencies:

Freq.	Power kW	Freq.	Power kW
2500	0.7	20000	8.5*
5000	8.0	25000	0.1
10000	9.0	30000	0.1
15000	9.0	35000	0.1

* 0.1 kW for first four work days after 1st Sunday in each month.

Time signals are transmitted continuously on all the above frequencies. Each second, except the 59th in any minute, is marked by a 5-cycle pulse with a 1000-cycle signal. It is heard as a faint tick each second, correct to within a micro-second. Tone modulation by an audio frequency of 440 cycles is applied for the first four minutes of each five-minute period, then CW code signals announce the next minute, using 24-hour notation, in Eastern Standard Time.

The 440-cycle note by which WWV is usually identified, can be used to standardise musical instruments, since it represents the standard pitch A above Middle C. In addition, ionosphere storm warnings are also transmitted when neces-

sary. If such a disturbance is in effect or is expected within 12 hours in the North Atlantic area, a series of W's are sent following the time announcement at 19 and at 49 minutes past the hour. If normal conditions prevail, a series of N's are sent instead.

Just prior to each hour and half-hour the following direction: "This is Radio Station WWV," and other phone announcements are given. The Bureau welcomes reports on reception. These should be addressed to The Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C., U.S.A.

In the August number of the *Short Wave Magazine*, details were given of the standard frequency transmissions now being radiated by the Royal Observatory, Greenwich. For the sake of completeness we include the schedule here: Weekdays only; 1000-1015, carrier frequency 2 mc nominal; 1015-1025, carrier modulated by nominal 1 kc. tone; 1027, Voice announcement giving estimated corrections to these RF and audio frequencies.

In conclusion, the date-line for all correspondence this month is Thursday, September 30. Address your letters to R. H. Greenland, *Short Wave Listener*, 49 Victoria Street, London, S.W.17

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S.A.E. for Lists

SHORT WAVE BROADCAST STATIONS

Revision 31.58-44.39 Metres

Giving Frequency, Wavelength, Callsign and Location

These lists appear each month, covering the 11-128 m etre section of the wave band within which all the short wave broadcasting services of the world operate. For econo my of space, this band is dealt with in five sections, a list of active stations in one of these sections being given in full every month. Such revision is necessary due to constant changes of frequency, callsign and operating schedules. All stations appearing in our lists are normally receivable in this country and are under regular observations.

Fre- quency	Wave- Length	Callsign	Location	Fre- quency	Wave- Length	Callsign	Location
9500	31.58	OIX2	Lahti, Finland.	7312	41.03	YSN	San Salvador.
		XEWW	Mexico City.	7300	41.10		Athens, Moscow.
		CE950	Santiago, Chile.	7295	41.12	ZOY	Accra, Gold Coast.
9485	31.63	OAX6D	Arequipa, Peru.	2790	41.15	VUD2	Delhi.
9480	31.65	CP38	La Paz, Bolivia.			VUD5	Delhi.
9475	31.66	CR6RN	Moscow.			VUD10	Delhi.
9465	31.70	TAP	Luanda, Angola.	7285	41.18	JKA	Nazaki.
9455	31.73	LRV1	Ankara.	7280	41.21	GWN	Daventry.
9452	31.74	COCH	Buenos Aires.				Paris.
9440	31.78	FZ1	Havana.	7275	41.24	EAJH3	Sta Cruz, Tenerife.
9430	31.81	XERQ	Brazzaville	7270	41.27	H12T	Trujillo, D.R.
9410	31.88	GRI	Mexico City.				Rome.
9380	31.98	OTM3	Daventry.				Moscow.
		COBC	Leopoldvill.	7260	41.32	GSU	Daventry.
		OAX4W	Havana.			OZU	Skamiebak
			Lima, Peru.			VUM2	Madras.
			Madrid.			YDF2	Medan, Sumatra.
9370	32.02		Macassar				Paris.
9360	32.05	YFA4	Sofia.	7250	41.38	PJC1	Moscow.
9350	32.09		Lima, Peru.				Willemstad.
9340	32.15	OAX4J	Buenos Aires.				Munich.
9315	32.21	LRS	Havana.				Rome.
9265	32.37	COCX	Bucharest.	7240	41.44	VUB2	Bombay.
9250	32.43		San Salvador.				Paris.
		YSF	Havana.				Vienna.
9236	32.49	COBQ	Huilla, Angola.	7230	41.49	GSW	Daventry.
9230	32.50	CR6RH	Trujillo, D.R.	7220	41.55	KZCA	Salzburg.
9210	32.57	H12G	Leopoldville			ZQP	Lusaka.
		OQ2RC	Noumea, New Cal.			H18Z	Santiago, D.R.
			Benguela, Angola.				Singapore.
9165	32.73	CR6RB	Waterkloof.	7210	41.61	GWL	Daventry.
9110	32.93	ZRB	Douala, Camerouns.			LLS	Tromso.
9100	32.97		Rabat, Morocco.			VDD11	Delhi.
9082	33.03	CNR3	Moscow.			VUC2	Calcutta.
9045	33.17		Havana.			H12A	Santiago, D.R.
9025	33.24	COBZ	Santiago, Cuba.	7200	41.67		Moscow.
8955	33.50	COKG	Batavia.	7177	41.79	CR6AA	Lobito, Angola.
8940	33.67	PLA8	Havana.	7165	41.87		Moscow.
8825	33.99	COCO	Havana.	7155	41.93	EDV	Madrid.
8700	34.48	COCO	Camaguey	7153	41.49	XGOY	Chungking, China.
8665	34.62	COJK	Managua.	7135	42.05	FET22	Oviedo, Spain.
8190	36.63	YNXW	Freetown, S. Leone.	7120	42.13	GRM	Daventry.
8125	36.92	ZHV5	Jerusalem.			OAX1A	Chiclayo, Peru.
8100	37.04		Beirut, Syria.	7102	42.24	YNET	Masaya.
8017	37.34		Teustepe.	7100	42.25	EAJ7	Cuenca, Spain.
8010	37.45	YNS.	Bandoeng.	7092	42.30	Y15KG	Baghdad, Iraq.
7995	37.51	PMD	Douala.	7084	42.34	EA9AA	Tangier.
7950	37.74		Alicante, Spain.	7054	42.53	CR6RF	Benguela, Angola.
7948	37.75		Bissau, Guinea.	7045	42.58	FET15	Cordoba, Spain.
7940	37.78	COM4	Rio de Janeiro.	7040	42.61	YS1	San Salvador.
7935	37.81	PSL	Sofia.	7037	42.63	EAJ3	Valencia.
7933	37.82	HLKA	Cairo.	7022	42.72	EAJ9	Malaga.
7920	37.88		Tirana, Albania.	7010	42.80	CR6RS	Benguela, Angola.
7860	38.17	SUX	Lusaka.				El Kurds, Iraq.
7850	38.22	ZAA	Stalinabad.	7006	42.83	FET1	Valladolid.
7820	38.36	ZQP	Apia, Sathoa.	7000	42.86	HC1VT	Ambato, Ecuador.
7785	38.54		Leon, Nicaragua.				Brazzaville.
7700	38.96	ZM2AP	Granada.	6980	42.98	F08AA	Papeete, Tahiti.
7651	39.21	YNDG.	Moscow.	6917	43.37	FZK6	Dakar, Senegal.
7625	39.34	YNLAT	Damascus.	6900	43.48	TGA	Quezaltenango.
7600	39.47		Yenan, China.	6877	43.62	YNVW	Granada.
7500	40.00	XNCR	Pointe a Pitre	6870	43.67	HC4EB	Manta, Ecuador.
7495	40.03	FG8HA	Masaya.	6860	43.73	TGRB	Guatemala City.
7448	40.28	YNAO	Sao Paulo.	6850	43.80	YNOW	Managua.
7413	40.47	PST2	Sana, Yemen.	6840	43.86		Tel Aviv.
7410	40.49		Moscow.	6825	43.86	RAD	Tashkent.
7385	40.62		Guayaquil.	6790	44.18	ZIN6	Palestine.
7360	40.76		Hargeisa.	6783	44.23	H12A	Santiago, D.R.
7350	40.82	HC2AN	Moscow.	6770	44.31	BFEB5	Singapore.
		VQ6MI.	Daventry.	6765	44.35	ZNR	Aden.
7340	40.87			6758	44.39	YNVP	Managua.
7330	40.93						
7320	40.98	GRJ					

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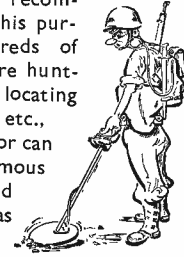
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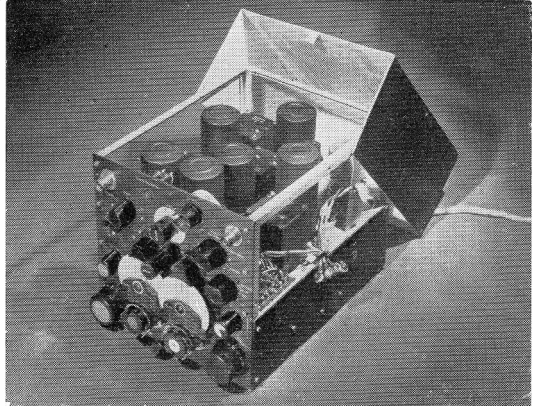
The Kit comprises :

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- 2 Resonators which are Receivers R-14 mounted in metal cases.
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- 1 .01 3,000-volt Paper Condenser.
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- 6 1-watt Resistors, all useful values.
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Ask for D200.

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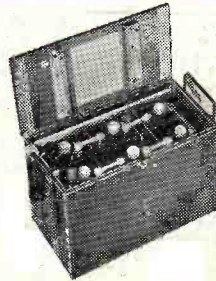
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