

Short Wave News



For Transmitter and Listener



Contents

Quarterly DX Prediction

150 Watt Tabletop Transmitter

V.H.F. News

On the Ham Bands

Around the Broadcast Bands

"The Contest Story" . . . How
the ISWL DX Contest was won

ISWL Notes and News

QRP Club News—Contest Results

Around the Shacks

Set Review—Denco DCR 19

My Favourite Receiver

Trade Notes, etc.

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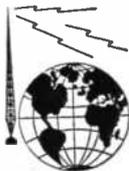
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Short Wave News

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THE New Year is with us. Time for reminiscing on the Old Year. Yes, we are going to be "corny" and write this editorial in the form of a review over the past twelve months. This is the fourth January issue of *Short Wave News* to leave the printing shop and observant regular readers will have noticed that all the previous three January Editorials have been signed by the initials "A.C.G." This is not coincidence but was the result of gentle pressure by that worthy on his fellow sufferer. This year yours truly has taken the initiative and had in fact written the copy before the customary pressure could be brought to bear! Having effectively forestalled 2UK I am free to reminisce to my hearts content.

One of my pet endeavours is building up the ISWL and it is in this sphere that we will ponder. In the October 1947 issue I recalled the "ill-mannered yelpings" from certain quarters when the League was formed in October 1946. Events since then have supported us in our feeling, at the time, that such opposition was not worth bothering about. Today, we can imagine just how uncomfortable our erstwhile critics feel.

Looking back over the year, we can find nothing but satisfaction in the progress made by the League. Chapters have been formed, existing Chapters have made strides, the various services of the League have been well supported and the flow of new members continues on a high level. During the year we have added to the Translation Services, started a query service for Press stations, formed the Instruction Manual & Circuit Service, inaugurated the QRP Receiver and Experimenters' Groups. And, of course, the SWL card Exchange Bureau was formed in order to segregate swappers from non-swappers! Later in the year came our first DX Contest, which proved so popular that others will soon be following.

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

In the way of supplies, the Broadcast Band and Amateur Station record cards have been made available and two types of League badges have been issued.

Editorial

And the members are keen. There is no need to go farther than the letters we receive in our mailbox or the members who drop in at the office for a chat. (No, we DO NOT discourage visitors!) They speak highly of the interest taken in League affairs. By the time you read these lines, member number 2700 will have been enrolled—the total membership now covering something like 70 different countries, and we are going all out for the DXCC of membership! There is no such thing as an average ISWL member; we have members of all ages from 12-70, in all walks of life and in all degrees of radio knowledge. There is, however, one thing they have in common and that is a keen interest in the affairs of the League. They treat the League, and quite rightly, as a "family" affair. We have no room for high-faluting leanings or snobbish attitudes—things that are unfortunately prevalent in some "ham" circles, but which have no place in real ham radio.

The League, then, is doing well. For that we at HQ take a modest bow but hasten to state that we could have done nothing at all had it not been for the wonderful spontaneous support of members, for the hard-working representatives, for the generous members who have taken the thankless jobs of running services. As we said before, it is a family affair. HQ extends its sincere appreciation to all members for their grand support during the past year and look forward to an even more vigorous activity in 1949. Good luck OM's, and thanks again.

W.N.S.

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

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

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

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

Quarterly DX Prediction

(JANUARY TO MARCH, 1949)

Compiled by the Leicester Tele-communications Laboratory,
Leicester, England

For the purpose of these predictions it should be noted that four major communication circuits are predicted and extend to (a) North America: (b) South America: (c) South Africa and (d) Australia: By the use of a Great Circle map, centred on London, it will be seen that the Australian Circuit covers both Asia and Japan:

It should be understood that to forecast these communication circuits for a period of three months the data given is liable to slight errors with relation to the "disturbed periods."

Short summary of the preceding period:

AS is expected at this time of the year, very good communication has been maintained on all circuits on the higher frequencies (28 Mcs.) during the day-time, but during the night-time very reliable communications have been established on the low frequency of 7 Mcs. on circuits (a) and (b); this being due to the "midwinter" effect. On the very high frequencies a brief spell of reception was received at the end of October of the 45 Mcs. (B.B.C. Television) in Capetown on circuit (c), and F.M. Transmissions were heard by us on 40 Mcs. on circuit (a) during the same period.

Prediction for January 1949 :

The maximum usable frequencies for this month should be higher than those of December as the midwinter period has passed.

The 28 Mcs. band should be usable on all circuits except (d) during the midday period, and consistent communication will be possible. The circuit (c) will be giving good service of this frequency during the afternoon period and circuit (a) from midday until early evening.

All circuits will be usable on 14 Mcs. up to the late evening period (2100), after which time the 7 Mcs. band should be used for (a) and (b), whilst on circuit (a) only the 7 Mcs. frequency will give reliable communication during the early morning period.

January should be a fairly stable month, and the disturbed periods will only be slight, the worst of these occurring during the second week of the month and lasting for 48 hours. During this period some "freak" results may be expected on the lower frequencies.

Prediction for February 1949 :

February is the month when a noticeable increase is recorded in the MUF's especially during the night-time. Both the 28 Mcs. band and the 14 Mcs. band should be workable during

the day-time and up to the late evening period, whilst the 14 Mcs. band should be used on circuits (a); (b); and (d) after mid-night. The 7 Mcs. frequency will give a little difficulty and will be found to be very unreliable if used for communication on the (a) and (b) circuits: Contacts with stations in these areas on 7 Mcs. will be possible however during the first two weeks of the month.

There will not be any great disturbed periods during this month whilst those that do occur will be during the second and third weeks of the month.

Prediction for March 1949 :

During March there will be only a very slight increase in the MUF's during the day-time, but the night-time frequencies should show a greater increase on the February frequencies :

This will mean that the 28 Mcs. band will not be so reliable and should only be used on circuits (a) and (c) during the afternoon period. The 14 Mcs. band, however, will be usable on all circuits during the whole 24 hour period. Very good signals should be received from circuit (d), via the short path, during the evening period, commencing at 2000 G.M.T. The lower frequencies (7 Mcs.) will become more of a semi-local band and contacts will be mainly with Europe and near Asia.

March is usually a very bad month for disturbed periods, and there will be times when the HF bands are completely unusable.

Slight "storms" will occur almost every week, but the worst period will be in the third week and will last for two-three days.

"FACTS ABOUT PHILIPS"

This is the title of a new booklet produced by Philips Electrical Ltd., the purpose of which is to draw attention to the great variety of products manufactured by Philips.

This attractive little publication is bright in appearance and style, and is extremely readable. Profusely illustrated, and including photographs of the larger factories, "Facts about Philips," describes briefly the whole varied range of Philips products, which includes radio, television, lamps, high frequency generators, industrial diamond dies, welding machines, medical equipment, etc.

"Facts about Philips" will serve as a general reminder that Philips' activities extend over a much wider field than is usually realized by consumers of specific products.



150 Watt Table-Top C.W. Transmitter

General

By G2UK

THOSE who read the American amateur radio journals will have observed that the trend over there is towards compact unit rigs in place of the more cumbersome rack-built rigs of the past. The ingenuity which has gone into some recent designs is quite astounding and the tabletop 1 Kw rig seems quite a possibility of the not-too-far-distant future!

The compact tabletop rig has much to recommend its use on this side of the water too, particularly in view of the housing shortage, which as often as not makes the only available space for a "shack" little more than a corner of the living room.

The rig described herewith was built with the intention of seeing just what could be done in the way of getting as much into as little space as possible.

Some degree of compromise is obviously necessary in a rig of this type, and a good deal of balancing one feature against another was necessary before the design was finally decided upon. The priority requirements were that the rig must be as compact as possible and really "tabletop" and must run with an input as near the full licensed power—150 watts, as possible. Obviously, one could hardly expect to have the benefit of phone and cw as well as minimum size, so phone operation had to be dispensed with. Whilst a VFO would have been much enjoyed, crystal control was decided upon again in the interests of compactness. Again, some would have said a multiband transmitter was a prior necessity, but the writer's main interest is in the 14 Mcs. band, so fixed coils in the C.O. and FD stages have been used. An aerial change-over

relay was regarded as a necessity as the transmitter was to be used with a directive aerial array the benefits of which were required on the receiving side as well as for transmitting. Finally a number of components already on hand were to be used. This final perquisite has been made possible by the facilities provided by Messrs. Philpott's of Loughborough, who—as many readers will already know—make excellent "tailor-made" cabinets and chassis to purchasers' requirements. Had it not been for the initiative of this firm, the problems of building this rig would have been greatly increased.

The design eventually worked out comprised a 6F6 crystal oscillator stage, a 6L6 doubler and an 813 final amplifier. Metal valves are used for the C.O. and FD stages as these are smaller in dimension than their glass equivalents and are well screened. Two power supplies are used, one of 500 v. 150 mA., for the C.O. FD and 813 screen. The other giving 1200 v. 250 mA., for the plate of the 813. The former supply is fully smoothed with double section filter; the latter uses a single section filter only, in the interest of conserving space. By using a swinging choke and a suitable bleeder resistor, perfectly adequate smoothing for CW purposes can be had from a single section choke input filter and reports with this transmitter have invariably been T9.

In addition to these two power supplies, a bias pack has been incorporated, thus eliminating the need for any external batteries or power packs. This bias supply, supplies bias voltage for the 813 and the most convenient form of keying then

seemed to be blocked grid keying of the 813 itself, so this has been incorporated in the design. The transformer used for this bias pack is of the 350-0-350 v. receiver type with 5 v. 3 amp. and a 6.3 v. 3 amp. filament windings. The 5 v. winding is used for the 83 rectifier 500 v. supply, and the 6.3 v. winding supplies LT to the 6F6, 6L6 and the 6X5 bias rectifier.

The anode tuning coils in the C.O. and FD stages are wound on small formers wired directly across their respective tuning capacitors and are located along with them under the chassis. The crystal holder plugs into the front of the panel as shown in the photographs. Two meters only were deemed necessary—a grid drive meter reading up to 20 or 25 mA., and a plate meter for the 813 reading up to 250 mA.

After much positioning of components on a piece of drawing paper, it was decided that the transmitter could be built on a chassis $1\frac{1}{2}$ ins. by $9\frac{1}{2}$ ins. by 3 ins. deep. The maximum height of the transformer, valves, etc. on the chassis was 9 ins., so a chassis to the dimensions given above and a cabinet 11 ins. by 20 ins. by 10 ins., to house the transmitter were ordered from Philpotts.

Construction

As this transmitter was built in the main from components on hand, it is not possible to give detailed dimensions, etc., for constructing a replica. Indeed, we feel sure that readers would prefer a general outline so that they may also use components on hand, planning out a similar transmitter to their own specification, along the lines suggested in this article.

Reference to the circuit diagram will give a pretty good idea what has to be accommodated on the chassis. A 1200-0-1200 v. transformer, a 500-0-500 v. transformer, a filament transformer with high voltage insulation for the mercury vapour rectifiers, a filament transformer for the 813, a swinging choke for the 1200 v. supply, two small smoothing chokes for the 500 v. supply, two $2\ \mu\text{F}$ smoothing capacitors for this supply, the final amplifier tuning inductance and capacitor and all the valves, including a metal screen for the 813, are mounted on top of the chassis.

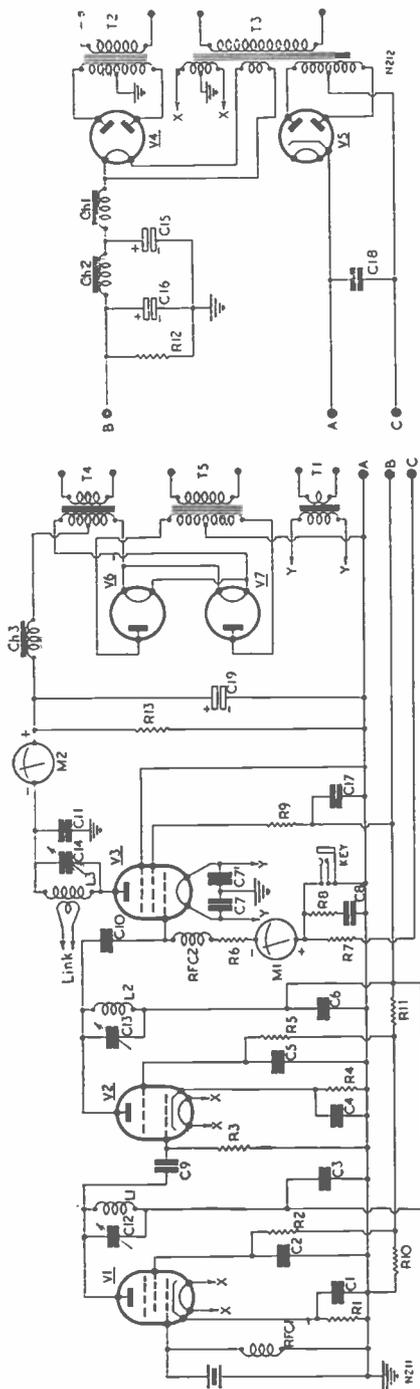
Underneath are the C.O. and f.d. stage tuning inductors and capacitors, all the resistors and capacitors associated with these stages and with the final stages, the power pack bleeders, and the large $4\ \mu\text{F}$ capacitor. On the panel above the chassis are an indicator lamp, P.A. and grid drive meters and tuning dial for final stage. Beneath the chassis on the panel are two mains switches, tuning dials for C.O. and f.d. stages, crystal holder sockets and keying jack.

In the writer's case, the only components not on hand were a suitable filament transformer for the 813 and a swinging choke. Two most suitable

components were supplied by Wodens and the writer would suggest that those who need to purchase any of the other transformers or chokes needed for this transmitter obtain particulars of the components supplied by this firm. They are most compact and of a very convenient size and shape for fixing into any design where space is at a premium.

Some slight difficulty may be experienced in finding a suitable P.A. stage tuning capacitor. One of fairly small dimensions is required, which at the same time has adequate spacing between its vanes for the 1200 v. on the 813 anode. In the writer's case an ex-R.A.F. surplus variable was stripped down and rebuilt to give a maximum capacity of $50\ \mu\text{F}$. When completed this had moving and fixed vanes and a spacing of $\frac{3}{8}$ inch, was found to be adequate. When mounted on some ex-surplus stand off insulators, this made a very satisfactory component. The inductance used with it needed some experimentation to find the right number of turns. Finally eight turns of No. 14 swg enamelled wire spaced approximately $\frac{1}{4}$ -inch on a two-inch former proved correct. The exact number of turns will depend on the value of the variable capacitor. One should aim at a working capacity of 40-50 μF . With a dipole aerial, a three-turn link fairly tightly coupled to the "cold" end of the inductance proved to be about right.

The first step to be taken before construction can proceed, is to get together all the components required and group them in their respective places on a large sheet of paper as indicated above, so that some idea of the chassis size can be ascertained. Once this is done, order your chassis and a suitable cabinet to suit. The photographs and lay-out plan give a good indication of the general layout. Using this as a basis, readers can work out their own particular scheme. In the writer's transmitter the main 1200 volt supply transformer is located on the back left corner of the chassis, leaving just enough room for the Woden 5/25H 250 mA., swinging choke between it and the panel. The 4-volt 6 amp. high voltage insulation filament rectifiers for the 1200 volt supply is mounted on top of the swinging choke. Next to this choke is the 350 volt bias supply transformer which also has 6.3 volt and 5 volt windings supplying the heaters of the 6F6, 6L6 and 6X5G. Above this are the two smoothing chokes for the 500 volt supply. These are small receiving pack ones strapped together and fixed to the back of the panel. To the right again are the 6X5G rectifier, the 6F6 and 6L6, with the RG1-240 A's and the 83 behind them. Next are the two $2\ \mu\text{F}$ 600 volt working smoothing capacitors for the 500 volt supply and on the back of the chassis is the 500-0-500 volt transformer. In the writer's transmitter, the one available was rated at 600-0-600 v., so a mains dropping resistor of about 700 ohms is wired in series with the primary. With a sliding tap, this enables



CIRCUIT VALUES—150 WATT TX.

- C1 0.005 μ F
- C2 0.01 μ F
- C3 0.005 μ F
- C4 0.005 μ F
- C5 0.01 μ F
- C6 0.005 μ F
- C7,7' 0.002 μ F
- C8 0.05 μ F
- C9 50 μ F
- C10 50 μ F
- C11 0.001 μ F
- C12 150 μ F
- C13 100 μ F
- C14 50 μ F
- C15 2.0 μ F
- C16 2.0 μ F
- C17 0.005 μ F
- C18 2.0 μ F
- C19 4.0 μ F
- C20 100 μ F
- C21 50 μ F
- C22 2.0 μ F
- C23 2.0 μ F
- C24 0.005 μ F
- C25 2.0 μ F
- C26 4.0 μ F
- C27, C7 0.001 μ F
- C28 0.001 μ F
- C29 0.001 μ F
- C30 0.001 μ F
- C31 0.001 μ F
- C32 0.001 μ F
- C33 0.001 μ F
- C34 0.001 μ F
- C35 0.001 μ F
- C36 0.001 μ F
- C37 0.001 μ F
- C38 0.001 μ F
- C39 0.001 μ F
- C40 0.001 μ F
- C41 0.001 μ F
- C42 0.001 μ F
- C43 0.001 μ F
- C44 0.001 μ F
- C45 0.001 μ F
- C46 0.001 μ F
- C47 0.001 μ F
- C48 0.001 μ F
- C49 0.001 μ F
- C50 0.001 μ F
- R1 2000 Ω
- R2 20,000 Ω
- R3 20,000 Ω
- R4 2,000 Ω
- R5 20,000 Ω
- R6 10,000 Ω
- R7 500,000 Ω
- R8 1500 Ω
- R9 1,000 Ω
- R10 20,000 Ω
- R11 5,000 Ω
- R12 20,000 Ω
- R13 25,000 Ω
- R14 20,000 Ω
- R15 20,000 Ω
- R16 10 watt.
- R17 5 watt.
- R18 10 watt.
- R19 50 watt.
- R20 50 watt.
- R21 2000 Ω
- R22 20,000 Ω
- R23 2,000 Ω
- R24 20,000 Ω
- R25 10,000 Ω
- R26 500,000 Ω
- R27 1500 Ω
- R28 1,000 Ω
- R29 20,000 Ω
- R30 5,000 Ω
- R31 20,000 Ω
- R32 25,000 Ω
- R33 20,000 Ω
- R34 10 watt.
- R35 5 watt.
- R36 10 watt.
- R37 50 watt.
- R38 50 watt.
- R39 2000 Ω
- R40 20,000 Ω
- R41 2,000 Ω
- R42 20,000 Ω
- R43 10,000 Ω
- R44 500,000 Ω
- R45 1500 Ω
- R46 1,000 Ω
- R47 20,000 Ω
- R48 5,000 Ω
- R49 20,000 Ω
- R50 25,000 Ω
- T1 Woden Type PTF22 10V 5 Amp.
- T2 500-0-500V. 100 mA.
- T3 350-0-350V. 6.3V. 3 Amp. 5V. 3 Amp.
- T4 4V. 6 Amp. (High Voltage insulation).
- T5 1250-0-1250 V. 250 mA.
- V1 6F6 metal
- V2 6L6 metal
- V3 813
- V4 83
- V5 6X5.
- V6-7 RC1-240 A.
- J Key Jack
- M1 0-20 mA
- M2 0-250 mA

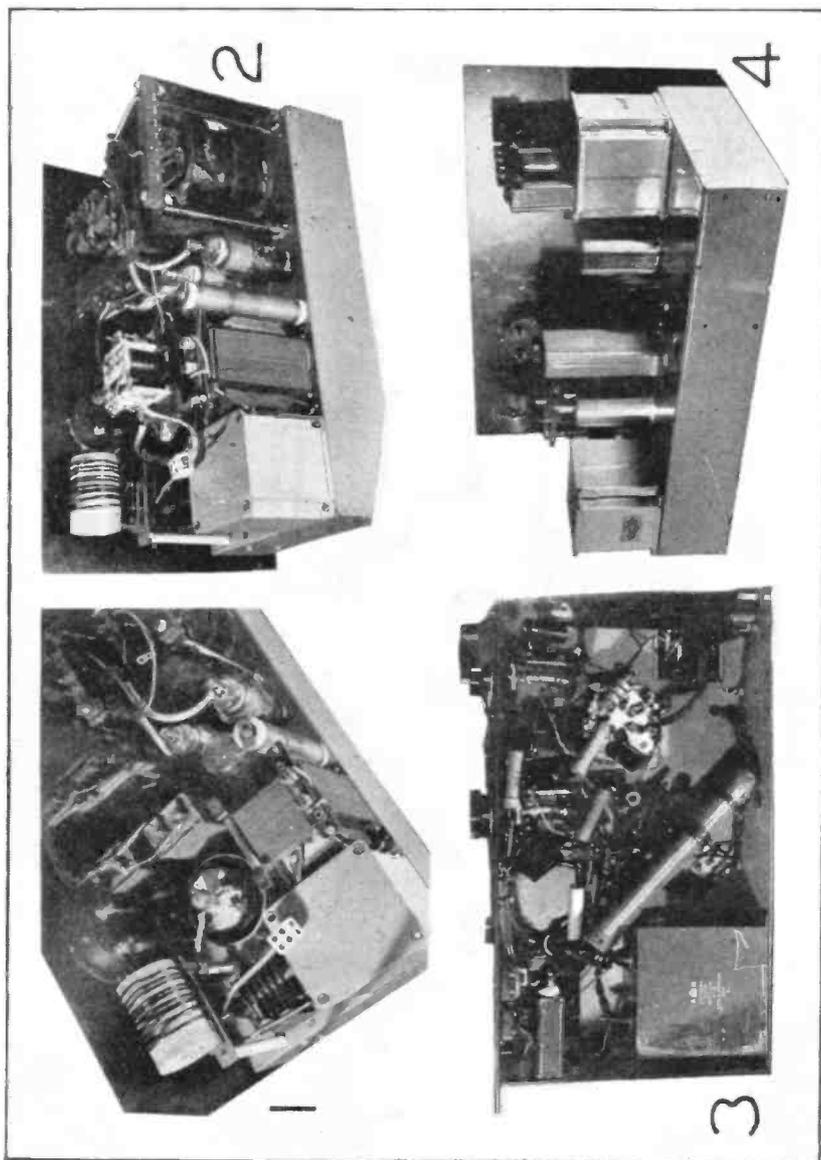


Fig. 1
General view 813
PA stage

Fig. 2
Rear view com-
pleted transmitter

Fig. 3
Under chassis view

Fig. 4
General arrange-
ment in early stage
of construction

Wooden choke with
rectifiers' filament
transformer on top
at right back corner

the correct voltage on the screen of the 813 to be obtained very easily.

The 813 filament transformer is on the back right corner of the chassis with the P.A. tuning capacitor in front. An insulated coupling must be used between the rotor and the dial, as the former is at high potential. The P.A. tank inductance is arranged as shown over the capacitor and the 813 itself is located as shown.

Underneath the chassis, the general arrangement can be seen from the photos. The two variable capacitors for the C.O. and FD stages must be insulated from the chassis and the rotors insulated from the dials. The large 2000 v. DC wkg 4 μ F smoothing capacitor is located on its side as shown and the bleeder resistors for the power packs fixed in where convenient. The resistors and capacitors for the various stages are wired in so that short connections are possible and the component is in the most convenient place rather than arranged neatly but at a distance from its associated value.

As regards the order in which construction should proceed the writer found that in a compact rig such as this, some thought on this question right at the beginning saves much time later on. All fixing holes, holes through which wires and leads pass through the chassis and all valve holder holes should be cut first. Then mark out the panel and locate the variable capacitors, drilling holes for the rotor shafts, using the final position of the capacitors as guides. Then cut out meter holes and holes for crystal holder, key jack, etc.

Having got all the drilling and cutting complete, fix the panel and the grid meter. This is awkward to get at later if it is not fixed early. Take leads from its terminals through holes fitted with rubber grommets to beneath the chassis. Next mount the inductances on the variable capacitors

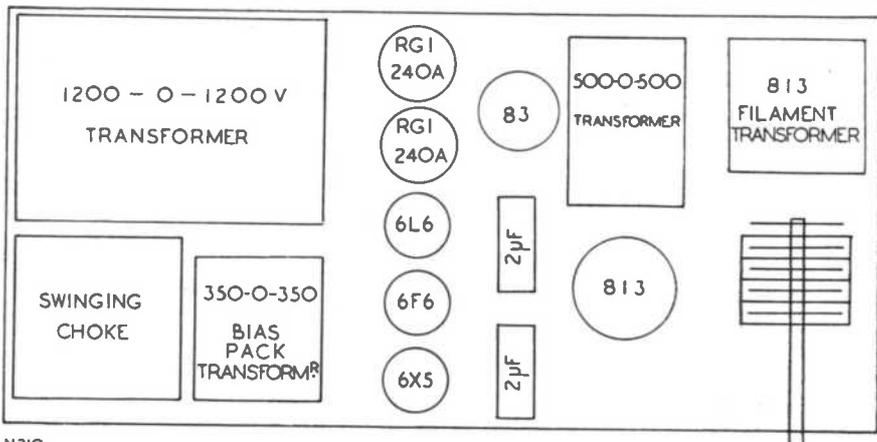
and fix these in position. Now mount the 500 volt transformer, the 350 volt transformer and all the smoothing components for these packs. Wire up and test. Next wire up the C.O. and FD stages, couple up to the power pack and test out. Enough RF should be obtained from the doubler stage inductance to make a loop lamp glow brilliantly. Now complete bias pack and keying circuit and finally the 1200 v. pack and 813 circuit. Before switching on the H.T. to the 813 check voltage on its screen and the bias voltage: these should read 300 v. and about 225 v. to 250 v. respectively.

There are no particular snags in construction and in the writer's case everything worked perfectly first off. The 813 needs no neutralisation and everything works perfectly stably.

The only point requiring further comment is the construction and mounting of the C.O. and FD stage inductances. The specifications for these are given in the circuit diagram. When wound dope well with Denco cement. Mount them across the terminals of their respective variable capacitors.

The aerial change-over relay is similar to the one described in the *Radio Constructor* Vol. 1. No. 1, p. 18. Its energising coil is in series with the centre-tap of the 1200 v. transformer, so that on turning on the H.T., the relay changes from receiver position to transmitter. In the writer's case it was possible to adjust the relay so that the drain through the 1200 v. pack bleeder resistor was sufficient to energise the relay. On pressing the key the extra current through the relay will have no further effect on the armature.

Space restrictions preclude further details but the writer feels that sufficient has been said in conjunction with the photos, to enable any prospective builder to build up a similar rig without difficulty.



V.H.F. NEWS

50 Mcs.

The recent G.P.O. announcement that those already holding permits for this band could continue to use it up to 31st December 1948, has not at the time of writing these notes been amplified at all, so this band is now presumably closed down. There has been very little activity indeed on the band anyway, since its fate has been in the balance and there have been no reports of any dx having been worked on it, in spite of the fact that at times the MUF looked as though some dx working might be possible.

60 Mcs.

Activity on this band continues and it looks as though some of those using QRP are coming into their own. The dyed-in-the-wool VHF enthusiasts have all migrated to 145 Mcs., leaving this band clear for those who wish to use it for purely local contacts. Dare we mention it, but some super-regens and self-excited oscillators have been heard, their operators apparently enjoying the freedom of the band. On the QRP side, **G3EHY** of Banwell, Somerset has had a QSO on phone with **G2CKR** in Malvern, Wores.—55 miles—using the QRP UF1 of 1½-watt input. This news comes to us from **G. V. Haylock, G2DHV, Lewisham Hill, London**, who also uses the UF1 on 60 Mcs. He says that both he and **3EHY** will be on 144 Mcs. shortly with the UF1. Apart from occasional contest activity, little seems to be happening on 60 Mcs. Any form of contest seems to bring the band to life for a short while at any rate. **Jim Bramhill, G2BMI**, heard or worked the following during a recent contest period:—**G2-AHC, AJ, BRR, KI, AUA, ZV, LC, AOL, G3-CW, W, WW, BTC, BLP, EHY, BOB, ABA, APY, G4-IG, CI, KD, AP, G5-LC, JM, LQ, AB, RP, PY, MA, RW, HB, IG, BY, VT, G6-HD, XM, SM, G8-FA, KZ, NK, QX, KL**. So apparently quite a number of people can still come on the band if they want to. **Jim** is now QRT on five, and hopes to be on "two" very shortly.

145 Mcs.

The excitement of the month as far as this band was concerned came over the period of The Great Fog! The anticyclonic conditions which produced this fog over such a widespread area also produced a widespread temperature inversion which gave ideal conditions for the tropospheric propagation of two metre waves. For those who may be unfamiliar with temperature inversions we would refer them to *Short Wave News*, Vol. 2, No. 3 (March 1947), p. 61, where this phenomenon is fully described by **E. J. Williams, G2XC**. Readers will also find similar information in the 1948 Edition of the *Short Wave Listeners' Annual*, p. 62. **Arthur Simons**

(**Mablethorpe, Lincs.**), **G5BD**, worked **PAØZQ, G3DEP** and **G5TZ**—both in the Isle of Wight—**G5MA, G6VX**, and **G2AXG** during this period. He is using a slightly converted **BC 950** as Tx and a two RF stage converter with receiver. He is still using his long wire antenna and he comments that, whilst he normally hears stations coming in best from the Sheffield area, in which direction his long wire points, during the fog signals seemed to come in well from every direction,

Denis Heightman, Clacton-on-Sea, G6DH, says of this period:—"Had there been activity in **D2, D4** or **HB**, I am sure I could have made 2 metre contacts. Apart from lack of activity in various parts of **G** we were working **S9** phone in all directions as far as **G4LU** and **G2ADZ** in **Oswestry, G2IQ, 60S, 6BX, 6YO, 2MA** etc. in **Yorks: 2BMZ** and **5BY** in **Devon** and **PAØZQ** in **Hilversum, ON4FG** **Bornhem, Belgium**, and **F8OL** **South of Paris**. It was really staggering—signals being just like locals a mile or two away with no **QSB**. The best period was **23 Nov.-1 Dec**.

From "Electron"—the **VERON** Journal—we learn that Dutch amateurs are doing well on 145 Mcs. On 11 Nov. **PAØZQ** of **Voorburg** made the first **PA-F** QSO, by working **F8OL** when a report of 589 was given both ways. On Nov. 12 **PAØZQ** worked **G3BUK** in the Isle of Wight, **5BY** in **Devon**, and several other **G** stations.

FIVE-METRE BAND TO CONTINUE

We have just been advised by the R.S.G.B. that the G.P.O. have agreed to allow operation between 58.5 and 60 Mcs., to continue for a further period—probably until March 31st, 1949.

420 Mcs.

Jim Bramhill says that in his district—**Hayes, Southall and Hillingdon, Middlesex**—the VHF gang seem to have forsaken five and two and to have taken to discussing ways and means of getting going on 420. So far, both he and **G3CUI** have frequency meters to cover this band. **G5JM** is experimenting with multi-element antennas (he is rumoured to have a 24-element array!). **G3BWC** has a receiver for this band and a dipole antenna and has been putting in time listening, but has so far heard no one. **G2RF** is using a pair of 6J6's in parallel push-pull, S.E.O. and has been heard at **Slough**—approximately 40 miles away. He modulates this small transmitter and uses a super-regen for receiving.

That seems to be about the lot for this month. Once again letters, notes and news on all VHF matters would be most welcomed by your VHF commentator, so please write in, no matter how trivial your item of news may seem. Even a postcard is welcome these days, now that VHF activity has dropped off so badly. So see what you can do. Thanks, chaps.

On the Ham Bands

Conducted by LES COUPLAND
G2BQC

GENERAL

AS I failed to wish you all a Merry Xmas, let me quickly make amends and wish you all a Very Happy New Year with plenty of new Countries, Zones, and States.

A very interesting letter from James M. Moore, who, incidentally, is the DX editor of "Universalite," a mag of the Universal Radio DX Club, Oakland, California, gives us some real "gen." TI8KB is actually mobile marine, as it is a ship, shark fishing off the coast of Panama, op. being Ernest Otto of Oakland, Calif. Skeds. W6IKQ on Fridays, 0500 GMT, 14,356. No QSL can be issued, as the station is unofficially operated. MX3KG would appear to be genuine, but cannot give QRA: we hope he will eventually QSL though, what say you, Jim? VR2AZ/VR1 is on Canton Island: was heard to say he would not QSL either. Low type! ZM6AF, Apia, Br. Samoa, joins the black list, and refused to QSL even though an actual recording of his signals was sent. It gets worse as we go along!

GD6IA is also black-listed (I should try GB3UB, oc, and see what happens). I suppose it is a job when you are in a rare country, but I would try to QSL if it was the last thing I did. Let's hear from you again, James.

AC4YN and 4RF are the only genuine hams in Tibet.

GM3EMG is on 3730 kcs. phone, QTH Orkney Is. W7ILE/KX6 sends a very nice card with bags of "gen" on it, so says F. Burney. G1715. VE8MA was QSO'd by 2BQC during Nov. Larry was 569, with 10 w. input, his QTH is 80 degs. N., 86 degs. W., and claims to be the northernmost station in Canada.

Les Waine thinks cw reports pay the best dividends. He also tells me that G2BHN worked an LA7 who was 569, using only a 6K7 PA with 1.5 w. QRP! C8YR and 8KY are black-listed by D. L. McLean and wants to know if ZD3B has QSL'd to any SWL.

Phil Hawkes wants to know what the "din" was recently on 20 m. It was the "CQ" contest. 2 PU was doing well on phone.

Bert Glass, ex-ZB2B, comments on the "cat and dog" fight which ensures after a rare DX station calls CQ. I know, Bert, I just don't bother now, possible because I have my DXCC, but it is not worth it to "fight" for the DX.

T. Challenger suggests we revert to the old idea of separate paragraphs for each band, with the names of contributors. Comments please!

Martin Harrison tears me apart for saying 40 is only good for DX in the late or early morning.

Well, OB, by late I mean 2200 to 2400 and early 0600-0800 which is late and early as far as I am concerned. Of course, DX changes with condx. and may be worked any time on 40, I should say. Newfoundland looks like becoming VEØ (heard via VO4Q).

And a final "tit-bit" for anyone wishing to convert the RF26 and 27 units for 10 m. Remove damping resistors across tuning gang, rewind coils with 24g enamelled Osc.-14 turns, Mixer 16 turns on original formers. Remove 1.F rejector in RF stage and wind coupling coil, three turns, half-inch diameter around RF coil (16T) and terminate coupling coil on out-post and chassis. Align trimmers and padders as usual. Tnx to Bert Endersby for details. So until next month 73 es DX. That is, if I am still around after trying to put this "mod" in with the DX notes. Who knows, possibly the blue pencil will miss it! (We will let you off—this time!—Ed.)

READERS' REPORTS

Les. Singletary, RAF, Dunksell, starts us off this month with a very fine 14 Mcs. cw report. CR6ai, 6ag, 7ed (1900) 7af, 7bb, FE8ab (1745). J2aaa, 2aga, KH6gf, KP6ac (0715) KV4ak. KX6af, OQ5bg, UA9ha, VE8ay, 8ma (see general notes), VK2px, VK7kb (1520), VP3tw, VS9al. ZD1pw, ZD4am, ZD8b (1818), ZL3cc, 14 Mcs. phone—CT3MN, FQ8SN, J2AFB, VE8MI and ZD1BD, 7 Mcs. cw: ZL2afk, 2mm, The choice ones from the 10 m. phone log are AR8BM, HC2OT, HK4CO, HR1MB, PZ1RM, VP2AC, 3TR, YN1RO (1835) and ZP7FA (16/10/48—1/11/48). No. Les. I have no gen on TA6OBM. I should say he is "phoney."

Arthur Levi, G138 (Belfast), says in his letter that he was mike-shy when talking to KP4BM on 10 m phone from a GI ham station. Well, we all experience this, Arthur. His best 10 m phone is C8KY, H16EC, HK4CO, MI3LZ, PK2ZEF, VP3TR, 4TAN, VQ45C, W7KMV/J9, 20 m phone:—CT3MN, ET3AB, HP1GL, MIB, MT2E, ZS2DY and 5GK. Here's hoping you have more time for DX in the New Year.

Bert Davies, G1807 (Beckenham), 14 Mcs. phone (1700-2000) MI3CD, OQ5CF, VP3MCB, 4TH, VQ2JD, CR7AZ, ZC1AZ, ZD1BD, ZD3A, and numerous ZS stations, all between 20/11/48-25/11/48. RX O-V-1.

Reg Baldwin (London, E.17) has to contend with roughly 600 cars passing his shack daily, which makes 10 m listening very difficult. Nevertheless, Reg managed to pull in the following on 10 m phone. AP2F, 4B, AR8BC, CR9AG, J2HYS, 2RLK, 3KBE, 9ANZ, KG6DO, 6EP, ST2AM, 2MP, ZE1FD, 2KC and VS7PS.

R. G. Poppi, G1806 (Beckenham), is still plugging for his 40 zones on 14 Mcs. phone. The following were heard during periods 0730-0800, 1900-2000, EL5A, HI6EC, KH6GS, MP4BAB, ST2GE, ZS3F and 4X4AD (Palestine). Good luck with the zones, OB.

B. G. Harrison, G2345 (Boston), has at last managed to let me have a report! And lists the following 20 m phone stations. C7TY, PY7QJ, CE2BQ, CO8MP, VP3MCB, ZS6JS, J9ADE, ZD1BD and KH61J.

A. Baldwin, G193 (London, E.11), has been trying 40 m for cw DX, and by his log he was lucky. He lists CM8xw, CT3ab, OX3j, TI2exo, VE7vc, VK2bc, VO1r, W6ak, 6rm, 7ctv, 9kfo, ZC4ac, ZL2oc, 2gi, 3fp and 3gu. 20 m phone: HK3IR, HP1DZ, TI2CR, VE8MR, VK5RN, VP2PL, ZC1AL, ZS3D, 20 m cw CR6af, 7bb, CT3aa, EPIj, FE8ab, K4vsa, KJ6au, KL7kv, 7ct, 7um, KP4dl, PZ1nb, TF3zm, VE7aad, 8ay, XZ2jb, ZD9aa and ZS3b, which once again shows what can be done on cw. Good show, OB.

D. L. McLean (Yeovil) starts off the New Year in his usual style by managing to snag VQ8AE (zone 39, 1155 G.M.T., 28555 kc.) 1.7 Mcs. phone G2ALB, 2BHW, 2HX, 2LK, 2MM, 2ZG, 3BBG, 5TN, 6HN, 8HI, GW2BG, 3ALB, 4FW, 8SU (Sundays 1000-1200) 3.75 Mcs. phone KP4ES, WIAFW, 2GIZ, 3FII, 4IYO, (2300-0000) 14 Mcs. phone CT2AB, EA8CO (0800, 14260 kcs.) EK1AI, FF8AA, (1750-14398 kcs.) HH3DL, HP1LB, MI3BC, MP4BAB, OQ5CF, OX3GG, TG9RB, VE4GE, VP3MCB, 4TH, 5AR, 6SD, 9F (2300-0000) ZLICD, 4AW, ZS3F (1950, 14370 kcs.). The choice ones from the 28 Mcs. phone log being CR7AH, ET3AH, MT2D, PZ1M, VE5JV, 7ZM, VO6AN, VP2GE, YN1HB, YV4AM, VS7PS, 9AH, ZC1AZ, ZL3DS and ZS3G. All received on an AR88LF.

C. J. Goddard, G2227 (Coventry), has been listening on 3.5 and lists the following: CT1GG, HB9DQ, OZ3L. 14 Mcs.: CN8BB, CR7AC (1955), HZ1A (doubtful I should say, OB), KP4EZ, OX3MC, VK2QC, VQ2JD, 4ASC, ZC1AL, ZE2JX, 3M and ZS6Q. All heard on a Decca "AC/5."

Chris Carr, G1431 (Rainsgate), lists the following for 14 Mcs. phone: HK1DZ, KP4XX, 4HZ, MDIA, OX3BD, 3MC, VK2ALO, VK4UL, and ZC6XY, also 1.8 Mcs. phone: G2BBT, 2BHA, 3WP and 6AB. Thanks, OB, and 73.

Don Robertson, GM1051 (Wick), is still pulling them in. 7 Mcs. cw (1/11/48-4/12/48) CX1fb, HZ1je, J2ahi, 2hys, KH6lg, KL7hi, KP4ab, KV4aa, KS4ah, LU5ia, PY7ln, TF3ea, UI8kaa, UJ8kaa, VK2ahh, VQ5jtw, VP2ks, VE7cy, 8ma, W5htz, 7dxv, 8ryj, ZB1mw, 2a, ZL2gh and ZL4hs, which is an exceptionally fine log, and shows what can be heard on 40 m cw. 14 Mcs. cw: VE4ge, 8px, ZS3f, phone W3FOJ/KL7, ZS6J, and HS1LA, which seems to be a new one. 10 m

phone C1CH, CR7AH, PZ1RM, XZ2KN and ZS3G. Happy New Year, Don.

Bert Endersby, GW703, also starts the New Year well with the following 14 Mcs. cw: CX6ad, KL7rt, VK2eo, VS6bd, ZC8pm (just another prefix for Palestine!), ZD2rgy, ZD9aa. Phone: PJ5KO, VE7ZM, 8MI, VK2QC, 3JT, VQ2JG, ZL4HP and 4X4AD. The best from Bert's 10 m log is as follows—phone: CR9AG, J5AAW, KG6ED, OQ5CL, VS9AH, VS6AN, XEISE, ZS3B, 5JB and 6Q. CW—FN9nd (is this a new one!), OZ1W and D2KW were heard on 1.7 Mcs. and incidentally worked by your scribe during the 1.7 RSBG contest.

Bill Hamilton, GM871 (Motherwell), logged the following with his R1116 on 14 Mcs. phone. CO8MP, HK1FQ, LU7DH, OQ5CF, and with his R208 receiver on 28 Mcs. phone: ZB1AK, 2E, HR1MB, VP4TAN and VU2CQ.

J. Davies, G1695 (Nr. Brighton), heard AP2R, CE3AB, TG9CH, VE7AFJ, VK2ACE, VP3CS, 6CDI, VU2GB and ZL2LE on 10 Mcs. phone.

Martin Harrison, G54 has been DXing on 7 Mcs. cw and says that the DX is weak, but patience will reward. CO2pu, KP4hu, KS4ah, LU2ac, MD1b, PZ1fm, TF3ea, VE7aok, 8px and VP3aa, which is a very good show indeed, Martin, keep up the good work.

L. H. Waine, G328 (Yeovil), still uses his Eddystone 640, and heard the following on 14 Mcs. cw—CO2jo, CM8az, LU6bj, PY1ii, 5V0wa, UA9cl, VE5rd, 6sr, VK9bi, VQ4cur, 6edi, 6jc, ZS1gc and 4bf.

MONITOR SESSIONS

I am afraid that a few late arrivals have come to hand for past sessions and would like to stress the importance of keeping to the deadlines mentioned each month for these sessions. So, how about it, chaps? First of all, let us deal with the "delinquents."

W. J. C. Pinnell (RX-V55R) heard these on 7 Mcs. during session 16:—HA1KK, 1IAFA, 1AQ1, 1EHO. On CW, HA1kk, 4ea, 1Iccl, 1in: OH5oa, OK3al, 3rr; PY7ws, UA1kmc, 3bu, 3dm, 3kea, 4kcd, UB5ab, 5af, 5kab, UF6ac, UR2ah, W1qrx, YR5ac.

Cpl. Singletary had these on the same session:—1IY1, HA4ea, 1Idv, KP4cc, OH2ni, 2op; OK3al, UA4kcd, 4kea, UB5ag, UF6ac, VP6eg, YR5ac. Coming now to session 17 (for Zones 1, 2, 32 and 39) . . .

Les Singletary has W3HUV/KL7, VE8MA, 8MS: ZL1AJ, 1DA, 1LZ, 2BH, 2BV, 2DT, 2FA, 2FI, 2GH, 2GO, 2GX, 2QM, 3ct, 3ge, 4aw, 4ck, 4hw and on phone VE8PO. Les used an O-v-1 receiver. Good going, OM.

Bert Endersby could only listen during the evenings and only managed VO6J, VO6AG and VE8pt.

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RADIO _____ CONFIRMING QSO _____ 194 _____ AT _____
 MANILA ON _____ MC-FONE R _____ S _____ 73'S *Stan*

Fine QSL received from KA1AI by Reg. Baldwin

Eric Coates was even more unlucky and only hooked VE8PO and ZL4AO.

Session 18 was the least successful and no one logged any of the Zones fixed! We did a little searching during the session and were lucky with UAøpa, XZ2jb, AC4rf, VK6kw, 6KE, 6DD and others, so the DX was there!

Coming now to session 20, better results are noticed. (28 Mcs.—anything outside Europe except Zone 5).

Bert Endersby had a heyday with CN8BA, 8ER; EK1CG, FA3JY, MI3LZ, MT2D, MT2FU, VK2ARH, 3HS, 3Q, 6DD; VQ4CUR, VS7PS, VU2LJ, W2ZBI/MM, ZC1AZ, ZE1JO, 2JK; ZS2GV, 5DS; ZL3AY, 3BE, and on CW CN8as, UA9cc, 9cf, UI8kaa and ZD2ghk. Bert logged 16 countries in 11 Zones despite very severe electrical QRM. The receiver was a BC348 with modified RF27 unit.

D. L. McLean, using an AR88 and 33 ft. Windom, logged AP2R, CN8BA, 8ER; KG6DQ, MT2D, VU2GB, W4HRN/MM, W5AXI/MM, ZE1JO and ZL3GJ. These were all heard between 0900-1000.

Fred Randall clocked in with EK1BG, MI3LZ, MT2D, VU2BG, VK3AU, ZB1S and ZE1JO.

FUTURE SESSIONS

Session 22

Date: January 17th. Band: 14 Mcs. Time: 0830-1100 GMT. Target: Stations in 28, 29, 30, 31 and 32.

Session 23

Date: January 22nd. Band: 3.5 Mcs. Time: 2030-2200 GMT. Target: Stations outside the British Isles and excluding PA, F, ON and D.

Deadline for these logs is, in both cases, February 8th.

QSLs Received

B. L. McLean. HL1AR, HP1LR, J2AAO, 5LQK, K2UN, KA1ABZ, M1B, VK2OT, 2ALO, 3AJB, 6MU, VQ2WP, VS1BA, W5OKQ, ZL3BD, 3HC, 3LC, ZS2AQ, VP9T.

W. J. C. Pinnell. KA1AI, KH6IJ, OK3RR, VE1EA, W3IKX.

Ernie Field. HC2KJ, MD1A, VE8MI, W6NIG, 6KUL.

Arthur Levi. AR8AB, CR7AD, CR9AG, CT3MN, HH5PA, HI6EC, HR1MB, J9ACD, KP4HX, MI3ZJ, MT2E, ST2CH, VQ5PBD, YS3PL, ZE2JV, ZP8AC, ZS2DY.

D. E. F. Burnley. AP2, CE3CU, CN8MZ, KA1AI, KP4AC, PY7AX, UR2KAA, VQ4ERR, VS1BA, VU2LJ, W6VKV/16, W7ILE/KX6, W7JJQ, WøBLZ, ZD1BD, ZD4AB.

Les. Singletary. EK1FP, HP1LS, PY1KZ, W7LVR (ARIZ) 9TLT, VS7JB.

E. Caffey. VE7EB, VE7MQ, W3NKS/MM, W7KMV/lwo, VE7WX, HK1FQ, KZ5MD, ST2AM, W7IYG.

SWN QSL LADDER
(For Confirmed Reception)

This month we see several changes, though we still have no serious challengers to the first four positions. First of all, apologies for an incorrect listing last time—Al Slater was shown with 67 countries and this should have read 97. Ernie Field and Don Robertson both put on a spurt but their position still remain at 7 and 8 respectively. The No. 11 position is now taken by D. E. F. Burney, who now has an extra 14 countries to his credit. Leslie Waive goes up several steps and C. J. Goddard, a newcomer, makes a good start. When are Monty Preston and E. A. A. Hardwick going to get another country? They run very close at present.

Here are the final positions this month :

Position	Name	Countries	States	Zones
1	M. Preston (London) ...	130	48	38
2	E. A. A. Hardwick (Misterton) ...	130	35	35
3	C. G. Tilly (Bristol) ...	125	44	36
4	D. L. McLean (Yeovil) ...	122	48	35
5	A. J. Slater (Southwick) ...	97	45	33
6	A. H. Onslow (Hove) ...	94	47	?
7	E. W. J. Field (Watford) ...	91	?	?
8	D. Robertson (Wick) ...	89	43	33
9	A. Levi (Belfast) ...	75	12	29
10	E. Casley (Yarmouth) ...	69	38	28
11	D. E. F. Burney (Tring) ...	66	46	28
12	R. Masters (Portsmouth) ...	63	42	29
13	C. J. Goddard ...	57	?	17
14	L. H. Waive (Yeovil) ...	50	44	25
15	W. Winchester (Eastbourne) ...	48	?	20
16	D. G. Garrard (Ipswich) ...	45	22	13
17	P. Bysh (London) ...	42	14	18
18	D. Shallcross (Borowash) ...	34	5	8
19	J. Edwards (Birmingham) ...	32	26	16
20	W. J. C. Pinnell (Sidcup) ...	31	4	15
21	J. J. Carr (Ramsgate) ...	12	4	15

DX QRAs.

- AC4RF : RW Ford, c/o Gyantse PO, Lhasa, Tibet, via Siiguri, West Bengal.
- AR1RJ : Box 35, Damascus, Syria.
- EA8CO : Cresencio Olias, Apartado Postal, Las Palmas, Canary Islands.
- HC2OT : P.O. Box, 1305 Guayaquil.
- HP1LR : Herman Luria, P.O. Box 91, Panama City.
- J3KBE : Mr. Henderson, APO, 301, co/P.M. San Francisco.
- J5LQK : Fukuoka, Kyushu, APO929, c/o P.M. San Francisco.
- KAIABZ : Col. E.L. Littell, Sig. Sec., APO 707, c/o P.M. San Francisco.
- KG6DP : P.O. Box 100, Guam.
- KJ6AB : APO 105, c/o Postmaster, San Francisco.
- KF4IJ : U.S. Naval Air Stn., Roosevelt Roads.
- MIB : Mario Graziani, Republica di San Marino.
- MD4BPC : SQMS, W. H. Counter, c/o P.O. Hargeisha, Somalia.
- MCLA : c/o Cable and Wireless Ltd., Bengazi, Cyrenaica.
- ST2GH : c/o International Aeradio Ltd., Juba, Sudan.
- TC9CH : Aviatega, Guatemala City.
- V04CUR : Box 110, MacKinnon Road, Kenya.
- V04HMS : I. Morris, c/o East African Airways, Box 1010, VU4AC, Minipol, Laccadive Islands.
- ZD1SW : Box 99, Freetown, Sierra Leone.
- 4X4AA : P.O. Box 4150, Tel Aviv, Israel.
- 4X4AC

JOTTINGS from the NOTEBOOK By **G3AKA**

THAT man W6ODD sure gets around. He has been busy as W6ODD/F18; then he was operating from VU4 and now he is W6ODD/CR8 . . . YU7IL says QSL via Box 337 Belgrade—and we are keeping our fingers crossed . . . TI2KQ seems to be “phoney.” Mail addressed to him at Clipperton Island has been returned . . . VR3A skeds KH6JY every Wednesday at 0000 GMT . . . Another one in the Marshalls is W7ILE/KX6 . . . In Hawaii they have inaugurated yet another DX diploma. It is issued by the KH6 Rag Chewers Club and is awarded for five contacts with its members . . . VR2AZ/VR1 is now VRIB.

On the QSL Bureau front, the ARI have again changed their address. The new one is ARI, Box 60, Rome . . . The Venezuela Bureau, not given in the Annual, is Radio Club of Venezuela, Apartado 1247, Caracas . . . The latest Call Book gives the YU Bureau as Box 180, Ljubljana . . . Cards for Swan Island may be sent c/o Postmaster, Tampa, Florida . . . Cards for YU7KX should be sent to the RSGB.

That pirate in Malta is busy again—with others. ZBIAT says that his call is being pirated and that the several “phonies” on the island are being rounded up. There are now 20 licensed ZBI’s with another four prospective call holders.

ST2FU has now left the Sudan and is signing MT2FU in Tripoli . . . OY8LA is back home as OZ8LA . . . G3FT is off to VE-land . . . Our tame spy reports that we should keep our ears open for a station soon to be on from the Nicobar Islands . . . We hear that HV1AD is obliging with QSLs.

This month’s “care-ofs” for cards:—HP1LP, via W6ADP, PJ5KO and PJ5PEE via ARRL, VP2GJ via W1FTX or ARRL, ZC6UN via K2UN, and CZ2AC now says QSL via G8PL.

The latest “scrum” of DX-happy bods was found to be all over VQ1CUR—who is VQ4CUR in Zanzibar. We did manage to find him under the racket but soon gave up the struggle for the peace and quiet of 7 Mcs.!

MORE PEACE AND QUIET.

“I’m going QRT right now. Everyone’s talking and no one’s listening. Anyway I’ve just heard a chap on your frequency say he’s crystal controlled. It’s enough to drive one silly!”

PIRACY.

“I can tell you that the chap you spoke to with the Canadian Walkie-Talkie is not a Warrington man. I have been asked about him several times and I only hope the GPO soon catch up with him. The real G2HOW is in the Midlands somewhere and never uses “phone.”

Report on Publications

"Inexpensive Television"—Amazing Response

Our Data Booklet Number 2 is another well received publication. Although, contrary to some quarters, we were sufficiently in contact with the radio enthusiasts' interests to realise that television is of tremendous interest, we were a little surprised at the initial sales of "Inexpensive Television." Out of the first printing we have only a few hundred copies left at the time of writing, and this within eight days of publication—three of which comprised the Xmas holiday! Those readers who may miss one of these copies will not, however, have long to wait as we have placed an order for an immediate second printing.

To refresh readers' memories, and for the benefit of those who do not take our "Radio Constructor," this booklet consists of a series of articles appearing in that magazine describing the construction of a television from war surplus equipment. These articles have now been revised and additional data added. The price of the Data Booklet is 1/8 post paid.

"Television News"

A logical conclusion to the building of a television is making the acquaintance of our latest magazine "Television News." Containing the latest news, ideas, reviews, advance programme details for a whole month, interviews with television personalities, this magazine is the ideal publication for those smitten with the television "bug." Why not send for a sample copy today? And why not tell your television friends about the magazine—you will earn their gratitude! Sample copy 1/2 post paid. Annual subscription 13/-

"Short Wave Listeners Annual"

The 1948 Edition is now practically exhausted. With only a very few left now, we advise those who still want a copy to write *at once*. Next month we will be completely out of stock.

"World Radio Handbook"

This attractive and comprehensive publication is fast becoming a universal favourite. Our first batch has been completely exhausted, though by the time this is in print we will be well stocked again. For fuller details of the publication, readers may refer to the September or December issues of "SWN." Incidentally, the price given last month was 6/6. This should have read 6/9 post paid.

"Radio Constructor"

We have to announce, reluctantly, that until further notice we cannot accept further new subscribers. Existing subscribers may renew on the expiration of their current year but new prospective subscribers must apply to be placed

on the waiting list. This is the result of the demand for the magazine being overwhelmingly greater than the paper allocation will at present stretch to.

The position as concerns "Short Wave News" is also acute. We have a few vacancies available for subscribers, but if the demand persists in its present upward trend it may also be necessary to start a waiting list for this journal. The Moral? Get your name down on our regular mailing list at once—otherwise you may not be able to secure your monthly copy.

Other Publications

Just to remind you that we still have in stock small quantities of Data Booklet No. 1 (The Basic Superhet) and "These You Can Hear." The prices are, respectively, 1/2 and 2/3 post paid.

Next month we will review the position of our other supplies, such as ISWL stationery, Report Pads, Record Cards, etc.

* * *

CITY AND GUILDS EXAMINATIONS, 1949

Students who propose to enter for the 1949 City and Guilds Examinations should make their entry through their local technical college or the office of a Local Education Authority not later than the dates given below:—

Subject 50. Telecommunications Engineering—
Last date of entry: March 1st.

Subject 53. Radio Service Work, Intermediate—
Last date of entry: March 1st.

(Candidates must have completed an approved course at a technical college or in H.M. Forces.)

Subject 53. Radio Servicing Certificate Examination (Final)—

Candidates should apply to the Secretary, Radio Trades Examination Board, 9 Bedford Square, London, W.C.1, not later than February 1st upon a special entry form obtainable either from the City and Guilds of London Institute, Department of Technology, 31 Brechin Place, London, S.W.7, or from the Radio Trades Examination Board. Applications should include the entry fee of two guineas and documents supporting statements made on the entry form. After candidates' eligibility has been confirmed by the R.T.E.B., they should enter for the written papers in accordance with the normal City and Guilds procedure, i.e. through a technical college or office of a Local Education Authority.

Subject 54. Radio Amateurs' Examination—
Entries to be made through a technical college or office of a Local Education Authority not later than March 1st.

Note:—These dates relate only to candidates in Great Britain and Ireland.

CLYDESDALE

For Bargains in Ex-Services Electronic Equipment

BRAND NEW

RADIO COMPASS RECEIVER UNITS
by BENDIX AVIATION CORP.



Comprising:—

BC-433-G, 15 valve superhet receiver. Covers Medium and Long Wave. 172-1500 metres, in 3 switched bands, in metal case $8\frac{1}{2} \times 21 \times 12$ in. Plus, BC-434-A Control Box, with "S" Meter, etc., in metal case $7\frac{1}{2} \times 4 \times 7\frac{1}{2}$ in.

Plus, Flexible Tuning Drive, Plus, Indicators 1-81-A and 1-82-A. Plus, Service Instruction Book for SCR-269-G Radio Compass equipment.

CLYDESDALE'S PRICE ONLY **£6 15s.** per set Carriage Paid

Set of 'Radio Compass' (SCR-269-G) Circuits available, at **2/6** per set. Post Paid.

EX-U.S. NAVY BC-221 WAVEMETER

Range 125 kcs. to 20 Mcs., Xtal 1000 kcs., 0.01% accuracy. 3 valves 6SJ7's, 6K8, Vernier tuning, complete for battery operation, slightly soiled externally, less Instruction Book.

CLYDESDALE'S PRICE ONLY **£9 19s. 6d.** Carriage Paid each

BRAND NEW

R.C.A. VIBRAPACK

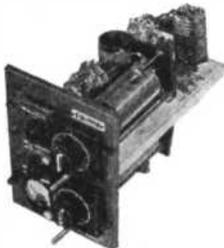
Input 6 volts. Variable output: 200-240 V. 40-50 mA. Complete with non-synchronous Oak vibrator OZ4 rectifier, output switch, battery leads with clips, cord fuseholder, battery output and octal plug, in metal case $4\frac{1}{2} \times 4 \times 6$ in.

CLYDESDALE'S PRICE ONLY **37/6** each Post Paid

BRAND NEW, in maker's carton

EX-U.S.A.S.C.

MASTER OSCILLATOR, type M1-19467-A



A "ready-made" V.F.O. unit, ranges 2-10 Mcs., 807 and spare (2 valves) Grid current meter. E.C.O. circuit, variable inductances, calibrated micrometer controls, etc., in metal case $12 \times 10 \times 6$ in. with Instruction Books.

CLYDESDALE'S PRICE ONLY

£5 15s. 0d.

each Carriage Paid

6 VALVE BRAND NEW RECEIVER with Valves

Receivers of the SCR-274-N, Command Series. B.C. 453 A or B. The Q Fiver. I.F. 85 kcs. 550-190 kcs. 545-1,580 metres.

New, but case dented, at **37/6** each, Post Paid

B.C. 454 A or B. I.F. 1415 kcs., 3.0-6.0 Mcs., 100-49 metres. B.C. 455 A or B. I.F. 2830 kcs., 6.0-9.0 Mcs., 49-33 metres.

In maker's carton, at **30/-** each, Post Paid

or New, but case dented, at **25/-** each, Post Paid

Circuits available at **1/3** each or for complete SCR-274-N at **4/6** Post Paid

BRAND NEW, in maker's cartons

EX-U.S.A.S.C.

BC-728 RECEIVER

A self-contained 6 valve, push-button superhet for portable or car use.

Range 2-6 Mcs. in 4 pb-stages, with 3/1T1's, 1R5, 1S5, 2/3S4's, complete with L.S., battery and vibrator packs, weight 23 $\frac{1}{2}$ lb. Receiver size $12\frac{1}{2} \times 7\frac{1}{2} \times 5\frac{1}{2}$ in.

CLYDESDALE'S PRICE ONLY **£9 9s. 0d.** each Carriage Paid
Kit of Spares available at **37/6**

BRAND NEW, in maker's cartons

EX-U.S.A.A.F.

MALLORY SYNCHRONOUS VIBRAPACK

Input 12 volts, output 250 volts, 70 mA. Complete unit, totally enclosed and fully screened.

Dimensions $5\frac{1}{2} \times 2\frac{1}{2} \times 5$ in.

CLYDESDALE'S PRICE ONLY **19/6** each Post Paid

BRAND NEW, in maker's sealed wrapper

EX-U.S.A.A.F. JEFFERSON-TRAVIS

SYNCHRONOUS VIBRAPACK U.F.I.

Outputs 150/120 volts 30/50 mA choke/capacity smoothed also L.T. and Bias.

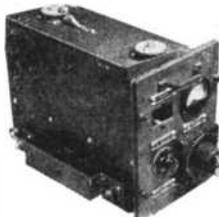
Complete and self-contained vibrator Power Unit for 12 volts input, plus $\frac{1}{4}$ feet screened input lead fitted with crocodile clips, with circuit in metal case $7 \times 4\frac{1}{2} \times 6$ in. finish black.

CLYDESDALE'S PRICE ONLY **19/6** each Post Paid

BRAND NEW, in maker's carton

EX-U.S.A.S.C.

CRYSTAL MULTIPLIER, type M1-19468



Ranges 2.6-7 Mcs., 807 and spare (2 valves). Grid current meter, variable condenser, calibrated micrometer control, etc., in metal case $13 \times 10 \times 6$ in., with Instruction Books.

CLYDESDALE'S PRICE ONLY

45/-

each Carriage Paid

FURTHER SUPPLY NOW AVAILABLE

EX-R.A.F. BATTERY AMPLIFIER, A1134A
Two stages, two valves, PM2HL, QP22B, with 3 trans. Mic. PP input and output, suitable inter-com., pre-amp. or modulator unit complete in metal case 7x5x4 1/4 in. with circuit. Batteries required 120V. H.T. 9V. G.B. 2V. L.T.

Now at **11/6** each. Post Paid.

Electro-Magnetic Mic for A1134A and A1219, with switch and short lead. At **5/6** each. Post Paid.

Junction Panel 10D/1336 for A1134A contains matching sockets, terminal blocks, etc., mounted on board 6x4 in.

At **4/6** each. Post Paid.

EX-R.A.F. BATTERY AMPLIFIER A1219

A two valve, two stage, relay controlled pre-amplifier, similar to A1134A. Valves VR21 (PM2HL) VR35 (QP22B) complete in metal case 7x5x4 1/4 in. Less batteries.

Priced at **12/6** each Post Paid

BRAND NEW. EX-R.A.F. BATTERY AMPLIFIER A.1368

A two valve, two stage, intercom. pre-amp. or modulator unit similar to A.1134A, valves VR21 (PM2HL) VR35 (QP22B) complete in metal case 7x5x4 1/4 in. Less Batteries.

Priced at **11/6** each Post Paid

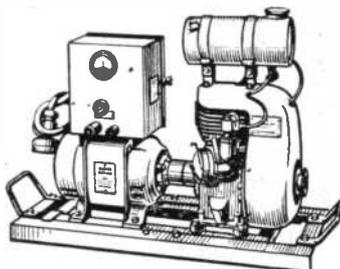
PETROL ELECTRIC GENERATOR

38 watts, 14/32 volts, 9/15 amps.

4-AP, 4 stroke, side valve, air cooled, governed, petrol engine 1 B.H.P., driving a shunt wound D.C. Generator, with control box, cut-out, fuse, ammeter and length of screened cable. Tested in operation before despatch.

CLYDESDALE'S PRICE ONLY £21 each Carriage Paid

Large Selection of other types also available, all sizes. To light a caravan or a factory.



BRAND NEW

2 in. RECORDING METAL DISKS

Single sided lacquer coated. Sealed metal box, containing 16.

Priced at **35/-** per box. Carriage Paid

I.F. TRANSFORMER. 1.35 Mcs., slug tuned, fully screened and decoupled. Size 3 1/2 x 1 1/2 x 1 1/2 in.

Ask for E514 at **2/6** or **4/-** per pair each Post Paid

I.F. TRANSFORMER. 1.5 Mcs., slug tuned, fully screened and decoupled. Size 3 1/2 x 1 1/2 x 1 1/2 in.

Ask for E515 at **2/6** or **4/-** per pair each Post Paid

GERMANY SILICON CRYSTAL DIODE

V102, plug-in type, frequency 4250 kcs., resistance forward 19 ohms. Backwards 9 ohms, noise factor 1 1/2 db.

At **5/-** each Post Paid

JOHNSON "JUMBO" VALVEHOLDER for CV57, CV174, V1293, etc. H.V. porcelain base, with retaining clamp. 1 1/2 x 2 1/2 x 2 1/2 in.

Priced at **2/6** or **25/-** per dozen each Post Paid.

BRAND NEW

EX-R.A.F.

HIGH IMPEDANCE HEADPHONES (S. G. Brown)

at **7/6** Two pairs for **12/6** per pair Post Paid

CO-AXIAL CABLE

Coil (12 yards) first-class co-axial cable. Approximately 80 ohms., 12 mm. at **7/6** per coil. Post Paid

Any length top grade co-axial cable. 52 ohms., 12 mm. at **6d.** per yard. Minimum length 20 yards **10/-** Post Paid

INSULATED SLEEVING

1 mm. 1/- doz. 2 mm. 2/- doz. 3 mm. 2/6d. doz. 4 mm. 3/- doz. 5, 6, 7, 8, 10, 12 mm. 3/6d. doz. Assorted colours, 1, 2, 3, 4 mm. Mainly black 6, 7, 8 mm. Transparent 10, 12 mm.

Special offer Dozen assorted sizes for **1/9** Post Paid

CIRCUITS AVAILABLE. R.1355 I.F. amp. 1/3d., R.F.24 1/3d., R.F.25 1/3d., R.F.26 1/3d., R.F.27 1/3d., C.R. ind. 62 1/3d., C.R. ind. 62A 1/3d., C.R. ind. 6K 1/3d., etc., etc.

NOW AVAILABLE, ILLUSTRATED LIST No. 5, 112 PAGES if on our Mailing List your copy will be sent to you without application.

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'Phone: SOUTH 2706/9

VISIT OUR BRANCHES IN ENGLAND, SCOTLAND AND NORTHERN IRELAND

Around the Broadcast Bands

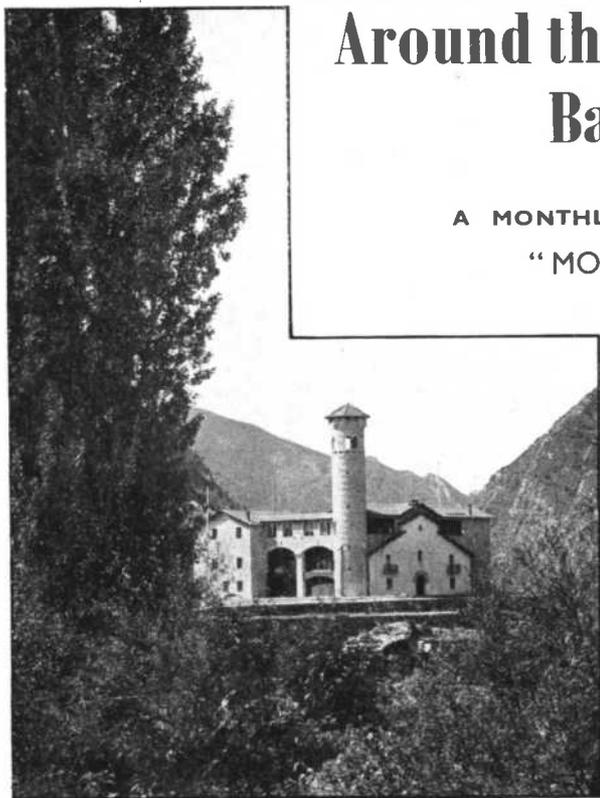
A MONTHLY SURVEY BY
"MONITOR"

All times are given
in G.M.T.

(For E.S.T. subtract five
hours; for A.E.S.T. add
ten hours)



Part of station buildings,
RADIO ANDORRA



SEVERAL readers' letters have come in this month stating that they want to see much more of this popular feature. Your scribe would, too, but as he is allotted only three pages for Broadcast "gossip," and has to cater for Home and Overseas readers, space is the main factor. "Hot" news is always appreciated for this column. Your letters (to: Monitor, c/o SWN) should reach me by the 1st of the month at the latest. Now for the news and survey of readers' letters.

● Asia

Malaya. ZGE, Kuala Lumpur, 6025 kcs., heard 1530 QSA2, R4. Suffers very heavy QRM from powerful USSR station on 6020 kcs. Signs off, after five minute news summary at 1535, with the National Anthem. (J. Burden, Portsmouth.)

Hong Kong. ZBW3 Victoria (9525 kcs.) heard at 1500 QSA5 R6-7. Sign-off at 1515, now with no closing tune, after local weather forecast. (J. Burden.)

Burma. Rangoon (6040 kcs.) 1500 QSA5, R7. Closes with Anthem of the Burmese Republic

at 1515 after quarter-hour bulletin of news and racing results. "This is Burma calling," precedes the reading of the news at 1500. Another direction "This is Burma Broadcasting Service," is also frequently given. (J. Burden.)

Cyprus. Forces Broadcasting Service 7220 kcs. heard R7 with test progs. from 2300-0000 (0200 Cyprus time). Ask for reports to Test Transmission, Station Commander, Forces BC Service, Cyprus. Only heard Sats. (Pearce). The E. London Chapter of the ISWL at Leytonstone also reports the above, stating that this station can be heard after KZCA closes. Arthur Cushen in Invercargill has heard them too, signing off 1900/2000 QRM from KZCA/BBC. Don't those BBC stations "get out"!

India. Master R. F. Pilkington of Cambridge-shire (no QRA on your letter! Please make out your report by Continents, OM, it is easier reading for your Scribe) lists VUD Delhi, 11.760 kcs. at 19,450 with QSA5 R9X signs.

Kenneth Thompson of Bramley, Leeds, would like to join the 'Boys' in reporting to this column. Let's hear from you soon, Ken.

● South America

Venezuela. Pearce lists: YV5RM "Radio-difusora Venezuela" on a new freq.—4890 kcs. (moved from 4970 kcs.) at 2200 being heard with R7 signals. YV5RU. "Ondas Populares" 4880 kcs. was also heard from about 2200 at R7. YV5RD "Radio Cultura" 5055 kcs. (approx.) heard with very strong signals from 2230. All these stations are located in Caraaes.

Brazil. Sao Paulo—"Radio Tope" 15155 kcs. heard from around 2100 in parallel with ZYB8 11765 kcs. ZYN7 Ceara Radio Club, Fortaleza 15165 kcs., R7 when giving International broadcasts Mon.-Fri. 1900-2100. Requests reports—and QSL's! (Pearce). Best of luck in the "contest" Sidney . . . hope we can pass you the "honours." F. G. Welch of Portsmouth wants full QRA of ZYN7 (Ceara Radio Club, Box 222, Fortaleza, will get there, OM.)

● Africa

Gold Coast. ZOY Accra. 4915 kcs. 1745 QSA 3-5, R7. Has intermitted heavy cw QRM. Ten min. news in English at 1845, musical interlude at 1755 and at 1800 the National Anthem follows "This is Accra calling." (Burden.)

Union of South Africa

SABC. Schedule just received by Air-mail from Johannesburg by J. Burden reads:— Johannesburg 3.5 Kw. (A). 4895 kcs. 1550-2105 Daily. 6007 kcs. 0445-0630 Sundays. 9523 kcs. 0815-1210 Daily; 0815-1540 Sundays; 1400-1540

Johannesburg 4. 1Kw. (E). 4800 kcs. 0445-0630/1620-2105 weekdays. 0555-0610/1600-2105 Sundays. 9870 kcs. 0815-1210/1400-1610 weekdays. 0815-1550 Sundays.

Johannesburg 5. 200 Watts (E). 4373 kcs. 0445-0630/0815-1210/1400-2105 weekdays. 0555-0610/0900-2105 Sundays.

Capetown 3. 5 Kw. (A) Eng. Wed. 1820-2000. 5880 kcs. 1700-2105 daily. 0445-0630 weekdays. 0555-0610 Sundays. 9610 kcs. 0815-1210/1400-1645 weekdays. 0815-1645 Sundays.

Pietermaritzburg 2. 200 watts (A). 4878 kcs. 0445-0630/0815-1210/1400-2105 weekdays. 0555-0610/0900-2105 Sundays.

(A—Afrikaans progs.) (E—English progs.)

Pearce logged Johannesburg 3 on their 4 Mcs. freq. at 1800 carrying church service (R6-7) in Afrikaans.

Angola. Sidney Pearce has a QSL for 8090 kcs., transmission depicting Flag, Elephant, Jungle scene, and "Greetings from Angola" from Radio Club of Angola Luanda. Verify in Portuguese and English for CR6RM on 37.09 m. in spite of CR6RF Benguela sending QSL card. Sidney thinks it is definitely CR6RN of Luanda (Your Scribe has the "Wallpaper" which was postmarked Benguela and "Radio Club de

● Honours List

Arthur Cushen is still at the top this month, with 112 countries verified, although his list is not yet to hand. Ron Montague—a newcomer to this list—has 54 countries heard. MTCY is Manchuria, Ron, not China as you list. Remember them pre-war when they used to put over a VFB signal in the evening on the 11 and 9 Mcs. bands. Used to send a nice QSL plus a Christmas card! It is hoped to give the winner of "Contest" in our Feb. issue.

● Honour Roll

Name and Country	Countries verified	Countries Heard (over 50)
1 A. Cushen (N.Z.) ...	112	126
2 S. Pearce (Eng.) ...	110	113
3 J. Beauvoir (Natal)	85	106
4 M. Preston (Eng.) ...	59	117
5 E. W. Field (Eng.) ...	55	84
6 J. A. Jagger (Eng.) ...	50	98
7 G. Kensy (B.Z.G.) ...	50	?
8 A. Levi (N. Ireland)	49	55
9 Dr. T. B. Williamson (Eng.) ...	47	102
10 A. V. Wilkinson (Eng.)	46	102
11 L. W. Lewis (Eng.) ...	45	83
12 Ray Aldridge (Eng.)	43	93
13 C. M. Southall (USA)	41	76
14 E. Friend (Eng.) ...	40	62
15 E. Strangeway (Eng.)	34	73
16 J. Burden (Eng.) ...	34	113
17 A. Boice (USA) ...	32	54
18 D. O. French (Eng.)	29	70
19 R. Montague (Eng.)	25	54
20 W. F. Kehler (BZG)	20	56
21 R. Iball (Eng.) ...	12	70

Benguela" embossed on the card, also printed on the envelope—so what! Maybe our readers in South Africa can clear up the "mystery"?)

Azores—Ponta Delgado. (11090 kcs.) heard from 2045-2100, QSA3 R4-5 with light music till 2100 when closes with "Emissora Portuguesa" and "Ponta Delgado" followed by peals of bells.

● Australasia

New Zealand. Wellington ZL3 (11780 kcs.) heard at 0700-0900 R6. Opens with Kiwi call, N.Z. Pacific playground, and Maori Folk music. (Leytonstone ISWL Chapter) Anson Boice has heard them also from 1900-2100 with QSA5 R8 sigs. in Connecticut, daily on this freq. Announce as "This is Radio New Zealand."

Have temporarily shelved the proposed DX session until coverage is extended. Mailbag Thurs. at 0730 (Cushen N.Z.) QSA R3-5 at 0830 with news. (Ron Montague, London.)

● Central America/West Indies

Nicaragua. Arthur Cushen from sunny New Zealand logged a station on 9520 kcs. in Managua with good signals to 0600. (Glad you like the "Annual," OM, and, as you say, it is a VFB job.)

Cuba—Havana. COBQ "Voice of Cuba" 9235 kcs., sends letter veri to Pearce, saying that they are sending a special prog. for Swedish listeners at 0400-0500 on January 17th. Announcements in Swedish, English and Spanish. Reception report from England appreciated.

Panama. HOLA Colon 9505 kcs. has a request prog. in English daily from 0300-0400. (Boice, Connecticut, USA.)

● Six QRA's

Compiled by Sidney Pearce for your interest.

COBQ. "La Voz de Cuba" Apartado 2703, Havana, Cuba.

HCJB, "La Voz de Los Andes" Casilla 691, Quito, Ecuador.

YSUA. Radio Mil Cincuenta, la Avenida Sur No. 50, San Salvador, El Salvador, Central America.

Radio Noumea. Information Service, Noumea, New Caledonia.

Nordwestdeutscher Rundfunk. Sender Hamburg 13 Rotherbaumchausse 24a, Hamburg 13-

EPB, EQB, etc. H. Samii, c/o Ministry of Postes and Telegraphes, Wireless Dept., Teheran, Iran.

● QSL Section

J. Burden. CR6RF, CBLX, CBFO, CBFW. CBFX, ZYK2 (Reg. Airmail for 15,145/6085 kcs.) ZYK3 (Reg. Airmail for 11,825/9,565 kcs.) SBO.

E. W. J. Fields. VLH5, VLB2.

Sidney Pearce. CR6RN, COBQ, XEBT, VUD (Experimental), FET, Madrid (7380 kcs.), Radio Daker (Airmail 11,895 kcs.), COBL Rome (15,120—new view of Colosseum one side, veri in Italian on reverse), OIX4 (Pori), KGEX (11,730/17,780), KGEI (15,210), LLR., FZ1, YNVP (Air mail). Very nice, Sidney.

Roy Patrick. PRA8, CKLO, CR6RF, TFF and Radio Andorra. When are you coming to Bristol, Roy?

● Acknowledgements

The Editor and "Monitor" wish to thank all the readers who have sent in items compiled in this article this month.

73 Gud DX.

THE ISWL BROADCAST STATION LIST

Until recently, the Station List has been compiled, modified and generally looked after at HQ. The rapidly expanding League, the introduction of more new publications and the shortage of staff has necessitated the handing over of the Station List to other quarters. Such a list is definitely not within the capabilities of any one man—unless, of course, he is a superman—however much time he can devote to the task. Therefore, the task of the Station List must be undertaken by a group, and it is with great pleasure we announce that henceforth the Leytonstone Chapter of the ISWL will be responsible for maintaining the list. They will, in conjunction with HQ, keep the list up to date in the face of the ever-changing scene and modifications will be published each month in this magazine.

* * *

AN INTERESTING NEW VALVE

Miniature 807

Standard Telephones and Cables Limited will shortly be producing a miniaturised version of the popular 807 which will be coded as the 5B/251-M. This new valve will undoubtedly have an instant appeal for amateurs, especially where a compact rig is the order of the day. Although the price of the valve is not yet fixed, it is STC's ultimate intention to make it comparable with that of the larger valve.

The 5B/251-M has similar characteristics to the 807 itself, the main ratings being:

- Heater Voltage 6.3V
- Heater Current 0.9 A
- Max. direct anode voltage 600V
- Max. direct screen voltage 300V
- Max. direct anode current 120 mA
- Max. anode dissipation 16 W
- Max. frequency for quoted ratings 60 Mcs.
- Mutual conductance 6 mA/V
- Inter-electrode capacitances (Input) 10.5 $\mu\mu\text{F}$
- (Output) 7.5 $\mu\mu\text{F}$. (Grid to Anode) 0.3 $\mu\mu\text{F}$

Dimensions: length 105.6 mm, seated height 92.1 mm, diameter 30.15 mm. Base: B8B. 92.1 mm, diameter 30.15 mm.

Base: B8B.

Net weight: 40 g.

* * *

THANK YOU ALL

who sent us the greatly appreciated Xmas and New Year greetings cards. It warmed our hearts to receive these fine cards from readers all over the world and we reciprocate the good wishes expressed. Thanks again, chaps, and all the best for the New Year.

"THE CONTEST STORY"

By A. F. BALDWIN

This short story has been written by the leading light of the winning team as a guide to contestants in any future ISWL Listening Contests, containing as it does the practical experiences during the recent inter-Chapter tussle. It is offered with no apologies for the consideration of Club Secretaries—Ed.

—☆—

DU^E notification having been received of the forthcoming contest from the General Secretary, a meeting of the Club was held. (a) The team of five operators and one reserve was selected, (b) a plan of campaign decided upon, and (c) various subsidiary operations put into motion. With reference to (a) above, it was decided as the mainstay of policy to operate exclusively on the 28 and 14 Mcs. Bands for obvious reasons; it was therefore necessary that (1) capable operators should be picked, and (2) the said operators should possess good receivers and where possible comprehensive aerial systems. A reserve was considered appropriate in view of possible holidays, the actual date of the contest not then being known, and the ever present calamity of the RX breakdown, or the failure of a last-minute modification to work! Point (b) was dealt with as follows—two operators would work 14 Mcs. cw exclusively, a further two using the medium of phone, whilst the fifth member was briefed for 28 Mcs. (conditions then being rather poor on this band). This was to hold good for ten days, approximately half the duration of the Contest. Under (c) was listed the priming and cleaning of receivers, aeriels and subsidiary gear; the study of various DX forecasts and predictions, and, last but not least, the supply of suitable drawn-up sheets of foolscap for use as logs to conform to a common standard.

The ensuing interval between this meeting and the gathering prior to the contest was utilised by modifying existing country and amateur prefix lists, so as to include all the latest alterations and additions.

Slightly before the contest commenced a meeting was called of the participating team, details were checked, operators briefed, the DX forecast studied, and we were finally ready for action. At 1800 hrs. GMT on August 20th we took the field with the reserve operator ready for any emergencies. No opportunity was missed by the operators to cover the DX, the times of listening ranging from 0500 to 0300 GMT, in an effort to cover the globe. Conditions varied, as was to be expected at this time of the year, but by and large the best time appeared to be 0800 to 1100 hrs., and 1400-1630 GMT. From the SWL point of view the writer is fortunate in being able to cover the bands during these local-QRM free times on alternate weeks. (Something to be said for shift work after all!) In the morning period the Pacific area was well to the fore whilst the latter time was FB for Asia. In the evenings Africa held the stage, and by 2030 GMT the QRM on 14 Mcs. cw was appalling with mixed skip and the consequent blanket of local Europeans accompanied by the inevitable W's. During this period G193 definitely went "QRT"! At 2200 GMT or thereabouts the filaments again glowed with heat (or was it excitement) and S. America with the attendant West Indies were to be heard.

Roughly half-way through the Contest a further meeting was held as arranged previously. Logs were checked, results discussed, the 28 Mcs. op was switched to 14 Mcs. and a list drawn up of the countries and zones still outstanding. Propagation conditions having been discussed, the team left Chapter H.Q. armed with a list of the wanted countries and zones. During all this time contact was established by land line and rapid personal calls to this QRA. Hurried confirmations, denials, cups of tea, comparing of notes, and telephone QSO's became the order of the day!

At 2359 GMT on September 10th the first ISWL DX contest came to an end, and a final meeting was arranged to check the result. In order to save the much overworked General Secretary more labour and tearing of hair than was necessary a list of Countries and Zones claimed was drawn up on a Chapter basis with the resultant score claimed. This synopsis was forwarded to G3AKA—that veteran SWL (he's not so old, really—it just seems a long time!—3AKA), complete with the operators' logs for checking purposes. Paradoxically enough, we did not consider our score a particularly high one, and with due humility we expected a third or fourth placing. We were therefore overjoyed at the final result, coming as it did as a complete surprise.

From all this, what were the lessons to be gained? I humbly suggest the following points for possible future reference:—(1) Careful planning and forethought from all concerned. (2) A study of DX forecasts. (3) Dispositions of operators on the best DX band for the period. (4) Equal division of cw and phone operators where possible. (5) Frequent contact and passing of information, and last, but certainly by no means least—teamwork.

Finally, I should like to add as a personal note my thanks to all the operators, not only of East London Group, but to the operators in all the Chapters for their stalwart effort during this first ISWL Contest—more power to their elbows—or should it be to their knob-twiddling fingers! Also, my greetings to Al Slater—that DX-saturated man of Southwick, who with his SX24 certainly put the aforesaid town on the map—a crack SWL is Al, and my congratulations OM on a very fine effort. Thanks are also due to H.Q. staff for their efforts in arranging this contest, and the resulting work appertaining thereto—surely G3AKA lost much time on the air, smoked much tobacco in the by-now famous pipe, and caused much wear and tear to his typewriter—what say, OM? (You're dead right OM!—3AKA).



International Short Wave League

MONTHLY NOTES
BY G3AKA

ANNUAL SUBSCRIPTION 1/-

FROM THE CHAPTERS

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

The Chapter is going great gun with 45s, members—a dozen of which are licensed hams. The last meeting before Christmas was a “free” evening and an interesting discussion developed on the subject of coupling the PA to the aerial. The rest of the evening was devoted to a Quiz with cash prizes.

A detailed programme for 1949 is being mapped out. Visits will be arranged, a club transmitter built and plans to move to a new meeting place where a workshop can be installed are some of the many things in hand.

Two changes in the Committee have taken place. G3BNY and Mr. R. Rosay have replaced Messrs. Thomas and Gratrix, owing to pressure of business.

Future meetings will be held fortnightly at the Church Schools, commencing at 7.30 p.m. Next meeting is January 7th.

North West London (Sec.: F. Wells, 8 Evangelist Road, Kentish Town, N.W.5).

Although membership remains around a steady figure activity does not flag. The club transmitter is well under way now and the Chairman is working on some 144 Mcs. gear for the use of the Chapter. The entire club visited the Amateur Radio Exhibition in force and reported a pleasant day well spent. Incidentally, we would like to mention that this Chapter is one of the few that hold their meetings on Saturday evenings. New local members should contact the secretary for further details.

Ipswich (Sec.: H. W. Dean, 11 Royal Hospital School).

The re-organised Ipswich Chapter is now holding meetings on the first and third Wednesday of each month. Since starting meetings in the new club-room an improvement in attendance has been noticeable. More recruits are still needed, so how about dropping a line to the secretary, local members?

South West Essex (Sec.: L. G. Barratt, 367 Rush Green Road, Romford).

The club transmitter power pack has now been completed and the Chapter station is now on the air every Tuesday evening on 3.5 Mcs. CW, with G3DZJ at the key. Another transmitter for use on top band is under construction, and a multi-range meter has been constructed for general club use. We are glad to see this Chapter on the “up and up” as they have in the past been rather unlucky. New members are, needless to say, always made welcome. Full details from the secretary.

Birmingham (Sec.: G. Pennington, 114 Birmingham Road, Rowley Regis).

These Birmingham boys have certainly got the wander lust! They are to visit the B.B.C. studios at Broad Street, a Police radio station and, possibly, the G.P.O. Station at Rugby. Getting back to the clubroom, listening sessions still retain their great popularity, and another Junk Sale is scheduled for the near future.

Rotherham (Sec.: B. Kendall, 60 Munsbrough Lane, Greasborough).

Local members please note the secretary's new address. We have been requested by the secretary to appeal to members in and around Rotherham to drop along to the meetings as more members are needed for the club. A postcard to Brian will bring you full details of the meetings, so what say, OMs?

East London (Sec: A. F. Baldwin, 28 Wallwood Road, Leytonstone, E. 11).

Seeing that Frank has burst into print with his article on the Contest in this issue, we will excuse him for the very brief notes about the Chapter! However, things are going well with morse classes, discussions, SLP's and a series of lectures. The club library is proving popular and members are making full use of the frequency meter which has been provided for receiver calibration purposes. The lads send their best wishes to all other Chapters for the New Year.

Bristol (Sec.: N. G. Foord, 71 Brynland Avenue, Bristol, 7).

Recent highlights planned include talks by G4NO and G2BAR. Several members are preparing for the Exam and the morse and theory classes are being maintained. The CR plans to issue a “Gloucestershire ISWL News-sheet” and would like to hear from Glos. members who would support the publication (the only charge will be a nominal penny). In this way county competitions could be organised, visits arranged and in general the members in Gloucestershire would be working as a team. Co-operation with other SW England counties in this project is sought, as also is co-operation with other areas who are producing a news-sheet. Will all interested please write as soon as possible to D. J. West, 9 Novers Park Drive, Novers Park, Bristol, 3. Thanks, OM's.

NEW CHAPTER

The Representative for the Isle of Wight, C. Patey, is forming a local ISWL Chapter in Cowes. He already has a nucleus on which to get the club launched but is anxious to hear from anyone else on the island who would care to join the Chapter. Please write to C. Patey, 36 Albert Street, Cowes, for further details.

LOCAL NEWS

Surrey: Greg Lovelock has reluctantly had to hand over his duties to a new CR as he is now travelling around the country and cannot devote the necessary time to the work. The new CR for the county is K. L. Fuller, 20 Colcocks Road, Banstead.

We thank Greg for his past services and trust that Surrey members will give Keith Fuller their full support. In particular, Keith would like to hear from members in the Croydon area.

Notts: We have pleasure in appointing a TR for Newark. He is A. C. Laskey of 21 Pinfold Lane, Old Balderton, Newark. Good luck, OM.
Wiltshire: We have at last found a CR for the county. He is P. Naish of 103 The Mall, Swindon. Will local members please contact him as he is anxious to get local activity on the move. Txn.
Ramsgate: Yet another new appointment is that of TR for Ramsgate. C. J. Carr has taken over the position and local members can contact him at 10 Muir Road, Ramsgate.

Durham: DR Sam Oakes is pushing ahead with plans for a Chapter in or around Hebburn-on-Tyne. Support would be greatly appreciated, and letters should be addressed to Sam at "Over-acres," St. John's Avenue, Hebburn-on-Tyne.

NEW SECTION?

Signalman D. W. Anton, G2440, writes to say that it is impossible for him to take part in local ISWL activity and suggests that there must be many more members in the Services who are similarly situated. G2440 goes on to say that it would not be a bad idea to form a Services Section of the League to cater for those who are either posted away from home or who are constantly moving around the globe. He has very generously offered to organise such a section, provided others are willing to play their part, and to undertake the issue of a monthly duplicated news-sheet.

We at HQ give the scheme our wholehearted blessing and earnestly request that all League members who are affected by the scheme to contact immediately their secretary (and presumably editor-to-be!).

Here at last is an opportunity for members away from home in the Services to get together and swap notes, news and views. All honours to G2440 for his suggestion and his kind offer to get things running. All that remains now is for all Service members to sit down and write a few lines to their organiser, giving their home and service addresses and any suggestions for the section and the news-letter. The address is:— Sig. D. W. Anton D/JX 581388, 1 Mess, H.M.S. Wizard, c/o F.M.O., Davenport.

So there we are. DON'T let him down, chaps!

FORWARD, HAMS!

We are now at work on a register of League members who hold transmitting tickets. This register is being formed with an eye on future League activities which will interest those who hold licences.

Will all members thus affected please send a postcard to HQ giving details, these:—Call, Bands used, VFO or Xtal, power normally used, Aerials, Band most frequently used, Countries and Zones worked. Send your postcards (or QSL card) to TX Register, c/o Headquarters.

Though mention has been made of DX, we are not primarily interested in that aspect. Maybe you work on top band or on VHF. What we want is to ascertain exactly how our transmitting members spend their time on the air and what gear they use.

Remember, this register is being made for your own good! So, let us have the gen at the earliest possible date. Thanks, OMs.

CQ MEF MEMBERS

Geoff Fowle, G500, also a Service member, is at present out in Egypt and is trying to get together a local club. He asks any League members in the area to get in touch with him. Geoff can be reached at this address:—2353882 AC Fowle, G., c/o Post Office, R.A.F. Station, Kabrit, Egypt. Even if you are not near enough to get to meetings, perhaps you members in Egypt could gang up and pool your efforts for the proposed Services' section mentioned in the previous paragraph.

FROM R.A.F. YATESBURY

We have just had a letter from Peter Redman (ex-TR for Romford) who is now in the R.A.F. Though he is at present an AC2, we have great hopes... Anyway, Pete sends along his 73 to all his old League friends and hopes to renew his acquaintances during his spells of leave. Pete is in urgent need of a B2 Power Pack. He has a BC348 (less valves) with which to bargain! So, what say, fellers? Incidentally, Pete would appreciate a letter or two and his address is 2398296 AC2 Redman, P., Hut X46, "B" Squadron, 2 Wing, 2 RS, R.A.F. Yatesbury, Calne, Wiltshire.

ATTENTION ENFIELD MEMBERS

News has just come to hand that a Chapter is in formation in the Enfield district. The first meeting will be held in Enfield on Friday, Jan. 14, from 7.30-10.00 p.m. and future meetings will be held each month until further notice. A few local members have already been visited by the Secretary and know the full details, but all other local members are requested to drop a line, with SAE, so that they may learn the full particulars. Don't miss this opportunity to meet your fellow members! Write to D. H. Tilley, 97 Swan Way, Enfield.

AROUND THE SHACKS

No. 24



THE RECEIVING
STATION
OF
J. LEADER
ISWL/G2105



THIS neat and efficient looking receiving station is operated by J. Leader, ISWL G2105, 5 Highwood Road, Parkstone, Dorset.

From left to right on the top shelf is an AC, DC 1-v-1 receiver. Next to it, is an AC 1-v-1 using EF50, EF50 and 6J5 for headphones use. On the middle shelf is a four-valve superhet using a 6K8, 6J7, 6J5 and 6F6. Adjacent is its power supply. By the side of the power supply is a wave trap to cut out the S9 locals. Next to this is the main station receiver, a 1-v-2 using 6J7, 6J7, 6J5, 6F6.

On the bottom shelf is the loudspeaker, and Eddystone one-valve preselector/converter (autodyne) and the power pack for the 1-v-2 receiver. The ropes to the right of the photograph are to swing the 28 Mcs. beam which is located in the loft. Outside aerials include a 28 Mcs. dipole and 14 Mcs. "long wire"—33 ft.

All equipment is mains operated except for a medium/long wave frame aerial receiver built for the XYL. This uses three IC5's.

John writes to say that he is always pleased to see SWL's around at his QTH, especially those who are interested in "rolling their own receivers."

New Radiovision Communication Receiver

We shall be reviewing next month the new Radiovision Communication Receiver the "Commander." Readers will remember that the ISWL DX Contest was won by Mr. A. Baldwin using one of this firm's receivers, the "Ham-bander." This latter receiver at £22 10s. complete with speaker, represents very good value indeed

for those who require a good receiver for general or amateur short wave listening. The "Commander" is a more ambitious receiver, making use of the double-superhet principle.

It was on show for the first time at the recent RSGB Exhibition.

Q.R.P. CLUB NEWS

IN my last notes mention was made of the low power work done by VQ4RAW of Kenya. This month is also given to another low power worker in the same colony, viz. Frank Featherstone, VQ4RF of Nakuru, Kenya, who has been using a Type 21 set with great success. Input has not exceeded 5 watts. In thirty days Frank worked the following stations:—

W1(13), W2 (11), W3 (8), W4 (10), W5 (6), W6 (1), W (9), Wø (1), OZ (1), OK (2), I (1), F (3), SM (1), ON (1), OE (2), G (13), and PAø (2). In his own Continent, FE8, ZD2 were worked. On 7 Mcs. with 5 watts he has worked telephony stations all over the Colony at Q5, R8, despite the fact that the station is surrounded by hills. Details are not given of the 21 set, but no doubt home readers are familiar with this transmitter and can judge the results for themselves. The average input on 14 Mcs. is understood to be in the region of 2 to 2½ watts. Whilst I am not decrying the good results obtained with this set, I would like to say that the call alone has something to do with the DX worked, as one will call a weak signal if it's a real "out of the way" country, but not if it is a mere 'G.' Despite all this, however, VQ4RF can certainly rank amongst the real low power class.

G6ZN has a small section to himself. I hear, via G4FN, that 6ZN, using his 3-watt Hartley on 80 metres, recently worked VE1PG and obtained RST569! Is it his aerial, the operator, or good operating which gets him places? All I think in Tom's case!

G2AJU, Stutton, Ipswich, has been QRT for some weeks, but is now active again with ½ watt! His results recently on 1.7 Mcs. have been really amazing, having worked GM3AWF (RST 449), GM3CBY (RST 429 but solid), GM8MT (559) and, with QRO (1 watt) several other G stations all around the British Isles. 2AJU says that for either night or day work on the band up to a radius of 15 miles one watt is all that is necessary. Incidentally, this station will welcome SWL reports on top band, and will QSL these reports 100%. He is, at the present time, using dry batteries, and a two-volt filament supply. Truly portable.

Recently in London the writer had the pleasure of meeting PAøXE in person. This operator is now a keen QRP worker, and at the present time is endeavouring to WAC with 2 watts. I understand that Europe, Africa, and North America have been contacted on 14 Mcs. with this input. PAøXE is in the fortunate (?) position of working on shift work, and, in consequence, he is able to operate at all times of the day or night. This accounts for the peculiar times that he has been heard on 3.5 Mcs.! Incidentally, I was impressed by the English language as spoken by øXE. If one wishes to learn our language as it should be spoken, one need not go further than Holland!

G3BEC of Yeovil is still plodding away with his 3 watts on eighty, and his best contact to date with this power is OZ2NU (339). I have recently worked this station on several occasions, and was intrigued with the echo effect on his signal; he sounds like a W6 or KL7 on this band.

THE "SWN" QRP CLUB CONTEST

THE second low power Contest took place over the weekend of 29th to 31st October. Unfortunately, the interest shown was very poor and only six logs were received. It was a pity that conditions were poor, but the loss of interest was no doubt also due to the fact that there appeared to be at least two other contests going on during this weekend. All French stations were calling "CQ REF" and the Russian stations were also all out for inter-U.S.S.R. contests only.

Once again the winner was G6ZN of Horbury, Yorks., who with a one-watt Hartley, a 135 ft. end-fed aerial, and the use of three bands contacted 34 stations in 10 countries, thus making a total of 1020 points. (He was operating for 15 hours). On 1.7 Mcs. five stations were contacted including GC8OK in Guernsey, which is good going indeed for his power on that band. On 3.5 Mcs. he had 10 contacts in five countries including G, GW, LA, OZ and ON4, rounding off his total with 19 contacts on 7 Mcs. including G, GM, EI, G and ON4.

Second position was held by a new call in England—G3EDW of Rayleigh, Essex, but a call perhaps better known as D2DW which was held whilst in the Services. 3EDW used three bands, and made his total up to 160 points as follows:— six stations on 1.7 Mcs. all G's, 13 on 3.5 Mcs. (G, DA, GW, and OK) and one G on 7 Mcs. Note that G6ZN had more QSO's on this band, whereas G3EDW had one! This operator used eco with an 807 and 2 watts on 3.5 Mcs. and an 807 CO on 7 and 1.7 Mcs. OK1DE was his best dx with his 2 watts. He remarks that the QRO stations on eighty were too strong for his QRP signals.

George Haylock—G2DHW of London S.E. was third using 1.8 watts input to co. fd. and a VS1AA 66 ft. aerial E and W, the receiver being an FBXA. George used three bands, and was the only station using 20 metres and although no dx was contacted on this band, two countries G and GM were raised.

This operator also remarks on the QRO stations and also the long spells without a QSO.

Our old friend G3XT of Stratford, Saxmundham, Suffolk, was fourth, obtaining 14 contacts on 7 Mcs. only. His input was 2 watts to an ex-Army type No. 18 set (MO/PA). 3XT had a doubtful contact with W2ZU who replied QRZ

G3X ? which was unfortunate as a W on 7 Mcs. with his input would have been good indeed. Countries worked were G, F, PA and the doubtful W, making a total of 42 points.

Fifth position was held by G3EKP of Darwen, Lancs., a new licence, having obtained his call two weeks before the contest. 3EKP used a 25L6G c.o to a W3EDP aerial on 1.7 and 7 Mcs. and his input varied from 1.5 to 2 watts. Unfortunately, only G stations were contacted on two bands, thus making a total of 30 points. This operator remarks that high power QRM made it practically impossible to obtain contacts on 7 Mcs. after 5 p.m.

Last, but not least, "yours truly" took sixth position with 14 contacts on one band and two countries only. Speaking personally, I found conditions pretty awful on 80 metres (12 contacts) and on 160 metres, few stations were active on that band, especially on cw, G and DA only were raised.

Congratulations are offered to G6ZN as there is no doubt now that this operator is perhaps the best known low power station in the British Isles and certainly one of the most efficient.

Given good conditions and no QRM it does at least show the high power stations that one watt will still get around Europe.

In conclusion I would like to add that G3BEC, and G2AJU would have liked to have entered the contest, but owing to unforeseen circumstances they were unable to do so. G2SO.

* * *

RADIOLYMPIA, 1949

The Radio Industry Council announces that the 16th National Radio Exhibition ("Radiolympia") will be held at Olympia, London, from Wednesday, September 28 to Saturday, October 8, 1949. There will be a pre-view with admission by invitation only on Tuesday, September 27.

H.M. Queen Mary has again consented to be patron of the Exhibition.

Radiolympia was last held in the autumn of 1947, no exhibition being held in 1948. The 1949 Exhibition will cover radio and television studio equipment, transmitters and receivers; radio equipment for world-wide and short-distance communications; navigational aids, including radar; electronic industrial processes and controls, measuring and testing instruments, batteries, valves and components of all kinds. Intending visitors from overseas are asked to inform the Radio Industry Council, 59 Russell Square, London, W.C.1.

* * *

EXHIBITION OF RADIO COMPONENTS AND TEST GEAR

The Radio Component Manufacturers' Federation is holding its sixth annual private exhibition

BOOKS RECEIVED

New Eddystone Publications

"The Eddystone 145 Mcs. Guide" (Price 1/6d.) Stratton & Co., Ltd., Eddystone Works, West Heath, Birmingham, 31.

This sixteen page booklet contains all the necessary data for the construction of a 145 Mcs. Converter and a 145 Mcs. Crystal controlled Transmitter. It is a most useful guide for those who wish to make a start on this band, full instructions with photos and diagrams being supplied for the construction of the three-valve converter (EF54-r.f., EF54-f.c., EC52-osc.) and the five-valve transmitter (6V6G, QV04/7, QV04/7, QQV04/20).

The designs, whilst being reasonably straightforward, have sufficient refinements to ensure good performance and we recommend the attention of both the older hands at VHF work, as well as those first starting on 145 Mcs., to this publication.

"Eddystone Short-Wave Components" (price 6d.) Stratton & Co., Ltd.

This latest Eddystone catalogue contains details of a number of new components amongst which a 145 Mcs. Tuning Assembly; Heavy Duty Neutralising Condensers; ceramic micro-condensers; Miniature plug-in Tuning Coils and a variety of useful connectors must be mentioned. The Constructor who wishes to keep informed of the latest components available must have a copy of this catalogue.

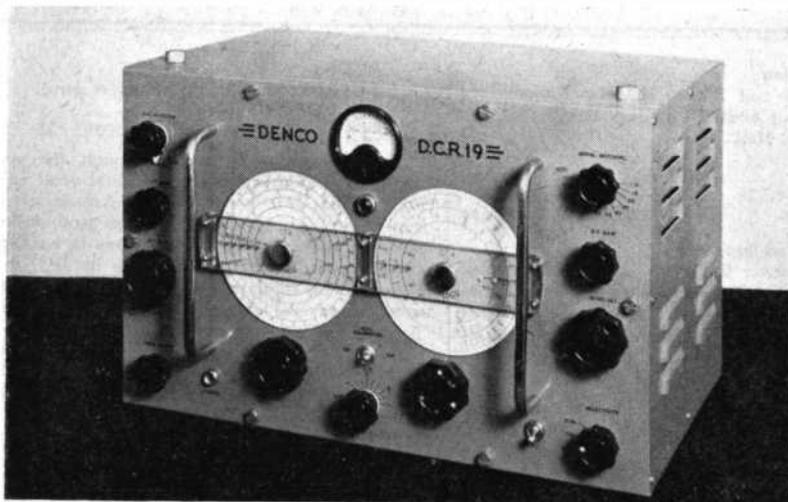
* * *

Comprehensive Woden Catalogue

We have received from the Woden Transformer Co. Ltd. a copy of their latest catalogue. The products of this firm are too well known to need detailed description here. Full particulars are given of their transformers and chokes, including dimensions, which is a most useful feature. Readers who are planning power supplies or modulation equipment should consult this catalogue before they decide on their final specification.

RCMF—(continued)

of British components and test gear in the Great Hall, Grosvenor House, Park Lane, London, W.1., from March 1 to 3. For the first time valves will be among the exhibits which will cover every type of component for the radio, television, electronic and telecommunication industries. About 100 firms will exhibit and there will be special facilities for manufacturers, agents and engineers from abroad. Admission is by invitation which will be sent on application to the Secretary, R.C.M.F., 22 Surrey Street, Strand, London, W.C.2.



THE Denco DCR 19 COMMUNICATIONS RECEIVER

THIS receiver is the product of a long period of development, and this factor, in conjunction with the high standard of craftsmanship which amateurs have come to associate with Denco components, is a guarantee of the quality of the receiver. Intended for either amateur or professional service, complete coverage from 175 kcs. to 36 Mcs. (except for a small I.F. band of 1.545 to 1.65 Mcs.) is provided for. 1 micro-volt sensitivity, excellent image rejection and a high degree of controlled selectivity are prominent features of the design, and one particularly interesting characteristic is that almost constant gain over the tuning range has been obtained, so that the performance on the highest range is equal to that on the lower frequencies. Modern high slope, miniature RF pentodes in the RF section help greatly toward obtaining the excellent sensitivity and also ensure a signal/noise ratio more favourable than that to be found in any other receiver in this price group. These valves contribute materially, also, to the compactness of this receiver, which with its self-contained power pack measures 16½ ins. wide, 10¼ ins. high and 11½ ins. deep.

Using the well-known Denco coil turret arrangement, special design considerations have enabled a gain of over 20 dBs at 20-30 Mcs. to be obtained in a single RF stage—equal to that normally obtained only with two RF stages.

Another unique feature is that a crystal calibrator is incorporated in the set, thus making possible a high degree of accuracy in the frequency calibration of the band spread dial.

Controls

The following controls are provided; their relative positions can be seen from the photograph:—

1. Indicator Lamp
2. Meter Zero Set.
3. Band Set Dial.
4. Aerial matching control: gives optimum signal/noise ratio for wide range of aerial impedances.
5. RF Gain
6. Band Set Control.
7. Switched 5-position Selectivity :
 - 8 kcs. Broad.
 - 8 kcs. Broad—Audio Filter.
 - 1.5 kcs. crystal.
 - 0.5 kcs. crystal.
 - 0.5 kcs. crystal plus 800 cycle audio filter. 100 cycles band width (Band widths 6dB down).
8. Send Receiver Switch.
9. Turret Band Change Control.
10. Crystal Calibrator On/off.
11. BFO frequency and on/off control.
12. Band Spread (placed for comfortable operation).
13. Phone Jack.
14. "Tone" and Mains On/off.
15. Audio Gain.
16. I.F. Gain.
17. AVC Switch "Phone" "CW" or "Manual."
18. Band Spread Dial.
19. Noise Limiter On/off and control.
20. "S" meter which gives an accurate reference to μV input to the receiver (6dB "S" point: S1 0.5 μV).

Specification

The general specification is as follows:—

Sensitivity

Better than 1 μV for 10dBs; Sig./noise on telegraphy. Average 1.5 μV for 10dBs. sig./noise 40% mod. telephony.

Image Rejection

Ranges 1 and 2 over 100dB : Ranges 3, 4 and 5 over 60dB ; Range 6 32 dB. 31 Mc. 52 dB. 20 Mcs.

Six Ranges

(1) 0.175-0.525 (2) 0.515-1.545 (3) 1.65-6.0
(4) 4.8-9.6 (5) 9.4-18.8 (6) 18-36 Mcs.

Calibrated Band Spread

of 5 amateur Bands (3.5, 7, 14, 21 and 28 Mcs.) with 0-340 degrees logging scale for all other frequencies. Calibrated Band-Spread Dials for other services can be supplied for orders of reasonable size.

Crystal Calibrator

incorporated gives rapid and very accurate checks on calibration every 500 kcs. through range.

Noise Limiter

Operates on phone or CW and is self adjusting to carrier level: control for modulation depth.

A.V.C.

Operates on phone or CW (long time constant for CW). A.V.C. switch allows for manual I.F. gain control with A.V.C. off.

Coils

All coils and I.F.'s on polystyrene formers and iron dust cored.

3 I.F. Stages

At 1.6 Mcs., gives good selectivity and provide adequate voltage for operation of A.V.C., "S" meter and noise limiter, even at very low signal inputs.

H.T. and L.T. Supply

250V. 15 Ma and 6V 1A available at octal socket at rear of receiver for operation of converters, relays, etc.

Send/Receive

Switch connections also brought to octal socket to allow for relay operation.

Robust Construction

yet light weight. An extremely rigid reinforced aluminium angle frame retains the sectional chassis. Cabinet sides, bottom, top and back easily protect panel in transit.

Weight

30 lb.

Finish

A pleasant smooth grey (which does not hold dust).

Valve Line-up

R.F. : OSC : BFO : XTAL : EF91=6F12=8D3=X77.
THREE I.F.s. : EF92=9D6.
MIXER : ECH35 (near 6K8) or 6BE6.
DET/AVC and NOISE LIMITER : EB91=6AL5.

AUDIO : ECC32=6SN7.

OUTPUT : EL33=6V6 (less gain).

RECTIFIER : 5Z4.

STABILISERS : 7475 (110v. 10 Ma.)

For ease of replacement through the world only B7C miniature or international octal valves are used. Most valves have American near equivalents but slight differences in base connections necessitate two alterations in each case to accommodate the U.S. types in RF or IF stages. The miniature high slope RF pentodes used in several stages are known by various English references as EF 91-6F 12-8D3-277 service No. CV 138 ; all directly replaceable with each other. Slope averages 7.5 Ma/V, higher than nearest U.S. equivalents 6AU6, 6AG5, 6AK5 which have slopes of about 5 Ma/V.

In the interests of standardisation the ECH35 mixer will be replaced by 6BE6 when the latter becomes available in the United Kingdom.

When this receiver was first designed, purchase tax had to be paid on communications receivers which covered the long or medium wave bands. This regulation may soon be rescinded, in which case this receiver may be fitted with coils on the turret which will cover the long and medium bands as well as the bands specified above. This set will then be marketed at £49 . 10 . 0. We understand that following the exhibition of the receiver on the Denco stand at the recent R.S.G.B. Exhibition a large number of orders have been placed and delivery is at present approximately twelve weeks.

* * *

BRITISH RAILWAYS TO TEST RADIO AID TO TRAFFIC AND ENGINEERING OPERATIONS

British Railways are to carry out tests with radio to ascertain whether it would facilitate any traffic or engineering operations.

Announcing this, the Railway Executive report that, in addition to fixed radio stations, tests will be carried out with transportable equipment, portable sets for use on vehicles and by staff on the ground.

The tests envisaged will, for example, determine the possible value of wireless for:—

Communications between shunting-engine drivers, ground staff and control towers in marshalling yards.

Communication between staff during extensive engineering operations.

Communication from a central depot to road cartage collection and delivery vans.

Working trials will take place as soon as the radio equipment now on order becomes available.

Tests are also in hand, using VHF to determine the possibility of providing radio communication through tunnels, to facilitate engineering operations in these difficult locations.

My Favourite Receiver No. 23

P. BARRETT

THIS receiver, a mains operated O-v-1, was constructed entirely from surplus components. The valves used are 8D2, although 9D2s will also be satisfactory. The detector uses an electron coupled reaction circuit, with regeneration injected into the cathode by means of tapping up the grid coil as shown in the circuit. Actual regeneration control is by virtue of R3, a 50,000 ohm potentiometer in the screen grid circuit. R4, a 5,000 ohm variable, is used for fine adjustment of reaction and is in series with the main potentiometer.

The variable C1 is to adjust the degree of aerial coupling. The RF choke in the anode circuit is a home-made one and consists of 65 turns of 25 swg enamelled copper wire on a $\frac{1}{4}$ in. diameter former. The grid coils are as follows:—

14 Mcs. : 5 turns at 6 turns per inch.

7 Mcs. : 11 turns at 7 turns per inch.

3.5 Mcs. : 25 turns at 70 t.p.i. (on $\frac{1}{4}$ in. diameter former).

The position of the cathode tap should be adjusted until the best position is found, but it can be assumed to be around $\frac{1}{4}$ -up from the earthy end.

The detector stage is followed by a transformer coupled audio stage and a volume control, R6, was found to be necessary when using headphones.

The receiver was built, to quote the owner, "from oddments left over from other receivers,"

and was found to be better than others hitherto used. In the way of DX, much has been logged such as EL, PY, ZC6, CO, YV, LU, and Radio SEAC and Radio Australia give R9 signals. The volume has to be turned well down when listening to East Coast W's, even on the speaker.

The 8D2, or 9D2, is a 13 V valve and to supply the correct voltage the heaters were connected in series with the mains and a 40 watt lamp. The HT supply is a normal and conventional power

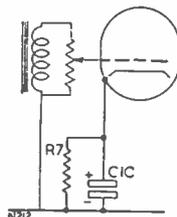


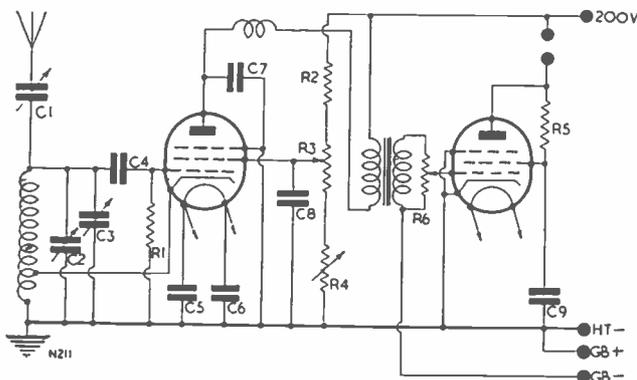
Fig. 2. Sketch showing cathode bias arrangement. C10 is 25 μ F. 25 V wkg.; R7 is 250 Ω

pack with full wave rectification. Naturally, if a 13 V source is available, the heaters should be wired in parallel and taken to the appropriate source. Any queries arising from this receiver may be addressed to P. Barrett, 20 Rycroft Avenue, St. Neots, Hunts.

(We have reproduced the circuit, as is the custom, according to that received from the owner. However, we feel that the use of battery bias on the output valve could be replaced by normal cathode bias. In this direction we have added a small sketch showing how automatic bias should be connected

—Ed.)

Fig. 1. Theoretical Circuit



COMPONENT VALUES

C1	75 μ F
C2	10 μ F
C3	500 μ F
C4	100 μ F
C5	0.002 μ F
C6	0.002 μ F
C7	100 μ F
C8	0.1 μ F
C9	0.01 μ F
R1	2 M Ω
R2	15,000 Ω
R3	50,000 Ω
R4	5,000 Ω
R5	33,000 Ω
R6	50,000 Ω

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BARGAIN. "Hambander" Communications Receiver, almost new, complete with speaker £18, fine value. E. D. Foster, 86 Lads Lane, King's Heath, Birmingham.

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EDDYSTONE 504X, Built-in S meter, speaker unit and S.G. Brown phones. Instruction manual. As new. Snip! £35. Box 1042.

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