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The SHORT WAVE LISTENER

DEVOTED EXCLUSIVELY TO
SHORT WAVE RECEPTION

DECEMBER 1949
VOLUME 4 · NUMBER 1

THE **SHORT WAVE** LISTENER

A MONTHLY MAGAZINE FOR THE LISTENING AMATEUR

VOLUME 4 **DECEMBER 1949** NUMBER 37

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Payment at good rates is offered for articles of short wave listener interest.

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DECEMBER 1949

EDITORIAL

BSWL

With this No. 1 of Volume IV of the *Short Wave Listener*, we are happy to be able to announce that it also opens a new chapter in the long history of the British Short Wave League.

Briefly, the League is in future to operate in association with the *Short Wave Listener* and will, so to say, be "under the same management." One of the more important changes brought about by what is a major reorganisation of the League is that all future issues of the *Short Wave Listener* will include the 12-page *BSWL Review* as an additional centre section. This will make a total of 44 pages for League members.

If you are already a member of the BSWL, you will find your *Review* incorporated in this copy of the *Short Wave Listener*—because the combined publication goes to League members only. If you are not, you can join the BSWL by applying to us for membership forms, which give you much fuller information about the League than we have space for here.

For those who may not know, the British Short Wave League was established as long ago as 1935. Though it has suffered many vicissitudes since, it can show a continuous useful existence of nearly 15 years, the war period included.

The new arrangements for carrying on the League ensure that it will at last have the full support of a strong parent organisation directly concerned with making it a success. This in turn means that those belonging to the BSWL will enjoy greater benefits of membership than ever before. Are *you* going to join?

BC-312 Conversion

SOME SIMPLE MODIFICATIONS

by **M. I. WILKS**

(The BC-312 is a good receiver as it stands, but it can be modified to give an even better performance on the amateur bands up to 14 mc. This article suggests how such modifications can be carried out, though it should be noted that a complete circuit diagram of the receiver is required to follow them through—if not supplied with the set, it can be obtained from several sources. —Ed.)

IN recent months many BC-312 and BC-342 receivers have been on offer, the most popular version bearing the suffix "N" (but basically the same as those marked with other letters).

No matter how these receivers are judged, they are a fine job, packed into a neat case, with two RF stages, crystal filter, two IF stages, six switched bands, and quite a number of interesting features not usually found in surplus equipment.

Without any modifications, the BC-312 is a fair amateur-band receiver built like a bank vault and very stable, its construction having been given a great deal of thought. This applies especially to the HF oscillator as drift is low and the direct reading dial calibration is accurately maintained. Fast and slow-motion drives are provided and tuning is easy.

As these receivers were primarily designed for military purposes they can be greatly improved for use on the amateur bands.

There is bad hum from the output stage, and the RF stages have voltage supplies such that their gain is held back and the signal-to-noise ratio is therefore not all to be desired. The crystal filter found on early models causes a drop in output and this may be one of the reasons why it was omitted from later receivers.

The BC-312 has no selectivity control and the way the IF's were originally lined up results in the crystal operating in the maximum selectivity position at all times.

The coverage is 1·5 to 18 mc, thus tuning four amateur bands; for the proposed 21 mc and the 28 mc bands a converter can be constructed and conveniently run from the socket on the front panel.

Modifications

The electrical changes necessary to improve the receiver are simple and beginning with the RF stages are explained below, the component numbering corresponding to the circuit diagram available for the set.

The RF stages are operated with excess grid bias and less than the maker's rated screen voltage; it is therefore necessary to increase the gain on the RF stages, especially the first.

When the receiver is purchased unmodified R1 and R7 (see circuit diagram supplied for the receiver) are 500 ohms each and these should be changed to 300 ohms. The screen resistors R3 and R9 should be decreased from their original value of 40,000 ohms to half that figure, raising the screen to about 135 volts and reducing the bias, with gain at maximum, to nearly 3 volts.

Another modification while attending to the RF stages is to remove the first stage from the manual gain control and thus let the valve run fully when receiving CW signals; this tends to keep the signal-to-noise ratio at a high level when the RF gain is set to give comfortable signals. To effect these modifications it is necessary to remove the protective screening around the RF and mixer stages and take out the five screws holding the assembly down. Then the undersides of the three valves are exposed and the alterations can be carried out; R1 is soldered between the cathode pin and a convenient earthing point. When these modifications have been completed replace the whole assembly and proceed.

AC Hum

In the early models it appears that the headphone jacks were connected to the first audio stage, but most receivers on the market have the 'phone jacks connected in parallel with the speaker output from the second audio stage. If used in this position there will be a great deal of hum noticeable which is very hard to cure, and

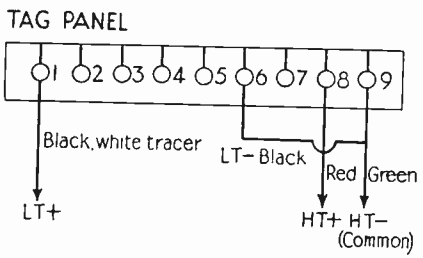


Fig. 1. Tag panel connections for the power supply modification to the BC-312. The dial lights can be connected across 1-9.

the simplest way out of the difficulty is to move the two 'phone jacks on to the grid of the second audio stage, leaving the earth connection in place. Jacks 3 and 4 are the small American type and should be taken out. These should be replaced by two insulated closed circuit jacks, and No. 3 connected to the output transformer in such a way that when the plug to cut out the speaker is removed for 'phone reception the "hot" end of the transformer goes to earth and so prevents high voltages building up across the primary of the transformer, which is enough to cause sparking in the 6F6 (this can also happen if high resistance phones are used in this stage).

The next jack (4) may be adapted for an S-meter as it will be necessary to use an external one (there being hardly room to mount an instrument on the panel). The meter leads are taken from the anode of the 1st IF stage by disconnecting R22 from the IF transformer and running the leads to the jack socket, which should again be wired so that it will automatically close if the meter is not required and the plug removed.

Regarding the hum in the second audio stage, mentioned earlier, the addition of extra smoothing in the power pack does not help greatly to remove it ; if, however, the final stage is used solely for a speaker the hum is quite bearable and does not interfere with general reception.

If extra signal strength is required with the phones taken to the first audio stage, the original 6R7 may be removed, replacing it with a 6Q7, changing the bias resistor R28 by soldering a 300-ohm ½-watt resistor across the 750-ohm resistor, and similarly shunting a 50,000-ohm resistor across R49 (500,000 ohms).

Miscellaneous Modifications

As purchased these receivers have their RF and audio gains ganged, and it is a worth-while job to split them up, the only necessary new component being one variable resistor (either the value of the RF or audio control) as the original two-gang control may be left in to perform one of its original functions.

The dial is well calibrated and is read by a thin wire fixed about a quarter of an inch away from the scale ; thus, if looking at the dial from an angle, it is possible to be as much as 10-20 kc out in the reading, and this may be overcome by a thin line etched in the glass cover, thus giving a line of sight between the wire and the scale.

The send-receive switch should be removed and a double-pole double-throw type inserted in such a way that one pole breaks the centre tap of the mains transformer to earth in the "send" position and at the same time the other pole makes a circuit for the operation of a change-over relay for the transmitter ; the leads from this side of the switch can conveniently be taken out to the remaining jack socket J5, thus making the one send-receive switch do the majority of work in going over from transmit to receive—this latter modification is not of course necessary if the set is not operated with a transmitter.

A further refinement is to fit a tone control, the on-off switch for which may be housed in the space formerly occupied by the spare fuse-holder originally supplied ; the condenser can be about ·02 μF, connected between the grid of the 6F6 and earth *via* the switch. (See Fig. 3.)

The connection socket SO1 should be removed and this operation is most easily done by cutting all the connections with a

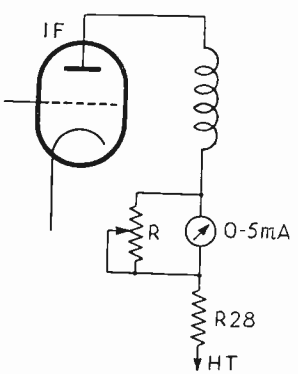


Fig. 2. Method of connecting in an S-meter on the BC-312. An S9 signal on the author's receiver produces a 0-2-mA deflection on a 0-5-mA movement ; for simplicity, the circuit is not bridged and so the meter reads backwards. R is 2,000 ohms, and R28 is as fitted.

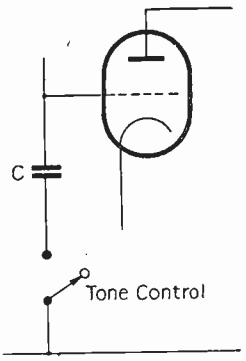


Fig. 3. Circuit for the tone control. C is ·02 μF.

pair of side cutters, then pulling each wire through the front panel and taking it off the tag panel. The send-receive relay should then be removed, this being done by first taking out the aerial alignment control temporarily, to permit the relay to be reached, then replacing the control. In the space where the American-type socket was located an Amphenol valve holder fits exactly, even to the screw holes ; this can be wired up to the HT and LT supplies and used for running a converter.

The slow-motion tuning control knob is very small and could be well replaced by a larger one, say 3-inch, the only disadvantage being that the logging scale is lost—but to many this will not matter greatly.

Power Supply

The most important modification on the BC-312 has been left to the end as all the foregoing suggestions apply equally to the BC-312 and BC-342 receivers. But the 312, unlike the 342, is run from LT batteries in its original state, and has a power unit slung under the IF and audio stages of the receiver in the same position as the 110-volt mains power pack of the 342.

The best way to cope with the power modification is to strip the dynamotor and its associate smoothing gear from the screened container, using the paxolin strip as a tag panel to receive external supplies of 250 volts HT and 12·6 volts LT. These connections may be led away through a hole suitably drilled and grommeted in the rear of the receiver. The dial lights should be disconnected from any dimming resistor there may be and wired in series with one end earthed, and the other connected to the LT positive point on the tag panel.

The HT negative is not usually at earth potential when the set is purchased, and this should be attended to so as to give a common HT and LT negative to chassis. (See Fig. 1.)

The final wiring should be connected to the tag strip numbered 1-9 as follows :

Black lead with white tracer from original dynamotor supply to tag No. 1 and carry LT positive supplies from external power pack.

Black lead from original dynamotor supply to tag No. 6 and carry LT negative supplies from external pack.

Green lead from original dynamotor supply to tag No. 8 and carry HT negative from external power supplies.

With these modifications, which may at first sight seem extensive, but which only took the writer a couple of evenings, the receiver is now really excellent for amateur use and will hold its own with many purchased at far greater cost.

Class-D Wavemeter

MODIFICATION FOR AC SUPPLY

by **T. H. WRIGHT (G3CLO)**

EVERY amateur knows that one of the Conditions of the Transmitting Licence states, "Where the sending apparatus is not crystal contro led . . . . there shall be a reliable frequency meter of the piezo-electric type . . . " In these days when a VFO is in use in most stations, this extract becomes of particular significance.

Amongst the ex-Government equipment now appearing on the market the Class-D Wavemeter fits the bill admirably. It has, however, one disadvantage — the power supply is designed to operate from a 6 volt DC source. The following modifications were undertaken to convert the instrument for AC operation with the power supply completely self contained, a desirable feature in any equipment and especially so in the case of measuring instruments.

As received, the wavemeter was connected to a 6 volt accumulator and the HT voltage on load was measured for different values of DC input over the range 5·8 to 6·6 volts. The HT voltage ranged from 100 to 145 volts, indicating that an average value of HT was about 120 volts. This was finally chosen as further tests indicated that raising the HT voltage above this tended to emphasise the 50 kc beat notes.

Examination of Fig. 1 will show that the power supply section is composed of a filter circuit for the heater of the valve V1, comprising condensers C1 and C2, and choke L1. The vibrator and transformer, T1, is fitted with suppressor resistances, R1 and R2. The secondary winding is connected to a filter condenser C3, the AC output being rectified by a bridge-connected rectifier.

Circuit Modifications

Fig. 2 shows the modifications required.

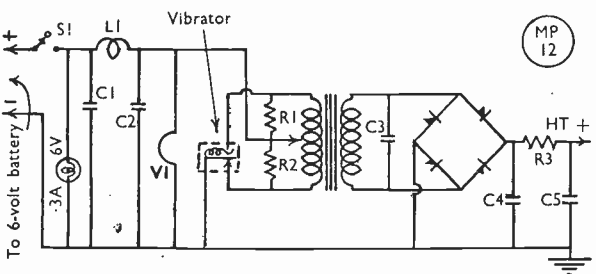


Fig. 1. Circuit of the power supply section of the Class-D Wavemeter, unmodified.

The vibrator suppressor resistances, R1 and R2 and condenser C2 are removed and the switch S1, transformer and bridge rectifier connected as shown. The transformer secondary now becomes the primary of the filament transformer and is connected in series with the bridge across the AC supply. (Condenser C1 and filament choke L1 can be removed if desired, but as the screw holding L1 in position is above the chassis and is inaccessible without

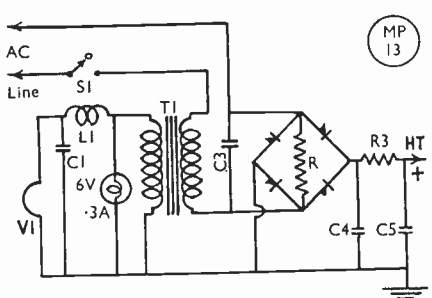


Fig. 2. The power side modified as suggested by G3CLO for direct AC operation.

TABLE OF VALUES

Figs. 1 and 2. Class-D Wavemeter Modified.

C1	= 0·1 μF.
C2	= 50 μF.
C3	= 0·1 μF.
C4	= 8 μF.
C5	= 8 μF.
R1	= 150 ohms.
R2	= 150 ohms.
R3	= 1,000 ohms.
R	= *See Text.*
V1	= ECH 35.
L1	= Filament choke
S1	= On-off switch.
Bulb	= 6v ·3 amp.

the instrument section being disturbed it was left untouched.)

In the initial experiments the resistance R was a 10-watt 5,000-ohm potentiometer which was adjusted until the HT voltage read 120 volts. The resistance in circuit for 240 volt mains was 4,000 ohms and a 5-watt fixed resistance of this value was finally chosen. With this circuit it was found that the current rating of the indicator lamp affected the transformer loading and, consequently the applied HT voltage, so it is recommended that for the value of resistance R suggested, the indicated current and voltage rating of the lamp should be maintained.

However, HT voltage *can* be varied by using bulbs of a different current rating over the range 0·2 to 0·5 amps. Incidentally, the bulb now acts as a safety device as if it is blown by excessive voltage both the filament and HT voltage fall to a lower value. In the interests of safety rubber feet were fitted to the case of the wavemeter to insulate it from earth and to protect the instrument from shocks and vibration. As a further safeguard a non-reversible three-pin plug, with the earth pin not connected, was fitted to the mains lead.

It was expected that the small amount of heat dissipated by the resistance might affect the performance or stability, but on test the wavemeter remained quite stable up to periods of six hours without having to touch the set-zero control. This is probably due to the fact that the resistance R is mounted beneath the chassis, well away from the crystal and the tuned circuits. Except for this resistance no extra components are fitted to the instrument. The wavemeter retains its original portability, size and dependability.

AMATEUR RADIO EXHIBITION

We shall be on Stand 9 at the Exhibition to open on Wednesday, November 23, at the Royal Hotel, Woburn Place, London, W.C.1. Admission is by catalogue, price 1s., at the door. Come and see us and sign the Visitors' Book.

JOIN THE LEAGUE !

The British Short Wave League is a membership association open to all in any way interested in short wave radio. The League is associated with the *Short Wave Listener*, in which the *BSWL Review* (for League members only) is incorporated.

For Further Information and Form of Application write :

The Manager,
British Short Wave League,
53 Victoria Street,
London, S.W.1.

(Specimen copies of the combined *Short Wave Listener* and *BSWL Review*, price 1s. 6d. post free—limited number only.)

OVERSEAS SUBSCRIPTIONS

With devaluation, some overseas subscriptions to the *Short Wave Listener* are now as follows (bracket figures are for full League Membership): America, $2·40 ($2·70); Canada, $2·70 ($2·95); France, Fr.860; Belgium, Fr.124; Sweden, Kr.12·8; Switzerland, Fr.11·0; Holland, Gdr.9·30; and Portugal, Esc.70.

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.

CT1UF *Praca Mousinho de Albuquerque* 34, *Braga, Portugal.* 7, 14 and 28 mc 'phone and CW, 0600-0700 GMT and 2200 GMT onwards.

CX1CC *Carlos Maria Maggiolo* 438, *Montevideo, Uruguay.* 14210 kc, 2200-0030 GMT Saturday and Sunday.

DL1AJ *Frankfurterstr.* 10, *Bad Nauheim, Germany.* 14 and 28 mc CW operation.

DL1GU *Norderstr.* 40, *Flensburg, Germany.* 14 and 28 mc CW, 0430-0530 and 1600-1800 GMT.

DL1MP *Paschestr.* 14, *Hagen/Westf, Germany.* 3·5, 7, 14 and 28 mc 'phone and CW, 1700-2200 GMT.

DL1NK *Horst Welz, Am Buxberg, Ubach 1/Aachen, Germany.* Stability of 3·5 and 14 mc 'phone and CW, 0400-0600 and 1900-2359 GMT.

DL1OA *Damaschkestr.* 1, *Herford, Germany.* 3505-3514 and 14020-14056 kc CW operation.

DL1PS *Lieneschweg* 98, *Osnabruck, Germany.* 3·5, 7, 14 and 28 mc 'phone and CW operation.

DL1UH *Konigsbergerstr.* 2, *Emden, Germany.* 7 and 14 mc CW and 'phone. Details of modulation. Operating 0700-0900 and 1100-1600 GMT.

DL1ZV *Schulstr.* 20, *Hamburg-Wellingsbuttel, Germany.* 3·5, 7, 14 and 28 mc CW and 'phone, VFO, 0600-0800 and 2000-2200 GMT.

DL3OG *Hauptstr.* 42, *Erbach (Odenwald), Hessen, Germany.* 3579 kc 'phone and CW operation, 0300-0500 GMT and at weekends.

DL7CY *Altensteinstr.* 35, *Berlin-Dahlem, Germany.* 3531 kc, 7 and 28 mc CW, and 28 mc 'phone, operating 0400-0500 and 1500-1800 GMT.

EA4FC *Serrano* 114, *Madrid, Spain.* VFO-controlled 'phone, 2100-2359 GMT.

EA5BA *Dr. Vila Barbera* No. 16, *Valencia, Spain.* 7 and 14 mc 'phone and CW, 1900-2359 GMT.

EA8BC *Box* 8, *Laguna de Tenerife, Canary Islands.* 14 mc 'phone and CW, 0430-0700, 1700-2359 GMT.

F9DD 66 *rue St. Sebastien, Marseilles, France.* Quality of 14 mc 'phone, 2000-2200 GMT.

G2AL *Castle Hill Cottage, High Westhouse, Via Carnforth, Lancs.* 3·5, 7, 14 and 28 mc 'phone and CW operation.

GI2DZG 109 *Locksley Park, Finaghy, Belfast.* 7049 and 14098 kc CW, 7168 and 14336 kc 'phone, 2000-2359 GMT, Sundays 0800-1200 GMT.

GM3BDA *High Church Manse, Springhill Avenue, Airdrie, Lanarks.* 144·13 and 145·2 mc 'phone and CW, operating 2100-2330 GMT.

G3EIA 107 *Rolleston Drive, Nottingham.* 14 mc CW, VFO and 14048 kc DX reports, no European.

G3FAN 20 *John Street, Ryde, Isle of Wight.* 145·26 mc 'phone and CW, 2200-2359 GMT.

G3FTR 8 *North Birkbeck Road, Leytonstone, London, E.11.* 1·7 mc, 3508, 3510, 7029, 14058 kc CW, also VFO, operating after 2100 GMT.

G3FTW 2 *Thurlow Park Road, Dulwich, London, S.E.21.* 7024, 7046 and 14092 kc CW operation.

G3FWU 73 *Eastfield Avenue, Weston, Bath, Somerset.* 1·7 mc CW, VFO, weekends after 2200 GMT. Comparative reports over 20 miles, giving QRG.

G3FXL 212 *Trafalgar Street, Ashton-under-Lyne, Lancs.* 7010, 7050, 14020, 14100 kc CW, over 50 miles.

I1BJJ *Via S.Croce* 1551, *Venezia, Italy.* 7 and 14 mc 'phone and CW, 1330-1500, 2100-0200 GMT.

K1NAR *L. R. Heron, USNAS, Squantum, Mass., U.S.A.* Speech quality, modulation and QSB of 14215,14230, 14245, 14260, 14275, 14290 kc 'phone.

KG6ES/W5 1314*C Brackenridge Apts., Austin, Texas, U.S.A.* 28·7 and 29·2 mc 'phone, 1600-2200 GMT.

LA2VC *Krossern* 16, *Moss, Norway.* 7 and 14 mc CW, operating evenings.

LA5YB *Colletsgate* 48, *Oslo, Norway.* 3800 and 7105 kc 'phone, at 2000 and 1530 GMT.

LA7RB *Box* 179, *Harstad, Norway.* 7005-7200 and 14000-14300 kc 'phone and CW, after 2200 GMT.

OH2QI *Topeliuksenkatu.* 1.*A.7, Helsinki, Finland.* 14 mc 'phone and CW, 1700-2200 GMT.

OK1ASV 26 *Josefa Hory, Dvur Kralove n.L., Czechoslovakia.* 3·5 mc CW, operating evenings.

OK2XH *P.O. Box* 23, *Opava* 1, *Czechoslovakia.* VFO-controlled 28 mc 'phone and CW, 0900-1200 and 1500-2100 GMT. Speech quality and modulation.

ON4RT *St. Anne Street* 27, *Sottegem, Belgium.* 3·5, 7 and 14 mc CW, 1900-2300 GMT.

ON4YC *P.O. Box* 1100, *Brussels, Belgium.* Operating 7 mc 'phone, after 1800 GMT.

OZ7CH *Phistersvej* 39, *Hellerup, Denmark.* 3·5, 7, 14 and 28 mc 'phone and CW operation.

OZ7NS *Herkules Alle* 2, *Kastrup, Denmark.* 3·5, 14 and 28 mc 'phone, 1730-2359 GMT.

OZ8PM *Vingaardsgade* 4, *Aalborg, Denmark.* 3·5, 7, 14 and 28 mc 'phone and CW, operating 1700-1745 and 2100-2359 GMT.

PAØEU *Kanaalweg* 118, *Utrecht, Netherlands.* 7 and 14 mc CW, operating 1900-2300 GMT.

PAØUC *Steenweg* 2, *Roermond, Holland.* Quality of 3·5 and 14 mc 'phone, VFO, 1700-2359 GMT.

PY4RJ *Fazenda Lagoa Nova, Itapore, Minas Gerais, Brazil.* 3881, 7080, 14160, 28320 kc 'phone, VFO, 0700-1100 and 1900-2300 GMT.

PY4XI *Sergipe* 220, *Belo Horizonte, Minas Gerais, Brazil.* 14350 kc 'phone, VFO, at 2200 GMT.

VE2ADX 963 *Bavaar Avenue, Outremont, Quebec, Canada.* 14 mc CW, operating 0100-0600 GMT.

VO2CY *P.O. Box* 31, *Gander Airport, Newfoundland.* Quality of 14182 kc 'phone, also CW operation, 2230-0100 GMT.

VP6FO *P.O. Box* 10, *Barbados, B.W.I.* VFO-controlled 7, 14 and 28 mc 'phone, operating 1100-1200, 1400-1500 and 2200-2359 GMT.

W1IIM 112 *Rockview Street, Boston, Mass., U.S.A.* 3855 kc 'phone, operating 2300-0200 GMT.

W1ROQ 606 *Main Street, Malden, Mass., U.S.A.* 7, 14 and 28 mc 'phone and CW operation.

W2PVV 1315 *Teller Avenue, Bronx* 56, *N.Y., U.S.A.* 7 and 14 mc 'phone and CW, 2300-0500 GMT.

W2TGO 508 *High Street, Long Branch, N.J., U.S.A.* SSB 'phone operation, 14255 kc at 0100-0400 GMT, and 28605 kc at 1100-1600 GMT.

W2ZVS 266 *Midland Avenue, Montclair, N.J., U.S.A.* 28500-28550 kc 'phone, operating 2000-2300 GMT, and weekends. Comparative reports.

W4DSY *P.O. Box* 343, *Charlotte, N.C., U.S.A.* 14204 kc 'phone, operating 1500-2200 GMT.

W4MTU *P.O. Box* 225, *Lakeland, Florida, U.S.A.* 14 and 28 mc 'phone operation.

W5LV 1916 *Fern Street, New Orleans, La., U.S.A.* 14 mc 'phone and CW, 0400-0700 and 2000-2359 GMT. Comparative reports.

W6NNV 808 *S. Mountain View Road, El Monte, Calif., U.S.A.* 14 mc CW, operating at 0100 GMT or 0600 GMT. Comparative reports.

W6SFS 1743 *Clinton, Los Angeles, Calif., U.S.A.* 29 mc 'phone, 1500-1600 and 2200-0200 GMT.

W8HUD 1756 *Yosemite Dr., Birmingham, Mich., U.S.A.* 3·9, 14, 28 mc 'phone, 0100-0800 GMT.

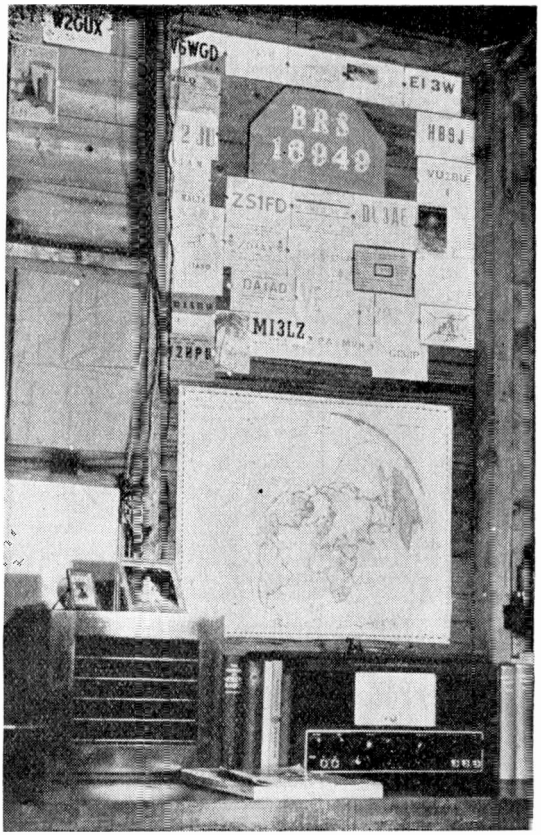
ZB2I 9 *Naval Hospital Road, Gibraltar.* 14064 kc CW, operating 1600 GMT onwards.

ZC6UNJ *P.O. Box* 490, *Jerusalem, Israel.* 28 mc 'phone and CW, VFO, operating 1200-1600 GMT.

ZS5DS *P.O. Box* 4, *Pietermaritzburg, S.Africa.* Quality of 28212 kc 'phone, 1500-1900 GMT.

SWL Stations

NO. 27



THIS illustrates the SWL station owned and operated by K.L.B. Dalby at Marshlea, Green Lane, Lea, Gainsborough, Lincs., who became interested in short wave radio in rather an unusual way—as a joke, his wife bought him a kit of parts for a two-stage receiver in November, 1947. K.L.B.D. managed to get the thing put together and going and promptly discovered the amateur bands, before he knew that such people as hams even existed. From this it was a short step to making contact with a local Old Timer on the air—and since then K.L.B.D. has never looked back.

The centre-piece of the station is now an Eddystone 640, operated with three aerials—a 66-ft. long wire, a 14 mc ½-wave dipole and a 28 mc folded dipole made up of 300-ohm ribbon; switches select the aerial to be used.

The equipment is installed in part of a garage. having been moved out from a living-room to be away from the "eagle eyes of one's friends and relations," as K.L.B.D. puts it! His interest in Amateur Radio is purely on the SWL side at the moment, with no present intention of going for a ticket. It is worth adding that he also remarks that a full and comprehensive report to an amateur invariably produces for him in due course a QSL card in return. Some of these cards are visible in this photograph, together with such station literature as bound volumes of the *Short Wave Magazine* and the *Call Book*. Not in view is the work-bench with the usual collection of tools and equipment—to say nothing of those bits and pieces every radio amateur collects with the passage of time.

K.L.B.D. is fortunate in that he has free access to G4OF's station, and is thus in touch with the practical side of Amateur Radio—many SWL's will envy him the opportunity of collaboration with an active local transmitter.

SHORT WAVE BROADCAST STATIONS

Revision 31·12-36·50 Metres

Giving Frequency, Wavelength, Callsign and Location

These lists appear each month, covering the 11-128 metre section of the wave band within which all the short wave broadcasting services of the world operate. For economy of space, this band is dealt with in five sections, a list of active stations in one of the sections being given in full in 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 observation.

Frequency	Wave-Length	Callsign	Location
9640	31·12	CXA8	Montevideo.
		YVKC	Caracas.
		COX4	Havana
9630	31·15	VUD2	Delhi.
		VUD11	Delhi.
		CKLO	Sackville.
		VP4RD	Port of Spain.
		CP12	Sucre, Bolivia.
			Rome.
9625	31·17	GWO	Daventry.
		XEBT	Mexico City.
			Alma-Ata, USSR.
9620	31·19	CXA6	Montevideo.
		DUH4	Manila, P.I.
		ETA	Addis Ababa.
			Paris.
9618	31·20	TIPG	San Jose, C.R.
9615	31·20	VLB9	Shepparton.
9610	31·22	LLG	Oslo, Norway.
		ZYC8	Rio de Janeiro.
		CHLS	Sackville.
		CBFX	Montreal
		VLW5	Perth, W.A.
		XERQ	Mexico City
			Goa, Port. India.
			Moscow
9608	31·23	ZRL	Cape Town.
9605	31·23	HP5J	Panama City.
		JKE	Yamata, Japan.
			Athens.
9600	31·25	GRY	Daventry.
		RW96	Moscow.
9595	31·27	CE960	Santiago, Chile.
9590	31·28	PCJ	Hilversum.
		VUD3	Delhi.
		VUM2	Madras.
9582	31·31	CR7BE	Lourenco Marques.
9580	31·32	VLH3	Melbourne.
		GSC	Daventry.
		VLB9	Shepparton.
9570	31·35	GWX	Daventry.
		VUD8	Delhi.
		KWID	San Francisco.
		KWIX	San Francisco.
		WRUW	Boston.
			Algiers.
9567	31·36		Vienna.
9565	31·36	ZYK3	Pernambuco.
		VUD7	Delhi.
		RW96	Moscow.
9560	31·38	JVW4	Tokio.
		RW96	Moscow.
			Paris.
9557	31·39	XETT	Mexico City.
9553	31·40	BED8	Amoy, China.
9550	31·41	OLR3A	Prague.
		GWB	Daventry.
		VUB2	Bombay.
		WRUA	Boston.
		YDD3	Batavia.
		JO9K	Tokio.
		OAX4K	Lima.
			Paris.
			Moscow III.
9548	31·42	XEFT	Vera Cruz.
9545	31·43	LRY	Buenos Aires.
9540	31·45	VLB	Shepparton.
		VLR	Lyndhurst.
			Munich II.
			Rangoon.
			Moscow.
			Tromso, Norway.
9535	31·46	SBU	Stockholm.
		HER4	Berne.
9530	31·48	VUC2	Calcutta.
		WGEO	Schenectady.
			Manila III.
9525	31·50	GWJ	Daventry.
		ZBW3	Hong Kong.
9523	31·51		Johannesburg.
9520	31·51	OXF	Copenhagen.
		CBFR	Vercheres, Canada.
		VLT7	Port Moresby, N.G.
		BEN6	Shensi, China.
			Paris.
9515	31·53	KCBR	Los Angeles.
			Geneva.
9510	31·55	GSB	Daventry.
9508	31·56		Belgrade, Yugoslavia.
9505	31·56	HOLA	Colon, Panama.
		JVW2	Tokio.
		CP38	La Paz, Bolivia.
9500	31·58	OIX2	Lahti, Finland.
		VLS3	Sydney, N.S.W.
		XEWW	Mexico City.
		DZH3	Manila, P.I.
		OAX5C	Ica, Peru.
9485	31·63	CP38	La Paz, Bolivia.
9480	31·65	RW96	Moscow.
9475	31·66	CR6RN	Luanda, Angola.
9465	31·70	TAP	Ankara, Turkey.
9460	31·71	CP1	Sucre, Bolivia.
9455	31·73	LRY	Buenos Aires.
9452	31·74	COCH	Havana, Cuba.
9440	31·78	FZI	Brazzaville.
		RRE	Moscow.
9430	31·81	CP21	Sucre, Bolivia.
		XERQ	Mexico City.
9410	31·88	GRI	Daventry.
9405	31·90	LZC	Sofia III.
9380	31·98	OTM2	Leopoldville.
		OAX4W	Lima, Peru.
9368	32·03		Madrid.
9360	32·09	COBC	Havana.
		YFA4	Makassar, Celebes.
9340	32·15	OAX4J	Lima, Peru.
9315	32·21	LRS	Buenos Aires.
9265	32·37	COCX	Havana.
9250	32·43	YSF	San Salvador.
			Bucharest.
9236	32·49	COBQ	Havana.
9220	32·54	ZYC2	Rio de Janeiro.
9210	32·57	HI2G	Trujillo, D.R.
		OTH	Leopoldville.
9200	32·61	CE920	Punta Arenas, Chile.
9190	32·65	HC1GQ	Quito, Ecuador.
9165	32·73	CR6RB	Benguela, Angola.
9160	32·75	FIA6	Douala, Cameroons.
9110	32·93	ZRB	Waterkloof, S.A.
9045	33·17		Moscow.
9040	33·19		Peking, China.
9025	33·24	COBZ	Havana.
9000	33·33		Tel-Aviv, Israel.
8990	33·37	BCAF	Taiwan, China.
8955	33·50	COKG	Santiago de Cuba.
8910	33·67	PLA8	Batavia.
8825	33·99	COCQ	Havana.
8820	34·00	RW64	Chabarovsk, USSR.
8700	34·48	COCO	Havana.
8665	34·62	COJK	Camaguey, Cuba.
8265	36·30	VED	Edmonton, Alberta.
8242	36·40	CR6RG	Dundo, Angola.
8232	36·46	CR6RH	Huilla, Angola.
8220	36·50		Scutari, Albania.

BC STATION GUIDE

Once again, we are glad to bring to readers' notice the excellent *Guide to Broadcasting Stations*, fifth edition, 88 pp., price 1s. 7d., post free, of Iliffe & Sons, Ltd., Books Dept., Dorset House, Stamford Street, London, S.E.1. This latest issue lists about 400 European medium- and long-wave stations, both on their present frequencies and those to which they will be changing next March when the Copenhagen Plan comes into force ; includes also operating details of nearly 1,300 S/W BC stations throughout the world ; covers all European TV and VHF broadcasters ; gives information on special service transmitters, such as meteorological and standard frequency stations ; and includes details of the world time system, a list of international callsign allocations, British amateur transmitting frequencies, and wavelength-frequency conversion tables.

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VHF TELEPHONE LINK

Messrs. Standard Telephones & Cables, Ltd., have recently supplied and installed an interesting radiophone link between the towns of Port Elizabeth and Uitenhage in South Africa. In effect, this connects the ordinary subscriber telephone systems of the two centres by means of a VHF link operating over about 15 miles, having 24 channels with a capacity of some 300 calls per hour. The Uitenhage terminal is normally unattended (automatic operation) and an alarm system has been devised which signals failure of any part of the equipment or unauthorised entry into the building, which is on high ground a mile from the town.

GUIDE FOR BEGINNERS

We can still supply copies of the *Principles of Short Wave Reception*, a booklet which will be of considerable value to all who aspire to become practitioners in the art of short wave radio. It deals with the fundamentals and also discusses the design and construction of several types of short wave receiver, the whole treatment being essentially practical. The price is 1s. 8d. post free, of the Circulation Manager, Short Wave Magazine, Ltd., 49 Victoria Street, London, S.W.1.

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NEW EDDYSTONE RECEIVER

Advance details have been issued by Stratton & Co., Ltd. (the Eddystone people) regarding their new "750" receiver, which is to replace the well-known and very popular "640", now out of production. The 750 incorporates a number of new features making it particularly effective on the amateur bands. A full Test Report is to appear in an early issue of our *Short Wave Magazine*.

SUBSCRIPTIONS

If you want to be sure of getting the *Short Wave Listener* each month, and on time, we can accept direct subscriptions for a year of 12 issues, despatched by post on publication day, the third Thursday in each month. The cost is 16s. (overseas 18s.) post free. Remit to the Circulation Manager, Short Wave Magazine, Ltd., 49 Victoria Street, London, S.W.1.

Have you heard?

THERE'S no lull in this DX business any longer; one month passes into the next, and all the time a ceaseless stream of letters and Calls Heard pours through my hands, all revealing that the SWL's of this country miss precious little.

Perhaps I should say "taken collectively," in that connection, because I never fail to be surprised at how much is missed by *individual* listeners. Even those who send in the most complete lists of Calls Heard usually fail to hear something which would have pleased them very much, although plenty of others have heard this coveted prize. However, if everyone heard everything all the time, there would be no need for this Commentary.

SET LISTENING PERIODS

That 28 mc hour on the afternoon of October 30 scored a bull, all right. Lots of lists were received, and I note that many entries in the Four Band DX Table have jumped very considerably in the 28 mc column. That band is certainly red-hot these days. By comparison, 14 mc, with its eternal periods of short-skip, seems hardly worth listening to. About the 14 mc SLP—the less said the better. It missed the boat!

During the 28 mc period the following countries were logged: CN, CO, CR7, CX, EK, EL, FA, FM8, HC, HH, HI, HK, HP, HZ, OA, OQ, OX, LU, PY, ST, TI, VO, VP3, VP6, VP9, VQ2, VQ4, VS7, XE, YS, YV, ZB1, ZD4, ZE, ZP, ZS and 3V. That is a total of 37 DX countries, but in the many excellent lists I can't find evidence that any single listener heard more than 21 of them.

The 28 mc band seems to have been in equally good shape ever since, except for odd periods of inactivity due to Aurora and sun-spot effects. During the CW half of the *CQ* DX Contest (the week-end of November 5-6) everything in the world seemed to be crowded into the CW end of the band, and on the Sunday morning I heard all six continents jostling each other at the same time. ZS, VK, CR9, PY, W and Europeans were literally occupying the same spot, giving the sorter-out what could only be called an "instantaneous HAC"!

As we're on the subject of the ten-metre band, let us continue with readers' reports.

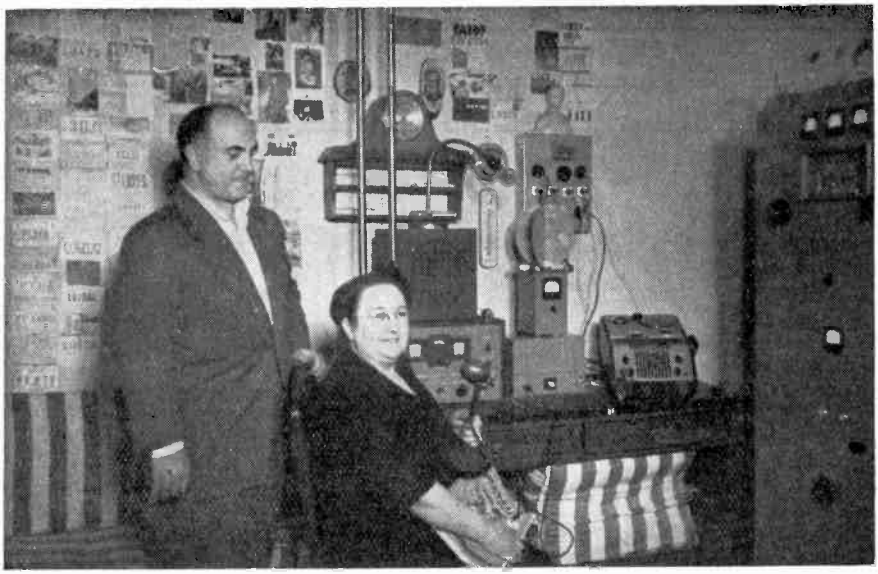
THE 28 MC DX

As practically everyone reports hearing CR5UP, EQ3SAM, MP4BAE and W3NKS/EQ on this band, let's take them as read from now on. It will save space! It is interesting to note, though, in connection with W3NKS/EQ, that although he was in dock in Persian territory, the ARRL have refused to recognise him as a contact with that country (according to J. C. Beal of Wembley), and C. S. Pollington (Chichester) logged him as W3NKS/MM "in the River Euphrates." So he is an MM and not a fully accredited EQ station.

K. M. Parry (Sandwich) logged F9QU/FM8, OX3GG and ZS9F; J. P. Warren (Croydon) mentions PK4DA, VS1AX and 1DZ, YS2AG and TI2RC; W. E. Bachell (Prittlewell) singles out HE1HY, HH2BL, HH4CE, MD7HV, YN4SDA, ZP5BL and ZP8AB. All these on phone.

D. G. Martin (Cheltenham) describes the band as "patchy" but good for Asia and Africa; B. J. Vincent (Welling) says it has been best for the Near East and Oceania, although he did hear HR1RL for a new one. D. G. Martin adds the news that he heard ZL3LE say that a ZL4 had worked the U.S.A. on 6 metres.

D. L. McLean (Yeovil), who says most of his listening has been between 1100-1130 and 1600-1900, finds conditions not so good as in 1947 and 1948, but his list includes JA2AK, KG6SF, KR6CB, YS2AG, ZD2LMF, ZP5BL, TF's and MD7's—all on phone. He wants to know why Ruanda-Urundi should not count as a separate country from Belgian Congo. (The answer: It probably should, but we can't all start separate lists and the "official" lists do not see fit to include it yet. On the other hand there is every reason for *not* counting Wales, Scotland, Northern Ireland and the like, but because they have separate prefixes they all count separately—R. G.



The outfit and operators at CX2CL, one of the active phones in Uruguay.

Goulding (Wrexham) please note. The whole business of country-counting is full of anomalies, but as its only use is for competitive and comparative purposes it doesn't matter much, so long as we all stick to the same list.)

G. Hardwick (Knaresborough) found the band better for the West than for the East, and mentions HP2IO, VP9FF, VU2AT and C1EI. M. G. Whitaker (Halifax) found it less settled than last season, but very interesting for Africa. He heard OH2OK saying that he had been heard in CN8 on 2 metres.

A. G. Scott (Liverpool) describes the band as "open for TA3GVU at 0800 and everyone else at 1100" ! But I seem to have been hearing Asia and ZL's most mornings from 0900 onwards. B. Hummerstone (Harrow) only put in one hour's listening, but collected 21Z and 36C therein. A. Bannister (Manchester) lists KP6AG (28480), CR7IL and HS1SS.

A. H. Edgar (Newcastle) seems to have been enjoying himself more than somewhat with ZM6AA, KH6JR, HR1AV, VS6JF, FF8PG, ET3AF, CR9AG and FQ8SN—all phone. J. E. Honey (Edenbridge) logged HR1RL, S5/6 at 1240 ; S. Beard (Coulsdon) heard VE7MS at S9 plus, 1915. These VE7's do come up to an enormous peak at times.

C. F. Peers (Harrow) says that his full list would be too big even for my W.P.B., so he sent in a much-pruned version. He remarks that all those who logged CN8BA were wrong, because he added, at the end, "C N 8 Baker Item", pronouncing the last word "Aitem." But I think C.F.P. was mistaken and that what he heard was "Baker Adam" ; some of these accents do lead one up the garden. At all events everyone else says CN8BA and not CN8BI. R. G. Goulding (Wrexham) logged CR9AG, FQ8SN, HR1RL and PK3WH. He asks if there is ever anything in the U.S.A. phone band except W's. Well, before the W's begin to bang in at midday I frequently hear KG6, KR6, KP4 and the like ; and I know that many Europeans, including some G's, use that part of the band even when the W's are in full cry.

W. J. C. Pinnell (Sidcup) added three new ones—CR9AG, MD7WE and PK3WH. J. M. Graham (Glasgow) logged AR8UN, FQ8SN, HH2W and MD7HV (all phone) and adds that he heard W's calling VQ1EX and ZS8A. K. Smeeton (Barnton) lists KZ5CS, OA1B, PK4DS, MD7HV, VS7PS, ZP5BL and ZP8AB.

P. G. Lucy (East Barnet) has passed his century on the band with DU1AP, KH6IR, XZ2FK and PK3WH ; H. M. Graham (Harefield) collected four new ones, from HZ, YV, 3V and 4X. A. L. Higgins (Aberkenfig) found conditions best for South Africa and South America, although he collected Zone 40 with OX3GE. K. Parvin (Thornton Heath) weighs in with 3V8AP, 8AX and 8BA, HH2W, HR1RL, KR6AF and 6CB, TF3SF, VP3MCB and EL9A.

R. A. Hawley (Goostrey) has found the band

FOUR-BAND DX

Listener	28 mc	14 mc	7 mc	3·5 mc	Total
A. Bannister (Manchester)	136	150	22	21	166 (P)
R. L. Bastin (Coventry)	58	97	18	20	109 (P)
J. C. Beal (Wembley)	73	150	36	19	154
N. S. Beckett (Lowestoft)	64	157	68	28	164
D. W. Bruce (Eltham)	151	205	69	34	213
P. Bysh (London, N.8)	83	90	18	14	110 (P)
A. T. Cheesley (London, E.10)	77	108	13	9	120 (P)
P. E. Chinn (London, S.E.22)	136	124	11	11	146 (P)
D. K. Cocking (Farnborough)	26	76	16	2	84 (P)
T. W. W. Dearlove (Frimley Green)	102	92	17	11	133
F. K. Earp (London, S.W.11)	105	143	31	27	158 (P)
R. A. Fowler (Cranwell)	83	140	27	21	151
A. O. Frearson (Birmingham)	68	64	14	8	102
C. J. Goddard (Coventry)	3	111	26	14	111
O. A. Good (Oswestry)	120	204	14	8	206
H. M. Graham (Harefield)	62	122	18	19	129 (P)
J. M. Graham (Glasgow)	132	139	24	24	148 (P)
J. L. Hall (Croydon)	7	202	127	56	205
K. G. Harland (Westcliff)	45	69	10	17	89 (P)
M. Harrison (Darlington)	5	160	76	30	162
R. A. Hawley (Goostrey)	136	156	29	19	186
F. A. Herridge (London, S.W.12)	129	93	37	16	151
B. Hummerstone (S. Harrow)	59	96	17	17	112
A. L. Higgins (Aberkenfig)	70	102	17	15	117
T. W. Jones (Birmingham)	54	183	63	22	184
D. S. Kendall (Potters Bar)	132	142	26	29	161 (P)
A. Levi (Belfast)	109	127	10	18	153 (P)
R. J. Line (Birmingham)	66	96	11	8	115 (P)
P. G. Lucy (East Barnet)	106	111	21	23	137 (P)
D. G. Martin (Cheltenham)	85	115	15	17	141 (P)
O. R. F. Mason (Prittlewell)	3	76	16	11	77 (P)
D. L. McLean (Yeovil)	145	148	19	18	168 (P)
J. P. Moore (Solihull)	94	15	18	17	103 (P)
G. Musk (Blackpool)	17	96	12	14	100 (P)
C. A. Naylor (Farnworth)	98	72	15	12	113 (P)
E. J. Parish (Watford)	115	142	17	23	159 (P)
K. M. Parry (Sandwich)	97	106	13	8	123 (P)
K. Parvin (Thornton Heath)	118	150	27	28	156 (P)
W. J. C. Pinnell (Sidcup)	129	179	77	29	188
C. S. Poole (Ipswich)	70	98	21	24	116 (P)
D. Powell (Wilton)	81	127	61	28	140
A. W. Robertson (Cranford)	94	144	22	20	157
A. G. Scott (Liverpool)	30	67	15	5	79
D. Shallcross (Derby)	91	110	19	20	126
K. Smeeton (Barnton)	97	132	22	22	145 (P)
A. Studley (Harrow)	51	131	63	37	141
L. Tombs (Swindon)	122	116	17	21	139 (P)
D. W. Waddell (Hitchin)	54	176	61	27	177
J. P. Warren (Croydon)	71	120	17	15	128 (P)
M. G. Whitaker (Halifax)	96	126	22	27	144 (P)

(P) *Signifies 'Phone Only*

patchy, but has continued to chase the MM's from the Persian Gulf to Ascension Island and the Panama Canal ! He followed W5AXI/MM from the Persian Gulf to Portugal. O. A. Good (Oswestry) heard W5OTF/MM at Kuwait. Pity these fellows don't count as countries !

DX ON TWENTY

Once again we will leave out CR5UP and a few others that are mentioned by nearly everyone. The choicest bags of the month would seem to have been FK8AC, FY8AC, W6GLT/KM6, VQ8AX and the VP8's, although you will find a few more "individual triumphs" as we come to them. N. S. Beckett (Lowestoft) heard FY8AC (2100) and FK8AC (1840), both on CW ; K. M. Parry's best were KR6BJ, VS2BS, VS7BR, VU2LK and XZ2KN. D. L. McLean found the band excellent at 1600-1800, but not so good in the early mornings as last month. His best, on phone, were CR6AI, CT3AC and 3AV, DU1AL, F9QV (Corsica), HI6EC, HZ1KE, KR6BJ, VQ8AX, VS2BS and VS7BR.

G. Hardwick mentions KG4AF, VP4TB and DU1AL ; A. Levi (Belfast) selects ZD1PW, EA8LS, VP6SD and VQ4SC ; W. E. Bachell (Prittlewell) contributes CT3AK, CR7AD, EA6CR, EA8DD, FE8BE and ZK2AA. All the above on phone.

Turning for a minute to CW : A. H. Edgar mentions KZ5MI, FG8GH, VP8AK and 8AP, ZD9AA, C1DJ, KG4AA and XE1MW ; W. J. C. Pinnell adds CR4AD, ZD9AA and VP8AK, 8AN and 8AO—all in the South Shetlands. On phone he heard XZ2SY, VQ8AX and KH6CT (S9 at 1820).

M. G. Whitaker has found the band better than ever, with "something from all continents right through the 24 hours" ; O. A. Good had a nice bag on CW, including FK8AC (1835), FY8AC (1920), VP8AK (1930-2200) and VR2BL (1620). On phone he heard PY8GD and 8GL (both "up the Amazon"), HI6EC and VE8SB (Mackenzie Bay). He remarks on the coming of winter conditions and the more or less complete fadeouts late in the evenings. A. G. Scott comments on the VK and ZL phone in the mornings and adds that he heard W7MBX coming over at S9-plus on a dead band.

J. P. Warren's list includes W6GLT/KM6, DU1AL, F9QV (Corsica), KR6BJ, EL7A and CT3AK ; B. J. Welling mentions CT3AK, VE8MJ, F9QU/FM, HH2ES and VQ8AX. R. W. Finch (Ilford) sends in FY8AC, CE5AW, TI2OA, ZD1PW and FF8MH. A. L. Higgins logged ZS3F and "lots of Africans" plus ZL4HP and KR6BJ, both "S9-plus-plus."

R. G. Goulding's phone list contains EA8CO and 8RB, FL5BB (funny one !), VE8OX, VQ8AX, W6GLT/KM6 and VS6BE. He also heard AK2CO in *Newfoundland*, but as this was on 14411 kc he is obviously a Service or commercial station. T. E. Botham pulled in KP4JF, VQ8AX, VS6BE, YN4CB and XZ2KN. Referring to the last, he remarks that it is not often that one collects a new country *and* new zone "out of the blue," and S9 plus, too.

A long phone list from J. M. Graham includes EP1RX, HP1CN, PY8AJ, UN1AB and YN4CB. His best in the mornings were KH6IJ, KH6OA and KL7ZM. He adds that LZ2AB is "under cover" in Sofia and that OX3AD is a Danish weather station manned by eight operators. New ones for K. Smeeton were F9QU/FM, KG6SF, VS2BS and W6GLT/KM6.

A. W. Tideswell (Stoke) collected KL7WQ, VE8MJ, VP9WW, TI2OA, OA4M, VS2BS and 7BR, KR6BJ, TF3EA and VQ8AX. K. Parvin unearthed EA6CT, HE1HY, PZ1L, VK1ADS, YN4CB, VQ8AX and OY2RD. (He adds that OY's 2RD, 3IGO, 2GA and 8LA are all known to be genuine.) H. M. Graham asks if YR3RI is genuine. I have heard him as YO3RI recently, so I presume he is (or was). Others from H.M.G. include a spate of VK's, including 4RAW—but *surely* this must have been VQ4RAW ? J. C. Beal rounds off our 14 mc DX with UAØKFD, UJ8KAA and FN8AD (CW) plus KR6BJ, VP8AP, VQ8AX and VS6BE.

FORTY METRES

The 7 mc band has come in for a little more attention this time ; in fact A. H. Edgar calls it "the band of the month." He logged AR8CN, EA8AN, HP1CM, OA3EA, PK1CE, UAØUB and ZP8LB—all CW round about 2200. N. S. Beckett has found the skip getting longer round about 1900-2000 and has logged Trieste, YU and UP2. At 0400-0500 he heard KP4, KZ5, CO and PY, also UF6KAE and EA8BC.

A. Studley (Harrow) mentions EL7A, EA6AF, VP4TA, KV4AM and HK4JD ; W. J. C. Pinnell adds W6ADT, UA9CR, YO3RI, SP5AB and EA6AF. B. J. Vincent logged SP5AB and J. P. Warren found ZB1AJX—both on phone. K. Parvin's phone list mentions CT3AC and 3AK, 4X4CL, F9JD (Corsica) and SP5AB, and J. C. Beal comments on FA8DA, HA4SB and lots of U's. There is no doubt that this band is going to provide plenty of DX for those who have the patience and the operating ability.

The 3·5 mc band appears to have died the death again, as far as readers' interest is concerned, the only comment coming from B. Hummerstone, who heard PY1YC on phone as early as 2230.

QUERY DEPARTMENT

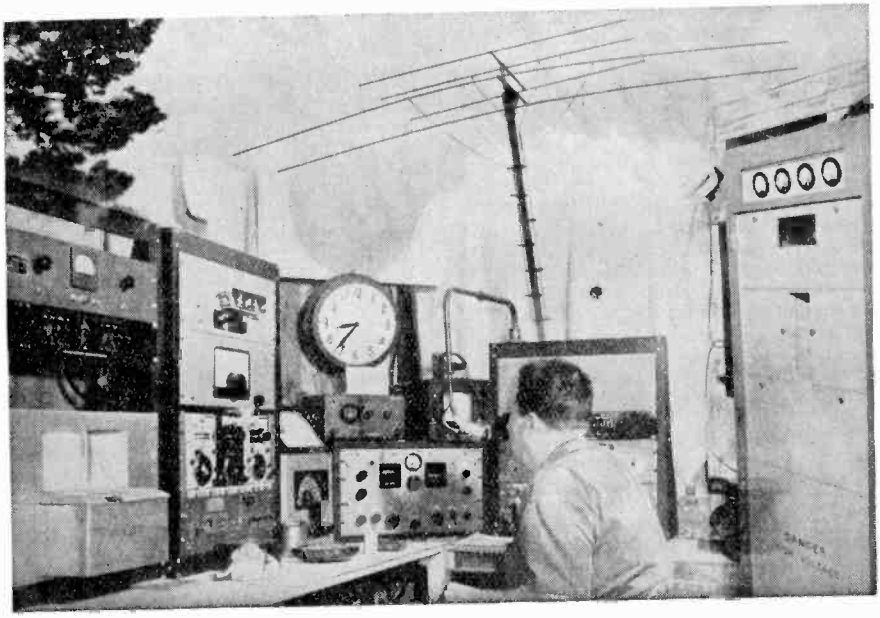
A. G. Scott asks for the precise meaning of "Fixed Portable," and not surprising, because it is a rather silly expression. It is, I believe, only used by the W's, who sometimes move to another location or another district, take their gear with them, and are then allowed to operate as a "fixed portable" until a new call-sign is issued. Thus you hear "W2XYZ Fixed Portable 3" if he is in the third district, or "Fixed Portable 2" if he stays in the second. It corresponds to our own "G9XX/A," used when G9XX is licensed to operate from an alternative location. J. P. Warren asks for the precise meaning of "Under Cover." Bluntly, a station operating under cover is a pirate ; less bluntly, he is operating without full official permission. It is therefore, to say the least of it, embarrassing to receive QSL cards through the post unless they are "under cover" without any mention of Amateur Radio on the envelope. Thus when anyone asks for a QSL "under cover" it is well to remember that a thoughtlessly addressed report may be instrumental in putting him off the air. At the local jail they do not usually allow "fixed portable" operation.

P. G. Lucy asks for the status of MM's and Portables. It is this : Genuine portables count for countries and MM's do *not*. But many so-called portables turn out to be MM's in harbour or in dock, and even they don't count. He also asks whether PK3 is a different country from PK4. Certainly it is ; PK1, 2 and 3 are in Java, PK4 in Sumatra. H. M. Graham asks whether the prefixes for Tunis and Israel are 3V and 4X, or 3V8 and 4X4. I should say the former ; then the calls which follow the prefix are 4AD, 4CL, 8AP and so on.

A. L. Higgins asks for a clearance on the "VU/AP confusion." Truth to tell, I didn't know there was any. VU is still India, AP is Pakistan, and they count as separate countries. He also queries UK5UB, heard on phone on 28300 kc.

Interesting problem in ethics from F. A. Herridge (London, S.W.12) : If you hear a new country on a friend's receiver, do *you* count it or does he ? I don't think there's any clear-cut reply to that one ! F.A.H. also wants to know whether VE8SF is in Zone 1 or 2. A. W. White (Leigh-on-Sea) tells us that VE8MB is on Cornwallis Island (75°N., 95°W.) and that VE8MJ is at Lake Harbour, Baffin Land. Also that OX3XE and 3AD are both in North-East Greenland, 76°N. Finally N. S. Beckett says that UAØUB is definitely in Zone 18.

For J. C. Beal : the "K" in Russian call-signs signifies a radio club station.



Composite view of the station operated by W6EZP, Pasadena, Calif., who runs a kilowatt on 28 mc, into a 3-element beam.

TOP BAND NOTES

The Top Band Counties Heard list shows a gentle climb this month, but no doubt there will be some real jumps next time, because of the Top Band Contest which took place on November 5, and the *Magazine* Club Contest from November 12, onwards. The former produced a terrific amount of activity for one period of 11 hours ; the latter warmed things up nicely for a whole week. Just watch those scores !

Meanwhile G. C. Allen (Thornton Heath) continues to head the main list ; he finds the band "picking up nicely" and has been hearing a good many countries. He quotes DL2HV and 2HK, OK2OL and 1ZB, OZ1W, EI2S and GD5CZ (the latter on 1790 phone). G.C.A. adds that on October 15 and 27, the sunspot activity made even top-band signals sound like W6's !

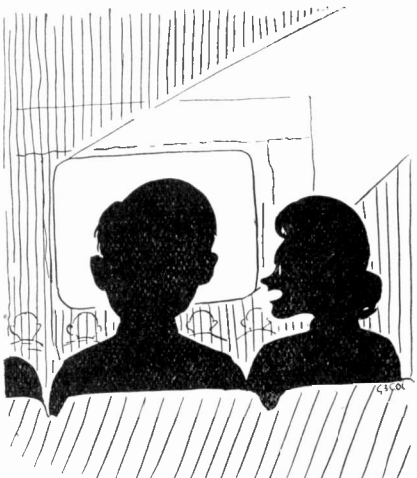
W. Iball (Wigan) wants us to combine the threatened SLP for "QRP Receivers" with a Top Band period. We will. He says, "I'm dreading some bloke saying the Yanks are coming in. Our band will immediately become a mess . . . ." and he goes on "there is that element in the Ham fraternity who respects nought but his card collection—and devil take them that's last." Too true, unfortunately, but up to now the Top Band has been fairly free from the said element.

M. G. Whitaker says the band is improving all the time but there's a lack of new counties. L. M. Singletary (Bicester) managed to find Pembroke, Flint, Renfrew and Co. Armagh, but wants to know if anyone has heard Westmorland ? He has logged OZ1W, OK1ZB, DL1IQ and DL3SB, and says that a new country or county on this band gives him as much kick as a VR2 or a KM6 on 14 mc. He strongly recommends it as the perfect relaxation for jaded DX-chasers.

A. H. Edgar says he raises his hat to anyone who can hear more than five counties, and thinks G. C. Allen's performance merits a decoration !

MISCELLANY

A. Bannister mentions a relatively new, but very real, menace on 14 mc—the number of EA's "splattering" all over the band. He heard 35Z and 104C this month, but mostly in 15 hours' listening during the first five days. He, and others, suggest that it would be interesting to see just how much one's location governs the kind of DX you hear at a given time by arranging some highly specialised SLP's. This sort of thing : 1600-1630 each Saturday in December ; 14300-14400 kc only ; listen for PK's only. Of course such a scheme would tell us something, but I can't imagine very many of our readers keeping watch under those conditions. Most of them want to be hard at it logging something all the time, or they don't feel they are getting their money's worth. But I'll narrow down those SLP's somehow—just see if I don't.



" . . . . Why must you keep saying Hi when you want to laugh . . . ?"

R. W. Finch takes a different line and suggests DX SLP's off the peak periods—for instance, listen for W6 and 7 only, but *not* at the time when one would normally expect to hear them.

F. A. Herridge sends in what really must be the World's Worst "phonetic" : W2AHX saying "W2 Assassination, Homicide and X marks the spot." F.A.H. adds the news that the Maritime Mobile Amateur Radio Club now has 63 members. Talking of MM's, E. H. Williams (Poole) says there has been much cross-talk among them about the countries (some 20 of them) which American amateurs are no longer allowed to work, according to a FCC/ARRL instruction. I don't yet know the full list, but it doesn't concern us much, in any case. E.H.W. has been busy logging about 96 VK phones around breakfast time.

E. J. Logan (Hertford) has "come out of retirement" and sent some nice Calls Heard lists again. He says conditions have been excellent on both bands but 28 mc has only been fully open at week-ends. K. Parvin tell us that four interesting stations just waiting to be heard are HC8ME (Galapagos Islands), ZS6PE (Marion Island), KG6GC/KC6 and W6ATB/KC6, both in the Palaus. (Quick, where's that 0-V-1 ?)

ZONES HEARD
(OCTOBER)

Listener	Zones	Countries
'PHONE and CW		
A. H. Edgar (Newcastle)	37	104
D. Vincent (Beckenham)	37	95
J. C. Beal (Wembley)..	36	102
O. A. Good (Oswestry)	35	125
R. A. Hawley (Goostrey)	35	105
F. A. Herridge (London, S.W.12)	32	79 (28 mc only)
'PHONE ONLY		
R. G. Poppi (Beckenham)	36	124
D. S. Kendall (Potters Bar)	36	120
K. Parvin (Thornton Heath)	36	117
P. G. Lucy (Barnet) ..	36	109
A. L. Wright (Bishops Stortford)	36	103
W. E. Bachell (Prittlewell)	35	111
D. Davies (Beckenham)	35	107
A.Bannister(Manchester)	35	104
R. A. Hawley (Goostrey)	35	103
B. J. Vincent (Welling)	35	93
A. Levi (Belfast) ..	35	90
K. M. Parry (Sandwich)	34	101
O. A. Good (Oswestry)	33	109
J. P. Warren (Croydon)	33	103
J. C. Beal (Wembley)..	33	92
L. Tombs (Swindon) ..	33	90
M. G. Whitaker (Halifax)	31	96
G. Hardwick (Knaresborough)	29	72
A. W. Tideswell (Stoke-on-Trent)	29	59
K. Smeeton (Barnton) ..	28	87
P. Bysh (London, N.8)	28	74
B. W. Sutton (Liverpool)	26	66
T. E. Botham (Walsall)	26	64
H. M. Graham (Harefield)	24	55
A. G. Scott (Liverpool)	23	70
J. P. Moore (Solihull)..	23	58
B. Hummerstone (S. Harrow)	21	36
D. E. Streatfield (London, S.W.)..	17	42
K. G. Harland (Westcliff)	17	38
D. K. Cocking (Farnborough)	15	43
O. R. F. Mason (Prittlewell)	7	15

D. S. Kendall (Potters Bar), who turned in a nice enough score to put him second in the Zones Heard list for October, remarks that they were all heard in the first 15 days, as he departed in the direction of the R.A.F. on the 17th. His performance included hearing his 39th Zone ; two TF3's on 28 mc phone ; and 15 JA's and 21 ZL's in one morning ! We shall still be hearing from him, from time to time. J. C. Beal heard seven new ones in the first seven days of October, and two new Zones (24 and 39) now give him a total of all 40.

D. K. Cocking (Farnborough), having acquired a commercial receiver after two years, now joins the Four-Band party, having added 28 mc to his repertoire. He has also been listening on the Top Band and would like to know where G31W is, because this station is haunting him somewhat.

Finally we have an interesting letter from W. R. Sparling (Kandapolla, Ceylon), who is a listener out there with a Commander and a 34-ft. aerial. His Calls Heard lists naturally present a rather unfamiliar appearance. He queries the following prefixes : EZ5, KE6, AB8, GT3, KG4 and MI3. Apart from telling him that KG4 is Guantanamo Bay (used to be NY4) and MI3 is Eritrea, we can't help. The others all sound phoney.

Another overseas reader to report is R. Legge (Forest Hills, N.Y.) who follows our SLP's even if he does not often send in a log ; in any case, his reception conditions and "scoring standards" are quite different.

NEXT YEAR'S DX TABLES

Now hold your seats and don't be hasty ! The *Short Wave Listeners'* Poll of Public Opinion, you will remember, went into action last month and asked "Should the Four-Band Table continue as a Post-War record, or should it begin again on January 1, 1950? " Of the replies received, 65 per cent said "Start again in 1950," 25 per cent. said "Stay Post-War," 6 per cent. said "Couldn't care less" and 4 per cent. said "What *is* the Four-Band Table anyway? " So there it is ; you'll have to start all over again on all four bands, as from January 1. The reason given for this preference in most cases is that too many people in the table have just heard a few countries on some bands to qualify them for inclusion, and then they continue to do all their listening on their favourite band or bands. A fresh start, it is argued, will ginger them up again. And we will start off right by arranging it in order of merit according to a different band each month.

The Top-Band Counties Heard table will come to an end on December 31, and the winners of that little competition will be announced in the February issue.

1·7 mc COUNTIES HEARD—1949

Listener	Counties
'PHONE and CW	
G. C. Allen (Thornton Heath) ..	63
A. Baldwin (London, E.11)	60
R. A. Hawley (Goostrey)	59
L. Singletary (Bicester)	54
D. Webber (Newton Abbot)	52
D. Powell (Wilton)	49
W. Iball (Wigan)	39
J. Bagshaw (Callington)	36
D. Shallcross (Derby)	31
J. C. Beal (Wembley)	23
D. W. Bruce (Eltham)	15
'PHONE ONLY	
R. A. Hawley (Goostrey)	51
J. H. I. Austin (Coventry)	49
W. Eyre (Whaley Bridge)	47
K. L. B. Dalby (Gainsborough) ..	47
D. Garrard (Ipswich)	44
J. H. Woodward (Stoke)	43
J. H. Roskell (Harrogate)	43
E. Nottingham (York)	37
L. Singletary (Bicester)	37
M. G. Whitaker (Halifax)	29
K. Smeeton (Barnton)	29
K. Parvin (Thornton Heath)	28
A. Levi (Belfast)	27
F. K. Earp (London, S.W.11) ..	23
H. M. Graham (Harefield)	21
K. G. Harland (Westcliff)	21
G. Musk (Blackpool)	21
J. P. Moore (Solihull)	19
O. R. F. Mason (Prittlewell)	13
A. L. Higgins (Aberkenfig)	11
J. C. Beal (Wembley)	9
R. J. Line (Birmingham)	9
R. J. T. Sands (Margate)	8

Another point brought up is this: That there is no means of showing up one's *total* Post-War Zones Heard at present. Well, as the Four Band list is going to be a 1950 affair, I am going to run a Post-War list in order of Zones and Countries only, and this will take the place of the monthly Zones Heard list.

The Zones Heard will be in two separate sections—Phone Only, and Phone and CW. If we *do* decide on a third competitive table I will think up some suitable devilry to keep you all on the hop, but I feel that these two—the 1950 Marathon over Four Bands, and the total record of Zones and Countries Post-War—will show everyone up in their true colours. With one proviso; the Four-Band table might some time become a Five-Band affair, taking in the Top Band.

SET LISTENING PERIODS

November 26, 1800-1900 GMT—14 mc CW and Phone.

November 27, 1100-1200 GMT—28 mc CW and Phone.

December 26, 1500-1600 *GMT—28 mc CW and Phone* (0-*V*-0 *and* 0-*V*-1 *Receivers Only*).

December 27, 1900-2000 *GMT—14 mc Phone.*

Deadline for the January issue is first post on November 30; anything after that will definitely miss the boat. Please address to DX Scribe, *Short Wave Listener*, 49 Victoria Street, London, S.W.1. Good listening!

DX QTH's

EA8LS	Box 346, Las Palmas, Canary Is.
EQ3SAM	Sam Harrison, 509 Weldon Ave., Oakland, Calif.
HC2JR	Box 1304, Guayaquil, Ecuador.
HP1TS	Box 913, Panama City.
KP4AA	Box 515, Rio Piedras, Guantanamo Bay, Cuba.
KP6AH	U. C. Beebe, C.A.A., Palmyra Is., via Hawaii.
MP4BAE	c/o International Aeradio, Ltd., Bahrein Is., Persian Gulf. (*Station at Sharjah.*)
MT2BFC	Bill Wheeler, G3BFC, c/o B.O.A.C., Tripoli.
VE8MB	c/o U.S. Weather Bureau Arctic Section, Washington 25, D.C., U.S.A.
VP6SD	Box 252, Barbados, B.W.I.
VQ5ALT	Box 27, Entebbe, Uganda.
VQ5PBD	Box 444, Kampala, Uganda.
VS1DD	S. Steele, R.S.F., S.A.S.S., RAF Tengah, Singapore.
VS1DZ	GHQ, Royal Corps of Signals Regt., Singapore.
XE2W	Morelos Ote 816, Monterey, Mexico.
XZ2SY	Box 833, Rangoon.
ZB2G	Royal Naval W/T Station, North Front, *HMS Rooke*, Gibraltar.
ZC6DZ	R. H. Lemon, American Consulate, Jerusalem, Palestine.
ZD1PW	Lungi Airport, Freetown, Sierra Leone.

CALLS HEARD

SET LISTENING PERIODS

28 mc 'Phone

Oct. 30, 1600-1700 GMT

J. H. W. Woodcock, 17 Penrith Road, Basingstoke, Hants.

CN8BA, 8BV, CX3CS, FA9RZ, HH2W, HK4AR, 4CO, LU8CW, PY4RJ, TI2HP, VP6SD, 9FF, ZB1AJ, 1AK, ZD4AH, ZE1JB, 2KH, ZS6LF, 6NT, 6OV. (*Rx : RF* 24 *into* 1.*VI.*)

R. A. Hawley, Torview, Brookfield Crescent, Goostrey, Crewe, Cheshire.

CN8BB, 8BV, CO2JL, 7GM, FA3JY, 8IH, 9RZ, HC2JR, HK4AR, HP2RO, HZ1KE, OA1D, PY2CK, 2QO, 4RJ, 7QG, VP6SD, VQ2DH, W3NKS/MM, YS2AG, YV1AU, ZB1AK, ZE1JD, 1JF, 2JA, ZP5BL, ZS5U, 6NX, 6OV, 6TE. (*Rx : AR*-88 *and S.*504.)

E. Lund, 68 Carleton Street, Morecambe, Lancs.

CN8BA, CO7RQ. FA3JY, 8IH, 8IS, HK4CL, W3NKS/MM, PY2CK, YV1AU, TI2EV. (*Rx : S.*670. *Marine.*)

H. C. Askew, Burrough, Melton Mowbray, Leics.

CO7GM, 2JL, HCIFG, HH2W[2] HK4AR, 4CL, 4DF, 2JR, OA1D, OQ5LL, PY2CK, 3QO, 4RJ, VP6SD, ZD4AH, ZE1JA, 1JB, 1JX, ZP5DL, ZS5FJ, 6NT, 6OV, 6TE, 3V8AP. (*Rx : Commander.*)

C. F. Peers, 56 Exeter Road, Harrow, Middx.

CN8BV, CO2JL, 7HM, EL9A, FA9RZ, HK4DF, HP2RO, LU5AB, OA1D, PY1HW, 2NX, 3QO, 4RJ, 7BN, TI2HP, VP6SD, 9FF, YS2AG, YV1BE, ZB1H, ZE2KH, ZS6LF, 3V8AP. (*Rx : S.*640.)

J. M. Graham, 20 Chesterfield Avenue, Glasgow, W.2.

CN8BA, 8BV, CO2JL, 7RQ, CX3CS, FA3JY, 8IH, 9RZ, HC1FG, HK4AR, HP2RO, OQ5LL, OX3BD, PY2CK, 3QO, 4RJ, 7BN, 7VA, SVØWI, VP6SD, XE2W. YS2AG, YV1AU, ZE2JA, 2KH, ZS2DY, 2IW, 5FJ, 5U, 6NT, 6NX, 6OV, 6TE. (*Rx : CR.*100.)

Please note the following simple rules for sending in lists of Calls Heard :

28 and 14 mc : No Europeans.
No USA except W6 & W7
No VE except VE5, 6, 7 & 8.
7 mc : No Europeans.

Arrange logs in the form given here, with (*a*) prefixes in alphabetical order, but not repeated ; (*b*) numbers in numerical order *and repeated* as part of the call-sign ; (*c*) call-signs in alphabetical order. For example :— VK2GW, 3CP, 4UL, VP1AA, 6CDY, VQ3HJP, 4EJT, W6ENV, 7VY. Please underline each prefix, keep each list to one band, and, in short, make your lists exactly like those below, except that the more space you leave, the better.

A. Levi, 33 Old Cavehill Road, Belfast.

CN8BV, CO2JL, CX3CV, FA3JY, 8IH, 9RZ, HC2JR, HK4DY, OQ5LL, SVØAJ, ØWI, PY2CK, 4RJ, 7BN, VP6SD, YV1AU, ZB1AK, ZE1JS, ZS2AW, 2DY, 2ET, 2F. 2UW, 5FJ, 5U, 6LF, 6LV, 6NT, 6NX, 6TE. (*Rx : S.*504.)

J. Bradbrook, Chartwell House, Syke Cluan, Iver, Bucks.

CN8BA, 8BB, 8BV, CO2JL, 7GM, CX3CS, FA9RZ, HK4AR, 4DF, HZ1KE, LU3BQ, 8CW, OA1D, PY3QO, 4RJ, 7BN, 7QG, TI2HP, VO1O, 2W, VP6SD, 9FF, ZE2JA, 2KH, ZS2DY, 2F, 5FJ, 6NX, 6OV. (*Rx : SX.*28.)

D. E. Bootman, 65 Eagle Road, Wembley, Middx.

CO2JL, 7GM, CN8BA, 8BV. FA9RZ, HH2ES, 2W, HK2WA, 4AR, 4CO, HP2RO, LU8CW, OA1D, OQ5AO, 5LL, PY3QO, 7QG, 7VA, SVØWI, VO1O, VP9FF, XE2W, ZE2KH, ZP5BL, ZS6NB, 6OV. (*Rx : Modified RF.*26 into *HRO.*)

P. Steddon, 3 Lister Gardens, Edmonton, London, N.18.

CN8BA, 8DE, DL4NC, FA3JY, F8XT, OZ7PF, 7SM, PY2NX, VE1CR, 1EI, 1ZS, 3BLD, VP6SD. (*Rx : CR.*100.)

E. J. Logan, Linten Cottage, Fanshawe Street, Bengeo, Hertford.

CN8BA, FA9LZ, 9RZ, HB9CX, HK4AR, 4CO, PY2CK, SVØAJ, ØWI, VE1JA, 1CR, 1ZS, VE2AJF, VE3ANY, 3BLD, 3BNN, 3BNO, 3NO, VP6SD, VQ4AF, VS7PS, ZB1AK, 1AH, ZE1JJ, 1JS, 1JX, ZE2JA, 2JH, 2KH, ZS2F, ZS6LF, 6MU, 6OV, 6TE, 6UI. (*Rx : BC.*342-*J and RFU.*32.)

K. G. Harland, 114 Bridgwater Drive, Westcliff-on-Sea, Essex.

CN8BA, 8BV, CO2JL. FA9RZ, HP2RO, VP6SD, ZE2JA, ZS6LF.

J. Tozer, Porton, Wilts.

CE2JA, CN8BA, CO2JL, FA9RZ, HK4CO, PY4RJ, VP9CU, ZE1JX, 2JH, 2KH, ZS2F, 6LV, 6MU, 6OV. (*Rx : 2V2.Battery.*)

G. Waine, Lark Hall Cottage, Cottage Lane, Macclesfield, Cheshire.

CN8BV, CO2JL, FA3JY. 8IH, HH2W, HK4DF, PY2CK, 4RJ, 7BN, VP6SD, YV1AU, ZB1BA, ZE2KH, ZS2DY, 6OV. (*Rx : Battery* 1-*V*-2.)

D. Vincent, 22 Upper Elmers End Road, Beckenham, Kent.

CN8BA, BV, CO2JL, EL9A, HK4BS, LU8CW, OAID, PY1HW, 7BN, YS2AG, ZP5BL, ZS6TE, 6NX, 6OV.

B. Davies, 73 Eden Road, Beckenham.

CN8BB, 8BV, CO2JL, FA9RZ, HC2JR, HH2W, HK4AR, 4CO, HP2RA, OA1D, PY2CK, 2NX, 3QO, 4RJ, 7QG, ZE1JS. 2JA, ZS6LF, 6NX, 6OV. (*Rx :* 640.)

Rev. A. Cumming, 77 High Street, Lymington, Hants.

CN8BA, 8BV, CO2JL, 7RQ, EL9A, HCIFG, HH2W, HK4AR. 4DF, HP2RO, HZIKE, OAID, OQ5AO, PY2CK. 4RJ, 8QY, VP6SD, XEIA, YVIAU, ZD4AH, ZSIFD, 2DY, 2F, 6LF. 6OV, 6TE. (*Rx : BC*348*R and Labgear Convertor.*)

W. Eyre, Orchard Field, Whaley Bridge, Derbyshire.

CN8BA, 8BB, 8BV, CO2JL, 7RJ. EL9A, FA3JY, 8IH, 9RZ, HC2JR, HZ1KE, LU8CW, OQ5AO, PY2CK, 2NX, 4RJ, 7BN. SVØAJ, ØWI, TI2HP, VP6SD, VQ2DH, 2JO, ZB1AJ, 1AK, 1BA, 1H, ZD4AH, ZE1JB, 1JS. 1JX, 2JA, 2KH, ZSIT, 2DY, 2ET, 2F, 5U, 6AV, 6CE, 6GV, 6LF, 6MU, 6NX, 6OV, 6QM, 6SN, 6TE, 3V8AP. (*Rx : S.*640.)

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

CN8BA, CO7GM, FA9RZ, HC1FG, HK4AR, 4CO, OA1D, PY2CK, 3QF, 7BN, 7QG, VE1CR, VP6SD, VP9FF, VQ2DH, VQ4RF, ZD4AH, ZE1JB, 1JS, 2JA, ZS1P, 2DY, 6AV, 6LF, 6TE. (*Rx : Hambander.*)

E. H. Williams, Tara, Rowland Avenue, Poole, Dorset.

CN8BA, 8BV, CO2JL, HC2JR, HK1EJ, HP2RO, LU4DB, OA1D 1E, OQ5LL, PY2CK, 3QO, 4RJ, 7BN, 7VA, VO1O, VP6SD, 9FF, XE1NE, ZB1BA, ZD4AH, ZE2KH, ZP5BL, ZS5S, 6LX, 6OV. (*Rx : AR.*88.)

D. K. Cocking, Farnborough, Kent.

CN8BA, 8BV, PY2CK, 3QO, ZB1K, ZE1JS, ZS6OV, 6TE. (*Rx : S.*640.)

R. G. Goulding, 10 Earle Street, Wrexham, Denbighshire.

CN8BA, CO7GM, FA3JY, HC2JR, HK4AR, HP2RO, HZ1KE, OX3BD, PY4RJ, VP6SD, VQ2DH, XE2W, ZD4AH, ZE1JB. (*Rx : Home built Double Superhet, RF.*26 *Converter.*)

K. L. B. Dalby, Green Lane, Lea, Gainsborough, Lincs.

CN8BA, 8BV, CO2JL, 7GM, 7RQ, FA3JY, 8IH, 9RZ, HK4CO, OA1D, OX3BG, PY2CK, 2NX, 4AB, 4RJ, 7BN, 7GM, 7QG, VO1O, VP6FD, VP9FF, XE1A, 2W, YV1AV, ZB1BA, ZS1DH, 2DY, 2ET, 2FE, 6LA, 6LF, 6NT, 6TE, ZD4AH. (*Rx : Eddystone S.*640.)

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

CN8BA, 8BB, 8BV, CO2JL, 7GM, 7RQ, CR7IL, CX3AA, 3CS, FA9RZ, HC1FG, 2JR, HH2W, HK4CO, 4DF, HZ1KE, LU4DP, 8CW, 9BD, PY2AC, 2CK, 2KT, 2NX, 3QO, 4RJ, 7BN, 7QG, ST2KR, TI2HB, VP6SD, XE1NE, 2W, YS2AG, ZB1H, ZD4AH, ZE1JB, 1JS, 1JX, 2JA, 2KH, ZP5BL, ZS6LF, 6MU, 6OV, 6SN. (*Rx : V55R with Converter.*)

C. S. Pollington, 8 Cleveland Road, Chichester, Sussex.

CN8BA, 8BV, CO2JL, FA9RZ, HZ1KE, HK4CO, 4DF, LU6DP, 9BW, PY7BN, SVOAJ, ZE1JV, 2KH, ZS2F, 6GV, XE1A, 3V8AP. (*Rx : AR88LF.*)

E. Nottingham, Lyndhurst, Upper Poppleton, York.

CN8BA, 8BV, CX3CS, FA3JY, 81H, 9RZ, HC2JR, HZIKE, LU8CW, OA1D, PY2NX, 3QO, 4RJ, 7BN, VP6SD, VQ2DH, YV1AU, ZE1JR, 1JS, ZP5BL, ZS1FD, 2ET, 6NT. (*Rx : AR* 77.)

J. B. Buckell, 16a Botwell Lane, Hayes, Middlesex.

CN8BA, 8BB, 8BV, CO7QR, EK1CH, FA9RZ, HK4AR, 4CO, LU3BQ, PY2CK, 7BN, 7QG ZB1BA, ZE2KH. (*Rx : S.*640.)

P. G. Lucy, 11 Hereford Avenue, East Barnet, Herts.

CX3AA, HC1FG, 2JR, HH2W, HI8WF, HP2RO, HZ2KE, OA1D, VP5EN, 6SD, XE1NE, YS2AG, ZE1JS, 2JA, ZS6LF, 6MU, 6NX, 6OV, 6TE, ZP5BL, 3V8AD. (*Rx : R1155A, RF Unit* 24.)

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

CN8BA, 8BB, 8BV, CO7GM, FA3JY, 9RZ, HK4AR, HP2RO, LU1DR, PY2CK, 2NX, 3QO, 7BN, TI2HP, VO1O, VQ2DH, XE1A, ZE1JS, ZS5YF, 6LF, 6NT, 6NX, 6OV. (*Rx : Commander.*)

L. Tombs, 31 Little Avenue, Swindon, Wilts.

CN8BA, 8BB, 8BV, CO2JL, CX3CS, EL9A, FA9ZR, HC2JR, HH2W, HK1HQ. 4DF, HP2RO, LU4DP, 8CW, OA1D, PY2AC, 3GO, 3QO, 4RJ, 7BN, SVØWI, VP3HL, 6SD, XE1A, YS2AG, YV1AU, ZE2KH, ZP5BL, ZS5FJ, 6OV. (*Rx :* 12 *Valve Superhet.*)

F.W. Hardstone, 43 Shrubbery Road, Streatham, London, S.W.16.

CN8BA, 8BB, 8BV, CO2JL, 7RQ, CX3CS, EA4LA, FA3JY, 9RZ, FT8AP, F9QU/FM8, HH2W, HK4AR, 4CO, 4DF, HP2RO, LU8CW, OA1D, PY2CK, 2NX, 3QO, 4CR, 4RJ, 7QG, 7VB, SVØW1, TI2HP, VQ4RF, XE1ME, YV1AU, 5BZ, ZB1H, 1AK, ZD4AH, ZE1JB, 1JS, 1JX, 2JA, 2KH, ZP5BL, ZS1P, 1SX, 2DY, 5FJ, 6LF, 6MU, 6NX, 6OV, 6TE, 6VS. (*Rx : RF.*24 *into S*40A.)

K. Parvin, 98 Winterbourne Road, Thornton Heath, Surrey.

CN8BA, 8BB, 8BV, CO2JL 7GM, CX3CS, EL9A, FA9RZ, HC1FG, 2JR, HH2W, HK1HQ, 4CO, 4DF, HP1LA, 2RO, HZ1KE, LU3BQ, 8CW, OA1D, PY1HW, 2AC, 2CK, 2NX, 3QO, 4RJ, 7BN, 7QG, TI2HP, VO1O, 2W, VP6SD XE2W, YS2AG, YV1AU, ZE2KH, ZP5BL, ZS6NX, 6OV. (*Rx : S.*640.)

14 mc 'Phone

Oct. 29, 2200-2300 GMT

F. W. Hardstone, 43 Shrubbery Road, Streatham, London, S.W.16.

CX1VD, LU1JC, 6ES, 8CW, PY1AIS, 2CK, 4RJ, 6CO, 7QG, 7VA, VP4CD. (*Rx : RF.*24 *into S*40A.)

W. Eyre, Orchard Field, Whaley Bridge, Derbyshire.

CX1VD, LU6ES, 8CW, PY2CK, 4RJ, 7UG. (*Rx : S.*640.)

C. F. Peers, 56 Exeter Road, Harrow, Middx.

LU6CS, 8CW, PY2AK, 2CK, 4RJ. (*Rx : S.*640.)

K. G. Harland, 114 Bridgwater Drive, Westcliff-on-Sea, Essex.

CN8BA, PY2CK, 4RJ.

R. G. Poppi, 274 Kent House Road, Beckenham, Kent.

CN8BA, CX1VD, LU4CL, PY2AE, 2CK, 7QG, SVØAG, UA3AM, VP4TO. (*Rx :* 640.)

E. H. Williams, Tara, Rowland Avenue, Poole, Dorset.

CN8BA, 8EA, LU1BW, PY2AK, 2CK, VE2CA, VP4CO, 4TB. (*Rx : AR*88.)

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

CN8BA, 8EA, CX1VD, EA8AE, 8AS, HC1FG, PY1QO, 2AK, 2CK, 4RJ, 7QG, VP4TB. (*Rx : V55R with Converter.*)

GENERAL

7 mc

W. Kyle, 9 Dene Terrace, South Gosforth, Newcastle-on-Tyne, 3.

'*PHONE:* YO7RI.

CW: CO8FH, CT3AD, UB5KB, 5BR, 5BY, YS1RA. (*Rx : R*109 *into BC.*453.)

A. Studley, 274 Kings Road, Harrow.

CW: EA6AF, EL7A, FA8BG, HK4JD, KP4KF, KV4AM, PY1LQ, UR2AH, VP4TA, W5IZV/7, 6CEM, 6FHW, ZB1AR, ZL4GA, 4X4CL. (*Rx :* 1-*V*-2.)

A. H. Edgar, 15 Dene Terrace, South Gosforth, Newcastle-on-Tyne 3.

CW: AR8CN, CN8BF, EA8AN, HP1CM, OA3ER, OX3BY, PK1CE, PY2AL, UA3CNU, 4HI, 9KCA, ØVB, UB5BO, 5DA, 5KCA, UI8HX, UM8FA, VK3TU, W3ES, ØZV, ZP8LB, 4X4CL. (*Rx : S.*640.)

K. Parvin, 98 Winterbourne Road, Thornton Heath, Surrey.

'*PHONE:* CN8MI, CT3AC, 3AK, F9JD (Corsica), FA8BE, 8JO, SP5AB, ZB1AJX, 4X4CL. (*Rx : S.*640.)

14 mc

G. Hardwick, 11 Carmires Avenue, Knaresborough, Yorkshire.

'*PHONE:* C1EI, CO2WV, 7GM, HK4AR, HP2IO, HZ1KE, KG6AB, MD7HV, MP4BAC, 4BAE, OQ5BL, PK2WH, 4DA, 4KS, ST2AM, TI2HP, VP6SC, 6SD, 6YB, 9FF, VS1DZ, 7PS, VU2AT, W2EJV/PK3, 3NKS/P/EQ, 7FST. (*Rx : Battery* 0-*V*-1.)

E. J. Logan, Linten Cottage, Fanshawe Street, Bengeo, Hertford.

CR5UP, EL3G, HB9/HEIHY, HH2S, HP1BR, MD7HV, MP4BAE, PK5HW (Borneo), PX1C, PZ1FN, UG6AD, UM8KAA, VP3MCB, VP4TB, VP6CDI, VQ8AX, VS7BR, XZ2KM, YN1HB, YS1GM. (*Rx : BC*.342*J*.)

D. H. Dell, 92 Cranston Road, Forest Hill, London, S.E.23.

'*PHONE:* CR6AI, DU1AL KR6BJ, M1B, OX3BD, 3MC, VK7AJ, VQ8AX, VS2BS, VU2MA, XZ2SY, ZD1PY, ZE2JQ, ZL4AC, 4HP, ZS6JS. (*Rx :* 358*X*.)

J. C. Beal, 24 Woodfield Avenue, North Wembley, Middlesex.

'*PHONE:* CR6AI, DU1AL HZ1KE, KR6BJ, ST2GE, UG6AB, VP3MCB, 4TB, VQ8AX, VS2BS, 6BE, VU2AT, XZ2KN, ZS3F.

CW: AP2N, MP4BAD, UJ8KAA, VP8AK, 8AP, ZE2KI. (*Rx : BC*-224-*B*.)

D. J. Williams, Cwmllethryd, Pontyberem, Carms.

'*PHONE:* CN8BN, CR5UP, EZ4AE, HC1FG, KR6BJ, OX3BD, PY2CK, 6CO, VK3HO, XE1AC, ZL2JB, 4AK, 4HP, ZS5BK, 4X4BL.

CW: VQ8AB, W7BG, UL7AB. (*Rx : 5 valve Superhet*.)

2427042 A.C. Loughenbury, T., HQ, 61 Group, RAF, Kenley, Whyteleafe, Surrey.

CR5UP, EL5A-5B, F9QV (Corsica), HA5BF, HI6EC, HP1AP, 1DL, 1GM, KZ5NM, 5WJ, TG9RB, TI20A, VK3AUP, 3HO, 7AJ, VP4CO, YN4NW, ZD1BH, ZL4HP. (*Rx : Hambander*.)

H. Froggatt, 9 Knoll Street, New-Mills, nr. Stockport, Cheshire.

'*PHONE:* CN8MI, PY2CK, 6CO, TA3FAS, 4X4A, BC.

CW: CN8BJ, KL7JS, 7OL, KP4AZ, 4QZ, LU1CA, 6DJ, PY1DH, 1FX, 2FC, 2WB, 7WO, VK2EO, 4EL, 5FL, 5FM, VP4TZ, 8AK. (*Rx : R*.1155*A*.)

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

'*PHONE:* CR5UP, KA1AI, KL7UM, 7ZM, KR6AJ, 6BE, 6BJ, VP7NK, VQ2WP, VS2BS, VU2ET, XZ2KN. (*Rx : BC*.1147*A*.)

I. E. Alfrey, 45 Rusthall Avenue, Bedford Park, Chiswick, W.4.

'*PHONE:* CO2NG, CT3AK, CX4CF, DU1AL, EA8RB, HC2GRC, HK1AY, KL7ZM, LU5AR, OQ5RU, OX3BD, PY2AKA, VE8MJ, VK1AD, 2NS,, 3XN, 4WF, 5RN, VP3MCB, VQ4ERR, W7VS, YN4NW, ZC1AZ, 6UMU, ZL2AW, 3IF, ZS1BV, 4X4AD. (*Rx : V*.55*R*.)

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

'*PHONE:* CR5UP, HI6EC, 8WF, HP1LO, OQ5DZ, PY8GD, 8GL, VE8AW, 8MA, 8SB, VK7AJ, 7JB, 7NC, YN1HB, 4CB, ZS4CD, 5BK, 5GS, 5YF.

CW: CE7AA, FK8AC, FM8AD, FY8AC, HC7KD, KV4AA, 4AI, UAØKFD, VP8AK, VRZBL, ZD9AA. (*Rx : S*.640.)

E. H. Williams, Tara, Rowland Avenue, Poole, Dorset.

'*PHONE:* CE2AE, CN8MI, CR5UP, CX2CO, EA8RD, 9AI, FA3FB, 9OW, OQ5DZ, OX3AD, TA3GVU, UA1KBA, VE8MB, VP9F, VQ2DH, VQ4ERR, VU2ET, 2MA, YN4CB, YV5BJ, ZC1AL, 6UNX, ZL1CC, 2AD, 3DS, 4AC. (*Rx : AR*88.)

M. H. Dunn, Kersey Towers, 58 Tomline Road, Felixstowe, Suffolk.

'*PHONE:* CE1GG, CR5UP, CT3AC, 3RP, IS1EH, 1EX, EA8RB, 8RO, HC1FG, HI6EC, HK1AR, KP4DI, OQ5DZ, TI2RC, VP3NCB, 4TV, VQ2JB, 4RA, 4SC, YN4CB, ZL2BT, 4HP, ZS1GG, 6JS. (*Rx : Bush S.W*.45.)

R. G. Goulding, 10 Earle Street, Wrexham, Denbighshire.

'*PHONE:* CE1AR, CR5UP, CT3AK, EA8CO, 8RB, FL5BB, HK1FE, HP1EA, KL7ZM, KR6BJ, KZ5NM, OX3RC, TG9RB, VE8OX, VP3MCB, 7NU, VQ8AX, VS1AX, 6BE, W6DLT/KM6, XE1ID, XZ2KN, YK1AA, YS1MS, ZL2BT. (*Rx : Home built Double Superhet*.)

J. P. Warren, 14 Francis Road, W. Croydon, Surrey.

'*PHONE:* CE3AB, CR5UP, 6AI, CT3AK, DU1AL, EL7A, F9QV (Corsica), HI6EC, HP1CM, 1DL, KH6CT, W2LXT/KL7, W6GLT/KM6, KR6BJ, MD7HV, TI2TG, VP3MCB, 4TB, 5AK, VS2BS, 7BR, VU2ET, 2LK, ZD1PW, ZS3F. (*Rx : Converted RA*.10.*DA*.)

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

'*PHONE:* AR8AB, 8MR, 8PP, CR5UP, 6AI, CT3AC, 3AV, DU1AL, EA8CO, 8LS, 8RB, 8TM, FF3CN, HI6EC, HZ1KE, KR6BJ, MD7HV, VQ8AX, VS2BS, 7BR, W2LXF/KL7, ZC1AZ, 6UNX, ZD1BD, 1PW. (*Rx : RCA. AR*.88*LF*.)

28 mc

S. G. Beard, 8 Whitethorn Avenue, Coulsdon, Surrey.

'*PHONE:* CX4CS, FQ8SN, HC1OY, HK3AB, 4AR, HP2JR, KP4HZ, KZ5CP, 5PD, OQ5AO, VE7AIH, 7MS, 7UU, VP6CD, W3NKS/MM (Atlantic Ocean), YS2AG, ZP5BL, 7AA, ZS6CY, 6LF, 6PR, 6Q, 6TE, 6Z. (*Rx : RF Unit* 26 *and BC*.348.)

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

'*PHONE:* CX4CS, EL2A, ET3AF, FF8PG, HC2JR, JA2AZ, 7AA, KG6ET, 6FX, LU4DD, MD2AC, 2MD, MP4BAE, OA1D, PK3WH, 4KS, TI2RC, VK3AQ, 5AS, 6KW, 6WU, VP6SD, 6YB, 9F, 9TT, VQ2DH, 2HC, 4IMS, 4RF, 4SC, VS9AH, VU2GB, W2LDH/MM, 2FGV/PK3, 2QAK/MM, 2ZBA/MM, 2ZGE/MM, 3KIF/MM, 3NCV/MM, 3NKS/EQ, 4IUT/MM, 5AXI/MM, 5OFO/MM, 5OTF/MM, ZD4AH, ZP5BL. (*Rx : AR*.88 *and S*.504.)

A. H. Edgar, 15 Dene Terrace, South Gosforth, Newcastle-on-Tyne, 3.

'*PHONE:* CR5UP, 9AG, ET3AF, FF8PG, FQ8FN, HR1AV, KH6JR, PK4KS, TA3FAS, TI3OV, VK2EK, 7IV, VP1QG, 9F, VS6JF, ZC1HS, ZL3AF, ZM6AA.

CW: DU1SU, KX6EG, VS9AL. (*Rx : S*.640.)

F. A. Herridge, 95 Ramsden Road. Balham, London, S.W.12.

'*PHONE:* CR9AG, JA7AD, 7AF, KG6ED, 6SF, KR6CB PK3WH, 4DA, 4KS, VE7CN, 7MS, 8SF, VK2AFE, 2AFS, 2AGV, 2ARG, 2ARJ, 2VB, 3AØL, 4FJ, 5ZR, 6DD, 6FW, 6HL, 6MW, 6WU, W7FST, 7JJØ, 7LVR, 7PEY, ZL1GW, 1HY, 1ON, 3DS, 3JO, 3LE, 4AG.

CW: VK5AE, 6WT. (*Rx : RF*.26 *into R*.103*A*.)

G. Waine, Lark Hall Cottage, Cottage Lane, Macclesfield, Cheshire.

'*PHONE:* CE2CC, CO7GM, CX1DB, EL2A, ET3AF, HC1KP, HH2W, HK4BX, LU4BB, MD2AC, MD7HV, MI3SC, MT2BFC, OQ5AO, PY4RB, ST2A, VE7KH, VP4TZ, 6SD, VQ4CJG, ZE2KH, ZS6DJ, 4X4BM.

CW: VS9AL, ZS5CK. (*Rx : Battery* 1-*V*-2.)

K. M. Parry, 6 St. Bart's Road, Sandwich, Kent.

'*PHONE:* CP5FA, CR5UP, EQ3SAM, ET3AF, F9QU/FM8, FF3CN, HP1WM, JA2CL, 5AA, 7AF, KG6ET, 6SF, KR6BV, MP4BAE, OA4BV, OX3GG, PK4DA, TG9RB, VQ5ALT, VS7PS, VU2CQ, 2DU, XE2W, ZS9F. (*Rx : R*.208.)

P. G. Lucy, 11 Hereford Avenue, East, Barnet, Herts.

'*PHONE:* CR5UP, 9AG, DU1AP, FF8CN, FQ8SN, JA2BU, 2CL, 5AA, 7AF, KG6ET, 6GF, KH6IK, KR6AF, 6BV, MP4BAE, PK3WH, 4DA, 4KS, VS1AY, W3NKS/EQ, XZ2FK, ZP5BL, 8AB. (*Rx : R*.1155*A and RF Unit* 24.)

THE VHF END

by **A. A. MAWSE**

ON October 17 at 1950 BST, G6UH (Hayes) heard two-metre signals from FA8IH. So far no adequate explanation of how these VHF signals travelled the 1400 or more miles from Algiers has been given. The meteorological and ionospheric experts have no immediate answer. Over the other side of the Atlantic in May of this year, W4HHK heard W7FGG at around 1200 miles. Possible explanations of this latter DX have been given, but both tropospheric and sporadic-E theories have had their adherents and the real answer is not at all certain. In both cases there was no prior indication that abnormal conditions existed, and both occurred at times or dates which were far from likely. The moral to all this is, presumably, that there is still much to learn about these VHF's and that we must not assume that listening on Two Metres is necessarily going to be unproductive of results during the months of winter storms. True, if one has to choose between winter and summer for bench work, the advantages are decidedly with the winter, but it is hoped that those readers who have equipment going on the VHF bands will manage to keep a regular watch on them during the coming months.

The falling off in activity on the part of the transmitters was quite noticeable, and regrettable, during the latter part of October when the rains came. The lack of DX was most probably due to poorer conditions, but that did not explain the inaudibility of local stations. (Perhaps on second thoughts, it did !) Luckily a few stations persevered and it was possible to obtain an impression of the improvements since last winter. Signals from stations at 50 miles or so, which were just audible last winter, are now up to S6 or S7 even under adverse conditions, and it was interesting and encouraging to notice that many of the regular schedules kept by the transmitting fraternity over paths of 100 miles or more were still workable even through heavy rain and gales. Admittedly, this isn't possible over every path or from every location, but it serves as encouragement to keep us all at it.

The first half of October produced generally excellent results, but as mentioned already, things fell off badly after about the 14th and with the exception of a small improvement right at the end of the month, conditions were decidedly poor.

World Receiving Record on Two—Conditions—Individual Reports—VHF Listeners' Club

The Month's News

Reports are rather few this time, but those that have come in contain much of interest. A. L. Mynett (Wembley) has been using an array of four three-element very-wide-spaced Yagis stacked one above the other, with the top at 35 feet above ground. It gives him considerably more gain than his original "Quad." Connecting the aerial to the receiver increases the noise considerably, and he points out that this is not due to bringing the first stage into resonance. During October he logged G2XC (Portsmouth, 62 miles) 9 times, G5BD (Mablethorpe, 127 miles) 7 times and G2IQ (Sheffield, 137 miles) 5 times. On October 13, G2XC was so strong that the IF stages of the receiver were blocked, yet on other occasions signals from the same station were only S3 and very subject to fading. Some of this discrepancy in signal strength from day to day may, of course, be due to the direction of the beam at the transmitting end, and it is known that G2XC's beam is very sharp. A 62-mile path will, however, be subject to considerable variation in propagation characteristics and A.L.M. would seem to have found a very useful one for checking up on the theories of propagation of VHF waves.

On this question of propagation, A.L.M. considers that the theory put forward by G2XC and G6DH, in the past, that signals are transmitted beyond the horizon by gradual refraction *plus* partial reflection at a refractive

Two-Metre DX

R. Hastie (Hayes)	F3DC	221 miles
G. E. Magrow (Dawlish)	G3DAH	210 miles
D. T. Bradford (Denham)	G6WT	153 miles
A. F. Hayton (Palmers Green)	G5BD	116 miles

Note: All claims for this table must be for distances over 100 miles and accompanied by a QSL card to verify.

Two Metres

Counties Heard

***Starting Figure*, 10**

P. J. Towgood (Bournemouth)	33
D. T. Bradford (Denham)	25
R. Rew (Birmingham)	24
W. H. Pierce (Reigate)	22
G. E. Magrow (Dawlish)	22
A. L. Mynett (Wembley)	19
A. W. Blandford (Mitcham)	16
R. M. James (Chatham)	12

index discontinuity explains the variations of reception at different QTH's. He points out that, under those conditions, the waves will be travelling at 1000 feet or less over a large part of their journey and that, in consequence, they will be affected by high ground on the path. This could cause large differences in signal strength in directions which are only slightly different.

On the subject of receivers, A.L.M. is one of those who recommend the 6J6 cross-neutralised RF stage. He stresses the need for exact neutralising if noise is not to be introduced. Other Rx plans include a Clapp oscillator followed by multipliers.

M. McBrayne (Westcliff-on-Sea) has an RF27 working on 2 metres, but so far has not found results too encouraging, G2MV at 40 miles being his best DX. Two beams are in use, a 4-ele close-spaced and the wide-spaced one described in "VHF End" in September. These are only 15 feet above ground, and indoors—so that may explain much. At present folded dipole feed from 80-ohm twin is being used, but when the beam goes up into the loft, M.M. proposes to use the recommended 300-ohm line as feeder.

Another using the wide-spaced beam which we described is E. A. Lomax (Bolton). E.A.L. has been working in conjunction with G8SB and they both have G2IQ type converters. G8SB is using this same type of beam and has it mounted 50 feet up in the sky. With E.A.L. on the south side of a hill and G8SB on the north side of the same hill, some interesting results are sure to be obtained. Already it has been found that the north side of the hill is markedly superior in the direction of GM and GI, but nevertheless some signals do get over the top in both directions. (G8SB, by the way, is most anxious for listeners' reports and he is active nightly after 2000 GMT.)

A new member of the VHF Listeners' Club, R. Hastie (Hayes) has started off well and goes to the top of the DX table with a confirmation QSL from F3DC (Creteil, near Paris). F3DC was on 'phone on 144·6 mc on October 6 when R.H. heard him. Only an ordinary dipole, with 80-ohm coaxial feeder, located in the loft, was in use at Hayes ; a 4-element close-spaced beam has now been constructed, while the Rx line-up is RF27 working into an Eddystone 640.

L. A. Whitmell (Harrow Weald) has found conditions generally good, especially October 1, when G5PB (New Milton) was S8 and G2XC S9. He has now reached 105 stations, for which he requests a putty medal ! Altering RF27 units has been keeping L.A.W. busy. Soon he hopes to have time to do a job for himself—namely, put up a 4-ele beam.

D. T. Bradford (Denham, Bucks.) having now got his ticket, will, one fears, be lost to this feature—though he will be starting up on Two, and will be very glad to have SWL reports, for which 100 per cent. QSL's are promised. While waiting for the callsign, D.T.B. has been able to collect another county in G4AP for Wilts., and has also been doing a bit more on the bench with converters.

TWO-METRE CALLS HEARD

E. A. Lomax, 28 Welbeack Road, Heaton, Bolton, Lancs.

G2AOO, 2IQ, 2OI, 3ABA, 3AHT, 3BKQ, 3CHY, 3CSC, 3CXD, 3DA. 3TZP, 5CP, 5KX, 5RW, 6DP, 6LC, 6MI, 6TL 8SB. (*October* 10-30.

M. McBrayne, 252 Hamlet Court Road, Westcliff-on-Sea, Essex.

G2FZR, 2IC, 2KG, 2MV, 2VA, 3ANB, 3BTL, 3BWS, 3CAZ, 3FIJ, 3GW, 6PG, 6VC. (*October* 8-30).

A. L. Mynett, 29 Sunleigh Road, Alperton, Wembley, Middlesex.

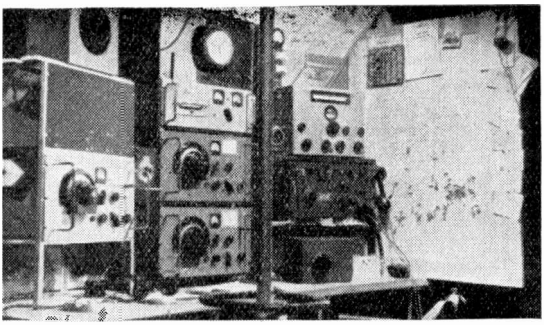
G2BMZ (159), 2DSW (65), 2IQ (137), 2XC (62), 2XS (90), 2XV (50), 4AP (64), 4MW (50), 5BD (127). (*During October. Mileage in brackets.*)

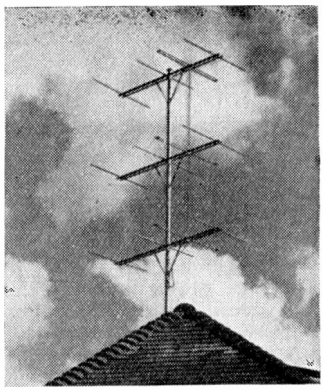
A. E. Wright, 92 Druid Street, Hinckley, Leics.

G2ATK, G2AOK/A, G2FNW, G2IQ, G2XS, G3ABA. G3AHT, G3BKQ, G3BHE, G3CXD, G3DJQ, G4RK, G5LJ, G5ML, G5RW, G6SN, G8DD, G8QY, G8QX. (*Rx : Mod. RF27 into AR88, 3-ele beam.*)

L. A. Whitmill, 762 Kenton Lane, Harrow Weald, Middx.

G2AFB. 2AHP, 2AJ, 2ANT, 2BMZ, 2BN, 2DGO, 2FMF, 2FPP, 2JQ, 2MV, 2PU, 2XC, 2XV, 2YC. 2ZV, 3ABA, 3BLP, 3BOB, 3CDQ. 3CQ, 3CVO, 3CWW, 3DCC, 3FD, 3FP, 3GM, 3QK, 4AU, 4CG, 4DC, 4HT, 4MW, 4RO, 5AS, 5BD, 5DT, 5KH, 5LC, 5LJ, 5MA, 5MJ, 5OO, 5PB, 5PY, 5RD, 5WP, 6CB, 6HG, 6LR, 6NB/A, 6NF, 6OH, 6WU, 6XM, 6YP, 8GX, 8IP, 8KZ, 8SM, 8TB. (*Rx: RF27 into S640. Aerial: Long wire and 3-ele beam. All during October.*)





G. E. Magrow, Dawlish, Devon, a well-known SWL who is very active on VHF, runs this station. The beam is on a 2-in. shaft with elements mounted on s/o insulators and carried on a boom of ¾-in. angle. The sections are spaced ½-wave, with a 40-in. reflector, 38-in. connected element and 36-in. directors. The element spacing is 0·18 wave R-D.E., 0·15 D.E.-1st Dir., and 0·25 1st Dir.-2nd Dir., the whole thing being of duralumin construction.

The 6J6 push-pull mixer arrangement, with 955 local oscillator, shows promise, but it calls for an RF stage to keep up the sensitivity. At the moment of writing, D.T.B. was awaiting the actual callsign, though all the formalities had been completed. With us, all who follow this feature will wish him luck and will hope to see his call figuring in G2XC's achievement tables in our parent *Short Wave Magazine*.

A. E. Wright (Hinckley, Leics.) sends in a useful Calls Heard list, which appears in this space. He uses a modified RF-27 into an AR88, with a 3-ele beam.

VHF LISTENERS' CLUB

List of Active Members

A. W. Blandford (Mitcham)
D. T. Bradford (Denham)
J. R. Cooling (Manchester)
A. H. Curl (Fulham)
P. Finn (Iver)
R. Hastie (Hayes)
R. M. James (Chatham)
R. A. John (Swansea)
W. A. Kane (Ballywalter)
G. E. Magrow (Dawlish)
W. L. McIntyre (Dunbar)
R. F. Muir (Haslemere)
R. Rew (Birmingham)
L. W. Ross (Almondsbury)
P. J. Towgood (Bournemouth)
L. A. Whitmell (Harrow Weald)
A. E. Wright (Hinckley)

Note: The above members are known to be still active on VHF. If your name should have been in the list please notify A. A. Mawse.

VHF Listeners' Club

A list of *active* members of the VHF Listeners' Club is given this month. This has been compiled from those who have sent reports in recent months or who responded to the request in the October, 1949, *Short Wave Listener* to notify us of their continued interest in VHF matters. Any past members of the Club whose names have been omitted from the accompanying list should notify the Secretary immediately. Members are reminded that they are invited to be at the Fiveband Club Dinner in London on November 25. This function is being held in Slater's Restaurant in the Strand, and begins at 7 p.m. There is an all-in charge of 10s., and reservations should be sent to G6VX, c/o *The Short Wave Listener*, as soon as possible. Please mention that you are a member of the VHF Listeners' Club when writing to G6VX.

In Conclusion

It may be worth remarking that the size of this feature, and even its very existence, depends on reports received from you. So all readers who are active on any VHF bands are requested to send along regular reports. Every one is most welcome to your conductor. The date for next month's letters is December 1 latest, and the address is A. A. Mawse, *Short Wave Listener*, 49 Victoria Street, S.W.1. With you again on December 15.

WORLD WIDE RECEPTION OF SHORT WAVE PROGRAMMES

DX *broadcast*

MONTHLY COMMENT BY R. H. GREENLAND, B.Sc.

There are two reasons why this month's DX Broadcast must be a special one. In the first place, this being the beginning of our fourth year of publication, we take the opportunity of thanking all our correspondents, both veterans and newcomers, wherever they may be, for their splendid aid and valuable co-operation in the past ; it is their united efforts which keep this feature up-to-date, and we hope they will continue to give us this assistance in ever-increasing measure. Secondly, the past month has yielded excellent conditions generally—it has been one of the best months ever—and we are hearing, and have the latest information, on a number of stations which make only seasonal appearances and are therefore truly DX !

Our first letter comes from our old friend Dr. T. B. Williamson, who writes from the Officers' Mess, B.M.H., Fayid, Suez Canal Zone, and who is now in Benghazi, North Africa ; he would like it to be known that at present he has not the time to write to his many radio friends, but he has furnished us with some hot news on Forces Broadcasting Stations in general. At Fayid, T.B.W. was a few hundred yards from the FBS station there, and there are other medium-wave stations at Cyprus, Tripoli, Benghazi and Mombasa. Most of them have BC610 transmitters of 350 watts output, and those at Cyprus, Benghazi and Mombasa have been heard here on occasions. Mombasa announces as : "FBS, East Africa," the others give their precise locations, and they share the following frequencies : 4782 kc, 6140 kc, 7270 kc and 11785 kc. The FBS, Middle East, located in Malta, is still testing on various channels, viz. : 4782 kc, 6140 kc, 7270 kc, 11785 kc, 7290 kc and 4985 kc. It is likely that Malta will become the permanent HQ and key station of FBS and that the others will relay from it. The transmitter there is the old 7½ kW set formerly used in Palestine. As a postscript, it has just been reported that Mombasa has been heard on 7220 kc at 1600.

Australasia

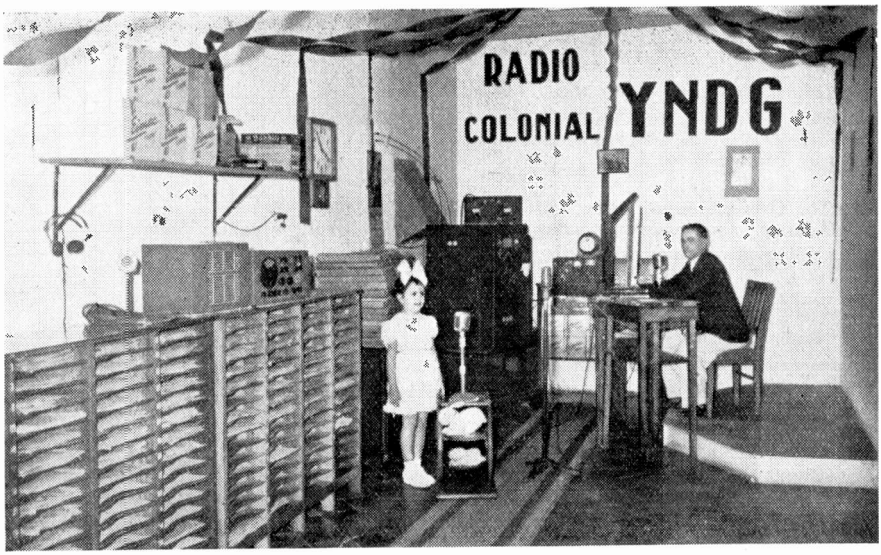
Perhaps our greatest surprise was to hear Radio Tahiti, FZP8, 12080 kc, located at Papeete, the capital of Tahiti, one of the French settlements in Oceania, at 0415 on October 22. Signal strength was S7-8, despite a heterodyne note, and a news in French followed by an assortment of musical recordings (pianoforte syncopations and French songs) were well heard until 0445, when a news was given in Tahitian. Then came a talk in French, terminating at 0510 with the playing of "La Marseillaise" ; a final statement of frequency—"douze mil, quatre-vingt kilocycles"—closed the transmission.

FZP8 uses 600 watts to a rhombic beamed on Paris, but it is hoped to increase the power in the near future. The day following, the transmission was no more than S3-4, but October 25 saw an improvement.

We are indebted to C. Costello (Wellington, N.Z.), who put out a call to us from ZL3, 11780 kc in the special Mail Box broadcast at 0731 on October 6 ; in this programme we heard the voice of the Director of Broadcasting in New Zealand, sending his "paternal greetings." R. O. Davies (Cambridge) logged ZL3 with the New Zealand News at 0830 on the previous day ; latterly, this transmitter has been inaudible due to the appearance of a Moscow station on the same channel, but ZL4, 15280 kc, was S7-8 at 0700 on October 21. It appears that a new transmitter, ZL7, 6080 kc is now working in parallel with ZL4 from 1800 onwards. According to Radio Sweden, ZKG, 8290 kc, which belongs to the New Zealand PTT Dept. and is situated on Pitcairn Island, has been heard with a sports programme.

P. Fry (Chandlers Ford, Hants) spotted VLG6, 15230 kc with an S9 signal, relaying the Australian Inter-State programme at 2145 on September 30. If you tune in VLH3, 9580 kc at 1300, you will hear World News, followed by Australian News ; or on Sundays, at 1329, after an epilogue, you may hear the direction "This is Warren Wright of the ABC bidding you a pleasant night's rest." J. T. W. Blyth (Leigh, Lancs) has just received *ten* verifications (all different) from Australia ; they are for : VLG6 (ABC), 15230 kc ;

ALL TIMES GIVEN IN THIS ARTICLE ARE GMT EXCEPT WHERE STATED



Broadcasting room at YNDG, Radio Colonial, Leon, Nicaragua.

VLH5, 15230 kc ; VLI, 9500 kc ; VLW5, 9610 kc ; VLC11, 15220 kc ; VLG6 (RA), 15230 kc ; VLB2, 9650 kc ; VLA8, 11760 kc ; VLA6, 15200 kc ; VLB3, 11760 kc—those from Perth and Sydney are particularly noteworthy !

Africa

J. C. Catch (South Shields), like the writer, has found South Africans better than usual. He heard ZRK, Cape Town, 5884 kc with news in English at 1700 on October 12 (it only broadcasts in English on Wednesdays) and on Saturday, October 15, it continued with a dance session until after 2145 (it normally closes at 2105). In addition he found ZID, Pietermaritzburg, 4880 kc with popular songs at 1830 and Johannesburg No. 3, 4895 kc, with its Afrikaans programme at 1845 on October 13. We heard Pietermaritzburg with a hymn at 1755 on October 2, and Johannesburg No. 3 giving pianoforte music by Schubert and Heller (announced) at 1725. Surprisingly, Johannesburg No. 4 with its English programme on 4800 kc was logged for first time at 1730 on October 9, when a magnificent rendering of the Te Deum was included in the religious service then being broadcast. This station was again logged at 1730 on October 17, when Dr. Malan, South Africa's Prime Minister, was making the inaugural speech (in English) and welcoming delegates to the African Regional Scientific Conference in Johannesburg.

On September 29 at 1730, on 3325 kc, we heard a weak signal and a lady announcer saying what appeared to be : "This is Salisbury" (Southern Rhodesia), and on another occasion ZNB, Mafeking, 5900 kc was logged at 1818 and held for over an hour, one item being the soprano song "All Alone." J. C. Catch logged ZNB with piano music at 1800 on October 10, and CR7BV, 4933 kc with the direction, preceded by chimes given on the quarter-hour : "This is Lourenco Marques for happy listening in the 60- and 85-metre bands."

On October 9, 1715-1730, we heard CR7BV with a broadcast entitled : "Melody and Song," given by the makers of Ovaltine.

Radio Accra, 4915 kc was a good signal (S9) at 1745 on October 17 with a weather forecast issued by the Gold Coast Meteorological Service, followed by News Headlines and News in detail ; this included a reference to the visit of the Governor to Togoland. After the playing of "Smoke Gets In Your Eyes," the transmission ended with the words : "This is Accra calling ! The Gold Coast Broadcasting Station has been operating on a wave-length of 61·04 metres from Accra and is now closing. Good-night," and the playing of : "God Save The King."

On October 25 at 1730 there was an eye-witness account of the day's athletic sports contests held in Accra. VQ7LO, Nairobi, has been heard on a Sunday at 1700 with a programme preview for the week following to be broadcast on 857 kc and 4855 kc. On October 2, the Nairobi public were asked to

TABULATED SCHEDULES

I. Radio Ceylon, 191 Turret Road, Colombo, Ceylon.

Transmitter 1. 15120 kc, using 100 kW. Directed to China, Japan and Hong Kong.
Transmitter 2. 21620 kc, using 7½ kW. Directed to Malaya and S.E. Asia.
Schedule : Daily, 0830-1700.

II. The Overseas Broadcasting Station of Thailand (Siam).
Address : Overseas Broadcasting Station, Publicity Dept., Bangkok, Siam.

Schedule : Daily : 0000-0100 on 6010 kc, 7105 kc, 11650 kc.
0900-1130 on 6010 kc, 11650 kc.
1200-1530 on 7105 kc, 11650 kc.

III. Radio Nacional de Espana, Madrid, Spain.

Frequency : 9369 kc.
English broadcasts : 2015-2045. For the United Kingdom.
2300. For North America.

IV. U.S. Far Eastern Service from Manila, Philippine Islands.

Transmitters : Manila III, 17760 kc : Manila II, 15330 kc : Manila I, 11890 kc.
English Programmes : 0900-0930, 1000-1100, 1100-1130, 1330-1415.

V. Radio Malaya.

Singapore :	6135 kc.	5 kW.	0430-0630 Daily.
	4780 kc.	5 kW.	0930-1530 Daily.
	7200 kc.	7 kW.	0430-0630, 0930-1530 Mon-Fri.
			0430-1600 Saturdays.
			0130-1530 Sundays.
Kuala Lumpur :			
	6025 kc.	1 kW.	No schedule given.

VI. Radio Trinidad, VP4RD, 9625 kc.
Address : General Manager, Trinidad Broadcasting Co., Ltd., Broadcasting House, Port of Spain, Trinidad, B.W.I.

Schedule : Sundays : 1000-1800, 2000-0300.
Mon to Sat : 1000-1300, 1430-1800, 2000-0300.

VII. New China Broadcasting Station.

Peiping. XRRA, 6096 kc ; XNNR, 7100 kc ; 7550 kc ; 9040 kc ; XNNR, 10260 kc.
Schedule : Daily { Japanese, 0945-1000, 2115-2130. Taiwan : 1130-1145.
Cantonese : 1145-1200. Sundays : 2300 onwards.
Daily : 1300-1535 or 1415 (English : 1330-1400).
Shanghai : BEB2 and BEB4, 11725 kc. Schedule : 1200-1630.

VIII. Port Moresby, New Guinea.

VLT5	7280 kc.	Sun to Thur : 2045-0000	Fri : 2045-2330	Sat : 2045-0100
		Mon to Fri : 0815-1430	Sat : 0815-1400	Sun : 0815-1200
VLT7	9520 kc.	Mon to Fri : 0200-0400, 0530-0800		
		Sat : 0200-0800	Sun : 0600-0800.	

IX. Argentina schedules :

(1) Radio El Mundo, LRXI, 6120 kc, 10 kW.
Radio El Mundo, Calle Maipu 555, Buenos Aires. Daily, in Spanish only, 1030-0400.

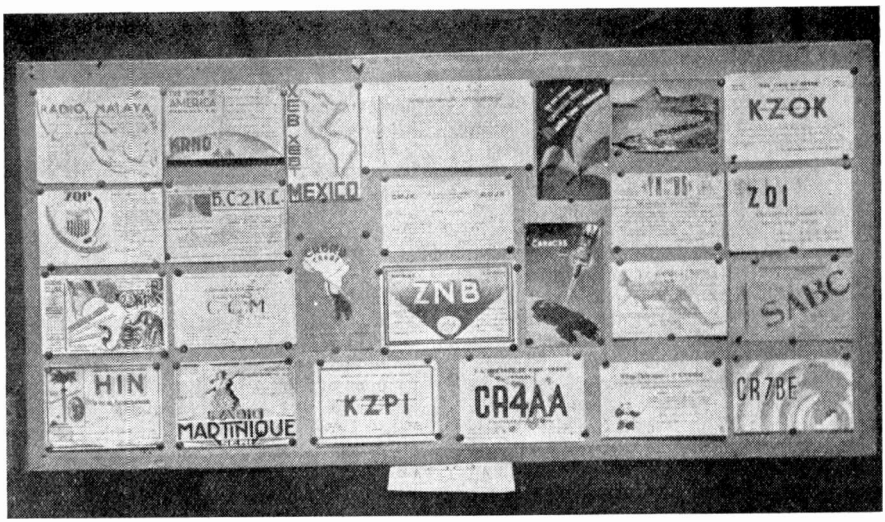
(2) Radio Del Estado, Palacio de Correos y Telecommunicaciones, B.A. LRA1, 9690 kc, 10 kW : 1300-0300 ; and LRA5, 17720 kc, 10 kW : 2100-2130.

(3) Radio Aconcagua, Avenida Civit 640, Mendoza, 5900 kc and 6180 kc. 1000-0400 (Relay of El Mundo—2300-0100). Call-letters : LRM.

(4) Radio de Tucuman, LRT, 6145 kc. Spanish : 1200-1700, 2100-0200.

(5) Radio de Cordoba, LSX. Spanish : 1000-0400 (Saturdays, 0500).

(6) Servicio Radiofonico Internacional.
English broadcasts :
(i) To United Kingdom : Radio Splendid, LRS, 11880 kc, 2230-0130.
(ii) To United States : Radio Belgrano, LRY, 9455 kc, 0215-0600. Address : S.R.I., Calle Belgrano No. 1841, Buenos Aires, Argentina.



This panel is unusual in that it illustrates a batch of S/W BC station QSL cards owned by Dr. T. B. Williamson, lately of St. Albans.

co-operate by giving lifts to local pedestrians during the strike of traffic workers there. Five minutes later, at 1710, there was an interesting talk from VQ7LO on Liverpool Cathedral in the "Landmarks of Britain" series.

R. Patrick (Morecambe) says that OTC, 9767 kc is 100 per cent. listening value : they run a 50-kW RCA transmitter combined with rhombic aerials beamed in several directions and connected in series—the combination is giving excellent results ! M. Milne (South Woodford, E.18) has received a verification letter in French and a view card of Tangier from Radio Africa in Tangier on 14280 kc (Amateurs, take note !) ; the station address is : Radio Africa, 39 Calle Shakespeare, Tangier, North Africa. K. M. Dobeson (BM/EABC, London, W.C.1) says that Radio Club de Tenerife, Canary Islands, is now on 7518 kc from 2300 until 2400, and we note that Radio Tetuan, Spanish Morocco, 6067 kc, with an output of 1·5 kW, operates on Weekdays : 0730-0800, 1330-1500, 1800-2300, and on Sundays : 1330-1500, 1930-2300.

Asia

J. C. Catch has logged good DX in XRRA, Peiping, on 10260 kc, with pianoforte music preceding a short newscast in Chinese (female reader) at 2315. A week later, on October 9, he heard it again opening up at 2300 with a Marching Song and announcements in Chinese, and from his observations it does not appear to work other than on Sundays at this time, but we heard it on a Wednesday closing at 1535 after a Chinese News, and on a Thursday at 1500 with the musical notes me-soh-doh as a vibraphone interval signal. R. O. Lyttle (North Bay, Ontario) hears this same station with English News at 1330, and we found it on October 28 with News talks and the direction : "This is the Peking New China Broadcasting Station." We have logged another Communist controlled station, BEB4, Shanghai, 11725 kc with moderate strength at 1400. BEF7, Chungking, 11913 kc was logged as early as 1100 by R. G. York (West Croydon) when he heard the English News and a weather forecast ; it was stated that the temperature was 74 deg. F. J. C. Catch says they broadcast "Bringing Christ to the Nations" at 1430 on Sundays, and a letter verification which he has just received states that 11913 kc, 15170 kc and 7153 kc are the frequencies in use at present and that they would like further reports. Swedish Radio informs us that BCAF, Formosa, 11680 kc has English-Chinese lessons at 1100 ; their 3·5 kW transmitter operates as follows : 2200-2300, 0255-0500, 0830-1430.

In Korea both the South station at Seoul, 7933 kc, and the Communist controlled station at Pyengyang, 7784 kc, have been well received when opening up at 2100. The former, HLKA has a time-signal consisting of three short and one long pips, and news in Korean ; the latter has a female reader of an Oriental language news at 2100 and a male reader of a Korean news at 2130, with music interspersed.

A. E. Nichols (North Shields) has logged

Radio Indonesia, Batavia, on a new frequency of 16130 kc at 1745 with News in French, and he heard PLF2, 19345 kc with marches at 1615. The latter opens at 1600 with the chimes and twelve strokes of a clock and the direction in Dutch : " Hier ist Batavia—Radio Indonesia." R. O. Davies says Manila III, 17760 kc, is the best-heard of the U.S. Far Eastern Service transmitters in the Philippine Islands ; try around 1400 ! J. C. Catch heard the "Of, By and For Radio Amateurs" over Manila II, 15330 kc, but you will probably hear this interesting feature direct from New York or from Munich at 1915 on Sundays. M. Milne heard the Manila Broadcasting Company's station DZH2, 9640 kc at 2200 on September 30 ; the time was given as "6 o'clock" (a.m.) and the direction was : "This is M.B.C.—the Manila Broadcasting Company." J. T. W. Blyth and P. E. Woolmer (Grantham) send the schedules for Radio Malaya and Thailand respectively (see our Tabulated Schedules). R. Patrick (Finsbury Park, N.4) heard the British Far Eastern Broadcasting Service, Singapore, on 6770 kc, closing at 1630 ; A. E. Nichols found them on 15300 kc with dance music at 1445, and we heard them on 11880 kc at 1515 with a talk on "Weymouth and the Dorset Coast." Again, on 9690 kc they have been logged with a feature in the "Science and Everyday Life" series. Their schedule just received states that at 1415 daily they give a programme summary in English.

C. P. Turner (Crewe) has received a detailed letter of verification from J. E. Mudie, The British Broadcasting Corporation, 191 Turret Road, Colombo, Ceylon, in respect of signals from Radio Ceylon ; here is an excerpt : "Judging by the accuracy of your report, it appears that you obtained excellent reception. It may interest you to know that the station here is owned by the Ceylon Government and that the BBC broadcast from it for 8½ hrs. per day from 0830 to 1700 GMT. There are two transmitters at present in operation, one working on a frequency of 15·12 mc with a power of 100 kW directed to North China, Japan and Hong Kong, and a smaller transmitter of 7½ kW operating on 21·62 mc directed to Malaya and South-East Asia. You report reception of the 100-kilowatt transmitter, but I expect that if you search the 21-megacycle band, you will pick up our 7½-kW transmitter at possibly better strength as the direction of the aerials are more favourable for reception in the U.K., as also is the wave-length used."

J. C. Catch logged ZOH, Colombo, 4900 kc with a piano recital, 1630-1700 ; on another occasion at this time we heard the direction : "This is Colombo, Ceylon."

J. T. W. Blyth has received Radio Pakistan's verification for 15335 kc, and P. E. Woolmer has their schedule : 0130-0300, 0530-0730, 1100-1630. Radio Sweden says they have a new Dacca transmitter using 5957 kc and broadcast in Arabic from 1700.

J. C. Catch heard Radio Goa, 9610 kc between 0715 and 0830 on Sunday, September 25 ; programmes were Indian religious services. In India, R. Patrick has heard VUC2, Calcutta, 4880 kc with Indian music at 1700, and in the same band, J. C. Catch has noted VUD2, Delhi, 4960 kc with a similar programme at 1530. We logged VUD2 with a "Brains Trust" at 1620 on October 16, when the presiding speaker said : "And the next question comes from Mr. R. J. Clapper of Simla." P. E. Woolmer has been impressed by the strength of VUD1O's 17830 kc signal around 1500, and R. Patrick at 1645 heard VUD9's 6010 kc English direction. P. Fry heard English News over VUD5, 21510 kc at 1230 ; and R. G. York reports Kol-Israel, 8950 kc, with the news at 2045 (S8) and RAD, Tashkent, 6820 kc, with the feature : "Young Patriots" at 1715 (S8). J. C. Catch logged Arabic music over Y15KG, Baghdad, 7092 kc, at 1800 on October 15, and we have heard Beirut, 8036 kc, closing its English session at 1630 with the words : "You have been listening to the English broadcast from the Lebanese Broadcasting Station ; we shall be on the air again tomorrow evening at half-past five." Lastly, P. E. Woolmer has received from TAP, Ankara, 15195 kc a verification card showing a map of Turkey on which is pin-pointed the location of the transmitter ; the weekly Mailbag in English may be heard on Sundays at 2030.

South America

Argentina. R. A. Savill (Sevenoaks, Kent) thinks that LRX1, 6120 kc is one of the best signals from this country, this between 2130 and 2330. R. G. York logged LRS, Radio Splendid at 2233 on October 1 at the commencement of their English broadcast to the United Kingdom, and P. E. Woolmer sends some excellent schedules which we append elsewhere. C. P. Turner has Radio Belgrano's blue and white pennant and a 36-page coloured booklet of Buenos Aires scenes.

Chili, Uruguay and Paraguay. Here. J. C. Catch offers CE1174, Santiago, 11745 kc logged with slogan "Radio Nuevo Mundo" at 2300 ; CXA6, Montevideo, 9620 kc giving the slogan "Radio Electrica" at 2245 ; and ZPA5, Encarnacion, 11950 kc, with a five-minute Spanish News at 2200 before leaving the air.

Peru, Venezuela and Colombia. We have received a verification card from OAX1A, Radio Delcar, Chiclayo, 6150 kc, which

transmits daily from 1600 to 0430 ; the P.O. Box is Casilla No. 9. The following, which appears to have been broadcast, is the translation of part of the letter we received from R. Arreaza Almoner, Director of YVRA, Radio Monagas, Maturin, 3470 kc. "This kind and distant friend refers to two of our transmissions. . . . . Radio Monagas, together with its expression of thanks, sends its intense satisfaction, particularly because in his letter, Senor G. expressed the pleasure that he felt in the harmonious quality of our broadcasts, the soul and song of this noble land ! " (!!) YVQA, Radio Sucre, Cumana is reported to be a good signal, but is the frequency 4960 kc or 4690 kc ? The address is : Calle Sucre 85, Cumana. R. Iball (Langold, Notts) logged YVMG, Maracaibo, 4810 kc for the first time with the slogan "Radio Populares" at 0335 on September 23 (S8) ; we logged it with a news in English from one of Venezuela's leading newspapers at 0130 on October 4. J. C. Catch found HJCT, Bogota, on 11680 kc with news in Spanish at 2300, and R. Iball heard HJAB, Barranquilla, 4783 kc with a session of "Musica Norte Americanas "followed by the direction : "Emisora Unidas" at 0355. HJKJ, Bogata, 6170 kc, uses the direction "R.C.N.—Radio Cadena Nacional" and operates from 1150 until 0400 daily.

Brazil. On October 4 from 0200 to 0230 we heard a broadcast in English from ZYS8, Manaos, 4805 kc, in which a visitor commented on the wonders of radio ; on October 13, however, at 0215 this station gave single gong notes, the direction "Radiofusora Amazonas" and closed down. J. C. Catch appears to have heard ZYS8 at 2200, but the call was obliterated by intense Morse interference. ZYC8, Radio Tamoio, Rio de Janeiro, 9610 kc broadcasts in Portuguese only from 2000 to 0300 ; the address is : Avenida Venezuela 43 (P. E. Woolmer) : R Iball reports it at S9 at 2115. ZYC9, Rio, 15370 kc has been noted by C. P. Turner at 0100. ZYB7, 6095 kc announces as "Radiodifusora Sao Paulo, Brasil" at 2200, and ZYB9, 15155 kc with deep-toned gong notes and the same direction when it closes at 0300 (R. Iball) ; A. E. Nicholls heard it at S8 at 0215. P. E. Woolmer has a verification card, and a letter from Janet S. Swaton, the English announcer at Radio Jornal de Commercio, Recife ; the channels are : 15145 kc (ZYK2), 9565 kc (ZYK3) and 6085 kc (ZYK2).

Central America

Dennis E. Gallo, Owner and Operator of Radio Colonial, YNDG, Leon, Nicaragua, 7660 kc, has obliged us with a letter of verification ; in it he informs us that beginning January 1, 1950, their power will be increased to 1000 watts on a new frequency of 5995 kc and that the schedule will be 2200-0430 daily. R. A. Savill has received a similar letter from YNBH, Radio Panamericana, Managua, which operates on 6550 kc. R. Iball reports hearing both of these, also YNOW, Managua, 6840 kc at 0400 with direction : "La Voz de America Central."

Please send your latest BC DX news to : R. H. Greenland, the *Short Wave Listener*, 49 Victoria Street, London, S.W.1, to reach this office not later than December 15.

SMALL ADVERTISEMENTS

CHARGES : *Readers'*, 2d. per word, minimum charge 3s. Box Nos. 1s. 6d. extra. *Trade*, 6d. per word, minimum charge 7s. All advertisements must be of radio interest only. Add 25% extra for Bold Face (heavy type) announcements. Copy date for next issue, December 9, addressed Advertisement Manager, *Short Wave Listener*, 49 Victoria Street, London, S.W.1.

AR88 finest of all communications receivers, as new. Also 19 spare valves, speaker and phones. Offers to : Cutler, 49 Swancote Drive, Penn, Wolverhampton.

EDDYSTONE 640, perfect. 8 in. Speaker, phones. £18/18/-. Carriage paid, or exchange, Communication Receiver with medium-wave coverage.—Box No. 022.

R1224A Very fine condition. Original owner since new. Mod. KT2 output, "hotted up" 40, 80 bands. Carriage paid, £5. Allen, Duke Street, Kingston, Herefordshire.

QSL CARDS AND LOG BOOKS, APPROVED G.P.O. SAMPLES FREE. ATKINSON BROS., PRINTERS, ELLAND, YORKS.

HRO bandspread coils wanted. 175/400, and 900-2000 kc. W. Garner, L.W.C., Long Sutton, Basingstoke, Hants.

PREMIER Radio 2-valve All Wave, assembled, perfect, with all dry batteries, phones, circuit. Ideal Xmas gift. £3. Young, Press Mains, Coldingham, Berwickshire.

FOR Sale. Perfect order, AR88LF, £37/10/-. CR100/3, £27. RA1B Bendix, £20. S27, £27/10/-. HRO, 9 coils and power pack, new, £45. F. Sutcliffe, 69 Cleckheaton Road, Odsal, Bradford.

MARINE and Air Radio Officers' Courses, The 1st-Class P.M.G. Certificate assures early and well-paid employment ; obtain it with the help of our daytime course commencing January 1950. Write for full details to E.M.I. Institutes Ltd., Dept. SWL., 43 Grove Park Road, London, W.4. *Chiswick* 4417-8.

EXCHANGE : 30 new valves and components and *Short Wave Magazine*, Vols. 4, 5 and 6, also *Wireless World* from August, '46, to July, '49, for Hornby Engines, trucks and track, etc., What have you ? Write. 44 Freshney Street, Grimsby.

HAMBANDER and Speaker, £9. Wavemeter TE149, complete spares and power, brand new, £4. 10-metre converter, £2. 2-Stage preselector, 30/-. Both to *Short Wave Listener* design. Power Pack 240v., 12v, 6v, £3. BC453, mod to 1600 kc IF, 10/-. FL8 Audio filter, 5/-. £5 worth books, phones, mains suppressor, etc., *free with receiver*. Cheesley, 738 High Road, Leyton, London, E.10.

HALLICRAFTER Sky Champion for sale. 500 kc to 40 mc. Complete with 250-110v transformer. £15 or offers ? C. Hawthorne, 47 Clouston Street, Glasgow, N.W.

£15 Televisor, completed, but needs adjustment oscillator section (vision). Sound side working OK, complete with 8 in. MC speaker (new) CRT mask (white plastic), spare VCR97, and circuit and all data. No cabinet. Buyer collects. £12 or offers ? Write first, D. E. Hayes, 18 St. Cuthberts Road, Hoddesdon, Herts.

NATIONAL NC81X Receiver covering 540-33,000 kc, crystal gate, etc. Full band spread on 10, 20, 40 80 and 160 amateur bands. Recently realigned. £25. G6BS, 96 Hinton Way, Gt. Shelford, Cambridge.

HRO Xtals in holder and IF's, 7/6 each. 0·9-2·05 mc coil, 25/-. Frearson, 66 Wheelwright Road, Birmingham 24.

SALE of components, including valves, variables, transformers, books, etc. Send your lists to Pryor, 1 Belle Vue Terrace, Saltash, Cornwall.

POWER Unit Type 630, sheet steel box 7 in. × 11 in. × 6 in., only requires 6X5G, fully smoothed, switch and panel light. Input 230v 50 cycles, output 300v 70 mA, 18v 1A, 5v 3A. New, boxed, 35/-. carriage paid. Williams, 25 Brynton Road, Manchester 13.

SIGNAL Generator Type 1130A (U.S.A.) Range 100 mc to 155 mc. Good condition. Offers ? Box No. 023.

TELEVISION for £15 : 5

BY USING OUR EX-RADAR UNITS FOR YOUR HOME-BUILT TELEVISOR YOU ARE LETTING THE BEST OF BRITISH BRAINS AND INDUSTRY SAVE YOU MONEY. TIME AND TROUBLE. For instance the vision receiver is practically built for you, and after all the vision receiver is the stumbling block of many constructors, because in this unit even the spacing of each component is important. To have one of these almost ready made, obviously is a tremendous advantage. Again the Indicator supplied for our Mark II Televisor is a double-decker type, so that it accommodates the time base, sound receiver, power pack and tube in a very professional manner. In fact the whole receiver assembles into a compact table model, size approximately 16in. wide, 12in. high and 19in. deep as illustrated. Of course, if you want to make up a console, you can spread the units about.

TRIED AND APPROVED CIRCUIT. Our Mark II has already been built by over 1,000 people (men and women), and many have remarked "that it worked first time," and we have even had letters from people claiming results from places as far off as Birmingham, Liverpool and York. A few, of course, get into difficulties, but this is inevitable with any set using 20 or so valves. Nevertheless, we have a technical information service to help you in these cases.

SOME QUESTIONS ANSWERED.

QUESTION 1. Is technical knowledge necessary ?
ANSWER. You need not know anything about television, but you must be able to work from an understand a theory circuit diagram.

QUESTION 2. What is the total cost ?
ANSWER. £15 5s. 0d. if you collect the goods yourself, otherwise £1 extra for the packing cases and carriage. (All items may be bought separately, detailed price list is enclosed with our 7/6 data, or will be sent on request.)

QUESTION 3. Does £15 5s. 0d. include everything ?
ANSWER. It includes a new VCR.97 Picture tube, 6½in. Loud-speaker and everything else which goes into the cabinet, but it doesn't include the cabinet nor the aerial and lead-in. (Aerial kits can be supplied, indoor type 15/-, outdoor type 25/-, lead-in at 3d. per ft.)

QUESTION 4. How much is the data ?
ANSWER. Our data contains 26 pages of instructions, wiring diagrams and photographs and was very costly to produce, and for this we charge 7/6 per copy, but this will be credited to you if you buy the bulk of the components and the units, and also this price includes free technical advice.

DEMONSTRATIONS DAILY. Why not call to see our demonstration model, we are open until 6 p.m. weekdays and until 5 p.m. Saturdays, when a made-up receiver can be seen working if a programme is being transmitted.

If you can't call, we will send the outfit carefully packed in wooden crates for £1 extra.

AMERICAN VALVES

OZ4	7/6	6AG7	6/6	6K8	7/6	7A8	7/6	28D7	6/6
1C5	8/6	6B4	7/6	6L6G	10/-	7B6	7/6	35Z4GT	10/6
1LA4	7/6	6B7	10/2	6L7	7/6	7C7	7/6	39/44	8/9
1N5	8/6	6B8	6/-	6X7	6/6	12A6	6/6	32	7/6
1R5	6/6	6C4	6/6	6Q7	6/6	12K7	8/6	41	7/6
1S5	6/6	6C5	7/6	6SA7	7/6	12K8	8/6	42	10/6
1T4	6/6	6C6	9/6	6SG7	6/6	12SH7	7/6	58	7/6
1S4	6/6	6D6	7/6	6SH7	6/6	12SK7	8/6	80	10/-
2A3	9/-	6F5	6/6	6SK7	6/6	12SQ7	8/6	89	8/-
2X2	7/6	6F6	7/6	6SL7	6/6	12Q7	7/6	807	7/6
5U4	7/6	6F7	8/6	6SJ7	6/6	12SR7	7/6	84/6Z4	10/-
5V4	7/6	6G6G	6/6	6SN7	6/-	14F6	9/6	9001	6/6
5X4	8/9	6H6	3/6	6SQ7	6/6	18	10/6	9002	6/6
5Z3	13/6	6J5	6/6	6T7	8/-	19	10/6	954 acorn	5/6
5Z4	7/6	6J6	15/-	6U7	8/6	25L6GT	7/6	955	8/6
6A3	10/6	6J7	7/6	6V6	7/6	25Y5	10/-	866A	15/6
6AC7	6/6	6K6	6/6	6X5	6/6	25Z4	9/-		
6AG5	6/6	6K7	7/6	7A7	7/6	25Z6GT	7/6		

SALE OF RADIO SPARES

MAINS TRANSFORMER. "WODEN" made for the "AR88"—potted—fully shrouded and impregnated, fitted primary screen. 280-0-280 at 150 mA, 6·3v at 10 amp and 5v at 3 amp. Primary suitable for 50 cycle mains, 110-250v, 27/6. List No. 01.

MAINS TRANSFORMER. "PARMEKO" half-shrouded drop-through type, 350-0-350 at 80 mA, 6·3v at 4 amp, 5v at 3 amp, primary tapped for 200-240, fitted primary screen and impregnated, 16/6. List No. PF2.

MAINS TRANSFORMER. 260-0-260 at 60/70 mA, 6·3v at 3 amp, 5v at 2 amp otherwise as PF2 above, 13/9. Order List No. PF3.

MAINS TRANSFORMER. 260-0-260 at 60-70 mA, 4v at 4 amp, 4v at 2 amp otherwise as PF2, 13/9. Order List No. PF4.

TUNING CONDENSER. Standard size 2-gang·0005 long (2"spindle) "PLESSEY," 3/6. Order List No. 06.

AMPHENOL INTERNATIONAL octal valve holder, 6d. each. Order List No. PE10.

MIDGET TUNING CONDENSER. 2-gang ·00035 fitted with trimmers, and complete with Perspex dust cover. These condensers made by "PLESSEY" are of the type used for tuning personnel receivers, 6/6, plus 8d. postage. Order List No. PF6.

4-GANG TUNING CONDENSERS. ·0005 each section—fitted trimmers—ceramic insulation. These are complete in a very useful chassis, and are fitted with a drive. Government surplus equipment but new and perfect, 2/9, plus 1/3 postage, case of 6 units, 17/6, carriage paid. Order List No. PF7.

3½" **P.M. SPEAKER** "ROLA," less output transformer, 8/9. Order List No. PF11.

5" **P.M. SPEAKER** 'ROLA," fitted standard O.P. transformer, 11/3. Order List No. PB13.

12" **P.M. SPEAKER** "TRUVOX," 42/6 Order List No. B88.

ELECTROLYTIC CONDENSERS

8 mfd. 350v	1/6
16 mfd. 250v	1/11
32 mfd. 350v	1/11
25 × 25 mfd. 200v	3/11
8 mfd. 150v	1/3
25 mfd. 25v	1/-
25 mfd. 50v	1/6
50 mfd. 12v	10d.
10 mfd. 25v	10d.
2 mfd. 450v	1/-
4 mfd. 450v	1/3
8 mfd. 450v	1/11
16 mfd. 450v	2/8
8 × 8 mfd. 450v	3/4
8 × 16 mfd. 450v	3/4
16 × 16 mfd. 450v	3/9
16 × 8 × 24 mfd.	4/9
8 mfd. 500v BR.850	2/6
16 mfd. 500v BR.1650	3/6

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