# R S G B

JANUARY, 1958

BULLETIN

2/6 Monthly

JOURNAL OF THE RADIO SOCIETY OF GREAT BRITAIN

VOL. 33, NO. 7

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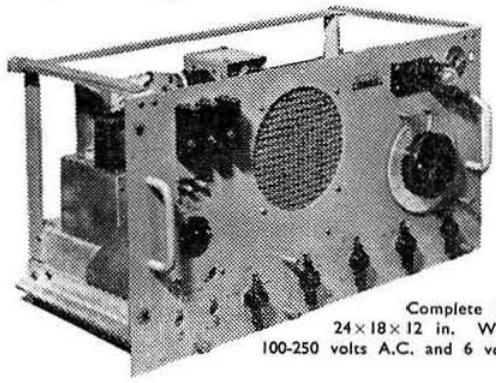

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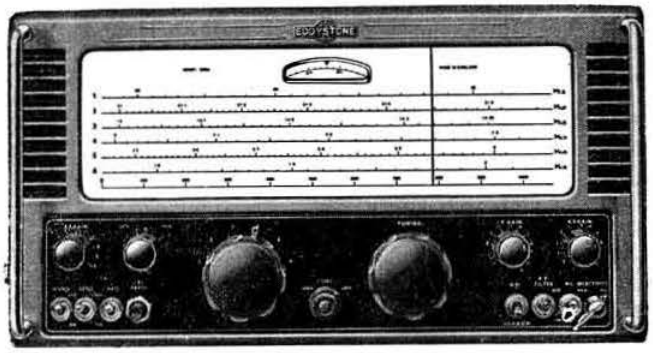

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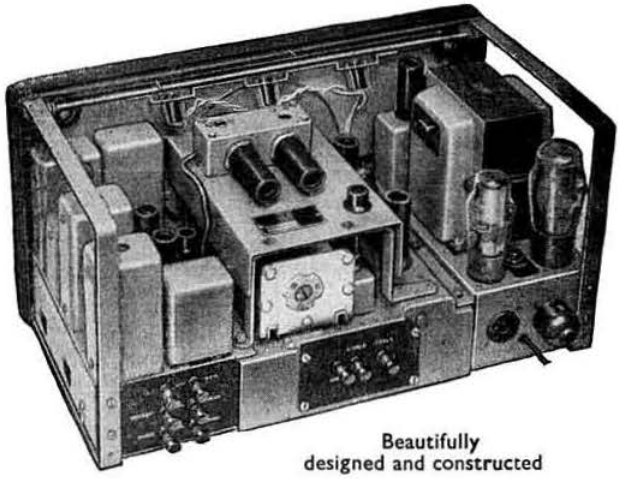

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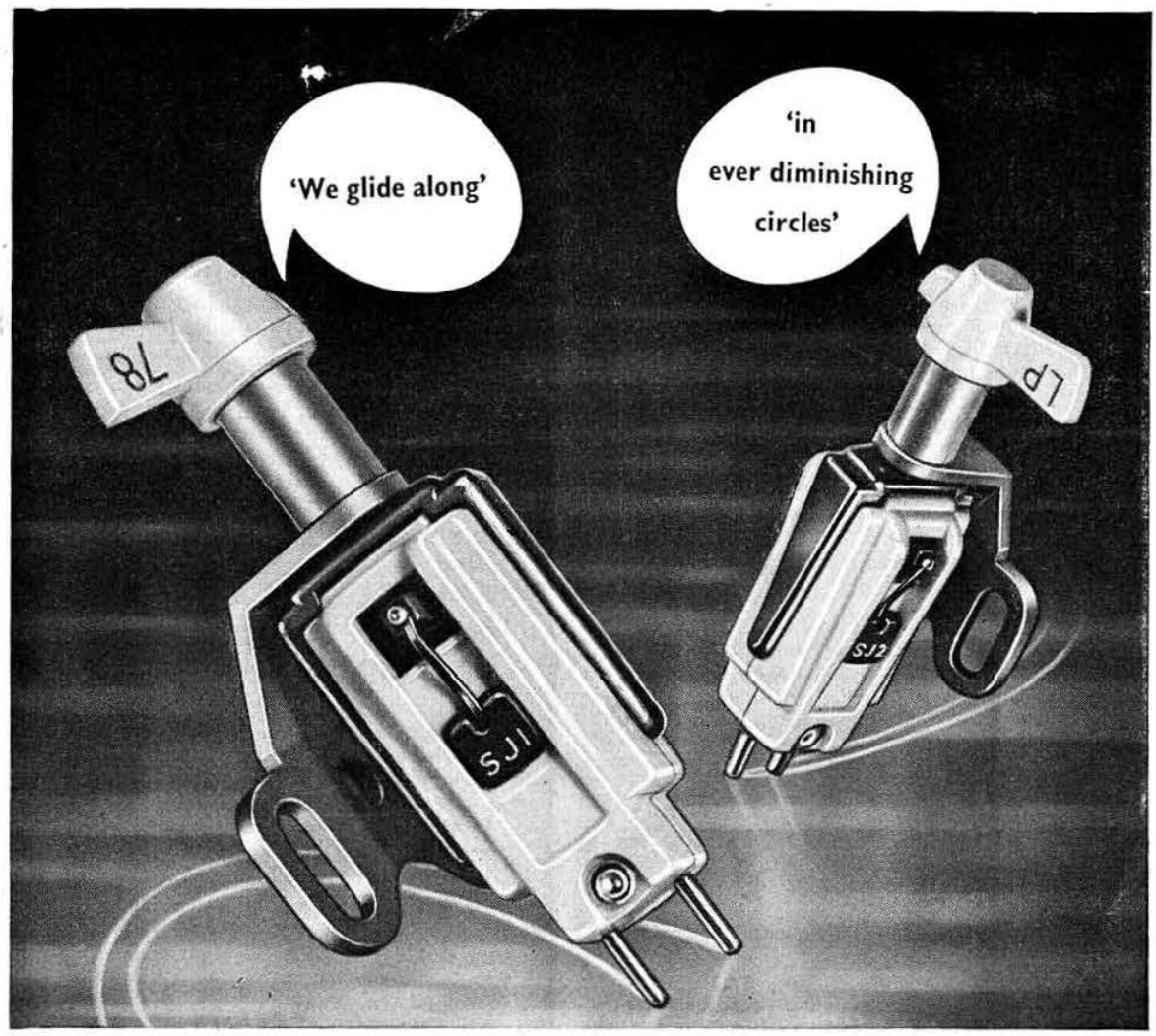


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# R.S.G.B. BULLETIN

*Devoted to the Science and Advancement of Amateur Radio*

Vol. 33 No. 7 JANUARY 1958

## CONTENTS



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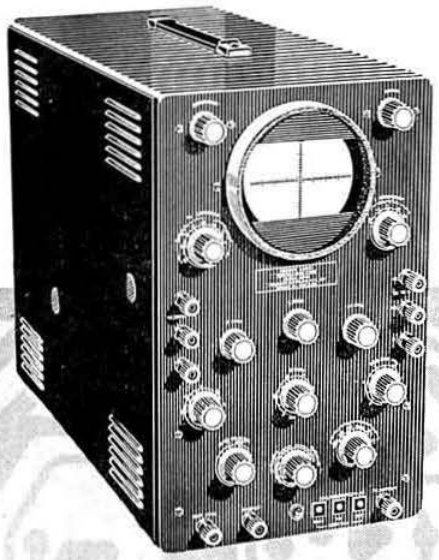

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# Current Comment

## *Planning for Survival*

IT is appropriate to deal in the first " Current Comment " of this new year with the subject which is perhaps more important than any other to the Amateur Radio movement as a whole, and that is the survival of the movement as we know it today.

Language such as this may perhaps seem a little over dramatic, but if it serves to deflect the attention of members from the immediate preoccupation of constructing and communicating, then its use will be justified.

Looming up ahead is an International Telecommunications Conference which may well throw into the melting pot many of the procedures and frequency allocations which radio services employ at the present time. The conference—its official title is Ordinary Administrative Radio Conference—is due to open on July 1, 1959, probably in Geneva. To say that a fight for frequencies will take place is once again to use over dramatic phraseology more akin to a public newspaper headline than to this magazine; but the prospect is almost precisely that.

What is particularly galling to the serious-minded amateur is that a great deal of " cornering " of frequencies will be attempted by pressure groups who do not want them for any evidently useful purpose. Members will no doubt rate propaganda broadcasting as one such.

Cynics might say that Amateur Radio also has its " propaganda stations . . . you can hear them on 80m phone! "; but discounting the misguided minority, who will presumably always exist in any hobby organization, it can be said that the employment of its frequency space by the Amateur Radio Service is as efficient as any other, more efficient than many and a great deal more useful. The need to emphasize the Amateur Radio Cause at forthcoming meetings in preparation for the Radio Conference is accepted as a matter of urgency.

Well ahead of any I.T.U. deliberations, the Society's G.P.O. Liaison Committee, has already recommended to the Council the course of action which should be pursued in the matter of frequencies. Needless to say, no effort will be spared to retain all the allocations we already enjoy plus a little bit extra here and there. At least we can ask.

Just how important it is for the Amateur Radio movement to be represented at international meetings may be remarked from the fact that at the last I.T.U. Conference in Atlantic City during 1947, only the efforts of the two R.S.G.B. delegates saved " Top Band " for the Amateur Service in the U.K. Similar fore-arming, expressed in a strong delegation, looks like being a " must " for the next I.T.U. Conference. There will be very much more than "Top Band" at stake.

## *Poll—and " Politics "*

ONCE again the annual election for Council members produced a very poor turn out of the electorate.

Ill-disposed persons no doubt will make the usual jibe that such a circumstance discloses widespread lack of interest in the affairs of the R.S.G.B.—an allegation which does not square with the steady rise in membership which has happened over the last few months. But it *does* seem difficult to get members to vote!

Plenty of discussion has taken place both in the Correspondence columns and at local level about how to persuade more of them to do so when elections come round. It might be useful to reopen this discussion once again by asking whether insufficient tilling of the ground is done in the BULLETIN in advance of elections and by Town Representatives at local meetings; whether so much " loose paper " that falls out of the November BULLETIN each year tends to intimidate rather than to encourage members to vote with it; whether there is any feeling that it is " playing politics " to take an interest in the composition of the next Council, or indeed in anything except the aforementioned constructing and communicating. —J.H.

## *Special Resolution*

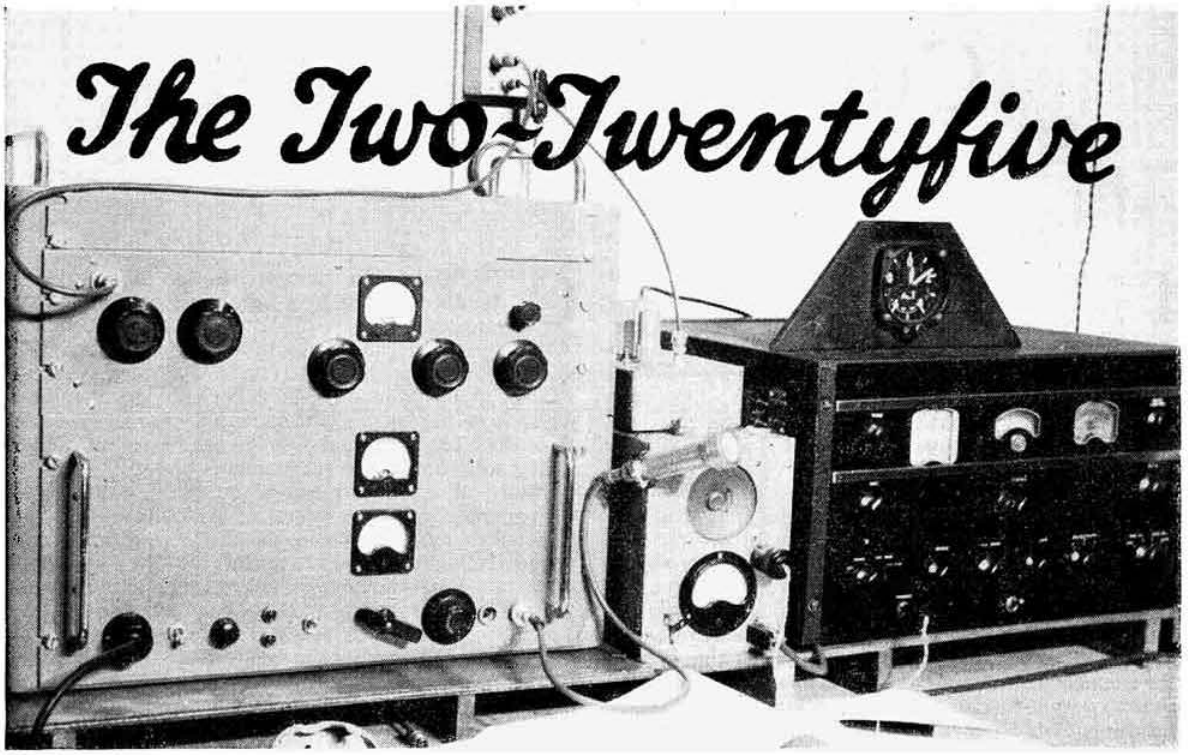
AT the Extraordinary General Meeting of the Society held in London on December 13, 1957, the Special Resolution to amend Article 19 was passed by a majority of 91 per cent. of those who voted.

The fact that the Special Resolution has been passed does not, however, mean that subscription rates will be increased automatically to 50s. in the case of Home Corporate members and 25s. in the case of Associates. What it *does* mean is that the Council now have power to increase subscription rates to the new ceiling figures.

Members may be assured that the 1958 Council will give long and anxious consideration to the question of subscription rates and in so doing they will, no doubt, keep in mind that the R.S.G.B., in common with publishers of other monthly periodicals, has to find a great deal of extra money immediately to pay for increased postal charges. In so far as the Society is concerned the increase will amount to £840 in a full year.

A disturbing feature of the passing of the Special Resolution is that, although about 2,000 members live within easy reach of Central London, only 135 of them attended the Extraordinary General Meeting and only 76 other members voted by proxy. It seems strange, to say the least of it, that such an important matter should be settled by less than 3 per cent. of the membership entitled to vote.—J. C.

# The Two-Twentyfive



By GEORGE R. JESSOP, A.M.Brit.I.R.E., Assoc.I.E.E. (G6JP)*

THE equipment to be described is the result of many attempts to satisfy the writer's desire to have a reasonably compact transmitter suitable for table top operation, yet flexible enough for use both on the higher frequency and v.h.f. bands. Such a transmitter is of necessity a compromise between the quickly bandswitched type for the 3·5-28 Mc/s bands and the more elaborate single band rack type.

The solution presented here is to use a small upright cabinet with a vertical panel space of 15¾ in. to house the units. The r.f. section is made interchangeable and occupies the upper half while the power supplies and the audio equipment are fitted in the lower permanent section. Changing from one r.f. unit to another takes only a few minutes, all interconnections being made with multiple contact plugs and sockets. The other connections to the mains, aerial and microphone are made on the front panels. This form of construction enables the user readily to make new r.f. units incorporating his latest ideas to fit in place of an existing unit without having to wreck the whole transmitter.

The r.f. unit described in the present article covers the 144 Mc/s band but it is intended to construct similar units for 28 Mc/s and 420 Mc/s.

As far as possible standard valves have been used, although in one or two positions the optimum type has been selected.

### R.f. Unit for 144 Mc/s

The r.f. strip for the 144 Mc/s band (Fig. 1) is fundamentally a straightforward three-valve exciter plus a power amplifier stage. It does not employ any trick circuits and can be duplicated without trouble. The first stage, V1 (Z77), is operated as a crystal oscillator-tripler with an 8 Mc/s crystal, the anode circuit being tuned to 24 Mc/s. The anode coil is slug tuned and has a small condenser across it.

V2 (also a Z77) is operated as a tripler to 72 Mc/s with the anode circuit arranged for push-pull output to drive V3 which is operated as a push-push doubler to 144 Mc/s. The use of a TT15 in this stage may be regarded as wasteful, but the writer prefers to have plenty of drive in reserve even if it is rarely required. Another advantage is that this stage performs satisfactorily with low anode current, whereas a smaller valve might have to be driven fairly hard to give the required output.

The power amplifier stage, V4 (TT20), has a similar input (grid) coupling to that described in an earlier transmitter [1] but the anode circuit is a short line tuned by a relatively large capacity butterfly condenser in order to cover a wide variety of p.a. valves. Alternatives to the TT20 are the QQV03-20A and 832.

The output of the transmitter is usually fed into a 75 ohm co-axial feeder. To avoid uneven loading of the two sections of the valve an additional tuned circuit has been included which provides a balanced load. To assist the tuning of the anode and coupling circuits for maximum output a simple r.f. voltmeter using a GEX66 crystal is connected across the output coil. No attempt has been made to calibrate this voltmeter, the anode and coupling circuits being merely tuned for maximum reading on the meter. The feeder voltage and grid currents of V2, V3 and V4 are indicated on the single switched meter included in the unit. Typical grid currents for the various stages are: V2—0·8 mA; V3—1 mA; V4—3·5 mA.

* *32 North View, Pinner, Middlesex.*

The drive to the p.a. stage is controlled by a potentiometer connected in the screen supply to V3.

The layout of the r.f. section is shown in Fig. 2.

**Speech Amplifier-Modulator**

The speech amplifier-modulator which is built on the lower chassis, occupies a space of about 10 in. × 5 in. The circuit diagram (Fig. 3) may seem elaborate but it is however quite straightforward and employs resistance capacity coupling throughout except, of course, for the modulation transformer.

Two microphone inputs are provided; the first, for use with high impedance microphones such as a crystal or a moving coil type with external transformer, is connected to the first speech amplifier (V1). In this position a low noise low frequency pentode (Z729) is used, the output feeding one section of the double triode V2 (B329). The second microphone input is connected in series with the cathode of the other section of V2, the grid of which is connected to earth. This arrangement permits a carbon microphone to be used without the customary transformer and battery. The outputs from both sections of this stage are combined and fed into the gain control in the grid circuit of V3 (also a B329) which is connected as an amplifier and phase splitter driving the KT88 modulators (V4 and V5). The audio power output is considerably in excess of the 20 watts required and it is not necessary to use fixed bias.

The screens of the modulator valves are supplied from the h.t. line through a VR150 stabilizer valve: the speech amplifier valves are also fed from the same point.

Throughout the amplifier, the coupling condensers are of fairly low capacity (0·001μF) to reduce the low frequency

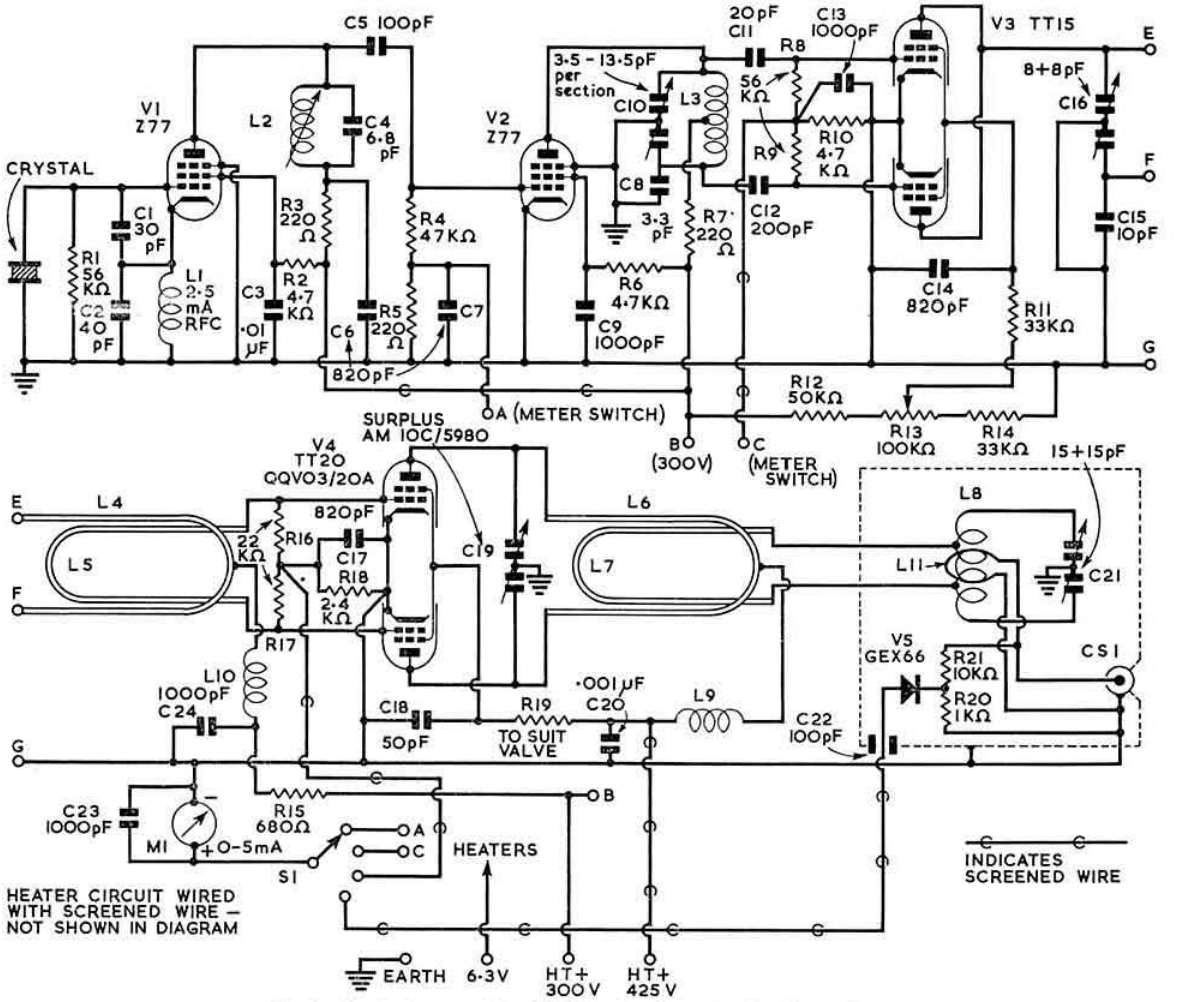



**Fig. 1. Circuit diagram of the 144 Mc/s r.f. unit for the Two-Twentyfive.**

**C1, 2, 4, 5, 8, 9, 11, 12, 13, 14, 15, 17, 18 (1,000 volt type), 23, 24, are all ceramic (T.C.C. or Erie); C3, 350 volt working (Hunts type W99); C6, 7, stand off type (larger capacity than specified better if available); C10, butterfly type (Polar C8-52/1); C16, butterfly type (Eddystone 739); C19, split stator (Polar C18-11); C20, 1,250 volts working mica; C21, split stator (ex-IFF transmitter); C22, feed-through type; L2, 14 turns 26 s.w.g. $\frac{1}{16}$ in. diameter; L3, 9 turns 16 s.w.g. $\frac{1}{16}$ in. diameter spaced one wire diameter; L4, 5, 6, 7, 11, see Figs. 8 and 9; L9, v.h.f. choke or 100 ohm resistor; L10, 100K ohm ½ watt resistor wound with 36 s.w.g. wire; R1, 3, 5, 7, 10, 18, 20, 21, all ½ watt; R2, 4, 6, 8, 9, 11, 12, 14, 15, 16, 17, all ½ watt; R13, 4 watt wire wound variable; R19, 5 watt wire wound (Welwyn), value to suit valve; V1, 2, 3, 5, all G.E.C.; V4, TT20 (G.E.C.) or see text. The values of R10 and R18 are those used in the prototype; if more accurate meter readings are desired the value could be reduced to 100 ohms or so.**

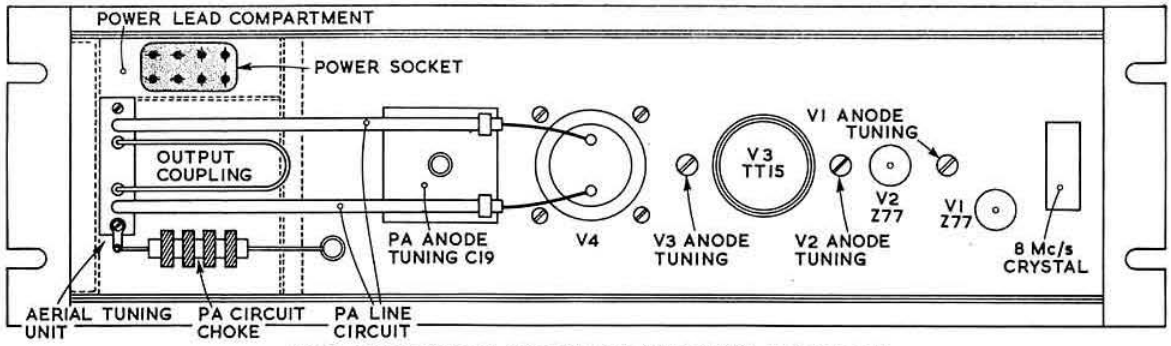



**Fig. 2. Layout of the r.f. unit built on a standard 19 in. × 5¼ in. panel.**

response: below 300 c/s the attenuation is considerable. In addition, the modulation transformer has been suitably by-passed to reduce the high frequencies. A curve of the resulting overall response measured at the secondary of the modulation transformer, is shown in Fig. 4. These characteristics are sufficient to transmit all speech frequencies but prevent the radiation of a broad signal.

The wiring should be made as short as possible and screened wire used where practicable.

### Power Supplies

The power supplies, which are built into the left hand end of the lower chassis, are quite straightforward although at first sight they may appear unduly large for the power output rating. It should, however, be remembered that these supplies have to cater for a considerable variation of power required for the different exciter stages: for instance a 430 Mc/s strip would need about 140 mA at 300 volts whereas a 28 Mc/s strip would only take about 60 mA. The power requirements for the speech amplifier-modulator and the p.a. are substantially constant for an input of 25 watts to 35 watts.

The circuit diagram is shown in Fig. 5 and the combined layout of the power supply and audio sections in Fig. 6.

All the necessary switching and indicator lights are provided, the h.t. on/off control being a relay in the centre-tap of the h.t. winding because the transformer giving the 300 volt supply also provides the 6·3 volt heater current. The relay was installed to provide for remote control should it be required.

The two h.t. supplies have simple single section filters with small inductance chokes and fairly large condensers, an arrangement which occupies very much less space than the more elaborate filters which are often specified.

The anode current meters for both the modulator and the p.a. are fitted in the power supply section, so that there is no duplication of these meters for the various r.f. strips.

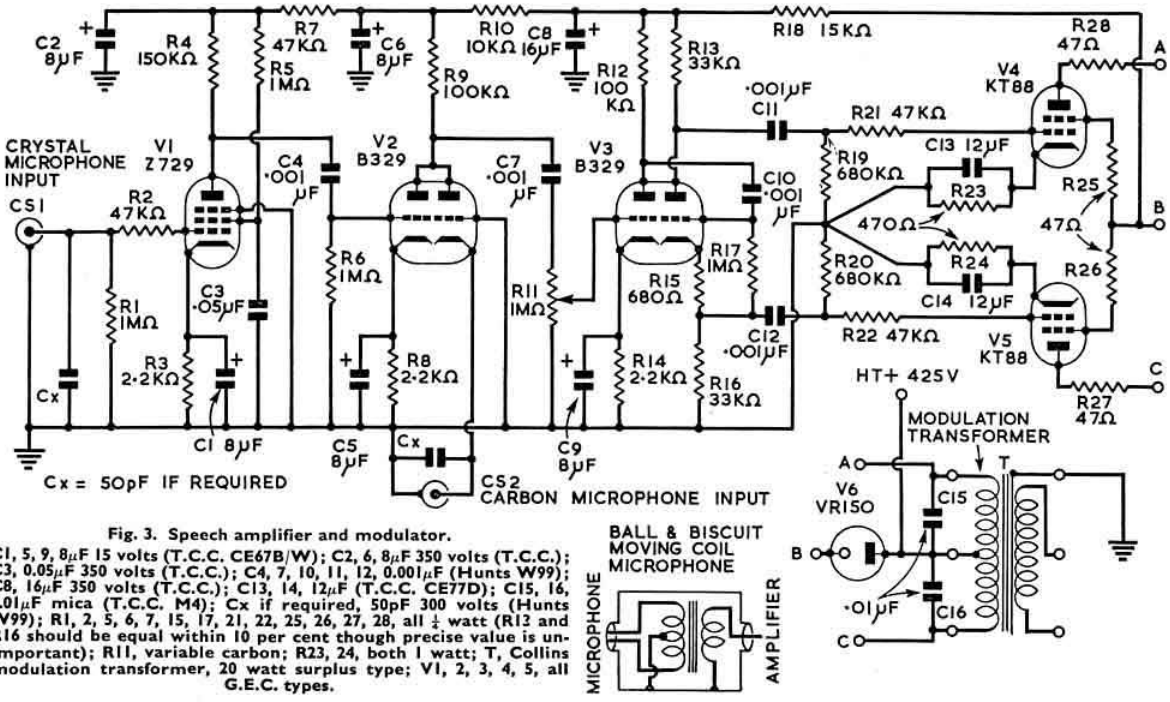



**Fig. 3. Speech amplifier and modulator.**

**C1, 5, 9, 8μF 15 volts (T.C.C. CE67B/W); C2, 6, 8μF 350 volts (T.C.C.); C3, 0.05μF 350 volts (T.C.C.); C4, 7, 10, 11, 12, 0.001μF (Hunts W99); C8, 16μF 350 volts (T.C.C.); C13, 14, 12μF (T.C.C. CE77D); C15, 16, 0.01μF mica (T.C.C. M4); Cx if required, 50pF 300 volts (Hunts W99); R1, 2, 5, 6, 7, 15, 17, 21, 22, 25, 26, 27, 28, all ½ watt (R12 and R16 should be equal within 10 per cent though precise value is unimportant); R11, variable carbon; R23, 24, both 1 watt; T, Collins modulation transformer, 20 watt surplus type; V1, 2, 3, 4, 5, all G.E.C. types.**

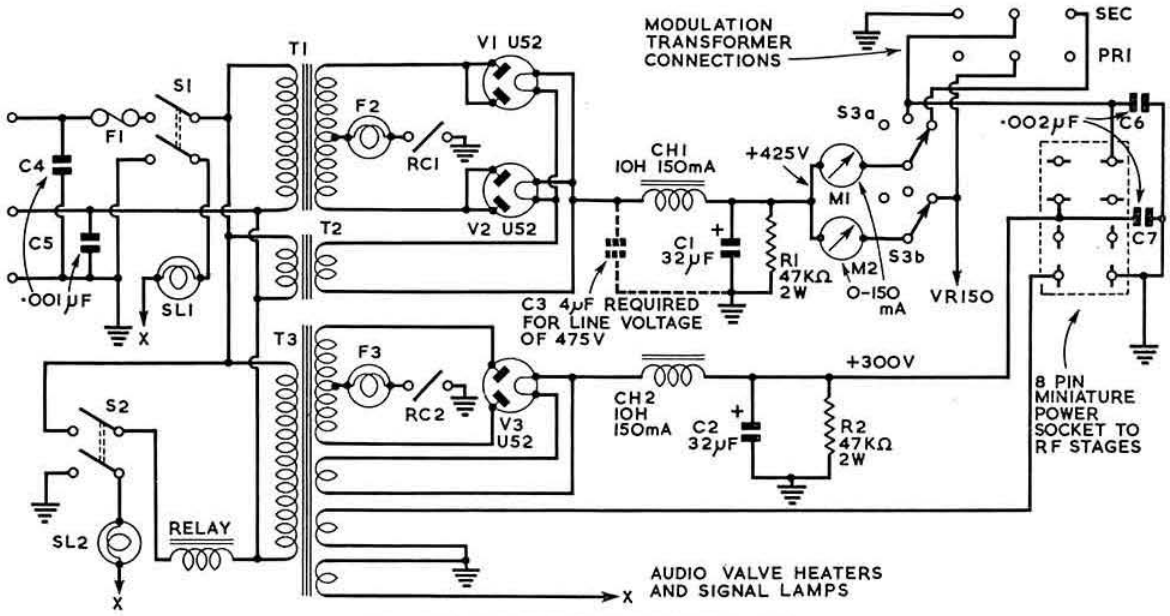



**Fig. 5. Power supply for the complete transmitter.**

**C1, 2, 500 volts working (Hunts); C3, 600 volts working (if used); C4, 5, 6, 7, 1,250 volts mica (T.C.C.); CH1, 2, smoothing chokes (Electro-Voice, Rickmansworth); F1, 1 amp. mains fuse; F2, 3, 6.5 volts 0.3 amp. bulbs used as h.t. fuses (Osram); Relay, 230 volts a.c. coil (Londex); S1, 2, double pole on/off (Painton); S3, three-way two pole separate wafers, 60° (Tele-Radio); SL1, 2, red and green signal lamps respectively fitted with 6.5 volts 0.3 amp. bulbs (Osram); T1, 450-0-450 volts 180 mA (Electro-Voice); T2, 5 volts 6 amp. (Electro-Voice); T3, 350-0-350 volts 150 mA., 5 volt 3 amp., 6.3 volts 3 amp., 6.3 volts 5 amp. (Electro-Voice); V1, 2, 3, all G.E.C. types.**

## Construction

The construction of this transmitter is straightforward and should not present any difficulty to the average handyman. It is unlikely that many will copy the design completely and therefore no detailed drawings are given. It is of course important to decide on the component layout and to ensure that the various parts will fit into the space available before cutting the metal. The types and manufacturers of the components used in the original are quoted as a guide, but equivalent parts may be substituted provided their characteristics fulfil the requirements.

In the r.f. unit care is required in the layout of the various parts. The arrangement of the aerial tuning unit is shown in Fig. 7 and the construction of the grid and anode coils in Figs. 8 and 9.

Screened wire is used where possible for all d.c. circuits. The multi-conductor cable used for the interconnecting power lead is made up of p.v.c. covered flexible wire but the h.t. lead to the p.a. has an additional p.v.c. sleeving over the normal insulation. It has not been found necessary to screen it. The multi-contact plugs and sockets are the miniature Jones type made by Painton. The space between the lugs is small and it is desirable to slip a short piece of additional sleeving over the end of the lead prior to making the joint. This additional sleeving is then pushed over the soldered joint to prevent short circuits occurring between wires where they are bent to come out of the metal cover box. This method of insulating the joints is desirable for all types of multi-contact plugs and sockets.

The assembly of the modulator and power supply unit requires little description except to point out that it is

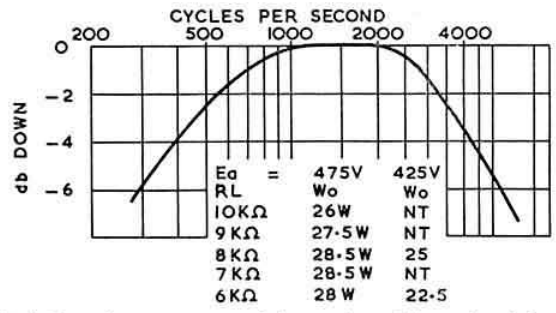



**Fig. 4. Overall response curve of the speech amplifier and modulator showing that only speech frequencies are passed. In the table, NT indicates that readings were not taken.**

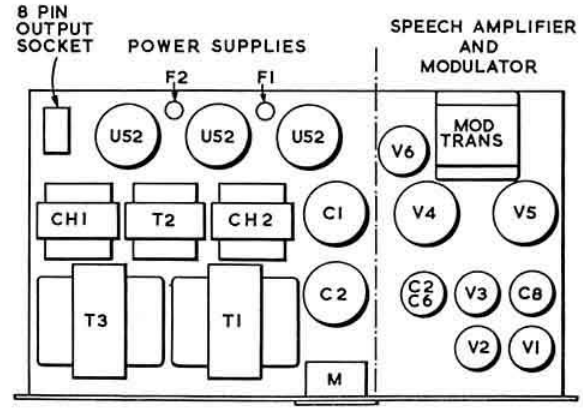



**Fig. 6. Layout of the power supply and speech amplifier-modulator.**

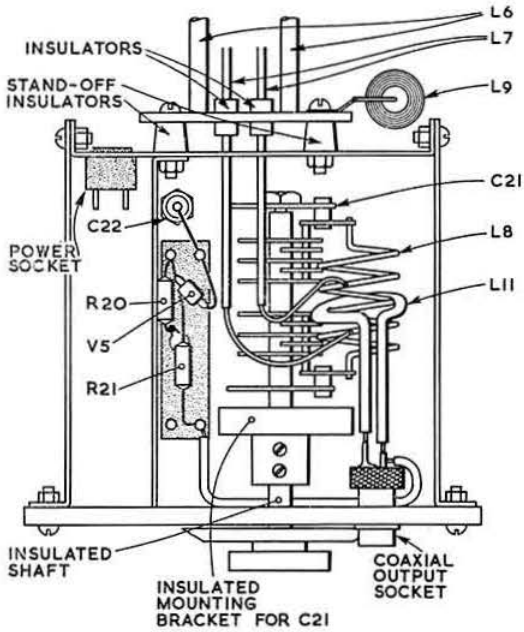



Fig. 7. Aerial Tuning Unit.

necessary to fit the relay before mounting the transformers. The relay should preferably be fixed on rubber grommets to minimize the mechanical noise.

**Reference**

[1] *Compact Two Metre Phone Transmitter*, G. Jessop (G6JP), R.S.G.B. BULLETIN, August 1954.

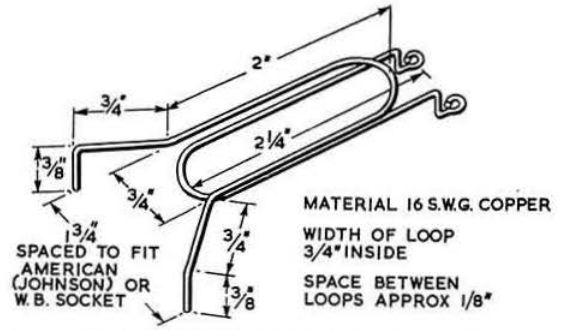



Fig. 8. Construction of the doubler coil L4 and p.a. grid coil L5.

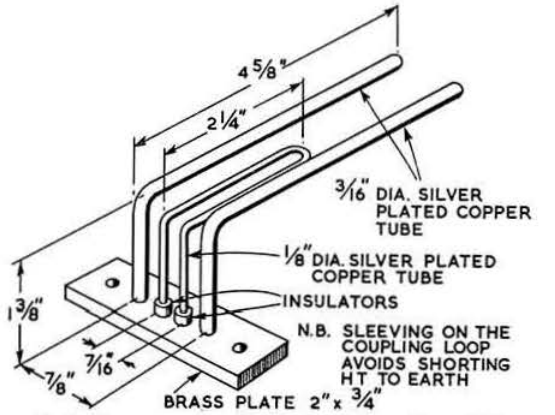



Fig. 9. The p.a. anode coil L6 and aerial coupling coil L7.

# Amateur Television

By L. ALWYN STOCKLEY (G3EKE/T)*

THE success of the Amateur Television display at the Radio Hobbies Exhibition last October was due in no small measure to the combined efforts of the Chelmsford, South West Essex, and South London Groups of the British Amateur Television Club.

In action there were two cameras, those of Jeremy Royle and Brian Partridge, assisted by Jeremy's new monoscope, and Martin Lilley's slide scanner. Full audio and video mixing facilities were available, and on this occasion a real effort was made to provide a full programme of entertainment. Much was learnt about studio management and programme presentation (mainly the hard way!) and it was soon very evident to those operating the various units that an adequate intercom. system is a *sine qua non* for a show of this nature. A small studio was provided by the organizers and good use was made of this to provide technical discussions, talks and "commercials" by other exhibitors. Vision and sound were distributed at r.f. on Channel 4 by Jeremy's distribution unit.

Most of the time a crowd could be found in front of the Cossor TV sets which were used as display units around the hall. All through the Exhibition the equipment worked perfectly, the only interruptions to Normal Service being due to a faulty cable plug on one of the cameras, and a short circuited capacitor in the slide scanner. The simplicity of the latter unit aroused much interest particularly in view of the excellent results demonstrated all through the Exhibition.

From the point of view of the Press, undoubtedly the greatest attraction was the TV Telephone. This comprised Ivan Howard's staticon camera and control unit arranged to present to the public a picture of the "subscriber" to whom they were talking. By dialling TEL in the booth built for the purpose, a picture of the person at the other end appeared on the 14 in. monitor, and a normal two-way telephone conversation was possible. Some members of the public were rather shy of using the equipment, or perhaps of being seen, but, although they were unaware of it, the video system only worked in one direction! The dialling system and selector unit, built by P. Allott, also responded to dialling 73 much to the surprise of many amateurs who tried these figures.

One small piece of equipment which was demonstrated at the show was a transistor pattern generator giving vertical and horizontal bars, with suitable synchronizing pulses. This unit was designed and built by Mike Cox who also demonstrated it before the cameras.

From the Netherlands comes the news that PA0LQ is getting set for some Amateur TV tests across the North Sea early in the spring, so those who are interested and live on the south-east coast, should see about lining gear up in readiness. PA0LQ has available a suitable monitor working on B.B.C. standards, and will be looking for amateur signals from Great Britain.

* *4 Norbury Court Road, S.W.16*

# Aerials for Confined Spaces

By M. J. HEAVYSIDE, B.Sc. (Hons.), M.Ed., Ph.D. (G2QM)*

IT is assumed that a length of wire suitably placed, insulated and fed with alternating current from a transmitter acts as an aerial and that the amount of radiation from any portion of it is proportional to the square of the current in that portion.

### Radiation Resistance

As a measure of the amount of radiating power of an aerial a fictitious resistance, called the " radiation resistance," is assumed. This must not be confused with the impedance at the feed point, for only in the special case of centre-fed dipoles are these two almost alike in amount. A comparison of the radiation resistance of an aerial with the loss resistance gives an idea of its efficiency as a radiator, though this does not take into account the direction of radiation.

Aerials are usually compared with a half-wave aerial in free space as a standard and this provides a useful starting point for the consideration of aerials shorter than a half-wave. A half-wave aerial can be considered in two ways. First, it acts as a tuned coil so that its spread inductance and capacitance tune to the frequency for which it is designed. Secondly, it is of such a length that when the travelling wave supplied by the transmitter is reflected out of phase at the far end, the point of maximum current is in the centre, the feeding end being a point of high impedance.

The power radiated by a short section of a half-wave aerial (and hence the contribution of that section to the radiation resistance) is proportional to $\sin^2 \theta$ where $\theta$ is the electrical distance from the free end. To use this to arrive at an approximation to the radiation resistance of a short aerial, without using advanced mathematics, we can plot a curve, letting each 14 ft and a little over represent 10° of a 256 ft half-wave aerial. The area between any part of the curve and the line on which it stands represents the radiation resistance of the part of the aerial represented by that part of the curve.

### Efficiency

" What is the value of this gain in radiation resistance? " might be asked. The value is in the increase in efficiency as the radiation resistance rises compared with the loss resistance. If the radiation resistance is 2 ohms and the loss resistance is also 2 ohms, as it might be for a 40 ft length of wire, only half the power supplied is radiated. If the radiation resistance is raised to 40 ohms by increasing the loss resistance only to 4 ohms, then only one eleventh of the power supplied is lost and ten elevenths radiated.

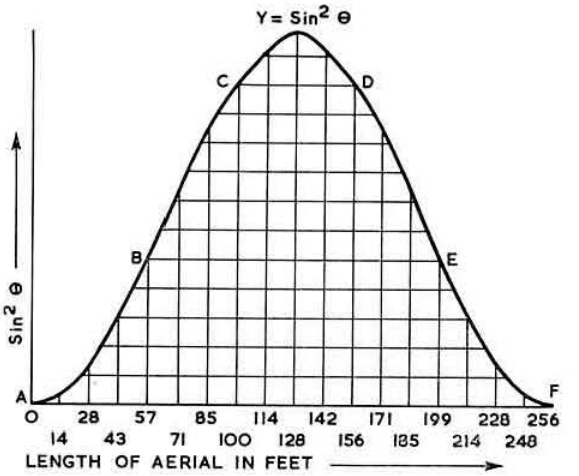



Fig. 1. Curve plotting sin $\theta$ versus aerial length.

Aerials on the 160 metre band tend to have low radiation resistance because they are not usually a quarter wavelength (128 ft) high; below that height the radiation resistance falls almost in proportion to the fraction of a quarter wavelength the height is. For a full half-wave the radiation resistance falls as follows:—

Height: 128 ft 64 ft 32 ft 16 ft.
Radiation resistance: 72 ohms 30 ohms 15 ohms 7·5 ohms.

The average 66 ft aerial 30 ft high would have a radiation resistance of only 1 ohm, thus being a very inefficient radiator, as its loss resistance would be higher than its radiation resistance.

### Inductive Loading

If the aerial is terminated by an insulator at the end remote from the transmitter it must always act as the end portion of a half-wave, no matter how it is fed. But there is a method by

**TABLE I**

| Portion to | 14ft | 28ft | 43ft | 57ft | 71ft | 85ft | 100ft | 114ft | 128ft |
|---|---|---|---|---|---|---|---|---|---|
| Area under | $\frac{1}{8}$ | $\frac{7}{8}$ | $2\frac{1}{4}$ | 4 | $6\frac{1}{4}$ | $8\frac{1}{2}$ | $10\frac{1}{4}$ | $11\frac{1}{2}$ | $12\frac{1}{4}$ |
| Radiation resistance in ohms of each portion | 0·08 | 0·56 | 1·45 | 2·57 | 4 | 5·5 | 6·6 | 7·4 | 7·9 |
| Radiation resistance in ohms of length from end | 0·08 | 0·64 | 2·1 | 4·6 | 8·6 | 14·1 | 20·7 | 28·1 | 36 |
| Radiation resistance in ohms of length at centre | 8 | 15·8 | 23·4 | 30·6 | 37·5 | 43·8 | 49·5 | 54·8 | 59·1 |
| Times gain | 100 | 12·4 | 11·1 | 6·7 | 4·4 | 3·1 | 2·4 | 1·9 | 1·6 |

In Fig. 1 the curve is drawn. Table I shows the number of squares under each portion of the aerial, but as the curve is symmetrical, only the first quarter wave is shown.

If we take a length of 57 ft of wire, shown in Fig. 1 as AB on the curve, this acts as a length of 57 ft at the end of an aerial, if suitably fed; that is, the portion EF of the curve. It will be seen that the radiation resistance of this portion, even if in free space, would be only 4·6 ohms.

If it could be moved to the centre, to be represented by the curve CD, the radiation resistance would be changed to 30·6 ohms, and the 57 ft would be nearly as good a radiator as 120 ft of wire used ordinarily. A 28 ft length of wire would show a greater gain in radiation resistance, from 0·6 ohm at the end to 15·8 ohms at the centre.

*23 Bowling Hall Road, Bradford 4, Yorkshire.

which the portion acting as an aerial can be made to act as the centre portion. This method causes the current, after reflection at the insulator, to build up to maximum in the aerial by putting the required length of wire between the aerial proper and the insulator. Unfortunately this wire cannot be close wound in a conveniently small coil because the wire must retain its " open " self-inductance and it must have as low a loss as possible so as not to increase unduly the loss resistance of the aerial system. This wire must be of the same kind as the aerial (e.g. 14 gauge hard drawn copper) wound non-inductively and spaced at least 1 in. and of a length equal to a quarter wavelength for the band in use minus half the length of the aerial top.

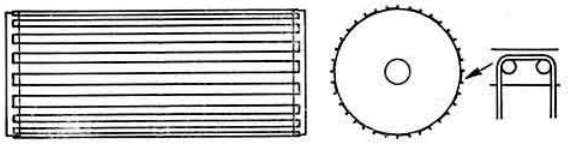


**Fig. 2. Method of winding a loading coil for outside use.**

The most convenient form for use outside is shown in Fig. 2. This consists of two circular end pieces each 1 ft in diameter, giving a circumference of 37 in. spaced about 3 ft apart. Round the circumference of each end piece, 1 in. apart, insulated pegs are spaced; the loading wire is wound round these pegs from a peg at the top to one below, along 1 in. to the next peg, up to the peg above, along 1 in. to the next peg, then down again to the peg below and so on until the required length is reached.

This former allows for a loading coil of 37 wires each 3 ft long, with 3 ft for the end spacing, giving 114 ft in all, sufficient to load a 14 ft aerial for the 160 metre band. If a shorter length is needed either smaller discs could be used for the ends, or the distance apart of the ends made smaller. This form can be mounted at the top of a pole or slung in the wire next to the insulator. If the loading coil must be accessible in order to disconnect part of the loading for working on another band, it should be remembered that it is at a high voltage point in the aerial and needs good insulation, and must be protected from close investigation by children or animals. Any down-lead to this loading device from the aerial proper should be taken off the length of loading wire and not counted as part of the aerial.

For indoor use the loading wire may more conveniently be wound on a flat frame 3 ft square, suitably insulated. The method of winding is shown in Fig. 3. It is as if the circular loading device were split down one side and opened out. This frame may be hung on the wall if the wire is more than 1 in. from it.

As this loading coil is placed between the end of the aerial remote from the transmitter and the insulator, there still remains the need to match the feeding end of the aerial to the transmitter. This might be done by placing a similar loading coil between the transmitter and the aerial, when the aeria would act nearly like a half-wave and be fed at a high impedance point, but matching is more conveniently achieved by the use of a pi-section coupler, which might be the tank coil itself or a separate unit coupled to the tank coil. The pi-section coupler is very suitable for this purpose because a loaded aerial presents a medium impedance and is easily matched, though any efficient coupling device will suffice.

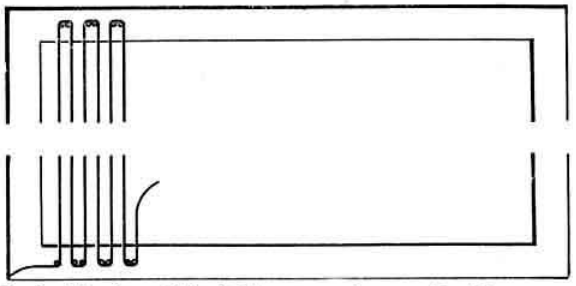


**Fig. 3. A loading coil for inside use may be wound in this manner.**

Table I shows the rise in radiation resistance to be expected by the transfer of various lengths of a half-wave aerial from the end to the centre. The figures given are for an aerial in " free space " and need to be divided suitably if the aerial is less than a quarter-wave above ground. This shows that quite a useful gain may be obtained if the aerial is a quarter-wave or less in length.

The effect of this shortening on the radiation pattern of the aerial is also of considerable importance. As the aerial proper becomes shorter and the loading longer the horizontal pattern of a horizontal aerial becomes more omni-directional, the circles of the polar diagram of a half-wave seeming to be pressed in towards the line of the aerial, giving a conchoidal shape, as shown in Fig. 4. There is still no radiation along the line of the aerial. The vertical pattern, if the aerial is horizontal, is all round if in free space, but varied, as is that of a half-wave, by the nearness of the earth.

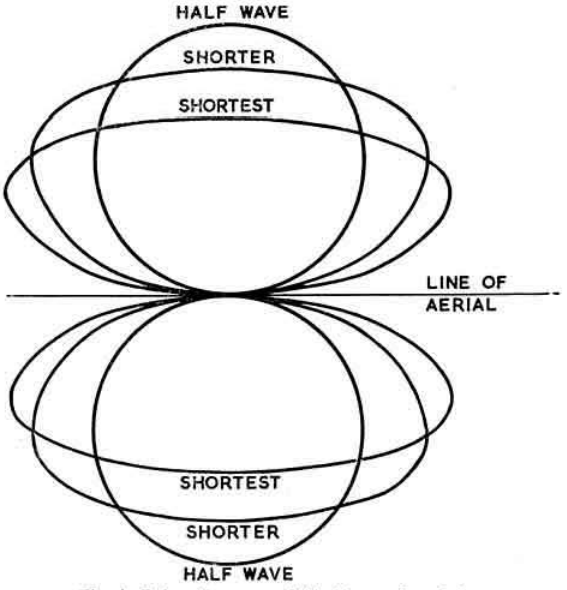



**Fig. 4. Polar diagrams of " half-wave " aerials.**

If good results are desired for this type of aerial the ordinary rules for good results with any type of aerial must be observed—good insulation, fairly thick copper wire, in the clear as far as possible. Especially, the loading must be of the same kind of wire as the aerial, equally well insulated and at the far end of the aerial. The length of the loading is not very critical, as moving the aerial a few feet from the centre position will not result in a serious radiation resistance loss.

Using a 15 ft aerial indoors in the attic in a house in Bradford, Yorkshire, working on the 160 meter band, the aerial being loaded with wire wound on a square frame hanging on a nail on the attic wall and fed from a p.a. taking 8 watts, pi-section coupled, the writer worked many stations in the British Isles and F8RJ in Paris and had a letter of complaint from the G.P.O. for causing interference to traffic at Blaavand, in Denmark.

*(Continued on page 320)*

# Improvements to the W3FIU S.S.B. Exciter

By F. C. B. JORDAN, M.Sc. (W3FIU)*

THE article *The W3FIU Single Sideband Exciter* in the November issue of the BULLETIN described the construction and operation of an s.s.b. exciter which had been reduced to basic essentials. Although this austerity simplified construction as well as assisted the reader in understanding the principles of its operation, a certain amount of *convenience* of operation was sacrificed thereby. The article stated that chassis space had been purposely reserved and suggested that holes should be punched for four additional valves as follows:

V5, 6C4 Carrier reinsertion amplifier
V6, 12AX7 Speech amplifier
V7, 12AU7 Voice control
V8, 6C4 First heterodyne oscillator

Let us consider each of the above in turn and see what can be obtained in convenience of operation in return for the additional cost, complication and work involved.

**Carrier reinsertion amplifier**

With s.s.b. emission there is no signal output when the transmitter is activated but the microphone is not being spoken into; when there is speech, the signal level is continually varying. This renders difficult the correct tuning of all r.f. tuned circuits after the crystal filter. If a voltage of the carrier frequency (the carrier we have gone to some pains to suppress by means of the first balanced modulator and the crystal filter) can be reinserted in a controlled manner, there will be a steady output signal of the correct frequency which will facilitate the tuning process. In addition and if so desired, this reinserted carrier will allow *one* sideband plus carrier to be transmitted, a system of emission which can be received on a receiver adjusted for a.m. reception.

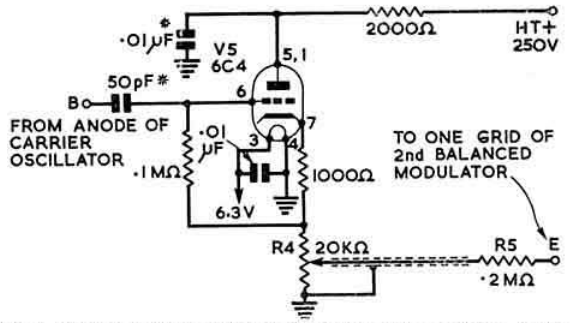



**Fig. 1. Circuit diagram of the carrier re-insertion amplifier. In the illustrations to this article, condensers marked with an asterisk are mica or good quality ceramic, 300 volt working type. Condensers with polarity markings are 350 volt working electrolytics. All others are paper, 300 volt working.**

In Fig. 1, V5, a 6C4 triode, is connected as a cathode follower. The negative feedback inherent in this circuit gives the stability of operation and smoothness of control desired. The input is taken from point " B " in the anode circuit of the carrier oscillator V1†. The output, controlled by potentiometer R4, is fed through the isolating resistor R5, to point " C " in the grid circuit of one side of the balanced modulator V3, thereby unbalancing this circuit and permitting the carrier frequency voltage to appear in the output of the exciter. Resistor R5 should be mounted as close as possible to grid terminal No. 1 of V3, so that the capacity of the lead from R4 will not unbalance the modulator.

In operation, potentiometer R4 controls the amount of carrier reinsertion. When transmitting s.s.b. with suppressed carrier, R4 should of course be turned to its " off " position.

**Speech amplifier**

A carbon microphone with its battery B1 and transformer T8 was chosen as the simplest and most economical arrangement for feeding the audio driver valve V2. Somewhat better quality, elimination of carbon hiss and avoidance of the necessity for battery changes can be obtained by substituting a good quality crystal or dynamic microphone, but then a speech amplifier must be used to boost the low output of this type of microphone to a usable level.

Referring to the circuit diagram in Fig. 2, V6, a 12AX7 high-$\mu$ double triode, serves as a two stage resistance coupled amplifier. There is no further need for microphone transformer T8, battery B1, or the microphone battery switch; these parts may therefore be removed. Ensure good shielding of the input lead from P5 to the first grid otherwise annoying feedback will almost certainly occur due to the very high audio gain of this amplifier.

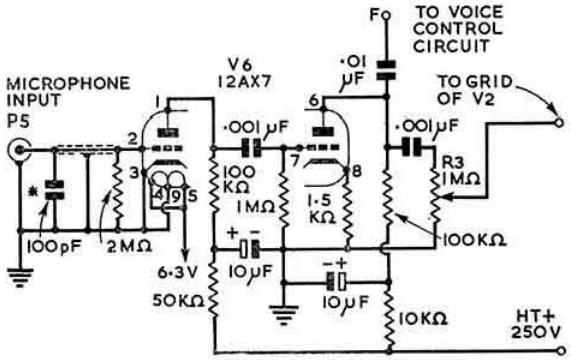



**Fig. 2. Speech amplifier for use with a crystal or moving coil (dynamic) microphone.**

**Voice control**

One of the inherent advantages of s.s.b. is that carrier suppression eliminates heterodyne squeals and makes multi-station break-in operation possible. If the operator's voice can be made to activate the transmitter and at the same time mute the receiver, the necessity for throwing assorted switches by hand is eliminated and true speech-controlled break-in has been achieved.

Fig. 3 shows circuitry with which this can be accomplished. V7, a 12AU7 double triode, utilizes one triode to amplify the audio signal sufficiently for a low tone of voice to actuate the control relay. The amplified audio signal is rectified by the 1N34 diodes, CR3 and CR4, two in series being necessary to withstand the occasional peaks of 100 volts. The rectified voltage is applied as bias to the other triode half of V7, which controls the relay, a sensitive, quick-acting type with a coil resistance of anywhere from 5K ohms to 15K ohms. C9 must be a good quality condenser with no measurable leakage.

The values given for C9 and R6 are convenient figures with which to start, but some experimenting with these along with adjustment of R7 may have to be done to get correct relay action in view of the variations in individual relays. The desiderata is to have the relay close immediately at the start of normal speech, but delay opening until a fraction of a second after the end of speech in order not to get relay operation at a syllabic rate. No time-delay leak-off resistor

*Captain, U.S.N.

†For component parts or lettered points in the circuitry which do not appear in the diagrams accompanying this article, refer to the article *The W3FIU Single Sideband Exciter* which appeared in the November 1957 issue of the BULLETIN.

is required across C9, as might be expected, the charge leaking off only too readily through the back resistance of CR3 and CR4.

When there is no speech input to the microphone, the control triode (right hand half of V7) is conductive, which activates the relay and applies the negative voltage from the miniature battery B2 to the grid of V4, biasing it beyond cutoff and de-activating the transmitter. When the microphone is spoken into, the control triode is biased beyond cutoff by the negative voltage resulting from rectification of the a.f. by the 1N34s, thereby releasing the relay. This activates the transmitter by removing the cut-off bias from V4 and at the same time mutes the receiver by applying the negative battery voltage to the receiver's a.v.c. system.

Headphones rather than a loudspeaker must be used for reception with this type of voice control. Automatic break-in with a loudspeaker is possible, but considerably more com-

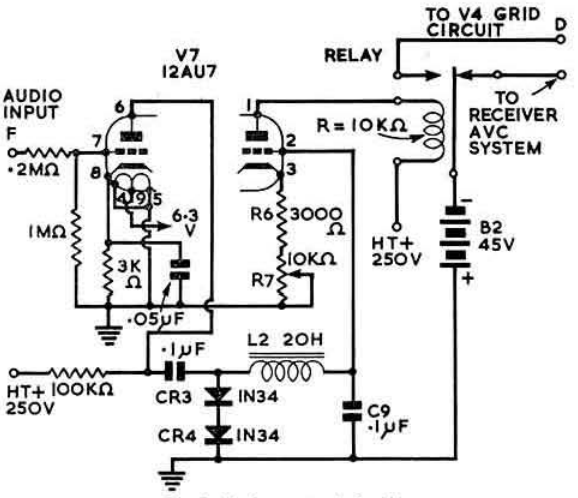



Fig. 3. Voice control circuit.

plicated circuitry is necessary since the device must be " intelligent " enough to differentiate between your voice and the voice emanating from the loudspeaker.

**First heterodyne oscillator**

In order to produce a signal output in the 80 metre band, the basic s.s.b. exciter must have about three volts of r.f. at around 3500 kc/s injected at connector P2. This voltage is usually supplied by the station v.f.o., but for convenience in tuning up and also for fixed frequency operation it may be internally produced.

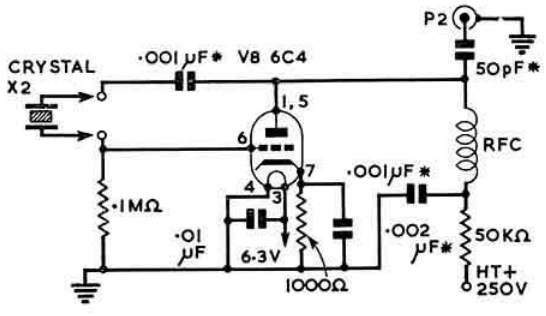



Fig. 4. Heterodyne crystal oscillator.

Referring to Fig. 4, it will be seen that V8, a 6C4 triode, operates as an untuned crystal oscillator whose output is permanently connected to P2. If the crystal filter pass band is centred at 450 kc/s, for example, s.s.b. output at a frequency between 3·5 and 4·0 Mc/s can be obtained with X2 chosen for the appropriate frequency between 3050 and 3550 kc/s. Rather than add a switch to start and stop this oscillator, the crystal is inserted or removed from its socket.

* * *

Each valve, with its associated circuitry, may be added singly at any time its particular function is desired. This is possible because each is independent of the others, although complementary to the basic, four-valve exciter. As the hawker said at the county fair, " Pay your money and take your choice."

### The W3FIU S.S.B. Exciter

IN Fig. 2 of the above article on page 218 of the November BULLETIN, T5 should have been marked T4.

### Wonders of Wireless

THE United States Federal Communications Commission has advised that there is nothing in the law to prevent two licensed amateur radio stations being utilised to consummate a wedding ceremony between a couple separated by the Pacific Ocean!

Who would be a radio amateur in the United States?

### Aerials for Confined Spaces

Continued from page 318

**Magnetic Loading**

During the war another method of shortening a half-wave aerial was brought to the writer's notice, and put into use combined with the end loading method. The principle of this method is to increase the inductance of a piece of wire used as an aerial by increasing the permeability of the surrounding medium. This is done by sleeve-loading the wire with a material of high magnetic permeability but with a high electrical resistance to reduce losses, as shown in Fig. 5.

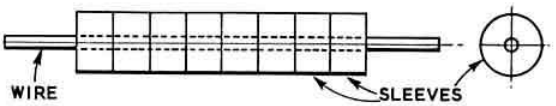



Fig. 5. Sleeve-loading of wire with material of high magnetic permeability.

Using sleeves of outer diameter 9·5 mm and internal diameter 3 mm on 14 gauge wire, assuming that a whole half-wave were so loaded, that using separate sleeves did not seriously reduce the permeability of the sleeve material, and a sinusoidal distribution of aerial current along it, the inductance per metre of wire loaded with the sleeving would be increased by $0{\cdot}208\mu$, where $\mu$ is the permeability of the sleeving.

If Ferroxcube B2, of permeability about 250 were used, the inductance of one metre of 14 gauge wire would increase from $0{\cdot}4\mu$H to $52{\cdot}4\mu$H. At the same time the capacity is increased from $7{\cdot}2\mu\mu$F. to $8\mu\mu$F. per metre. Thus the LC ratio increases by

$$\sqrt{\frac{8 \times 52{\cdot}4}{7{\cdot}2 \times 0{\cdot}4}} \simeq 12.$$

The length of a half-wave aerial sleeve loaded is about one twelfth of the length of an unloaded one, using suitable loading material. This brings a half-wave aerial on the 1·8 to 2 Mc/s band within range of most amateurs.

# An Experimental Pick-up

By A. H. KOSTER, Dr. Ing. (G3ECA)*

REPLACEMENT cartridges for pick-ups are available in a wide range of quality and at reasonable prices. The following description shows how pick-up arms to incorporate such cartridges can be constructed very cheaply either for the purpose of making pick-ups or for experiments with cartridges.

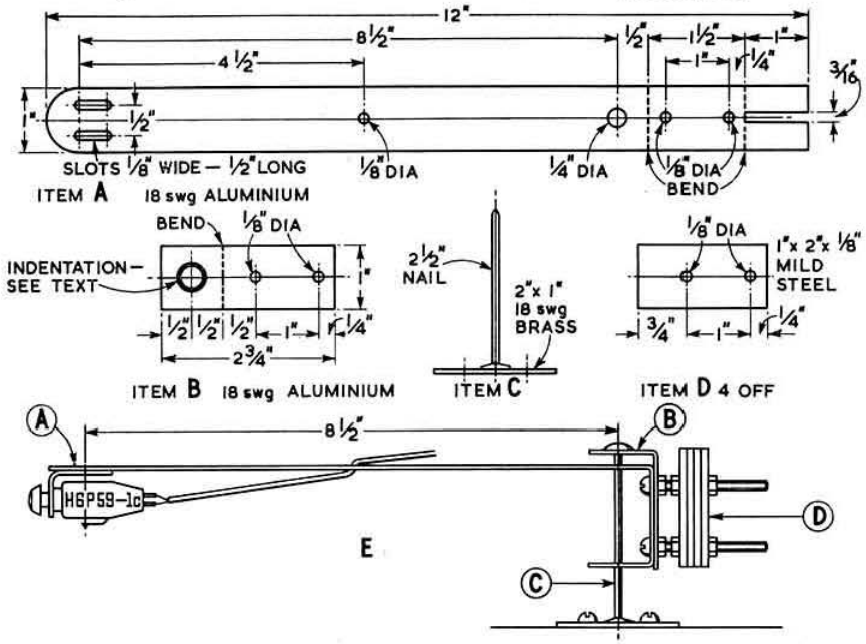



Fig. 1. Details of the various parts of the experimental pick-up arm. A forms the main arm and is made of 18 s.w.g. aluminium. B is made of similar material and is bolted to A with 6 B.A. studding which also carries pieces of mild steel cut to the dimensions shown at D. The whole arm is mounted on the pivot C and assembled as shown in E.

Two strips, A and B, of 18 gauge aluminium are cut and prepared as shown in Fig. 1. Strip B is provided with an indentation by gently hammering a rounded object, such as a $\frac{3}{16}$ in. steel ball, on to the soft aluminium. The pieces are bent and screwed together with 2 in. long 6 B.A. screws or studding. The pivot C is made of a $2\frac{1}{2}$ in. nail. The point is carefully radiused and the head soldered to a piece of brass or heavy tin-sheet. A number (say four) of counterweights D are made of brass or mild steel. The whole is assembled as shown in E.

In some cases resonances occur along the arms, but can usually be counteracted by turning up the edges of the horizontal part of strip A to increase the rigidity. In the writer's case a flat strip was wrapped up with adhesive tape which has a damping effect. Alternative materials for the arm are dural tubing or channelling, polythene, old record material, etc.

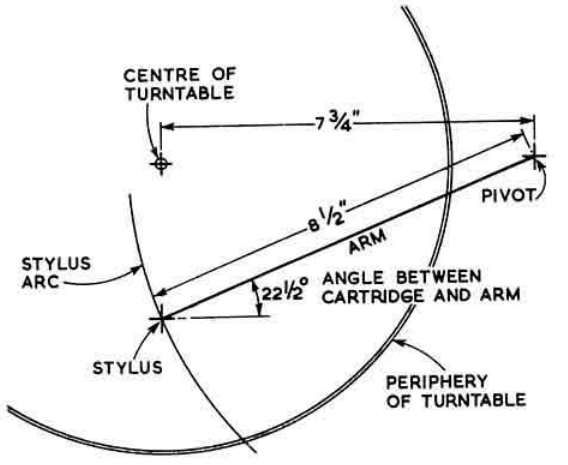
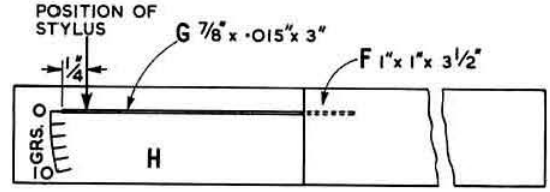



Fig. 2. Mounting dimensions and tracking angle for an average 12 in. record deck.

The cartridge has to be set to the correct tracking angle (Fig. 2) and the stylus should lie as near as possible to the centre line of the arm. Connection to the cartridge must be made with exceptionally thin screened pick-up flex which offers negligible bending resistance.




3. Spring balance for measuring stylus pressure.

### Adjusting the Counterweights

The counterweights are adjusted so that the head just lifts off the record. Then weights of 2 to 10 grammes are moved along the arm to bring the stylus back into the groove and to keep it there on heavy passages. (A sixpenny-piece weighs about $2\frac{3}{4}$ grammes.) If everything is properly lined up the arm rests on the tip of the pivot C. The edges surrounding the hole in A, and the fork of B do not touch the pivot anywhere. They serve to stop the arm from falling off during manipulation and turning of the crystal. With some cartridges it is advantageous to raise the mass at the head without

* 195 Woodford Avenue, Ilford, Essex

increasing the stylus pressure. For this purpose the counterweights are increased or moved further out, and some more weight added to the head to bring the stylus back into the groove. Weights used on the arm during experiments should be stuck on with tape, or screwed on in the case of a permanent job, to avoid any movement.

Fig. 2 gives the mounting dimensions and the tracking angle for an average 12 in. record deck. If the arm is made longer the angle should become less and the arc described by the stylus should go more nearly through the centre of the record.

### Measuring stylus pressure

A spring balance for measuring the stylus pressure is shown in Fig. 3. It consists of a piece of wood (F) with a saw-cut into which a short length of leaf spring (G) has been fixed. A piece of cardboard (H) is fixed to the wood to serve as a scale. The device is calibrated by placing weights on to the end of the spring and noting the deflection. Any spring which will give a reasonable deflection for four sixpences is satisfactory. In the writer's case the leaf was steel, $\frac{7}{8}$ in. wide, 15/1000 in. thick and the free length from wood to tip $2\frac{1}{2}$ in. To use the balance hold the wood and let the stylus rest on the spring at a point representative of the centre of the weights which were used for calibration. The stylus pressure is then read off the scale.

# TVI Proofing and Improving the OZ7BO Electronic Keyer

By E. H. TROWELL (G2HKU)*

AFTER spending considerable time and effort in TVI proofing a new transmitter it was found that the electronic keyer described in the February 1950 issue of the R.S.G.B. BULLETIN by OZ7BO was itself producing interference on sound and vision. This was masking the results obtained in clearing the transmitter interference so the keyer was cleared of TVI and made more stable in operation.

* *4a Clyde Avenue, Sheerness, Kent.*

### Circuit

The circuit (Fig. 1) closely follows the original and apart from minor alterations in component values and the addition of a suitable power supply the main differences are the inclusion of the r.f. chokes and decoupling condensers. It should be noted that C1 is reduced from its original value to compensate for the slowing down action of C4 and C5 on the " break " relay A. The value of C1 may require some adjustment and will depend on the action of relay A.

The r.f. chokes used are miniature 1 amp, TV suppression chokes which are sold, together with their miniature disc type decoupling condensers, for the suppression of electrical interference from small motors operating various domestic appliances. A type 12AU7 valve with its heater connected in parallel may be used in place of the 6SN7 to reduce the overall size of the keyer.

### Construction

C2 and its associated choke RFC should be mounted with C3 *at the dash contacts*, keeping the leads as short as possible. Similarly C4, 5, 6, 7 and 8 and their respective chokes should be mounted at the relay connections. The relays should be the Post Office 3000 type which have twin contacts as these are steadier in operation, being evenly balanced. They should be mounted in a horizontal position, and in an area of low TV field strength may require screening as indicated in Fig. 1.

It will be found advantageous to fit shaft locks on R5, R7 and R9 or alternatively replace them by fixed resistors once the correct values have been determined, for no further adjustment should be necessary. R6, the speed control, should of course be mounted as near to the " paddle " lever as possible so that instant changes in the speed of sending may be made whilst keying.

### Operation

Since the original article appeared seven years ago a brief description of the design will be given.

The keyer will send dots and dashes of the correct length and will pause between a dot and a dash even if the " paddle " is moved from one position to another. In Fig. 1, each section of the twin triode (V1a, b) is cathode biased to cut-off value by means of R7, R8, R9 and R10. If the " paddle " is held in an operating position (dot or dash) C1 will charge and

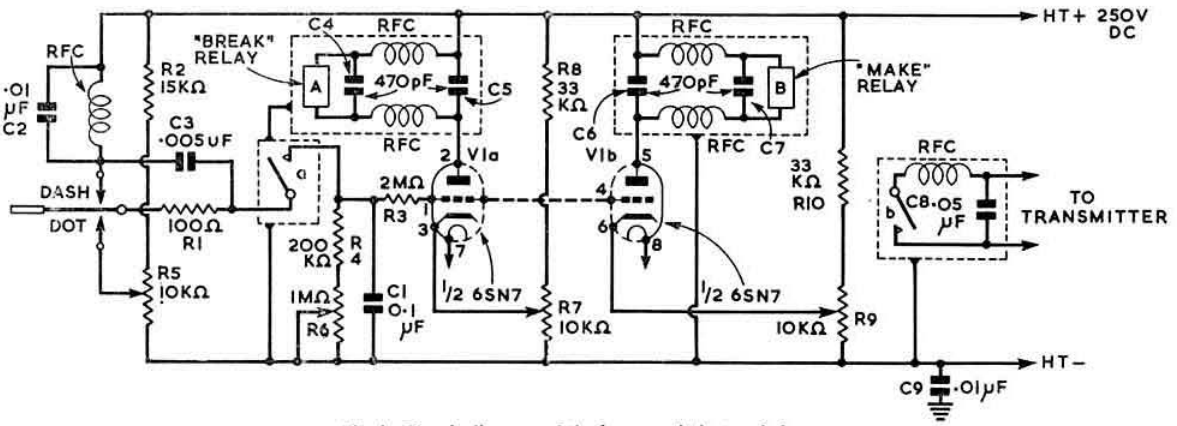



**Fig. 1. Circuit diagram of the improved electronic keyer.**

C1, 0·1 µF mica.
C2, 9, 0·01µF mica.
C3, 0·005µF mica.
C4, 5, 6, 7, 470pF disc ceramic.
C8, 0·05µF mica.
R1, 100 ohms ½ watt.
R2, 15K ohms 5 watt.
R3, 2 Megohms ½ watt.
R4, 200K ohms ½ watt.
R5, 7, 9, 10K ohms wirewound potentiometer.
R6, 1 Megohm carbon potentiometer.
R8, 10, 33K ohms 5 watt.
V1a, b, 6SN7 or 12AU7.
RFC, TV suppression chokes—see text.
Relays A, B, 3-6K ohms—see text.

cause both relays to operate. R4 and R6 will then discharge C1 ready for the next cycle of operation. The second half of V1 in conjunction with R9 and R10 controls the mark-to-space ratio.

To summarize the various controls, R5 determines the dot/dash ratio; R6 adjusts the speed of the keyer; R7 controls the bias of V1; R9 determines the correct mark-to-space ratio.

**Adjustment**

The adjustment of the keyer is fairly simple. The potentiometers R7 and R9 are set to give zero anode current in V1a and V1b with the "paddle" in the neutral position. Then, holding the "paddle" in the dash position (i.e. pushed to the left) R6 should be adjusted to the operator's average sending speed. Next, using a watch with a clear seconds dial, the number of dashes sent in 10 seconds should be counted. Without altering any other control, the "paddle" should be moved to the "dot" position and the dots sent in 10 seconds counted. The number should be exactly double the number of dashes. If this is not so, R5 should be adjusted until the correct ratio is obtained.

**Power Supply**

Although the original article stated that the power supply need not be stabilized and filtering was comparatively unimportant, this is not the case if TVI is to be avoided and steady operation maintained.

Stabilization of the power supply may be required where mains voltage fluctuations are common as relay A is most sensitive to voltage changes. In addition good filtering is essential not only from a TVI aspect but also to ensure that no a.c. ripple reaches the relays as this will make them unsteady in operation.

A suitable power supply is shown in Fig. 2, and by using miniature components can be accommodated on the same chassis as the keyer. H.t. consumption is approximately 50 mA at 250 volts, and a small half-wave metal rectifier with a mains transformer could be used in place of V3. A suitable type is the Brimar DRM1B.

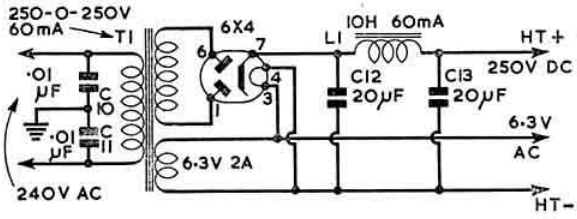



**Fig. 2. Power supply for the electronic keyer.**

**General**

There should be no difficulty in obtaining suitable relays from BULLETIN advertisers, but care should be taken to see that a pair with similar characteristics are purchased.

Apart from the ease of sending near perfect Morse with an electronic keyer it is also invaluable for operating the transmitter (into a dummy load of course) whilst carrying out BCI and TVI tests.

## Ham Spirit

D. K. POWELL (B.R.S. 20277), on whose behalf a notice appeared under the heading *Can You Help?* in the December BULLETIN, wishes to thank the many members who went to much trouble to trace the required information for him.

## ZB1 Contacts

TO help those who need a contact with Malta for a new country worked, the Malta Amateur Radio Society is to hold an Activity Weekend during the first two days of February 1958. As many ZB1 stations as possible will be active on the various DX bands during that period.

## R.S.G.B. QSL Bureau Sub-Managers

ENVELOPES for the *collection* of QSL cards should be sent direct to the sub-manager concerned. It should be noted, however, that CARDS should not be sent to the sub-manager unless they also are in a call-sign group for which he holds envelopes. For example: a G3J— can send any cards he may have for calls in the series G3IAA-KZZ to his own sub-manager with his envelopes. Sending cards for general distribution to the sub-managers only involves the cards in delay and the Society in needless expense.

| | |
|---|---|
| **G2 calls:** | **G. Verrill (G3IEC), 64 Forton Road, Gosport, Hants.** |
| **G3, 4 and 5 two-letter calls & GC** | **P. Jones (G3ESY), 94 Holme Lacy Road, Hereford.** |
| **G6 calls:** | **A. J. Mathews (G6QM), 62 Ashlands Road, Hesters Way Estate, Cheltenham.** |
| **G8 calls:** | **A. W. Gover (G4AU), 30 Amblecote Close, London, S.E.12.** |
| **G3AAA-BZZ:** | **M. Hassall (G3EMD), 99 Shenstone Valley Road, Quinton, Birmingham.** |
| **G3CAA-DZZ:** | **C. A. Bradbury (B.R.S. 1066), 13 Salisbury Road, Cheltenham.** |
| **G3EAA-HZZ:** | **W. J. Green (G3FBA), 82 Bloomfield Avenue, Bath.** |
| **G3IAA-KZZ, B.R.S. and A numbers** | **C. Usher (G2CCD), 24 Carlisle Road, Dartford, Kent.** |
| **G3LAA onwards:** | **G. C. Voller (G3JUL), 13 Marlborough Road, Ashford, Middlesex.** |
| **GD calls:** | **T. R. Moore (GD3ENK), "Glyn Moar," St. John's, Isle of Man.** |
| **GI calls:** | **W. H. Martin (GI5HV), "Swallow Lodge," Greenisland, Co. Antrim, Northern Ireland.** |
| **GM calls:** | **D. Macadie (GM6MD), 154 Kingsacre Road, Glasgow, S.4.** |
| **GW calls:** | **J. L. Reid (GW3ANU), 28 Walterston Road, Gabalfa, Cardiff.** |

## Can You Help?

● M. A. Kellett (Associate), 29 Lyncote Road, Leicester, who requires the circuit diagram and any other information on the Canadian Receiver type R.103 Mk. 1?

● George C. Reid (B.R.S. 21549), 48 Reynolds Close, Carshalton, Surrey, who wishes to obtain information on the R.A.F. Receiver type R.1311 Ref. No. 10D/669?

● Frank Smith (G2DD), 74 Braithwaite Gardens, Stanmore, Middlesex, who wishes to borrow the manual and/or circuit diagram for the U.S.A. Receiver type BC1147A?

# Mobile Whip Mounts

By R. V. DUESBURY (G3CTE)*

MOUNTING an aerial on a car is always a problem, particularly if it is desired to avoid drilling holes or otherwise damaging the vehicle. Mobile enthusiasts will therefore no doubt be interested in the following constructional details of a bumper whip mount which clamps onto a car bumper, without marking it in any way. The original, shown in Fig. 1 is used on the writer's "Javelin" to mount a 10 ft. centre-loaded whip, and has proved highly satisfactory. Fig. 2 shows an adaptation of this mount to fit the more popular bumper section where a splash plate is fitted.

Construction of both types will be apparent from the details given in the drawings. The job will be simplified if a template is made the exact shape of the bumper cross section. To do this conveniently, take a strip of 16 s.w.g. aluminium about 7 in. long × ½ in. wide and bend the strip until it fits the bumper snugly, then mark the upper and lower edges of the bumper on the strip template. Use the template when marking off, and draw in the brackets for the mount on the stock to be used.

The whip mount may be made of half-hard brass sheet brazed up, or of mild steel welded up, according to material and facilities available. Suggested dimensions for various materials are given in the drawings. The four ceramic pillars are taken from a TU5B switch unit, complete with fibre washers. Care should be taken to ensure that the top and bottom plates of the mounting are perfectly flat in order to avoid unequal strains on the ceramic pillars. Provided the fibre washers from the TU unit are used at both ends of each pillar no trouble through broken insulators should be experienced.

Members making mounts to the pattern described here should find little difficulty in getting a local garage to do the necessary welding. Some garages might, in fact, be prepared to do all the metalwork involved if provided with a working drawing.

The mount on the writer's car has proved entirely satisfactory over many hundreds of miles of motoring, including some sustained fast motoring at more than 80 m.p.h. The whip has struck numerous branches of trees without damage to the mount or bumper on which it is fixed and was well worth the time and effort expended in producing a neat and effective accessory.

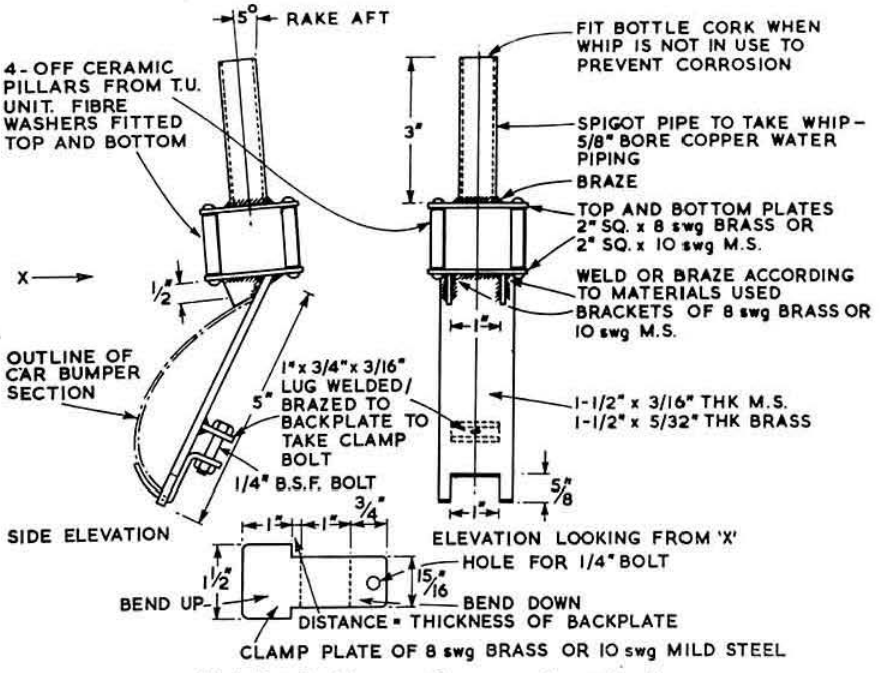



**Fig. 1. Details of the mount for use on a Jowett Javelin.**

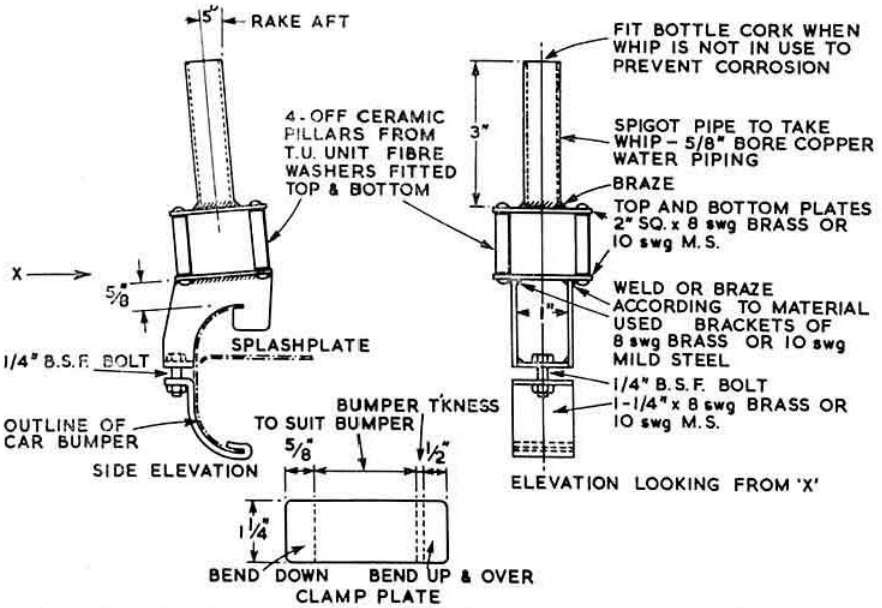



**Fig. 2. An adaptation of the whip mount shown in Fig. 1 for use on a bumper fitted with a splash plate.**

*1 Weybourne Square, Sunderland.

# I.G.Y. NEWS

By G. M. C. STONE (G3FZL)*
*R.S.G.B. I.G.Y. Co-ordinator*

THE first six months of the I.G.Y. have been completed and it is worth looking back to see what has been achieved by the R.S.G.B. in this time. The first appeal for observers was made in April, 1957, following the lead given by Dr. Smith-Rose in his article in March. The response was poor and the reason for this was felt to be because no detailed indication of the programme had been given. Consequently a meeting was held and a definite programme established. In particular Project " 50 Plus " (the regular monitoring of v.h.f. TV and broadcasting channels) was introduced. A new appeal for observers was made in the June BULLETIN and the response was immediate, many observers being enrolled. Having obtained sufficient observers to undertake the I.G.Y. programme it was decided to issue comprehensive instructions covering all aspects of the work in the form of an I.G.Y. Manual. The job of writing this manual was undertaken by G2HOF, G2FKZ, G3IWA and G3FZL and took two months to complete. Although this meant that observations would commence after the start of the I.G.Y. it was felt better to do this to ensure that the data received would be of the maximum value.

The I.G.Y. Manual runs to 38 pages and copies have now been distributed to more than 150 observers. In addition special reporting forms designed to be sufficiently comprehensive to cover all aspects of the work were printed. The actual cost to the R.S.G.B. was about 3/6 for each set of data sheets and reporting forms. Copies of the Manual are still available for new observers.

The first effective month from a reporting point of view was September, and this proved to be very fortunate since solar activity during this month proved to be the highest since 1778. Very full reports of the great 145 Mc/s auroral openings of September 23 and 29 have been collected and there has been a regular inflow of reporting forms since that time. The task of analysing the results has now begun, but as it is a very big job it will keep several people occupied for many months to come.

*10 Liphook Crescent, Forest Hill, London, S.E.23.

### Certificates of Merit

To encourage regular reporting, it is proposed to ask the Council to issue Certificates of Merit to all observers who have completed three consecutive months' reporting. Endorsements would be made for each subsequent three month period. A number of observers have already qualified and individual applications are not necessary but it would be helpful if observers would claim a certificate when next sending in their monthly reporting forms. It is most important that the efforts of the observers at present regularly reporting should continue and that more reporters should join to replace those that have fallen by the wayside. Prospective observers should write to the I.G.Y. Co-ordinators at R.S.G.B. Headquarters offering their services.

### High Power Licences

Some time ago the G.P.O. was approached to see whether permission could be granted for certain specified amateurs to use high power (up to 1 kW.) in the v.h.f./u.h.f. bands to experiment with a form of propagation loosely termed " forward scatter." The G.P.O. have been most helpful in this respect and the following have been licensed to use high power c.w. in the frequency range 145·6 to 145·8 Mc/s: G2NY, G3GUX, G3HBW, G3HII, G3JHM, G5KW, G5UF, G6AG and G6XM. G2HDJ has been authorized to use high power on a frequency in the 70 cm band. Unfortunately G5UF has had to withdraw owing to local difficulties. The remaining high power licensees are requested to contact the I.G.Y. Co-ordinators with their proposals to implement the " forward scatter " project. Their activities will then be co-ordinated for the maximum benefit to the v.h.f. fraternity.

**January 1958**

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**February 1958**

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**March 1958**

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**April 1958**

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**May 1958**

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**June 1958**

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| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

The I.G.Y. Calendar for January to June, 1958. An explanation of the symbols used appeared on page 556 of June, 1957 Bulletin.

# FOUR METRES AND DOWN

By F. G. LAMBETH (G2AIW)*

## *Six Metre Operation to be permitted for Six Months*

THE big news this month is that the Post Office, mindful of the part amateurs are playing in connection with the I.G.Y., have decided to allow us to operate on the spot frequency of 52·5 Mc/s. True, the permission is of a restricted character but it should enable keen v.h.f. workers to explore an interesting part of the spectrum.

Those who live in certain areas of England, Scotland and Wales will be able to use up to 500 watts input at any time of the day or night whilst the rest of us by burning a little midnight oil may get some fun out of the concession. Details of the conditions governing 6m operation are given on page 336.

New Zealand amateurs have been given permission to operate between 50 and 52·35 Mc/s and between 52·65 and 54 Mc/s during the I.G.Y. The break at 52·5 Mc/s is for an experimental scatter station.

Whilst on the subject, we should like to remind those equipped for 6 and 10m that there have been excellent signals from the U.S.A. and Canada of late and many successful cross-band QSOs have resulted as North American operators tune 10m for replies. With the possibility of world-wide 6m signals, amateurs in other countries will doubtless do likewise.

### Station Reports 2m

**B.R.S.19162** (Dewsbury) found conditions quite good during the early part of the period, but hopeless for the last 10 days. '19162 usually operates between 1320/1340, 1730/1745-1815 and 2115-2215 G.M.T. Except at weekends the first two periods are practically a dead loss and most signals are logged between 2115 and 2215. **B.R.S.20162** (Selsdon) had a really good period, with probably a record number of stations heard. (217 in 31 counties and five countries.) Although a modification was made (the converter is now a crystal controlled G2IQ into a BC455), '20162 thinks that better conditions had a lot to do with the improvement! They certainly appeared to be more consistently better than for a very long time; in fact between November 14 and December 2 there were only three poor days. Apart from these the path to the West was open all the time, and the Midlands most of the time. The most consistent station was G3FIH (Bath). On November 24, 100 stations were logged, 72 on November 30 and 96 on December 1. One point noticed, not for the first time, is that when stations north of London complain of fading on distant signals they are usually quite steady at Selsdon, and vice versa.

**B.R.S.20133** (Melton Mowbray) had his best 2m month since starting in March 1956. Stations have been heard all over the country, bringing the present total to 30 counties in four countries. The 6-over-6 slot beam is doing a marvellous job, although it has given some anxiety in the recent gales!

Hearing 60 odd stations during the period denotes reasonably high activity, which was self-evident on November 24/5, during the good conditions. **B.R.S.16075** (Shirley, Southampton) found some good DX at times, with more activity than for some time. As regards direction, most of the long range signals came from the east/west path, with the exception of G2HCG who is always a good signal. **G3IBI** has had some good QSOs with the northern stations—he has been able to listen at different times from '16075. On the evening when ON4BZ was heard, G5DW (Ashcott) was also heard at great strength with deep and slow fading, which however was not noticeable on ON4BZ or on other stations, e.g. G4DC from the east.

**G5KG** (Danbury) found conditions rather variable, like the weather. There was a good period from November 24 to 25 with another of lesser magnitude from November 30 to December 2. The signal strengths during these periods were on the whole excellent and distances over 100 miles in most directions were readily worked, including some continentals. It is pleasing to note the appearance of many new calls on this band. **G3GOZ** (Enfield) reports conditions in the early part of the period as good although all the Midland stations that were generally heard in the London area were not received at all well in the Lea Valley. With the return to normal conditions activity seems to have taken a steep decline, particularly on Monday activity nights. G3GOZ wonders if we can do anything to dissuade people from signing off by " listening for your final and then tuning the band." The reason given is that with beam aerials an operator wanting a QSO with the signing station may not be able to hear his correspondent and thus doesn't know when the latter has finished. Thus fruitless calls are made which are avoidable. G3GOZ suggests that stations should only say they are tuning the band when they actually intend to do so.

**G2HDR** (Bristol) says conditions were quite good at the start of the period, but fell off with the breaking up of the stable weather system about December 4. A number of new call-signs are appearing, and G2HDR hopes this implies a quickening of interest in 2m. **G8VZ** (Princes Risborough) has found conditions " very poor to extremely good " to the north and west. Having been on the band nearly every evening, G8VZ found the best period was November 24/25 when a number of new contacts were made from the north and west in the 100/150 miles range.

**G5DW** (Ashcott) missed one of the two openings owing to a touch of 'flu, but had a bright spot on November 25, when a very short CQ call brought back LX1SI at RS58. LX1SI said he had been chasing Gs all the evening, but had only raised G5YV up to then. The Luxembourg station's signal was certainly much stronger in the west than it was into the London area. **G5MR** (Hythe) worked G3FIJ (Colchester) during good conditions on November 24 for a first QSO, although they first heard one another several years ago! G3INU (now at Stevenage) was also raised. On November 25, Belgian stations were coming in well. During the afternoon of November 30, G5MR entertained some members of the Thanet Radio Society who were anxious to have a demonstration of v.h.f. working; G5MR says he was very lucky indeed to raise G3JZG (Willenhall, Staffs) for a first contact at S7 both ways; neither of them could hear any other stations, although for this QSO to be possible, conditions must have been good.

* *21 Bridge Way, Whitton, Twickenham, Middlesex.*

On November 24 at 2116 G.M.T. G5MA worked GI5AJ ( Bangor, N.I.) on c.w. at RST559 both ways, followed by GI3GXP (Kilkeel) on phone at S9 both ways. November 25 at 0035 G.M.T. brought a rare tropospheric gem in the shape of EI6A (Wicklow) who was 539 and gave G5MA 55/7 9. On the 30th G3IOE (Newcastle-on-Tyne) was worked on phone at S7 to 8. G5MA asks if G3CZZ is still on the band, as repeated efforts to raise him lately on Monday evenings have failed.

**G3JR** (Barnes) worked G3FIH (Bath) on November 17, G3LOK (I.o.W.) on November 25 and G3JGY/M (Hereford) on December 1. The conditions appeared anomalous to G3JR on that night, e.g. G3HA (Bradford), heard at S4 and called more in fun than in expectation, replied and gave an S7 report for a steady 15 minutes QSO. At the Barnes end G3HA was barely S4 on peaks frequently dropping into the noise. In G3JR's hemmed-in position, all such DX QSOs are news.

**GW3FKO/P** was operating on odd nights from a local 1,000 ft. site in Cardiganshire. Many of these occasions were fruitless despite c.w. CQs and phone calls signed on the key. The aerial (a double slot with reflector) was left permanently at the site and survived the gales recently encountered there! The last half of November found the band open for many good QSOs to the Midlands and the East almost every night, although the London direction was screened.

The next /P trip to Wales is scheduled for February 17/ March 3 inclusive. G3FKO hopes that their choice of June 15 for the Longleat Mobile Rally in Wiltshire will not detract from the 420 Mc/s event on that date. Owing to the nature of the site the 2m control station will be located one mile east of the house at 790 ft. a.s.l. to provide good all round coverage.

### Scotland 2m

A **V.H.F Convention** is to be held at the Brablock Hotel, Renfrew Road, Paisley, on March 15. Lectures, an exhibition and a dinner are being arranged. Full details next month.

**GM3EGW** (Dunfermline) has been active mainly with sked work at night with G2NY (Preston) at a distance of 156 miles. So far it has been maintained with little difficulty with the best conditions on November 10, 12, 15, 16, 17, 24 and 26. December has been disappointing. During the last six weeks G5MA has been heard only on November 17 and 24. The only aurora observed was on November 6 when GM2FHH was worked and G2NY heard. **GM2FHH** (Aberdeen) says that although there were a few evenings when aurora was visible, there were no openings on 2m during November.

**GM6WL** reports that GM3DIQ continues his nightly skeds with GM3DDE and GI5AJ on Thursday and Saturdays. The path to Bangor (about 90 miles) practically never closes, but differences can be readily observed. Some slow fading (not regular) and of short duration is usually present on Bangor signals. However on November 23 GI5AJ was S9+ on phone at midnight and after, in contact with GM3DIQ, '6WL, '3NG and '3GUO, all of whom were likewise S9 in Bangor. For several hours there was no fading at all. GI5AJ was also S9 at GM6KH (Hamilton) who does not usually receive him well. GM2HCJ/M appeared on December 3/4 and worked GM3DIQ, '6WL, 2CQI, '6ZV and '6KH and others from near Dumbarton.

### Overseas Notes

**East Africa.** There is a fair amount of activity in Kenya; quite a few of the VQ4s are on 2m although at present there does not appear to be much DX worked as understood here. Tanganyika (VQ3), Kenya (VQ4) and Uganda (VQ5) now have the 50 to 54 Mc/s band and VQ4EV will be on 50·25 Mc/s a.m. and c.w. shortly.

**Australia.** There is a fair number of 2m stations in Victoria and South Australia although they have the same activity troubles sometimes as we do! All the same, they have worked some near record distances out there!

**New Zealand.** There is quite a bit of work going on. Wellington, Ashburton and Christchurch seem to be working regular 2m traffic, according to *Break-in.*

**United States and Canada.** The 2m band was open almost continuously for auroral work during the first few days of September. Between 1550 and 2300 on September 2, W3TDF heard or worked 57 stations in 17 states and 2 provinces; between 0001 and 0300 on September 5 the figure was 43 stations in 17 states. This report is typical of many, says *PRP News.*

### Four Metres

**GM2FHH** (Aberdeen) reports auroral effects on November 13 when from 2315/2400 G.M.T. he heard strong S7/8 signals from two stations who appeared to be GM6SR and GM3LAV, both on phone. With the beam south, signals were about S3, but repeated CQs brought no results. There were also carriers in the Irish band, but again the stations were on phone!

QSOs on 4m to date include GM6IZ, '3EOJ, '3DWX, '3FKS (all Aberdeen), GM6SR, '3LAV, '3DGI (all Edinburgh). This seems to suggest there is more 4m activity in Scotland than in England!

**G4LX** (Newcastle-on-Tyne) is active on 4m. One QSO has been worked, with G2BDQ, 15 miles away over a difficult path. There are now three Newcastle stations active: G2BDQ, 4LX, 4QA. Skeds are difficult due to TVI.

**G5MR** (Hythe, Kent) says several French stations are anxious for G contacts and have asked him to arrange some kind of sked. In default of this, the difference of frequency makes initial contact difficult. Accordingly, G5MR has asked them to listen in our band at the following times: Sundays 0930-1100 G.M.T.; Wednesdays 2100-2230 G.M.T. (G activity night).

They will, of course, reply in the band 72/72·8 Mc/s. G3JHM and G5MP are co-operating, and it is hoped that as many Gs as possible will join in. G3JHM (Worthing) was worked for the first time on 4 on December 8.

### Five and Six Metres

American Pacific Coast stations are monitoring the New Zealand 5m band with a view to 5/6 metre QSOs. We shall be interested in the outcome! The Australians now have the 50/54 Mc/s band until December 1958 and there is quite a possibility of VK/G contacts during that time.

Auroral openings were noted on 50 Mc/s in U.S.A. during early September. During that of September 12 stations in the South, South West and West had their day; at other times the Northern and Canadian strongholds were kept very busy. The best one for them was September 4.

**GM3EGW** (Dunfermline) reports several U.S.A. stations worked crossband 10/6, the first being K2RTU. Fraser suspects that no other GMs have worked any of these 6m transatlantic crossband QSOs. We certainly haven't had any previous reports to this effect from Scotland.

**G2BVN** (Romford) reports that December so far has been much less fruitful than was November. December 8 was the best, when four W call areas and VE1 were worked crossband 6/10. It is noticeable that W1QCC/VE1 in Nova Scotia has often been heard on s.s.b. when a.m. signals from eastern U.S.A. have been right down in the noise. G2BVN thinks it is not generally known that W stations are not allowed to work duplex below 51 Mc/s although this does not apply to VEs.

**G4LX** (Newcastle-on-Tyne 3) has had 72 QSOs with 48 different stations during November, crossband 6/10. The call areas concerned are W1/4, 8/0, VO, VE1. In addition stations were heard in W5/7 and VE2/3. There has been no luck yet in efforts to work 4 metres in conjunction with 6m.

**Station Reports 70 cm**

**G5KG** (Danbury) says that activity appears to be increasing and hopes that operators will now begin to consider the band as they do 2m, i.e. that they will go on and call " CQ " rather than rely on QSOs which have been prearranged on the lower frequency bands. More information is needed on operating times, but if Saturday night becomes a habit (as it seems very likely to do) such news can easily be exchanged. G5KG calls for more " propaganda " relating to 70 cm with constructional articles hints and tips, etc. in the BULLETIN. This thought is now directed to our technical friends, as many who would like to go on 70 cm are deterred by " piping " and multi-element arrays.

**G8AL** (Chingford) has sent an impressive report of some QSOs around the 100 miles mark. **G8SK** (Waltham Abbey) is continuing his experiments with cubical quads on 2m and 70 cm. For the latter band he has constructed an experimental pair of stacked cubical quads. With an input of 1 watt and the array clamped in the vice on the shack bench an RS57 QSO was held with G6LL of Cuffley. Experiments are continuing.

Activity is good in Scotland. GM5VG and GM3DDE continue their " Trans GM " link, no failures yet in varying weather.

**GM6XW** (Larbert) has had his first two-way contact with GM3DDE on phone. The Edinburgh/Larbert path is good, and '3DDE says that '6XW's signal was strong enough to be received R5 with a 5½ in. screwdriver in place of an aerial at the converter! **GM3GAB** (Rutherglen) and '6KH have also heard '6XW, who is, however, far from pleased with his converter line-up. **GM4HX** (Paisley) has reappeared and had a nice QSO S9+ both ways with '5VG. Other stations active are '3GUO, '6SR and '6WL.

# V.H.F./U.H.F. Two-way Records

THIS month we are publishing an up-to-date table of v.h.f. DX records which shows that British amateurs are now partners in the longest distance QSOs on two v.h.f. bands. The list should also act as spur and encouragement to v.h.f. and u.h.f. operators generally by showing the not inconsiderable distances which can be covered on the various bands. Nevertheless, some of the records have stood so long that, without belittling them in any way, we cannot help wondering whether the competition is really as keen as it might be. Details of improvements on the records listed are awaited with interest.

**50 Mc/s*: LU3EX—JA6FR**
12,000 miles—March 24, 1956

**70/72 Mc/s: G5KW—FA3JR**
1,200 miles—June 16, 1957

**144 Mc/s: W6NLZ—KH6UK**
2,600 miles—July 9, 1957

**220 Mc/s*: W8BFQ—W5RCI**
700 miles—October 9, 1954

**420 Mc/s: G3HAZ—DL3YBA**
500 miles—June 19, 1957

**1250 Mc/s: W6IHK/6—W6VIX/6**
190 miles—June 9, 1956

**2300 Mc/s: W6IFE/6—W6VIX/6**
190 miles—June 9, 1956

**3300 Mc/s*: W6IFE/6—W6VIX/6**
190 miles—June 9, 1956

**5250 Mc/s†: W2LGF/2—W7FQF/2**
31 miles—December 2, 1945

**10,000 Mc/s: W7JIP/7—W7OKV/7**
109 miles—August 8, 1954

**21,000 Mc/s*: W1NVL/2—W9SAD/2**
800 feet—May 18, 1946

** Not assigned to British radio amateurs.*
*† The nearest U.K. band is 5650 to 5850 Mc/s.*

# Worked and Heard on V.H.F.

**Contributors are requested to list only the call-signs of stations which are 50 miles or more distant.**

### Two Metres

**B.R.S. 16075** (Shirley, Southampton) November 19—December 15
*Heard:* G2ANT, 2FM, 2HCG, 2JF, 2JM, 2NM, 3ANB, 3BA, 3CO, 3DF, 3FIH, 3FOL, 3GHI, 3HBW, 3IIT, 3IRA, 3JWQ, 3KEQ, 3KHA, 3LGO, 5WW, 6AG, 6OX, GW8UH, ON4BZ.

**B.R.S. 19162** (Dewsbury)
*Heard:* DL3NG, F3LP, G2AIH, 2BVW, 2FNW, 2FKZ, 2HCG, 3BA, 3DJJ, 3FAN, 3FZL, 3GHI, 3GHO, 3HBW, 3HZK, 3JXN, 3JZG, 3KEQ, 3KGF, 3WW, 4MK, 5DT, 5DW, 5KG, 5MA, 5UM, 6LI, 6NB, 6RH, 8VZ, GB3IGY, ON4BZ, 4HN, PA0BL, PE1PL.

**B.R.S. 20133** (Melton Mowbray) November 13—December 8
*Heard:* G2BVW, 2CDB, 2CIW, 2CRL, 2FKZ, 2FMO, 2FNW, 2HCG, 2HGR, 2NY, 3APY/M, 3BA, 3BEX, 3BU, 3CCH, 3CGQ, 3DBM, 3DJJ, 3EVV, 3FAN, 3FIH, 3FMI, 3GGJ, 3GHI, 3GHO, 3GSO, 3HAN, 3HBW, 3HMH, 3HXS, 3HYH, 3HZK, 3IOO, 3IRA, 3IRW, 3IWJ, 3JWQ, 3JWQ/A, 3JXN, 3JZG, 3KEQ, 3KKV, 3KQF, 3KUH, 3LHA, 3LHW, 3LTF, 3WW, 4MK, 5CP/A, 5DW, 5KG, 5MA, 5YV, 6AG, 6NB, 6OO, 6XT, 6XX, 6YU, 8AL, 8VZ, GW3GWA, GB2RS, 3IGY, PE1PL.

**B.R.S. 20162** (Selsdon, Surrey) November 14—December 13
*Heard:* G2ADZ, 2ANS, 2ATT, 2AUD, 2BDX, 2BMS, 2BVW, 2CDB, 2CIW, 2CPX, 2DCI, 2DUS/M, 2FMJ, 2FMO, 2FNW, 2GG, 2HCG, 2HDJ, 2HDY, 2HOP, 2JF, 2JM, 2NY, 2WJ, 2XV, 2YB, 2YC, 3AFN, 3AGS, 3ANB, 3APY/M, 3BA, 3BBR, 3BEX, 3BII, 3BJC, 3BYY, 3CBU, 3CGE, 3CGQ, 3CNF, 3CO, 3DCI, 3DF, 3DGO, 3DJJ, 3DKF, 3DOR, 3EFP, 3EGG, 3EJO, 3EKJ, 3FAN, 3FD, 3FEX, 3FIB, 3FIH, 3FIJ, 3FKO, 3FMP/A, 3FUH, 3GGJ, 3GHO, 3GNR, 3GSI, 3GSO, 3HA, 3HCU, 3HHY, 3HRI, 3HXS, 3HXJ, 3HZK, 3IAM, 3IER, 3IIT, 3IJB, 3INU, 3IOO, 3IRA, 3IRS, 3IRW, 3IWJ, 3IYX, 3JFR, 3JGY/M, 3JHM, 3JNI, 3JWQ, 3JZG, 3JZK, 3JZN, 3KEF, 3KFX, 3KHA, 3KLI, 3KQC, 3KQF, 3KQR, 3LAY, 3LEV/A, 3LGJ, 3LHA, 3LHW, 3LIA, 3LLZ, 3LOA, 3LOK, 3LTF, 3LFT/A, 3LVO, 3LYD, 3LZP, 3MI, 3PV, 3WW, 3XC/M, 4IB, 4MK, 4OT, 4PS, 5BD, 5BM, 5CP/A, 5DW, 5HN, 5JU, 5NF, 5OX, 5RD, 5UM, 5WW, 5YH, 5YV, 6AG/M, 6AG/P, 6BX, 6JI, 6JK, 6LI, 6OX/M, 6SN, 6WU, 6XT, 6XX, 6YU, 8MW, 8VZ, GW3HAW, 8UH, F3LP, 8GH, 8OB, ON4AC, 4BU, 4BZ, 4CJ, 4DW, 4HN, 4ZK, PA0OL, 0GER.

**G2HDR** (Bristol 9) November 24—December 16
*Heard:* G3BA, 3EJO, 3FAN, 3GTN, 3GUX, 3HBW, 3HWC, 3IWJ, 3JWQ, 3JXN, 3JZG, 3KEQ, 3KNT, 3KQF, 3LAY, 3LHA, 3MA, 5MA, 8VZ. *Worked:* G3CCH, 3FIH, 3HHY, 3HXN, 3IER, 3IRS, 3KHA, 5BM, 5DW.

**G3BFP/A** (Selsdon) November 14—December 13
*Worked:* G2AUD, 3BII, 3CNF, 3EJO, 3EKJ, 3GHI, 3IJB, 3JWQ, 3KQF, 3LEV/A, 3LOK, 4DC, 5HN, 5UM, 5YU, ON4DW, ON4ZK.

**G3GOZ** (Enfield) November 19—December 8
*Worked:* F3JN, G2UJ, 3JZN, 3JZK, 3LHA, 4MK, 5MR, ON4CJ, ON4DW, ON4ZK.

**G5KG** (Danbury, Essex) November 15—December 6
*Worked:* G2CDB, 2CIW, 2CRL, 2DUS/M, 2FNW, 2JF, 2NY, 3APY/M, 3GFD, 3GSO, 3IIT, 3IRS, 3IUL, 3JWQ, 3JZG, 3KEF, 3KUH, 3LGJ, 4MK, 5CP/A, 5NF, 5OX, 5YV, 6LI, 6YU, 6XT, ON4DW, 4HN, 4TQ.

**G8VZ** (Princes Risboro) November 17—December 15
*Worked:* G2BMZ, 2FNW, 3DJJ, 3DKF, 3EJO, 3FIJ, 3FKO, 3FMI, 3GFD, 3GSO, 3HA, 3HAN, 3HHY, 3IER, 3IOO, 3IRS, 3JWQ, 3JXN, 3JZG, 3JZN, 3KHA, 3LHP, 3MA, 3MAX, 4MK, 5BM, 5YV, 6WF, GW8UH. *Heard:* GI5AJ, ON4DW, PA0GER.

### Four Metres

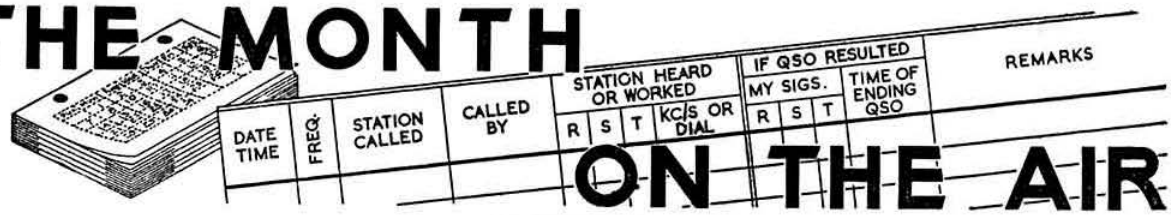
**G5MR** (Hythe, Kent) November 16—December 8
*Worked:* F3BG, 3GX, 8GH, 8LO, 8QL, G3JHM, 5JU, 5KW, 5MP.
*Heard:* F3XY, 8KF, 8NB, 8WN, 9CZ, 9IW, 9NN, 9QE, 9ZA.

### Seventy Centimetres

**G5KG** (Danbury) November 15—December 6
*Worked:* G2BVW, 2CIW, 2FNW, 2XV, 3HAZ, 6NB.

**G8AL** (Chingford) November 17—December 15
*Heard:* G2FCA, 2FNW, 2HCG, 2HDJ, 2RD, 2XV, 3FAN, 3FP, 3HAZ, 3JZG, 3KEQ, 3LGJ, 3LHA, 5DT, 5UM, 6NB, 6NF, 8RW.

# THE MONTH ON THE AIR




BY S. A. HERBERT (G3ATU) *

ONCE again we have to report a very satisfactory month on all bands. Various competitions—notably the World-Wide DX Contest (c.w.)—stirred things up even further. Indeed, conditions during the contest weekend were such that it was possible to keep going continuously throughout the 48 hours. One band or another was open all the time and time off for sleep or for refreshment meant lost contacts, so we imagine that the coffee and benzedrine brigade will have amassed some monumental scores! However, for the majority of us who take our pleasures a little less seriously, the affray still provided a selection of rare ones—if they could be raised—and an opportunity to see exactly how inefficient one's rig is when faced with massive competition!

### News from Far and Wide

**Christmas Is.** **G3EMY** should by now be on the island and active as a **VR3**, mostly on phone, using a PR120V transmitter and a G4ZU beam. Projected operating times are 06.00 to 09.00 on 14 Mc/s and 15.00 to 18.00 G.M.T. on 21 Mc/s, but as the main interest is in U.K. QSOs, he will come on the air whenever suitable openings occur.

**Ghana.** **ZD4BQ** has received official notification that the prefix for Ghana was to be changed to **9G1** as from January 1, 1958. All the former ZD4s are to retain their previous suffixes and so John will now be signing 9G1BQ (which will be a tricky item to beat out on a key!). Local news is that 9G1CF and '1BF should be back in Ghana by now, after vacationing in the U.K., while 9G1BR goes on home leave. '1CL and '1CP are building G4ZU beams and '1BQ is on s.s.b. with a 20 watt exciter, though an 813 linear p.a. is on the way. John is also a keen c.w. operator and a new 14 Mc/s three-element beam should ensure a potent signal from the new call-sign during 1958.

**Cyprus,** Ray Edginton **(G3AGF/ZC4GF)** returns to Cyprus shortly for a tour of three years and he promises to provide activity on Top Band during the Winters of 1958/59 and 1959/60. Ray will be on the other bands also—his rig is nearly finished—and he says if it can't put out a better note than one particular ZC4, he will have to get tough with it! ZC4FX and '4NS will leave the island early this year.

Mike Matthews **(VS1HU)** reports the Kranji Club going strong with eight active "bodies." They have a v.f.o. controlled transmitter now and find this a boon. The total stands at 128C. Recent QSOs were with FL8AB, KA0SC, ZK1BG, VK9JF (Cocos), VK9AT (New Guinea) and FB8XX. VQ8AS was worked several times and Mike will be pleased to know that the A.R.R.L. have added **Rodrigues Is.** to the DXCC List. Congratulations both to Mike and to Frank Johnstone **(VS1FJ/G3IDC)** on their election to the new Council of the M.A.R.T.S. The VS1HJ/HX Maldives trip is still pending and seems but a matter of time. VS1HB is on leave and VS2DB should follow suit, while GW3ITD hopes for his VS1 call soon. Finally, Mike appeals to Gs with beams to aim them at Asia around midnight and later. At that time they are often S9 plus, but they seem to work Ws in the main.

David Webber **(B.R.S. 17666/MM)** is on board *R.M.S. Rangitiki*, which calls at Pitcairn Is. during the passage to New Zealand and he recently met Tom Christian **(VR6TC)**. Tom averages 2,000 to 3,000 contacts a month and when asked if he had any ideas about operating on ten, he somewhat naturally remarked that it took him all his time to cope with the QSL situation on 15 and 20 and so fiddlesticks to adding to the burden! Tom operates the official Pitcairn W/T Station, so that what with one thing and another, he's a busy man.

Snippets from the N.Z.A.R.T. Journal *Break-in* reveal that VQ9HAY may be heard on 14340 kc/s with VQ4ERR around 06.00. KA0SC (Iwo-Jima) is Scotty Chase, A.P.O. 815, San Francisco and VR4JB may be reached at Box 49, Honiara, Br. Solomon Is.

**G8KS** (Petts Wood) has a QSL from FK8AS with a note attached—quote—" Please QSP all other G stations that I am very lazy for reply now, but they will get my QSL very soon." Apparently '8KS has been the lucky one this time! **G2DHV** (DJ0AA) has recently worked DJ0AH (Stuttgart), '0AD (Koln), '0AF(G3KVF) and G3DVQ/DL. George worked an interesting one on 21 Mc/s in W6UKY/FC. Presumably Corsica, though Clipperton *is* rather nearer to California! **CN2AK** may be reached via Tomas Ramon Espinel (CN2AK), c/o Indiana Technical College, 215 Washington Bvd., Fort Wayne, Ind., U.S.A.

**Aaland Islands.** **OH2XK** sends interesting details of the recent Aaland Is. trip made by himself and OH2YV. Nick ('2XK/0) and John ('2YV/0) were on all bands, but 21 Mc/s was poor so they concentrated on 14 Mc/s for c.w. and used 28 Mc/s for most of their phone QSOs. Some time was spent on 7 and 3·5 Mc/s, but Europeans were not too interested in OH0. Nick remarks that as they were trying to give a new country to as many as possible, short contacts were essential, but the old trouble cropped up. Every other European appeared set for a cosy chat. They were asked what the "0" meant, where *were* the Aalands, etc. etc. and one particularly dim-witted specimen wanted a series of modulation checks. Verily, we are living among them! Still, an enjoyable time was had and a weary couple made some 2,300 QSOs in all. All QSLs will be honoured—direct if an I.R.C. is enclosed—and KV4AA has already very kindly donated 500 cards, ready printed, for which Nick and John are most grateful. Another trip is planned for later this year, but not before. The Islands are easy to reach by air, but the trip costs money! However, **OH0NC** (ex-OH2OJ) and his XYL, **OH0ND** are now living on the Aalands. They are s.s.b. enthusiasts, so things look promising.

### Twenty Metres DX

Although long-distance conditions are as good as ever, there has been a disquieting increase in the number of intruders all over the band. These sinister things pop up at all hours of the day and range from the "U Thing" on the low end, which is joined in the evenings by a horrible spreading "fast dotter," right through to the high edge. Even jammers are around at times and a particularly loud carrier has often been parked on 14062 kc/s, which must have delighted all JT1AA chasers!

* *Roker House, St. George's Terrace, Roker, Sunderland.*

On to lighter things and **G3AAE** (Barnet) who raised KG1EE, YK1AT (16.45), ZP5AY and PY7AN/0 (01.00—Fernando de Noronha Is.), who will presumably count as a new country. John heard I1AMU say that HV1CN is I1CNS, who knows not a letter of Morse, but who uses A3 daily—06.10 to 06.45Z and at other times sporadically. I1AMU helps him, but whether this means he shares the operating, controls the queue or assists with Italian/English translation remains a mystery. **B.R.S. 20104** (South Harrow) used his favourite c.w. to unearth ZK2AD ('045, 11.15), FK8AH ('095, 20.00), XW8AE ('095, 20.00), XZ2TH, VK0AB ('090, 16.30) and a very weak one which sounded like KS6AD ('100, 11.15). Goff listened for two hours to CR8AC, during which time the CR8 rattled off exactly *three* QSOs! A PY was working AC4AC (Chang) who sounds like another PX1AC, whose card came back marked "Pirate." However, VQ8AS (Rodrigues Is., '016, 17.00) was logged and there is no doubt as to his status. KV4AA was telling someone that the Trinidad Is. PY0 had lost his gear overboard *en route*. The things that happen! **B.R.S. 20104** has XW8 QSLs for B.R.S. 20206 and G8FW, who should write to 45 Holyrood Avenue, South Harrow, Middx. **B.R.S. 20317** (Bromley) had a superb month and logged new ones on every band *except* twenty, where he was unlucky enough to miss KA0IJ and C9XF, but he did log c.w. from FB8XX ('040 to '060), FG7XC, FP8AP, HL2AM ('032, 13.15), HH2OT, JT1AA (13.00), KG6FAE, SU1IM, VP2LU, '8CC, VQ3GC, '8AS (17.30 to 19.45) and Antarctica's JA1AG, LA1VC/G and VP8CC.

**B.R.S. 20106** (Petts Wood) has heard nothing new for a couple of months, but at 219, things could be worse! His latest DX includes the rare C9XF ('077, '080, 16.00 to 17.00), who said he was "Dan" in Mukden. Other c.w. notables were FK8AH (18.55), K0LSJ/KG6 (19.00), OQ0VN, VQ8AS, '8AL (17.00), VS9AC, '9AD, ZK1BS (06.45), UA0AZ, FO8AG (07.00), FB8BD and UPOL6, while Norman heard UA9VB (18.37) on *phone*. **A.1426** (Bristol) listened on A3 and picked up HH2PB, '2NM, TI2ES, PJ2CE and VP2AB as his best, while **G3ATU** was delighted to hear **HK0AI** ('100, 23.40) and surprised to work him without difficulty, even though Ws were calling him. His address for cards is Victor Habrahams, San Andres Is., Colombia. W7ITN (Idaho), K6IJX/7 (Wyo.), PJ2ME, UPOL7 and VE8NP/SU (El Arish) were also c.w. catches, while UM8KAA, F9QV/FC (Corsica), EA6AW, VU2NW ('100, 14.30), HH5EA, VQ3JTW (Dar-es-Salaam) are all available, as is VQ8AS who is usually weak and smothered by horrible noises near the band edge.

**DX Television Predictions for February 1958**

**Prepared by J. Douglas Kay (G3AAE).**

| | | | |
|---|---|---|---|
| Barbados | 1145/1300 | Cyprus | 0830/1100 |
| Baghdad | 0800/1430 | Teheran | 0800/1300 |
| Bahrein | 0745/1000 | Tel Aviv | 0800/1130 |
| Cairo | 0830/1500 | | |

All times are G.M.T.

These predictions are based on the B.B.C. Channel 1 sound frequency of 41·5 Mc/s. The vision frequency is 45 Mc/s.

### Fifteen Metres

Fifteen has been closing soon after dark of late, but things will doubtless improve towards the Spring. Meantime there is ample DX for daylight enthusiasts. **G3JTH** (Shrewsbury) had phone contacts with ZE2JL, 3A2BF, VK3HG, VK6RU, HE9LAC (10.50), while he has worked W2ELW/M on four occasions, with the W always S8 while radiating 50 watts from his car in the Bronx area. John finds ZL2BE the best ZL signal. He has been hearing MP4KAM, CN2AK, ZD8SC, TF2, ZD4CH, ZD3BFC, VQ2SW, VP5BL, ZS9G, VK7NC, '7WA and other choice ones. **B.R.S. 20135** (Newport, I.o.W.) grappled with loud short-skip phones and happened upon **XQ8AG,** which naturally puzzled him until the owner of said strange call sent another "CQ" and added that he was an I.G.Y. station at Antofagasta in Chile. Bert also listened to ET3XY, OA6M, VS6CL, '6DJ (13.30), VKs and ZLs.

**B.R.S. 20317** had new ones FB8ZZ ('050, 16.10), FM7WR ('030, 19.40), plus FK8AT ('020, 11.30), KW6CA ('015, 11.30), VQ6LQ and OH2YV/0, all on the key with **UA0GF** (06.50, Zone 19) on phone. Also on A3, **B.R.S. 20106** logged VQ3DQ, KL7PIV (12.00), FE8AH (16.30), FB8BX (16.40) and ZD6RM, then he turned up JA1VX, '1ACB (07.00 to 10.00), XE2FA (19.00) and KG6FAE (13.30) on c.w. VU2PS has been active on A3 and is a strong signal around 15.00 G.M.T.

# Frequency Predictions for February, 1958

PREPARED BY J. DOUGLAS KAY (G3AAE)

| BAND | NORTH AMERICA East Coast | NORTH AMERICA West Coast | CENTRAL AMERICA | SOUTH AMERICA | SOUTH AFRICA | NEAR EAST | MIDDLE EAST | FAR EAST | AUSTRALIA | ANT-ARCTICA |
|---|---|---|---|---|---|---|---|---|---|---|
| M.U.F. | 38·5 Mc/s 1600 | 27·5 Mc/s 1800 | 42 Mc/s 1230 | 36 Mc/s 1300 | 35·5 Mc/s 1530 | 45 Mc/s 1000 | 39 Mc/s 0800 | 38·5 Mc/s 0900 | 29 Mc/s 0800 SP | 26 Mc/s 1530 |
| 28 Mc/s | 1200/1900 | 1800 | 1100/2000 | 1000/2000 | 0800/1830 | 0730/1800 | 0700/1630 | 0700/1700 | 0700/0900 SP | 1530 |
| 21 Mc/s | 1130/2130 | 1530/1930 | 1015/2315 | 0830/1200 1800/2330 | 0700/0900 1330/2300 | 0630/1930 | 0630/1900 | 0630/1800 | 0600/1800 SP 0930/1115 LP 2000/2330 LP | 0900/1200 1800/2230 |
| 14 Mc/s | 1000/0200 | 1400/2200 | 1800/0500 | 2100/0900 | 1600/0300 | 0600/0200 | 1330/2100 | 1430/2000 | 1100/2000 SP 0600/1500 LP | 2000/0930 |
| 7 Mc/s | 2000/0900 | 0600/0800 | 0000/0830 | 2300/0830 | 1800/0100 | 1530/1100 | 1730/0130 | 1900/2030 | 1600/1900 SP | 2200/0400 |
| 3·5 Mc/s | 2300/0600 | 0730 | 0100/0700 | 0000/0600 | 2000 | 2100/0500 | 2000/0200 | 2000 | 1700 SP | 0000 |

These predictions are based on information provided by the Engineer-in-Chief of the Post Office. All times are G.M.T.

### Ten Metre News

December has been free of major upsets and ten has been reasonably good, although it, too has been closing early as noted by **B.R.S. 20106**, who still managed to dig up c.w. from JA1VX (08.50), CR7LU, OH2XK/0, UA0OM (10.45), VP7NM (18.30), FE8AH (11.45) and an OA, with VE8MM, KG6AGS (09.00), KA7MD (10.00), KR6CJ, '6SO and lots of VE5s on phone. **B.R.S. 20135** was pleased to hear AP5T (Lahore, 10.00) for his first AP on the band; he also logged VK4PS, ZD3BFC, '4BV, ZC4IP and KR6, all on A3.

**A.1376** (Winscombe) comments on the types who spend their time counting from one to five and back again (and generally, may we add, switch off without giving their call-signs) and on other equally intelligent practitioners, but he left them to it and listened to VE8MX, CO2JL, VP5BL and CR4AS—all new ones—and added OY1R, SV1AB, VO1DX and HK to the phone tally. **B.R.S. 20104** heard his first 6m W when W0IC called G3BTA cross-band and was picked up through the G3BTA transmitter! **A.1513** (Leeds 17) used a two valve super-regenerative receiver and a 27 ft. vertical to pick up LU6DJS, PJ2AV, VQ2 and masses of W/VE on phone, while **A.1426** mentions ZD4CH, '4BV, HC1AGI, OA1K and a PY9. The World-Wide DX Contest helped the c.w. score at **B.R.S. 20317** and new ones for Bill were FO8AO ('050, 16.10), F9QV/FC, I1BLF/Trieste (but he counts as Italy, these days), KZ5KA, LX2GH, OH0, UI8AG (09.00), VP5FH (Turks, 12.00), VP2LU, '9CY and VQ3GC, with VU2MD and ZS3AG for good measure.

**G3AAE** found an opening to the Pacific from 10.00 to 11.00 when he QSOd KG6AGO, '6AGS, '6AGY, KR6BH, '6BN, '6LC on phone. Later, he worked XE1YD (13.00), VP1EE (17.00), CR7BB (15.45) and MP4KAS (15.00). **G3JTH** worked OQ5RS (a YL), LZ1AM, VE8NJ (Baffin Is., 19.20), UR2BU, ZD4DV (14.20), ZD6RM, SM1JA (Gotland), EA8, VP6 and YV and heard VK6, VP9J, PZ1AG, EA9AZ, OQ0DZ, FY7YE (S7, 19.40), OA4GR (another YL), VP5BL, ZS9G and lots more. The equipment used at G3JTH comprises a Minimitter transmitter, an S750 and dipoles for each band, with a vertical rod for reception.

### The Forty Metre Story

These days it has become a truism that if you want proof of the DX capabilities of 40, or for that matter of 80m, you have to wait for a DX competition and even then, the sad fact remains that many, many stations who would have used 40m 10 years ago have forsaken it altogether in favour of other and broadcast-free preserves. However, some excellent DX remains and **G3KSH** (Kenton, Middx.) recently worked VE2, W8 and VS4BG, who would be really something if genuine. **B.R.S. 20317** heard the VS4 ('015, 01.10) and is doubtlessly wondering, but new ones did come to him in the shape of ET2US ('040, 19.40), HE9LAC, LA2JE/P ('011, 06.45), LU4ZB (Grahamland, 04.15) and 5A5TH, while he also got EA9AP, VQ4AQ, XE3BL (05.00), UA0AZ and CO2, all on c.w. **B.R.S. 20106** listened to W5YF, W9, W0 (all 05.00); he heard UA9AA as early as 14.30. Other UA9s came in from 19.00 and at 23.50, he pulled in UA0AG. **B.R.S. 20104** was impressed by the crisp, snappy operating of OK1LM and '1MB during the contest and says it is a pity so many operators act like schoolboys. A case in point was the babel around VQ8AS (on 14 Mc/s) when the VQ8 called a W6. "W6UOU only . . . de VQ8AS" produced about 20 different replies. Human nature, perhaps, or is that thought a little too depressing?

### Eighty and One-Sixty Metres

Eighty is still sadly lacking in real DX, but up on Top Band interest is stirring and there have been openings once more to the U.S.A. On November 24, **B.R.S. 20106** heard W1PPN, K2BWR, K2CHQ and W1BB, who was calling W0GBV (07.00) and W6KIP (07.10). The band was open to the States from about 05.30 to 08.00 and Norman also logged DL1FF and YU3EU, who is a welcome arrival on the band.

On 80, UA3, UB5, UC2, UQ2 and UR2 were the only calls of interest. **B.R.S. 20317** heard SV0WP, FA3AF and UQ2, while on 160 he got YU3EU (1825 kc/s, 05.30), HB9QA and DL1FF.

### B.E.R.U. Again

Remember to get organized for the 1958 B.E.R.U. Contest, which takes place on January 25-26 and may it be blessed with good conditions!

And so, at the end of the last month of 1957, here is the wish that for every one of you, the New Year will be filled with all the pleasant things of life. The deadline must as usual be the 18th of the current month. Cheers and 73.

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## Liverpool Pirates Caught—Stiff Fines Imposed

FOR the past few years unlicensed operation has been reported from the Liverpool area.

Post Office investigations recently resulted in two men appearing at Liverpool City Magistrate's Court accused of operating radio transmitters without a licence.

It was alleged that the call-signs of licensed amateurs had been used and that threats of physical violence had been made against anyone who took steps to trace the illegal transmissions.

The two men—Leonard Platts aged 40 of Lonsdale Street, Liverpool and William Gaynor aged 32 of Elizabeth Street, Liverpool, were each fined £25. The Stipendiary Magistrate also ordered them to pay £3 3s. 0d. each for advocate's fees and to forfeit their transmitting equipment. He stated he was satisfied that it had been proved that the two men used radio transmitters from their homes without licences.

## GB2RS Schedule

THE R.S.G.B. News Bulletin is now being radiated on frequencies in the 3·5, 7 and 145 Mc/s bands. The schedule is as follows:

| | | | |
|---|---|---|---|
| 3600 kc/s | Sundays | 10 a.m. | (London) |
| | | 12 noon | (Yorkshire) |
| 7100 kc/s | Sundays | 10.30 a.m. | (London) |
| | | 12.30 p.m. | (Yorkshire) |
| 145·55 Mc/s | Sundays | 11.15 a.m. | (beaming South-East from Leeds) |
| | | 11.30 a.m. | (beaming South-West from Leeds) |
| | | 11.45 a.m. | (beaming North from Leeds) |
| 145·5 Mc/s | Sundays | 12 noon | (beaming North from Well Hill, Kent) |
| | | 12.15 p.m. | (beaming West from Well Hill) |

**London Meeting**
**Friday, February 14, 1958**

**"The TVI Problem"**

**by G. A. Bird, G4ZU (Radio Group, London Regional Headquarters, G.P.O.)**

**at the**

**Institution of Electrical Engineers**
**Savoy Place, Victoria Embankment**

**Buffet Tea 6 p.m.** **Lecture 6.30 p.m**

# Council Proceedings

*Résumé of the Minutes of the Proceedings at a Meeting of the Council of the Radio Society of Great Britain, held at New Ruskin House, Little Russell Street, London, W.C.1, on Monday, November 18, 1957, at 6 p.m.*

*Present:* The President (Mr. D. A. Findlay in the Chair), Messrs. W. H. Allen, H. A. Bartlett, C. H. L. Edwards, K. E. S. Ellis, W. J. Green, F. Hicks-Arnold, J. H. Hum, E. G. Ingram, W. H. Matthews, W. R. Metcalfe, A. O. Milne, L. E. Newnham, John Clarricoats (General Secretary) and John A. Rouse (Deputy General Secretary).

*Apology*

An apology for absence was submitted on behalf of Mr. W. A. Scarr.

*Absent*

Messrs. R. H. Hammans and H. W. Mitchell.

* * *

*Condolences*

The Secretary reported that Mr. Scarr's son (First Officer J. M. Scarr) had lost his life in a flying boat disaster in the Isle of Wight on November 15, 1957.

*Resolved* that the Secretary be instructed to convey the sympathy of the Council to Mr. and Mrs. Scarr.

*Cash Account*

*Resolved* to receive and adopt the Cash Account for October 1957 as prepared and submitted by the Secretary.

It was reported that receipts from subscriptions during October 1957 were £256 higher than during October 1956—constituting a record increase.

*Recommendations of Committees*

Minutes of meetings of various Committees of the Council were submitted as Reports and recommendations contained therein were adopted. The recommendations dealt with: (*a*) a proposal to purchase a copy of the new B.R.C.S. film " Humanity in Action, " (*b*) the payment of ex gratia payments to anyone whose commissioned work for the *Amateur Radio Handbook* is not accepted, (*c*) frequency proposals for submission to the G.P.O. in connection with the 1959 I.T.U. Conference, (*d*) the award of various trophies to contest winners.

*Radio Hobbies Exhibitions*

*Resolved* to congratulate Mr. P. A. Thorogood on the success of the 1957 Exhibition; to place on record the thanks of the Council to the Exhibition Committee for their efforts in connection with the Exhibition; to invite Mr. Thorogood to submit proposals for an exhibition during 1958.

It was reported that more than 7,000 persons paid for admission to the 1957 Exhibition and that takings on the R.S.G.B. stand amounted to £332. Fifty-nine persons who visited the Exhibition applied for membership.

*Membership*

(*a*) *Resolved* (i) to elect 132 Corporate Members and 23 Associates; (ii) to grant Corporate Membership to three Associates who had applied for transfer.

(*b*) and (*c*) The Secretary reported that 73 of the 637 members whose subscription became due on August 1, 1957, became three months overdue on October 31, 1957, and that 13 of the members concerned had written to resign.

*Applications for Affiliation*

*Resolved* to grant affiliation to 21st (NM) Corps Signals Regiment (TA) Amateur Radio Club, Derby; and to the North West of Ireland Amateur Radio Society.

*National Convention*

*Resolved* that a National Convention be held in Bridlington during the period September 18-20, 1958.

*Region 4 O.R.M.*

*Resolved* to authorize the Nottingham C.R. to reserve accommodation for an O.R.M. in that city during April 1958.

*I.G.Y. Expenses*

*Resolved* (i) to rescind the resolution passed at the meeting of the Council held on August 26, 1957, limiting I.G.Y. expenses to £100 for the period July 1, 1957-December 31, 1958; (ii) to authorize the I.G.Y. Co-ordinators to incur a total expenditure not exceeding £150 during the period July 1, 1957-June 30, 1958.

*R.S.G.B. Amateur Radio Call Book*

It was reported that the 1957/8 Edition of the *Call Book* was published on November 15, 1957. Since the issue closed for press early in September 324 amendments had been made to the official call-sign record. An analysis showed that 38 new calls had been issued, 45 calls had been reissued, 75 calls had been cancelled and 166 changes of address, etc. had been recorded. In the same period 26 Mobile licences had been issued and 10 cancelled. One Television licence had been cancelled. The Stop Press column in the new Edition had listed 47 of the 75 cancelled calls.

It was suggested that it would prove helpful if an *ad hoc* Committee could be appointed to look into the arrangements for producing future editions of the Call Book.

*Resolved* (*a*) to set up a Call Book *ad hoc* Committee; (*b*) to appoint Messrs. Matthews, Ellis and Kempton to serve on the Committee.

*50 Mc/s Band*

It was reported that the G.P.O. had been asked to authorize temporary operation on frequencies around 50 Mc/s.

*Report of the I.G.Y. Co-ordinators*

The I.G.Y. Co-ordinators submitted a comprehensive report on the recent activities of those who are co-operating in the I.G.Y. project.

*Region 9 Report*

The Region 9 Representative submitted a report on matters discussed at a recent meeting of C.R.s in his Region.

*Resolved* (*a*) to receive the Report; (*b*) to request the Bulletin *ad hoc* Committee to consider the items relating to the BULLETIN; (*c*) to request the Contest Committee to consider the items relating to Contests.

The meeting terminated at 9.10 p.m.

**REGIONAL REPRESENTATIVES**

**Region 1.—North Western. B. O'Brien (G2AMV), 1 Waterpark Road, Prenton, Birkenhead, Cheshire.**
**Region 2.—North Eastern. J. R. Petty (G4JW), 580 Redmires Road, Sheffield 10, Yorkshire.**
**Region 3.—West Midlands. W. A. Higgins (G8GF), 28 Kingsley Road, Kingswinford, nr. Brierley Hill, Staffs.**
**Region 4.—East Midland. E. S. G. K. Vance, M.B. (G8SA), 43 Blackwell Road, Huthwaite, Sutton-in-Ashfield, Notts.**
**Region 5.—Eastern. T. A. T. Davies (G2ALL), Meadow Side, Comberton, Cambridge.**
**Region 6.—South Central. N. F. O'Brien, F.B.I., A.C.C.S. (G3LP), 143 Brunswick Street, Cheltenham, Gloucestershire.**
**Region 7.—London. F. G. Lambeth (G2AIW), 21 Bridge Way, Whitton, Twickenham, Middlesex.**
**Region 8.—South Eastern. Office Vacant.**
**Region 9.—South Western. W. J. Green (G3FBA), 82 Bloomfield Avenue, Bath, Somerset.**
**Region 10.—South Wales. C. Parsons (GW8NP), 90 Maesycoed Road, Heath, Cardiff, Glam.**
**Region 11.—North Wales. F. G. Southworth (GW2CCU), Samlesbury, Bagillt Road, Holywell, Flintshire.**
**Region 12.—East Scotland. A. G. Anderson (GM3BCL), " Helford," Pitfodels, Aberdeen.**
**Region 13.—South-East Scotland. G. P. Millar (GM3UM), 8 Plewlands Gardens, Edinburgh 10.**
**Region 14.—West Scotland. Office Vacant.**
**Region 15.—Northern Ireland. Office Vacant.**
**Region 16.—East Anglia. Office Vacant.**

**R.S.G.B. QSL BUREAU: G2MI, BROMLEY, KENT**

# Annual General Meeting

*Minutes of the 31st Annual General Meeting of the Radio Society of Great Britain, held in the Kingsway Hall, Kingsway, London, W.C.2, on Friday, December 13, 1957, at 6.30 p.m.*

*Present:* The President (Mr. D. A. Findlay, D.F.C., A.S.A.A., in the Chair), Messrs. W. H. Allen, M.B.E., H. A. Bartlett, C. H. L. Edwards, A.M.I.E.E., K. E. S. Ellis, W. J. Green, F. Hicks-Arnold, J. H. Hum, E. G. Ingram, W. H. Matthews, W. R. Metcalfe, A. O. Milne, L. E. Newnham, B.Sc. (Members of the Council), Messrs. F. J. H. Charman, B.E.M., L. Cooper and S. K. Lewer, B.Sc. (Past Presidents), Messrs. D. N. Corfield, D.L.C.(Hons.), J. W. Mathews, T. A. St. Johnston and H. V. Wilkins (Vice-Presidents), Mr. John Clarricoats, O.B.E. (General Secretary), Mr. John A. Rouse (Deputy General Secretary) and Miss May Gadsden (Assistant Secretary). About 115 other members were also present.

★ ★ ★

*Notice Convening the Meeting*

The General Secretary read the notice convening the meeting.

*Minutes*

It was moved by Mr. L. Cooper, seconded by Mr. W. R. Metcalfe and resolved that the Minutes of the 30th Annual General Meeting held on December 14, 1956, as published in the January 1957 issue of the R.S.G.B. BULLETIN, be approved and confirmed.

*Annual Report of the Council*

It was moved by the President, seconded by Mr. C. L. Fenton, and resolved that the Annual Report of the Council, as published in the November 1957 issue of the R.S.G.B. BULLETIN, be approved and adopted.

The President dealt with points raised by Mr. D. Deacon, notice of which had been given in writing prior to the meeting.

A short Supplementary Report covering developments which had taken place since the end of the last financial year was read to the meeting. (The Supplementary Report is published on page 334 of this issue.—Editor.)

Further points raised at the meeting by Mr. Deacon, when the Supplementary Report was submitted, were dealt with by the General Secretary.

*Report of the Honorary Treasurer and the Audited Accounts*

Before moving the adoption of his Report the Honorary Treasurer (Mr. W. R. Metcalfe) dealt with points raised by Messrs. D. Deacon and C. E. Newton, notice of which had been given in writing prior to the meeting. Other points raised by Mr. Deacon in writing prior to the meeting were also dealt with.

Messrs. Glaisher, Clews, Charman, Milne, Kendrick, Garrett, Hooson, Kay, Stone, Elton, Yeomanson, Cramp, were among others who joined in the subsequent discussion.

It was then moved by Mr. Metcalfe, seconded by Mr. Yeomanson and resolved that the Report of the Honorary Treasurer and the Audited Accounts of the Society for the year ended June 30, 1957, be approved and adopted.

*Election of Council 1958*

The President declared that the following Corporate Members had been duly elected without opposition to serve on the Council for the year 1958:

*Officers*

| | |
|---|---|
| President: | Mr. L. E. Newnham. |
| Executive Vice-President: | Mr. W. R. Metcalfe. |
| Zone E Representative: | Mr. A. C. Williams. |
| Zone F Representative: | Mr. E. G. Ingram. |

The result of the ballot for the election of an Honorary Treasurer, an Ordinary Member of Council and two Zonal Representatives was announced as:

| | | |
|---|---|---|
| *Honorary Treasurer* | | |
| Mr. N. Caws | 582 votes | Elected |
| Mr. K. E. S. Ellis | 532 votes | |
| *Ordinary Member of Council* | | |
| Mr. H. A. Bartlett | 317 votes | Elected |
| Mr. P. W. Winsford | 311 votes | |
| Mr. F. G. Lambeth | 212 votes | |
| Mr. A. C. Dunn | 206 votes | |
| Mr. F. G. Fletcher | 82 votes | |
| *Zone C Representative* | | |
| Mr. E. W. Yeomanson | 111 votes | Elected |
| Mr. W. H. Matthews | 105 votes | |
| *Zone D Representative* | | |
| Mr. W. J. Green | 80 votes | Elected |
| Mr. R. T. Poeton | 46 votes | |

The President declared that Messrs. Caws, Bartlett, Yeomanson and Green had been duly elected to serve on the Council.

It was reported that 1,131 ballot papers were accepted and 12 rejected by the scrutineers; it was also reported that a number of votes for candidates in the Zonal elections had to be disallowed because the envelopes containing the ballot papers did not carry the member's address on the reverse.

The following members of the 1957 Council were not required to seek election for the year 1958: Mr. D. A. Findlay (Retiring President), Mr. R. H. Hammams (Retiring Immediate Past President), Messrs. W. H. Allen, C. H. L. Edwards, F. Hicks-Arnold, J. H. Hum, A. O. Milne and W. A. Scarr (Ordinary Members), Mr. H. W. Mitchell, (Zonal Representative.)

The President thanked those who had assisted with the scrutiny of the Ballot.

In answer to a question by Mr. L. Cooper it was stated that approximately 12½ per cent of the Home Corporate Membership had voted.

*Auditors*

It was moved by Mr. Metcalfe, seconded by Mr. L. Hill and resolved that the fee of Edward Moore & Sons should be 100 guineas for auditing and accountancy work for the year ending June 30, 1958.

*Other Business*

The President reported that Mr. Deacon had advised him in writing prior to the meeting that he wished to propose that future Annual and Extraordinary General Meetings of the Society should take place on Saturday afternoons. The President stated that he could not allow Mr. Deacon's proposal to be put to the meeting as a formal motion but he would be prepared to take an informal opinion by show of hands from the members present. Messrs. Newport, Kendrick and Parker were among those who spoke in the brief discussion which preceded the informal show of hands.

The President announced that approximately half of those present favoured a Saturday meeting.

The President advised the meeting that the suggestion put forward by Mr. Deacon would be carefully considered by the Council and an attempt made to test the wishes of the membership prior to the next Annual General Meeting.

The meeting terminated at 8.15 p.m.

# Supplementary Report of the Council *

THE purpose of this Supplementary Report is to refer briefly to some of the more important events and happenings that have taken place since the Society's financial year ended on June 30, 1957.

**International Geophysical Year**

On the eve of the International Geophysical Year, which began on July 1, 1957, the Society's Patron—H.R.H. The Prince Philip, Duke of Edinburgh, K.G.—spoke from the Lime Grove Television Studio of the B.B.C. on some aspects of the work which scientists the world over proposed to undertake during the I.G.Y. His talk, entitled "The Restless Sphere," aroused great interest among members, especially those who had already offered to participate in I.G.Y. activities.

Since the Society's plans were first announced the I.G.Y. Co-ordinators have received offers of assistance from about 150 members.

The I.G.Y. Co-ordinators (Messrs. G. M. C. Stone, G3FZL, and C. E. Newton, G2FKZ), together with other members, and in association with representatives of the British Astronomical Association, have co-operated closely with The Royal Society and the Mullard Radio Observatory, Cambridge, in tracking the orbits of Russian earth satellites. This important work is continuing as is routine I.G.Y. work in accordance with a set programme.

In connection with the I.G.Y. a marker station using the special call GB3IGY, is being operated on a frequency of 145·5 Mc/s by Mr. K. E. S. Ellis (G5KW). The station has also been used to transmit information relating to the Russian earth satellites.

**National Radio Show**

The Society's stand at the National Radio Show, held at Earls Court from August 28 to September 7, 1957, attracted a good deal of attention from the general public. During the period of the show takings on the Society's stand amounted to £445 and about 60 visitors applied for membership.

**Radio Hobbies Exhibition**

The Society sponsored a Radio Hobbies Exhibition in the Old Hall of the Royal Horticultural Society, London, S.W.1, from October 23 to 26, 1957. The Exhibition was opened by Sir Harold Bishop, C.B.E. (Director of Engineering, B.B.C.) and during the four days more than 7,000 people paid for admission.

A full report of the Exhibition, which was organised by Mr. P. A. Thorogood (G4KD), appeared in the November 1957 issue of the Society's Journal.

Mr. F. Ruth (G2BRH) was in charge of the Society's stand at the National Radio Show and at the Radio Hobbies Exhibition.

**Boy Scout Jamborees**

The year 1957 marks the 100th Anniversary of the birth of the Founder of the Boy Scout Movement (Lord Baden-Powell) and the 50th Anniversary of the Founding of Scouting. To commemorate both anniversaries a World Scout Jamboree was held in Sutton Park, Warwickshire, from August 1 to 10.

In connection with the Jamboree the Postmaster General authorized the installation of an Amateur Radio station in the grounds of Sutton Park which could be operated simultaneously on various bands. The P.M.G. also authorized the station to transmit News Bulletins.

The task of organizing, setting up and operating the station was undertaken by members drawn from Midland Radio Societies and Groups. The chief organizer was Mr. Alan Dennis (G3CNV) who received most valuable technical assistance from Mr. Tom Douglas (G3BA).

The Jamboree station was visited by Lord Peter Baden-Powell (son of the Founder) and by the President and General Secretary of the R.S.G.B. In recognition of his work for International Amateur Radio in organizing, with the help of local members and societies, the Jamboree Radio Station, the Council have awarded the Calcutta Key to Mr. Dennis for the year 1957.

Members of the Medway Amateur Receiving and Transmitting Society also co-operated with the Boy Scouts Association in the installation, erection and operation of an Amateur Radio station at a Roman Catholic Scouts' camp held from August 12-24 at Buckmore Park, Chatham, Kent.

**Regional Meetings**

Official Regional meetings were held in Cardiff on September 21 and in Prestatyn on September 29. There was an attendance of 120 at the former and of 40 at the latter meeting. Representatives of the Council attended both meetings.

**Contests**

For the first time the Senior B.E.R.U. Contest was won by a Canadian amateur (Mr. Vic Williams, VE3KE), Messrs. G. J. Dent (VQ4AQ) and G. F. Barrett (ZC4IP) occupied second and third places. The Junior event was again won by Mr. J. C. van Wyk (ZS6R), with Messrs. V. Genovese (ZB1BF) and F. Johnstone (G3IDC) the runners-up. W/Cmdr. A. R. Gilding (G3KSH) won the Receiving Section of the Contest.

National Field Day was won by the Slough Group with Bristol in second place. The Scottish N.F.D. Trophy was won by Aberdeen and the Bristol N.F.D. Trophy by Port Talbot.

The D/F Final was won by Mr. J. K. Finch of High Wycombe.

**Mobile Rallies**

Well supported Mobile Rallies were held at Matching Green, Essex, Tunbridge Wells, Kent, and Woburn Abbey, Beds., during September. The Woburn Abbey Rally attracted an estimated attendance of 500 members and friends.

**Licence Matters**

The Council has been informed that an Ordinary Administrative Radio Conference will open on July 1, 1959, probably in Geneva. In preparation for that Conference the G.P.O. has set up a Steering Committee whose task it will be to co-ordinate the view-points of the various users of Radio Frequencies. The views of the R.S.G.B. have already been communicated to the G.P.O. and it is anticipated that discussions will follow shortly.

The Conference will be the 1959 counterpart of the Atlantic City Conference held during 1947 at which the R.S.G.B. was represented by Mr. S. K. Lewer (G6LJ), who was then President, and the General Secretary.

Acting on a suggestion made to them by the R.S.G.B. the Region I International Committee are planning to hold a Region I Conference in Germany during 1958 rather than during 1959. This Conference will be, in effect, a curtain-raiser for the Radio Conference.

*This Supplementary Report was read by the President to the members present at the Annual General Meeting held on December 13, 1957. It is reproduced here for the information of all members.

### R.S.G.B. Amateur Radio Call Book

The long-awaited 1957-58 edition of the *R.S.G.B. Amateur Radio Call Book* was published during November. This edition gives details of about 99 per cent. of all call-signs issued by the G.P.O. up to the early part of October 1957, and is thus the most up-to-date publication of its kind ever produced. The work of preparing the material for publication was undertaken by Mr. W. J. H. Kempton (G8LN) who is most warmly thanked for his co-operation.

### Society Christmas Card

For the first time in the history of the Society a special Christmas card has been produced for the use of members. It is hoped that this new venture will succeed.

### R.S.G.B. News Bulletins

As from September 29, 1957, the Society's weekly News Bulletin was transmitted on frequencies in the 7 and 145 Mc/s bands in addition to the regular transmission on 3·6 Mc/s. The Council hope the extended service is proving of value to those members who for one reason or another are unable to receive the 3·6 Mc/s transmissions.

### Increased Postage Rates

Effective October 1, 1957, increased postage rates were introduced; these new rates will, in a full year, have a very serious effect on the financial position of the Society. Prior to October 1957 the cost of posting the Society's Journal to members amounted to about £70 a month; the cost is now £140 a month, representing an increase of £840 a year. Other postage rates have also been increased.

# EXTRAORDINARY GENERAL MEETING

*Minutes of an Extraordinary General Meeting of the Radio Society of Great Britain held in the Kingsway Hall, Kingsway, London, W.C.2, on Friday, December 13, 1957, at 8.20 p.m.*

*Present:* The President (Mr. D. A. Findlay, D.F.C., A.S.A.A., in the Chair), Messrs. W. H. Allen, M.B.E., H. A. Bartlett, C. H. L. Edwards, A.M.I.E.E., K. E. S. Ellis, W. J. Green, F. Hicks-Arnold, J. H. Hum, E. G. Ingram, W. H. Matthews, W. R. Metcalfe, A. O. Milne, L. E. Newnham, B.Sc. (Members of the Council), Messrs. F. J. H. Charman, B.E.M., L. Cooper and S. K. Lewer, B.Sc. (Past Presidents), Messrs. D. N. Corfield, D.L.C.(Hons.), J. W. Mathews, T. A. St. Johnston, and H. V. Wilkins (Vice-Presidents), Mr. John Clarricoats, O.B.E. (General Secretary), Mr. John A. Rouse (Deputy General Secretary), Miss May Gadsden (Assistant Secretary). About 115 other members were also present.

* * *

*Notice Convening the Meeting*

The President read the notice convening the meeting.

It was announced that 135 Corporate Members had signed the register of those present.

*Special Resolution*

The President stated that there appeared to be some misconception about the terms of the Special Resolution which was an enabling resolution and not a resolution to increase immediately the present Corporate membership subscription. Mr. Findlay emphasized that the present Council had no particular figure in mind but he mentioned that for the five months ended November 30, 1957, expenditure had exceeded income by about £300. The effect of the increased postage rates had not yet been fully felt.

Messrs. Newport, Deacon, Newton, Rayner, Thompson, Othen, Hooson and W. H. Matthews were among those who joined in the subsequent discussion.

It was then moved by the President and seconded by Mr. Metcalfe that

Article 19 of the Society's Articles of Association be amended to read as follows:

"19. The Annual Subscription shall be £2/10/- for Corporate Members and £1/5/- for Associates or such lesser sums as the Council may decide from time to time."

The President announced that 128 members had voted for the Special Resolution and seven against and that on a show of hands the resolution was carried.

A Poll having been demanded the Secretary reported that 77 proxy votes had been received.

The proxy votes were then counted and these showed that 64 had been cast in favour and 12 against the Special Resolution. The holder of one proxy vote was not present.

The Secretary reported that a total of 211 votes had been cast. Of this total 192 had been cast in favour and 19 against the Special Resolution.

The President thereupon announced that the Special Resolution had been carried by the required majority. (A Special Resolution to be effective must be carried by at least 75 per cent of those who vote.)

The Extraordinary General Meeting terminated at 8.45 p.m.

## Presentation of Trophies

AT the conclusion of the Extraordinary General Meeting on December 13, 1957, the President (Mr. D. A. Findlay, D.F.C.) presented the following trophies and awards:

| | |
|---|---|
| Mr. H. J. Gratton (G6GN) .. .. | ROTAB |
| Mr. S. C. Tucker (G5DT) .. .. | Courtenay Price |
| Mr. J. Douglas Kay (G3AAE) .. | Founder's |
| W/Cdr. A. R. Gilding (G3KSH) .. | B.E.R.U. Receiving |
| Mr. A. L. Mynett (G3HBW).. .. | Arthur Watts |
| Mr. N. H. R. Munday (G5MA) .. | Mitchell-Milling |
| Surrey Radio Contact Club .. .. | Edgware |
| Slough Group .. .. .. .. | N.F.D. Shield and Replica |
| Croydon, Stamford and Wirral Groups | N.F.D. Replicas |
| Mr. G. A. Jeapes (G2XV) .. .. | Miniature |
| Derby and District Amateur Radio Society (G3ERD/P).. .. .. | Miniature |

Mr. P. Carment (G5WW) received the 1950 Council Trophy on behalf of Mr. J. K. Finch (B.R.S.15688) and an N.F.D. Replica on behalf of High Wycombe Group.

**London Meeting**
**Friday, January 24, 1958**

**Presidential Address**
**by L. E. Newnham, B.Sc. (G6NZ)**
**followed by a lecture on**
**"The Human Machine as a Radio Operator"**
**by F. J. H. Charman, B.E.M. (G6CJ)**

**at the**
**Institution of Electrical Engineers**
**Savoy Place, Victoria Embankment**

**Buffet Tea 6 p.m.** **Lecture 6.30 p.m.**

# Society News

### Six Metre Operation to be Permitted

THE Society is pleased to announce that, as the outcome of correspondence which has passed between the General Secretary and representatives of the Radio Services Department of the G.P.O., selected amateurs in a few areas of the country are to be allowed to operate for the next six months only, on 52·5 Mc/s with a power input not exceeding 500 watts. The areas in question are Northumberland, Monmouthshire, Glamorgan and parts of the Western Highlands and Islands of Scotland.

Selected amateurs in other parts of the country will also be allowed for the next six months to operate on 52·5 Mc/s between the hours of 01.00 G.M.T. and 09.30 G.M.T.

The importance of this special concession will be appreciated when it is remembered that frequencies around 52 Mc/s are in the middle of Television Band I. Amateur use of such frequencies during television hours (except in the areas mentioned above) would be liable to cause severe local interference to television reception.

The fact that the G.P.O. is prepared to make such a concession is a clear indication of the importance which official bodies attach to Amateur Radio work during the I.G.Y.

Applications for permission to operate on 52·5 Mc/s should be made in writing and addressed to the General Secretary, Radio Society of Great Britain, New Ruskin House, Little Russell Street, London, W.C.1.

### Amateur Transmitting Licences
### Exemption System to be Abolished

THE Society has been advised by the G.P.O. that the present exemption system, which enables certain qualified applicants for an Amateur Transmitting Licence to be exempted from taking the Post Office Morse Test and/or the Radio Amateurs' Examination, will be abolished as from May 8, 1958.

The exemption system was introduced at the request of the Society immediately after the 1939-45 war and was intended to operate for only a few years. Its primary purpose was to assist those who had attained a trade qualification whilst in the Services to obtain an amateur transmitting licence without passing the Post Office Morse Test and/or the Radio Amateurs' Examination.

In July 1956 the G.P.O. notified the Society of their intention, eventually to abolish the system.

The Council gave careful consideration to the G.P.O. decision and agreed to support it. (See *Council Proceedings* for July 1956 as published in the September 1956 issue of the R.S.G.B. BULLETIN.—EDITOR.)

Application forms for licences received up to May 8, 1958, will be considered under the existing procedure.

### Frequencies to be Logged

THE G.P.O. have advised the Society that in future transmitting frequencies must be recorded in log books although no specific degree of accuracy is called for. The G.P.O. point out that it is useful, when investigating complaints of interference, for inspectors to know the approximate frequency in use at the time of the complaint.

In the past many amateurs have recorded only the frequency band in use.

### Ghana Call-Signs

AMATEUR Radio stations in Ghana are now using the prefix 9G1 instead of ZD4. Individual suffixes remain unchanged.

### Forthcoming Events

THE Council has decided that as from the February 1958 issue of the R.S.G.B. BULLETIN, the *Forthcoming Events* column shall be restricted to the dates of specific meetings, demonstrations and special functions.

In the past, because of the practice of some representatives and club secretaries of sending in to Headquarters standing dates of meetings for months ahead, details have sometimes been published of meetings which it subsequently transpired had either not taken place or had taken place on a different date or at a different venue.

Local representatives and club secretaries are requested to send the following information to their Regional Representative, *to arrive not later than the 18th of the month preceding publication*: Date; Time; Venue of meeting; Subject of lecture; Name of lecturer (or details of any other special feature being arranged).

To avoid errors and possible duplication, lists of Forthcoming Events will, in future, be accepted only from Regional Representatives or their appointed scribes.

### Affiliated Societies' Representatives

SOCIETIES affiliated to the R.S.G.B. are reminded that they are entitled to nominate one of their members to serve as Affiliated Societies' Representative for the current year.

Societies who wish to take advantage of this arrangement are requested to forward a nomination paper, duly signed by five Corporate Members of the R.S.G.B., to the General Secretary without delay. Nominees must be Corporate Members of the R.S.G.B.

Societies who have appointed an A.S.R. prior to April 1, 1958 will be allowed to enter for the R.S.G.B. N.F.D. event in June.

A.S.R.s will enjoy the same privileges and have the same status as T.R.s.

### O.R.M. in Birmingham next May

AN Official Regional Meeting is to be held in Birmingham on Sunday, May 11, 1958. Full details of the comprehensive programme now being planned by the Regional Representative (Alec Higgins, G8PF) will appear in a future issue of the BULLETIN.

### The Radio Amateur's Handbook

ORDERS for the 1958 edition of the A.R.R.L. Handbook, due to be published next month, can now be accepted by Headquarters. The current price is 34/- post free.

### R.S.G.B. Amateur Radio Call Book
### Correction List No. 2

THE following are corrections or amendments to the 1957-58 Edition of the R.S.G.B. *Amateur Radio Call Book:*

| | |
|---|---|
| GM2DBX | J. Taylor, *The Pharmacy*, Methilhill, Leven, Fife. |
| GM3HMU | W. L. McIntyre, "Rosslyn," 15 Pearson Drive, Renfrew, Renfrewshire, Scotland. (Entry omitted due to printer's error). |
| GM3LUM | Leven and District Radio and Television Club, c/o J. Taylor, GM2DBX, *The Pharmacy*, Methilhill, Leven, Fife. |
| G3JSJ | D. L. Pritchard, 88 Kingsway, Ponders End, Enfield, Middlesex. (Address omitted). |

In response to enquiries it is not proposed to indicate holders of mobile licences in future editions of the Call Book.

# Tests & Contests

## Second 1·8 Mc/s Contest 1957

THE number of entries received for this contest was disappointing, as the number of stations reported active was almost the same as in the last comparable event. I. T. Cashmore (G3BMY) is again the winner, very closely followed by his near neighbour in Birmingham, W. Wells (G3HVX) and by southerners G6BQ and G3JEQ. Conditions were generally reported as good, although a high static level persisted until about 03.00 and may have deterred some operators from staying the full period of the contest.

There was a welcome increase in activity and entries from Scotland; activity was also reported from the Channel Islands and the Isle of Man. European stations appearing in the logs were DL4FH, HB9T and several OKs.

The use of BK procedure, so often criticized, was noticeably better, and more competitors were using call-signs during contacts to make quite clear which stations they were working.

Check logs are gratefully acknowledged from G2AFV, G2FTK, G3JII, G3JSN, G8FW, G8LC and G8ON.

| Posn. | Call-sign | Points | Posn. | Call-Sign | Points |
|---|---|---|---|---|---|
| 1. | G3BMY | 125 | 31. | GM3KSJ | 66 |
| 2. | G3HVX | 121 | 32. | G8DA / GM6IZ | 62 |
| 3. | G6BQ / G3JEQ | 119 | 34. | GM3KHH | 61 |
| 5. | G3IEW | 118 | 35. | G3IYT / G3KAX | 60 |
| 6. | G3KLH | 117 | 37. | G3LVN | 59 |
| 7. | G2JF | 110 | ** | G2DSF | 58 |
| 8. | G3ERN | 109 | 38. | G6UT / G3JKY | 58 |
| 9. | G3IQE | 108 | 40. | G2ZR | 55 |
| 10. | G3IIS | 104 | 41. | G2HDR | 53 |
| 11. | G3YF | 93 | 42. | G6JJ / G2AOL | 51 |
| 12. | G3LHJ | 89 | 44. | G3GWX | 50 |
| 13. | G2XP / G2HPF | 86 | 45. | G3CWW / G3LEV | 43 |
| 15. | G3ZY / G3ELZ | 84 | 47. | G4BD / G3GWG | 40 |
| 17. | G3JNJ | 81 | 49. | G3EUE | 39 |
| 18. | G2DC | 80 | 50. | G3KTF | 38 |
| 19. | G5MR / G3GOX | 79 | 51. | G3IGX | 35 |
| 21. | G3LMH | 78 | 52. | G2CIL / G3IIE | 31 |
| 22. | GM3EHI | 76 | 54. | G3HTI | 26 |
| 23. | G5MP / GW3GHC | 75 | 55. | G6QM | 14 |
| 25. | G3LCH | 72 | 56. | G8KU | 12 |
| 26. | G3KPJ | 71 | 57. | G2AVC | 10 |
| 27. | G6VC / G2FHF | 70 | | | |
| 29. | G3ILO / G3KRC/A | 67 | | | |

** Entry invalid—no declaration.

## Low Power Contest 1957

THERE were 21 entries for the Low Power Contest held on October 5-6, 1957, which was won by I. T. Cashmore (G3BMY) who had a lead of 33 points over the runner-up, V. H. S. Curling (G6VC). Comments were few, so it is presumed that the rules and method of scoring meet with general approval, as indeed they have for many years. G3JVJ is thanked for submitting a check log.

| Posn. | Call-sign | Points | Posn. | Call-sign | Points |
|---|---|---|---|---|---|
| 1. | G3BMY | 2014 | 12. | G8NF | 1037 |
| 2. | G6VC | 1981 | 13. | G3LHJ | 840 |
| 3. | G3KLH | 1680 | 14. | G6GH | 780 |
| 4. | G3COJ | 1660 | 15. | G4BD | 728 |
| 5. | G5LQ | 1597 | 16. | G3EVE | 693 |
| 6. | G2DC | 1335 | 17. | G8DL | 651 |
| 7. | G3CGD | 1302 | 18. | G3GDW | 634 |
| 8. | G3FFH | 1237 | 19. | G3HTI | 600 |
| 9. | G2AVC | 1200 | 20. | G3KVG | 533 |
| 10. | G4XC | 1177 | 21. | G5ND | 508 |
| 11. | G4JW | 1135 | | | |

## Second 70 Mc/s Contest 1957

ONLY two entries and one check-log (G3EHY) were received for this contest: GM2FHH scored 180 points and G3COJ 66 points.

The Contests Committee has recommended to Council that a certificate be awarded to L. Hardie (GM2FHH) of Aberdeen.

## 144 Mc/s Open Contest 1958

THIS contest, to be held on March 1 and 2, will be open to fixed, portable and mobile stations (subject to Rule 4). Particular attention is drawn to the revised form of scoring described in Rule 11.

All members taking part are invited to submit entries in the form shown below.

### RULES

1. The Contest is open to all fully paid-up members of the R.S.G.B. resident in Europe.
2. Contacts may be made on telephony, m.c.w. or c.w.
3. An entrant must operate in accordance with the terms of his licence.
4. The station must be operated from the same site for the duration of the event.
5. Only one contact with a specific station, whether fixed, portable or mobile, will count for points. Proof of contact may be required.
6. Contacts with unlicensed stations will not be permitted to count for points.
7. **Entries should be written on lined foolscap or quarto paper or typed on plain paper (one side only please)** and must be set out in the form shown below:—

**144 Mc/s OPEN CONTEST MARCH 1-2, 1958**

Name..... Claimed Score.....

Address..... County..... Call-sign.....

Site of station if portable or mobile.....County.....

Receiver..... Aerial system.....

Transmitter..... Power Input.....watts

| Time G.M.T. | Call-sign of station worked | My report on his signals | His report on my signals | County or Country | Points Claimed |
|---|---|---|---|---|---|
| 1705 | G3XYZ | 579A001 | 569A001 | Oxon | 35 |
| 1710 | G2ZXY | 559A002 | 569A014 | Beds | 35 |
| 1718 | G2YZX | 589A003 | 599A007 | Oxon | 10 |
| 1723 | EI2ZZ | 569A004 | 549A002 | Ireland | 25 |
| 1730 | G3ZZY | 59A005 | 59A020 | Beds | 10 |
| | | | | Claimed Score: | 115 |

Declaration: I declare that my station was operated strictly in accordance with the rules and spirit of the contest and I agree that the ruling of the Council of the R.S.G.B. shall be final in all cases of dispute.

Date..... Signed.....

8. **The contest will start at 17.00 G.M.T. on Saturday, March 1, and end at 19.00 G.M.T. on Sunday, March 2, 1958.**

9. An exchange of RST or RS reports, followed by the band identification letter "A" and a three figure serial number starting between 001 and 100 and increasing by one with each successive contact, together with the county in which the station is operating, will be required before points may be claimed, e.g. RST579A001 Hampshire.

10. For each completed contact within the United Kingdom 10 points may be claimed; in addition, a bonus of 25 points may be claimed for the first contact in each new county in accordance with the list on page 468 of the April 1957 issue of the *R.S.G.B. Bulletin*. The whole of the London Postal Districts will count as one county only. For contacts with stations outside the United Kingdom, a flat rate of 25 points for each completed contact may be claimed.

11. Entries must be addressed to the Contests Committee, R.S.G.B. Headquarters, and must bear a postmark not later than March 17, 1958.

12. At the discretion of the Council, the *Mitchell-Milling* Trophy will be awarded to the winning entrant and a certificate of merit to the entrant placed second.

### First 1·8 Mc/s Contest 1958

THE rules for this contest will be the same as those for the First 1·8 Mc/s Contest 1957, published on page 374 of the February 1957 issue of the R.S.G.B. BULLETIN, the only alterations being as follows:

**Rule 2.** The contest will start at 22.00 G.M.T. on Saturday, March 1, 1958, and end at 03.00 G.M.T. on Sunday, March 2, 1958.

**Rule 5.** Entries must be addressed to the Contests Committee, R.S.G.B. Headquarters, and must bear a postmark not later than Monday, March 17, 1958.

**Rule 12.** The **Somerset Trophy** will be awarded to the station in the British Isles with the highest total score, and certificates of merit to the stations placed second and third. In addition, the **Maitland Trophy** will be awarded to the Scottish station with the highest aggregate number of points in this contest combined with the Second 1·8 Mc/s Contest, 1957.

### A.R.R.L. International DX Contest

AMATEURS all over the world are cordially invited to take part in the 24th A.R.R.L. International DX Contest to be held during four weekends in February and March this year. The phone section will take place during the weekends of February 8 to 9 and March 8 to 9, and the telegraphy section during the weekends of February 22 to 23 and March 22 to 23. In all cases, the starting time is 00.01 G.M.T. on the first date and the finishing time 24.00 G.M.T. on the second date.

As in the past, certificate awards are offered to the top single-operator phone and c.w. scorers in each country. A special category recognizes multiple-operator stations in those countries from which three or more valid multiple-operator entries are received.

## Contests Diary

**1958**

| | | |
|---|---|---|
| January 25-26 | - | B.E.R.U. Contest[1] |
| February 8-9 | - | A.R.R.L. DX Contest (Phone)[4] |
| February 8-9 | - | Affiliated Societies' Contest[3] |
| February 22-23 | - | A.R.R.L. DX Contest (C.W.)[4] |
| March 1-2 | - | First 1·8 Mc/s Contest |
| March 2 | - | 144 Mc/s Open Contest |
| March 8-9 | - | A.R.R.L. DX Contest (Phone)[4] |
| March 22-23 | - | A.R.R.L. DX Contest (C.W.)[4] |
| May 4 | - | D/F Qualifying Event (Oxford) |
| May 4 | - | First 144 Mc/s Field Day |
| May 18 | - | 420 Mc/s Open Contest |
| June 1 | - | D/F Qualifying Event (High Wycombe) |
| June 7-8 | - | National Field Day[2] |
| June 21-22 | - | First 70 Mc/s Contest |
| June 22 | - | D/F Qualifying Event (Slade/Rugby) |
| July 6 | - | Second 144 Mc/s Field Day |
| July 14 | - | D/F Qualifying Event |
| September 6-7 | - | European V.H.F. Contest and National V.H.F. Contest (both under Region 1 I.A.R.U. Rules) |
| September 6-7 | - | 420 Mc/s Contest |
| September 6-7 | - | 1,250 Mc/s Tests |
| September 7 | - | D/F National Final |
| September 14 | - | Low Power Field Day |
| September 28 | - | R.A.E.N. Rally |
| October 4-5 | - | Low Power Contest |
| November 8-9 | - | Second 1·8 Mc/s Contest |
| November 15-16 | - | Second 70 Mc/s Contest |
| November 22-23 | - | 21-28 Mc/s Telephony Contest |

[1] See page 27, R.S.G.B. Bulletin, July 1957.
[2] See page 287 R.S.G.B. Bulletin, December 1957.
[3] See page 286 R.S.G.B. Bulletin, December 1957.
[4] See page 338, R.S.G.B. Bulletin, January 1958.

The rules of the contest are the same as for last year. Stations other than Ws and VEs will call " CQ W/VE " and attempt to make contest exchanges with United States and Canadian participants. Overseas stations will transmit 5 or 6 digit numbers, the first digits indicating the signal report and the last three the power input. For example, a station running 100 watts input might send " 569100 " on c.w. or " 56100 " on phone. United States and Canadian amateurs will transmit the RS and RST plus their State or province or some abbreviation of it. For example, a W4 in Virginia might send " 597VA " on c.w. or say " 57 Virginia " on phone.

Entries should be sent to the American Radio Relay League, postmarked not later than April 30, 1958. Contest log forms are available on request from the A.R.R.L. Communications Department, 38 La Salle Road, West Hartford, Connecticut, U.S.A. Full details and all the rules appear in the January 1958 issue of *QST*.

* * *

R.S.G.B. members are reminded that the Braaten and Milne trophies are awarded by the Council to the leading British Isles entrants in the C.W. section of the A.R.R.L. contest. The highest scoring English entrant qualifies for the Braaten Trophy while the highest scoring British Isles entrant, other than English, qualifies for the Milne Trophy. The official list of competitors as published in *QST* is used as the basis for the award of the Braaten and Milne trophies.

### R.S.G.B. Contests and Overseas Members

IN a letter to the Contests Committee, a Polish member suggests that overseas members should be allowed to take part in all R.S.G.B. contests, particularly B.E.R.U., whether or not they are resident in the British Commonwealth and Empire. He puts forward the suggestion that members could be identified by adding /RSGB to their call-signs

The Contests Committee is of the opinion that it would be extremely difficult to confirm membership in this way and that to permit non-Commonwealth members to take part in the B.E.R.U. Contest would destroy the original idea behind it. However, the views of overseas members on the subject of contests generally would be much appreciated.

Members living outside the United Kingdom may of course take part in many contests organized by the Society.

## Silent Keys

**J. W. ELLIOTT (G2AHT)**

With much regret we record the passing, suddenly on December 8, 1957, of Mr. J. W. Elliott (G2AHT) of Bedford, formerly of Bletchley.

Jack, who was only 36 at the time of his death, was well known to many amateurs, especially those who work on Top Band and also for his very fine constructional work.

Sympathies are extended to his wife and young son at this sad time. G3LDG

**R. L. KIRLEW, A.M.I.E.E. (ex-G6KW)**

North London and Midland amateurs who were active before the war will be sorry to learn of the death of Mr. R. L. Kirlew, A.M.I.E.E. (ex-G6KW). He had been in ill-health for some years.

G6KW operated originally from Winchmore Hill in London and latterly from Edgbaston.

**KENNETH MOODY (G3VY)**

With much sadness we record the death, suddenly on December 6, 1957, of Ken Moody (G3VY), aged 49, of Sheffield. A transmitting member of the R.S.G.B. since before the war he had recently rebuilt and rehoused his station preparatory to coming back on the air. A member of the old Sheffield Wireless Club and the present Sheffield Amateur Radio Club he operated mostly on 14 and 28 Mc/s phone.

Ken had been with the Post Office for 32 years, in fact he was working at the Sheffield General Post Office up to a few hours before his untimely death.

He is survived by his wife Edna, who took an interest in her husband's hobby, and by his daughters Shirley and Carol, to all of whom we extend heartfelt condolences in their great loss.

F. H. M.

# Radio Amateur Emergency Network

By E. ARNOLD MATTHEWS (G3FZW)*

A MEETING is to be held at the Winter Garden Cinema, Bridlington, on January 19, 1958, at 2 p.m., to symbolize official co-operation between the S.J.A.B. and R.A.E.N. The meeting will be attended by Admiral Dick, Deputy C-in-C of the St. John Ambulance Brigade; the Mayor of Bridlington; Lt.-Col. A. C. Dunn (G2ACD), Chairman of the R.A.E.N. Committee and other members of R.A.E.N. and S.J.A.B. An instruction has recently been sent to S.J.A.B. County Commissioners, detailing the form of co-operation which can be expected. C.C.s and A.C.s who have already approached their local Branch of S.J.A.B. should find those in charge better informed in future.

### Trunk Routes

Following the setting up of the East Coast Network, another route is being planned to run north and south from Cumberland to Hampshire. Some gaps still remain to be filled, notably in Gloucestershire and west of Weston-super-Mare, but thanks to the excellent co-operation by the County and Area Controllers concerned the remainder of the route is now well populated with " assigned " stations, many of whom are well equipped for emergency operation should mains power fail. Testing has begun along the northern part and results to date are very much as predicted. When well organized and capable of reliable operation it will be possible to extend the coverage by lateral links without much difficulty.

### News from the Groups

**Kent.** Following the appeal by Dartford Group for co-operation the **Maidstone** Group have responded; joint exercises are planned. Kent B.R.C.S. wish to have a link from Hythe to Broadstairs. As membership is thin in the former area, volunteers are asked to contact the C.C. (G3CED) or the Maidstone A.C. (G3MC). **Worcester** held a meeting recently at B.R.C.S. H.Q. when the new C.C. (G3LFF) outlined proposals for the group reorganisation. The meeting was attended by Lt.-Col. J. H. A. Dean, B.R.C.S. County Director, and by G3FZW.

**London.** The C.C. (G3IIR) reports that no calls were made upon R.A.E.N. following the tragic railway disaster at Lewisham, as the B.R.C.S. was not called on to give assistance, although it would have been possible to provide communications reasonably quickly despite the fog. With the enrolment of 14-year-old G3LVP, Ilford Group have R.A.E.N.'s youngest member. **Birmingham.** As a result of some excellent co-operation by the Midland Amateur Radio Society, B.R.C.S. and R.A.E.N., all-band (1·8 to 430 Mc/s) equipment is to be installed in B.R.C.S. H.Q. in that city. The equipment will be available for all R.A.E.N. purposes, as well as being used for M.A.R.S. club station purposes. B.R.C.S. are to provide a room for Morse practice. Amateurs are to instruct B.R.C.S. members in message writing. Individual members of R.A.E.N. and M.A.R.S. have been most generous in assisting with the equipment of this station.

### Net Schedules

**South Woodford.** Fridays, 22.00 G.M.T. 1900 kc/s or nearest clear channel.

**Ipswich.** Mondays, 22.00 G.M.T. 3750 kc/s, or first clear channel h.f.

**Worcester.** First day of each month, 22.00 G.M.T. (R/T); 15th day of each month, 22.00 G.M.T. (c.w.), both nets on Top Band.

**Maidstone.** Band altered. Net now on 1901 kc/s, Sunday mornings, 12.00 to 13.00 G.M.T.

### New Activity

The possibility of forming a group in Buckinghamshire is being explored by G3BDV. Those interested are asked to contact P. J. Cott, " Down Ampney," Stylecroft Road, Chalfont St. Giles. (Telephone: Chalfont St. Giles 430.)

### Personnel

Mr. R. Chapman (G3LFF), 131 Worcester Road, Droitwich Spa, has been appointed County Controller for Worcestershire and Mr. H. O. Sills (G8QZ), " Elmhurst," 29 Briar Gate, Long Eaton, Area Controller for Nottingham.

Mr. G. E. Herringshaw (A.C., Salop) has moved to Condover Hall, Condover, near Shrewsbury.

### Hon. Secretary's Address

As the address of the Hon. Secretary, R.A.E.N. Committee does not appear in the R.S.G.B. *Amateur Radio Call Book* members are asked to note that it is 1 Shortbutts Lane, Lichfield, Staffs. (Telephone: Lichfield 2495.) Items for inclusion in next month's column should be sent to this address by January 18, 1958.

### Around the Trade

*Better Radio Reception* is the title of an Eddystone publication which gives information on securing the best results from communications type receivers. Available from **Stratton & Co.** Ltd., West Heath, Birmingham 31, price 1/-.



* *1 Shortbutts Lane, Lichfield, Staffs.*

# Letters to the Editor . . .

Neither the Editor nor the Council of the Radio Society of Great Britain can accept responsibility for views expressed by correspondents.

## Reciprocity

DEAR SIR,—A great deal has been talked, and a certain amount published in the various Amateur Radio journals, about the question of Government Licensing Authorities granting amateur transmitting permits to visiting or resident foreigners who are bona fide amateurs holding transmitting licences in their country of origin. In particular, I should like to draw your attention to an interesting editorial contribution by W2NSD to this question published in the January 1957 issue of *CQ Magazine*.

Having lived in Venezuela (where it is impossible for any foreigner to obtain an Amateur Radio licence) for over two years now, I feel that I am in a position to express the point of view of a keen radio amateur obliged to forego the pleasure of our great hobby. However, I am more fortunate than many fellow amateurs in this position as my job obliges me to travel frequently out of Venezuela to all the countries of Latin America from Peru in the south to Mexico in the north and to all the islands of the Caribbean. Being a British subject, I have had no difficulty in obtaining a licence in each Island of the British West Indies which I visit from time to time.

I should like to put on record the fact that, without exception, I have met with the greatest courtesy from the Licensing Authorities in each of the British West Indian Islands where I have applied for a licence. This, in every case, has been granted to me within a day or two of my arriving in the Island. I mention this because, unfortunately, I have heard from several licensed amateurs in the British West Indies that, when visiting the U.K. for leave, our own G.P.O. has not accorded them the same facilities. In certain cases, where the applicant has been in England during a period which did not happen to coincide with the twice-yearly G.P.O. examination dates, the G.P.O. have been quite inflexible and have refused to allow an applicant to sit for an examination at a convenient time nor, apparently, are they prepared to issue a licence to visiting Britishers from the West Indies on the strength of the licence which the applicant already holds. In one case, the Assistant Chief Government Electrical Engineer of one of the British West Indian Islands, who happens to be an enthusiastic amateur holding a current licence in his territory, was refused exemption from the G.P.O. examination and although willing to sit for the prescribed examination was unable to do so because he had to leave the U.K. before the next examination was due to be held.

There are a certain number of enlightened countries who *do* grant licences to foreigners. Amongst these is the Netherlands Antilles and I am happy to say that I have recently been granted the first of a new series to be issued to non-resident foreigners by the Netherlands Antilles Government. This licence may be regarded as a " vacation " licence as it permits the licensee to establish an Amateur Radio station in any of the Netherlands Antilles possessions and to operate it for a period of 14 days in any one year. A special call-sign series has been allocated for these licences, mine being PJ5CA. However, in addition, one must hold a Netherlands Antilles Amateur Operators' Licence (granted to foreigners on passing the prescribed tests and producing evidence, through their country's Consul, that they possess a valid amateur licence in their own country), which permits the holder to operate from any duly licensed Netherlands Antilles Amateur Radio station (using that station's call-sign) as an official second operator. This licence is valid for a lifetime, unless revoked for any special reason. This, in itself, is a significant privilege and one that will surely be much appreciated by foreign amateurs visiting the Netherlands Antilles. If the above privileges can be granted by the Netherlands Antilles, and certain other countries, it is hard to see why it should be difficult for any other country to grant similar facilities.

The suggestion, sometimes heard, that Governments may fear that duly licensed visiting or resident foreigners may use the privilege in order to send subversive messages or to engage in espionage is clearly unrealistic. It is obvious that a person intending to use a radio station for nefarious purposes would certainly not bother about the formality of applying for a licence! Furthermore, in these modern times the Governments of virtually all countries have had to amend their original laws prohibiting the operation of radio transmitting equipment by foreigners in their territory in order to permit mercantile shipping and civil aircraft to maintain radio communication when travelling in foreign territory. As W2NSD points out in the Editorial referred to above, it is only required to add a simple clause to the licensing laws of the countries concerned in order to permit the operation of Amateur Radio stations by foreign nationals. Since, in licensing a foreigner visiting or residing in their territory, the Government concerned would have full knowledge of the location of the station so licensed, it is hard to see what valid objection there can be.

Some time ago, it was announced in the R.S.G.B. BULLETIN that the G.P.O. had made a statement to the effect that the British Government was now prepared to grant an Amateur Transmitting Licence to a foreign applicant providing his country made the first move and granted a licence to a British national. This statement, although skillfully throwing the onus of initiating reciprocity upon the " other side," was at least encouraging. In view of the fact that it is known for certain that British nationals hold or have recently held licences in Netherlands Antilles, Ecuador, Chile, Peru, Western Germany, Holland, Yugoslavia and Monaco *, might one ask whether the Society will take up again the question of reciprocity with the G.P.O. and remind them of their statement referred to above?

Yours faithfully,

R. L. VARNEY (G5RV, VP4RV, VP5RV, VP6RV, VP7RV, PJ5CA).

Caracas, Venezuela.

** It is understood that others are willing to do so if the G.P.O. negotiate reciprocal facilities—Editor.*

## Council Elections: Some Suggestions

DEAR SIR,—Learning at the Society's A.G.M. last month of the very poor poll in the latest Council elections, members of the Welwyn Garden City Group have asked that the following suggestions should be published in your Correspondence column as a basis for discussion:

The size of the problem can be gauged from the fact that less than 1,200 home Corporate members out of more than 7,000 bothered to vote.

One reason for this disparity, we feel, is that the membership at large know little or nothing about the candidates whose names appear on the voting paper. The BULLETIN should therefore give (*a*) rather more information about them than is contained in the potted biographies on the voting papers; (*b*) a portrait of each; (*c*) an election manifesto from each.

On the last point members will be well aware of the big snag that by the time a man gets on the Council things are not quite so simple as they seemed *before* he got his seat, nor can he individually commit a future Council to a particular course of action. Even so, no responsible candidate is going to make wildly ridiculous claims in advance of his election, and we are sure his commonsense could be relied on to ensure that any " election manifesto " was couched in reasonable terms. After all, every candidate must have *some* idea of what he wants to do if he gets on to the governing body, and should be allowed the chance to say so. We might add that any attempt at " window dressing " or insincerity on the part of a candidate would be easily detectable.

Such election material should be stitched into the body of the BULLETIN (with the exception of course of the ballot paper and envelope). Issued loose, it looks like so much waste paper, and seems to be treated as such judging from the meagre 1,200 who use it.

Preparation of these amplified candidate details may delay the November BULLETIN where they would normally appear. If so, publish them in the October issue. Then in the November issue furnish a Business Reply envelope along with the ballot paper, as an additional incentive. Above all, let the presentation be much more dramatic than it is now so that an interest to vote is created.

And finally, till the ground well in advance of the elections, perhaps beginning as early as August.

Yours faithfully,

GERALD GIBBS (G3AAZ).

Town Representative, Welwyn Garden City Group

Welwyn, Herts.

## Radio Amateurs Defined

DEAR SIR,—The correspondence on the subject of "Amateur" Radio has certainly been most entertaining, but it seems to have overlooked one important aspect.

In almost every sport, hobby or pastime, an amateur is one who does not earn his living or receive payment for activities connected with that pastime. It does not normally refer to the type of equipment which he uses. When Lew Hoad became professional, it was not that he began using commercially built tennis racquets. He had always used these, even when enjoying full amateur status: when he became professional it was that he was paid for playing tennis. It seems to me that this is the true criterion of an "amateur."

The greengrocer who buys a professionally built transmitter, a professionally built receiver, and possibly a professionally built aerial is surely much more of an amateur than a man employed by a firm of radio manufacturers who is using a transmitter he built himself, possibly a prototype of the commercial one bought by the greengrocer.

If any distinction is to be made between different types of licensed radio amateurs, then surely the distinction should be made between those for whom radio is purely a hobby unconnected with their livelihood and those whose livelihood depends in some way on radio, or who are paid for some radio activity.

I would add that I see no reason to bother about any distinction between different forms of Amateur Radio, and I do not in the least grudge the professionals their title of amateur, but I feel that those who are laying such stress on the type of equipment are barking up the wrong tree.

By the way, though I use a commercially built receiver, I am not using a commercially built transmitter.

Yours faithfully,

London, N.W.3. E. M. WAGNER (G3BID).

## Commercial Equipment Under Fire

DEAR SIR,—Having read with considerable interest the letter submitted by G5UH I would take this opportunity of joining forces with him. The experiences which he has had with commercial transmitters are exactly the same as those which have happened here. In my case a transmitter was sent back on two occasions (and from the Channel Islands this is a major operation), but the note was still very bad (even on 7 Mc/s), when retested at this station. When a trunk call was made to the firm concerned, the remarks of the official were (in connexion with the very bad note) " what do you expect for such a *low* price? "

I have recently acquired a different commercial transmitter which, even though TVI proof, suffers from v.f.o. drift and a steadily deteriorating note on the h.f. bands, *but* in this case the company are genuinely concerned.

Would it not be possible for some form of guarantee system to apply to selected advertisements (and I do not include surplus equipment stores)? Surely it would be in the interest of reputable firms. With this, sir, may I make a plea for more honesty in advertising? There are still firms which mislead the public by the way in which their advertisements are worded.

Yours faithfully,

ERNEST BANKS (GC2CNC).

Jersey, Channel Islands.

## European Band Plan

DEAR SIR,—I have just seen " The European Band Plan " for Region I, in the July 1957 issue of the R.S.G.B. BULLETIN. This brings to mind the fact that since the U.S. Novices, at A.R.R.L.'s request, have tended to concentrate their operation in the 21,100–21,150 kc/s segment of their assignment, European 'phone stations have more and more moved lower in the band, until at present, during the hours that European signals come through in this area, it is well nigh impossible to carry on a c.w. contact in the above-mentioned segment.

In as much as the Novices have co-operated in minimizing c.w. interference to foreign 'phone operation between 21,150 kc/s and 21,250 kc/s, in their contacts with U.S. 'phone stations, it seems that foreign 'phone operators should reciprocate and operate above 21,150 kc/s as per the Region I agreement. This would, after all, just be a good application of Part One of The Amateur's Code.

Sincerely,

San Juan, Puerto Rico. E. W. MAYER (KP4KD).

## The W3FIU Single Sideband Exciter Design Criticized

DEAR SIR,—The article by Captain F. C. B. Jordan (W3FIU) on a single sideband exciter published in the November 1957 BULLETIN contains a number of questionable statements, which are commented upon below.

Fig. 3 shows a filter characteristic which is dependent upon the crystals XL, XH and the adjustment of the condensers C4, C5. Later in the text it is inferred that this characteristic can be reproduced with the aid of a signal generator and the circuit shown in Fig. 6. It is my opinion that if this characteristic is based on fact considerably more equipment was used in its adjustment than the author suggests in the text.

No warning is given if crystals in the range 400 to 500 kc/s are used (many slug tuned transformers will not cover the range). How does a slug-tuned transformer allow better balance of the circuit?

The author's assessment of stability is unusual if he considers a receiver to be sufficiently accurate to determine the suitability of an oscillator to work into a crystal filter. With the aid of the circuit shown in Fig. 6 how does one adjust the carrier frequency to a point corresponding to about 25db down the side slope of the filter characteristic?

Contrary to the author's statement, too much audio gain *will* degrade the signal, as all intermodulation products caused by over-modulation, which fall within the filter band-width, will appear in the transmitter output.

To sub-title this article as " A Straightforward Basic Design " shows a complete lack of appreciation of the problems involved by whoever passed it for publication. It would be hard luck for any beginner to base his first excursion into s.s.b. on this script.

Yours faithfully,

N. SHIRES (G3BTM).

North Weald, Epping, Essex.

## An Empire DX Certificate Holder Says " Thanks "

DEAR SIR,—I was very pleased to receive my Empire DX Certificate, a beautiful piece of work, and I am indeed proud of it (and the badge too). I have put in many hours of endeavour to achieve it, with my 100 watts and folded dipoles, competing much of the time against high power stations south of the (VE) border, but I still feel that I can only claim one half the credit at most. The other half belongs to all those amateurs who have sent me their QSLs and co-operated in the QSOs, and I want to thank them one and all.

I have sent cards for all contacts, but should be glad to send a duplicate to any station that has not received one and still would like to have one.

Thanks again fellows and CUL.

Yours sincerely,

Toronto, Canada. FRED DEVENISH (VE3ADV).

(For the record, Fred Devenish lived in Wood Green, London until he emigrated to Canada. Many old timers will remember working him as G5UP in the late '20s and early '30s.—EDITOR).

## . . . and so does an R.R.

DEAR SIR,—I wish to thank most sincerely all those members in Region 4 who voted in my favour in the ballot conducted last November for the election of a Region 4 Representative. I also deeply appreciate the many letters I received from well wishers.

The ballot was, I believe, a record one for a Regional Representative election.

To all members in the Region I send greetings and best wishes for 1958.

Yours sincerely,

Huthwaite, E. S. G. K. VANCE, M.B. (G8SA)
Sutton-in-Ashfield, Region 4 Representative
Notts.

## Can You Help?

● J. M. Lyons (GM3GUJ), 9 Franklin Road, Saltcoats, Ayrshire, who wishes to obtain information on the use of the transmitter type 440B on 70 and 144 Mc/s?

# Regional and Club News

**Bristol**—At the December meeting about 60 members heard a talk on " Receiver Alignment " given by Vic Newport (G3CHW). On January 17, A. F. Collins, F.R.A.S., F.B.I.S., will be speaking about " Radio Astronomy and the I.G.Y." Members are invited to bring their ladies to the film show on February 7 which is being arranged by G3CHW. The following members have been elected to the 1958 Committee: C. N. Chapman (G2HDR), W. J. Dear (B.R.S. 19985), H. J. Gratton (G6GN), E. C. Halliday (G3JMY), G. C. Manning (G2IK), R. T. Poeton (G3CTN), R. M. Sharp (G3GON) and D. Stephenson (G3KUL). *Hon. Auditor:* R. E. Griffin (G5UH); *Hon. Secretary/Treasurer:* D. F. Davies (G3RQ), 51 Theresa Avenue, Bishopston, Bristol 7.

**Brighton and District Radio Club**—Meetings are held every Tuesday evening at 8 p.m. in the Club Room, The Eagle Inn, Gloucester Road, Brighton 1. Visitors and prospective members are always welcome. *Hon. Secretary:* R. Purdy, 37 Bond Street, Brighton 1.

**British Two-Call Club**—Membership, which is restricted to those holding at least two British calls, one of which must be an overseas one, continues to increase. Further details may be obtained from the *Hon. Secretary:* G. V. Haylock (G2DHV), 63 Lewisham Hill, London, S.E.13.

**Bury Radio Society**—Meetings are held at the George Hotel, Kay Gardens, Bury, at 8 p.m. on the second Tuesday in each month, the next being on February 11 when J. E. Hodgkins (G3EJF) will speak about " Elements of Radio Astronomy." A month later, on March 11, " TVI Prevention " will be the subject of G. Openshaw's (G2BTO) talk. *Hon. Secretary:* L. Robinson, 56 Avondale Avenue, Bury, Lancs.

**Cornish Radio & Television Club**—At the December meeting, well attended by members from all over the county, the Panda Radio Co. Ltd. demonstrated the Explorer and Cub transmitters and associated equipment. This was followed by the R.S.G.B. recorded lecture " Transmitter Design and TVI " by G3BTM. *Hon. Secretary:* J. Brown (G3LPB), Waterworks, Penryn, Cornwall.

**Derby & District Amateur Radio Society**—Meetings will be held in Room 4, 119 Green Lane, Derby, at 7.30 p.m. on January 15 (" Elementary Chemical Fundamentals relative to the behaviour of Transistors " by F. Clay (G3IBL), January 22, January 29 (" Frequency Measurement " by F. C. Ward (G2CVV) and F. Cox (G3GRM)) and February 12. The A.G.M. and an exhibition of home constructed equipment will be held on February 5. *Hon. Secretary:* F. C. Ward (G2CVV), 5 Uplands Avenue, Littleover, Derby.

**Harlow & District Radio Society**—The following were elected at the A.G.M.: *President:* T. A. St. Johnston (G6UT); *Chairman:* G. E. Read (G3ERN); *Hon. Treasurer:* H. I. Wright (G3IVA); *Hon. Secretary:* A. T. White, The Chestnuts, Fyfield, Ongar, Essex. The Annual Dinner has been arranged for January 28 at the Harlequin Restaurant, The Stow, Harlow. Those wishing to attend may obtain tickets price 12/6 each from the Hon. Secretary before January 21.

**Liverpool & District Radio Society**—Tickets, price 15/- each, for the society's Hamfest to be held at the Bradford Hotel, Tithebarn Street, Liverpool, on January 26, may be obtained from the *Hon. Secretary:* D. Wardle (G3EWZ), 16 Mendip Road, Liverpool 15.

**Midland Amateur Radio Society**—Commencing January 16 at 7.30 p.m., H. B. Bligh (G3HBB) will conduct Morse classes every Thursday evening at the British Red Cross Society, 16 Highfield Road, Edgbaston, Birmingham 15. The North Midland Mobile Rally is to take place at Trentham Gardens between Stoke and Stafford on April 21. Meetings are held on the third Tuesday in each month at The Midland Institute, commencing at 7.30 p.m.

**Northampton Short Wave Radio Club**—A film show is planned for January 31 whilst an R.S.G.B. Recorded Lecture on " Aerials " by F. J. Charman (G6CJ) will be given on February 7. Details of time and venue of both these meetings may be obtained from the *Hon. Secretary:* S. F. Berridge (G3ITW), 20 Ethel Street, Northampton.

**Nottingham & District Amateur Radio Society**—Meetings are held at the Albert Hall Institute, Room 2, Derby Road, Nottingham, on the third Friday in each month, the next being on January 17 commencing at 7.30 p.m. *Hon. Secretary:* H. H. Pickering (G3DUL), 43 Plains Road, Mapperley, Nottingham.

**Ravensbourne Amateur Radio Club**—Radio theory and Morse classes are held at Durham Hill School, Downham, at 8 p.m. on Tuesdays and club meetings at the same address on Wednesdays. A BC348 has been added to the equipment of the club station G3HEV. *Hon. Secretary:* J. Wilshaw, 4 Station Road, Bromley, Kent.

**Reading Amateur Radio Club**—G8KW will demonstrate and discuss Geloso equipment and KW Electronics' Vanguard kits at the meeting in Palmer Hall, West Street, Reading, at 7 p.m. on January 25. There will be a talk on selsyns and desyns at the meeting on February 22 which is to be held at the club's new Headquarters in Broad Street. *Hon. Secretary:* A. B. Hutchence (G3IKA), 12 Chiltern Bank, Peppard, Oxon.

**Slade Radio Society**—Meetings will be held at the Church House, High Street, Erdington, on January 17 (" Introducing the Society," in which the various activities will be explained) and January 31 (Annual Junk Sale). *Hon. Secretary:* C. N. Smart, 110 Woolmore Road, Erdington, Birmingham 23.

**South Shields & District Amateur Radio Club**—Twelve members visited the Newcastle Sound Studios of the B.B.C. on December 7 and spent three hours going through the studios, control and recording rooms. At the Annual Christmas Dinner on December 18 a suitably inscribed pewter tankard was presented to W. Dennell (G3ATA) who has retired from the hon. secretaryship after 11 years. Prizes were also presented to G8JO and G3LKZ, winner and runner-up respectively, of the club's five band contest. There is no meeting in January but there will be a visit to the Rediffusion Sound Studios, Blackett Street, Newcastle, on January 29 at 7.30 p.m. *Hon. Secretary:* K. Sketheway (B.R.S. 20185), 51 Baret Road, Walkergate, Newcastle-on-Tyne 6.

**Torbay Amateur Radio Society**—The Annual Dinner and Social will take place on February 22 starting at 7.30 p.m. and tickets, price 10/6 each, can be obtained from the Social Committee Chairman John Olway, 9 Hoyles Road, Paignton and the *Hon. Secretary:* G. Western (G3LFL), 118 Salisbury Avenue, Barton, Torquay. Arthur Hook (G3CMT) has been elected Experimental Manager.

**Worthing & District Amateur Radio Club**—On January 23 there will be a film show at Beach House and on February 10 a talk on " Amateur TV Developments " by G3KFH/T at the Adult Education Centre. The fortnightly Morse classes are well attended. The Annual Dinner is being arranged for February 22. Details may be obtained from the *Hon. Secretary:* J. R. Tootill, 113 Kings Road, Lancing.

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## Representation

THE following is an addition to the list of County Representatives published in the December 1956 issue:

REGION 1—WESTMORLAND
GUY MOSER (G3HMR), 31 Castle Road, Kendal.

The following are additions to the list of Town Representatives published in the December 1957 issue:

REGION 2—YORKSHIRE EAST
Scarborough
P. B. BRISCOMBE (G8KU), " Roseacre," Irton, near Scarborough.

REGION 7—LONDON EAST
Chingford
E. HALE (G3GFS), 87 Underwood Road, E.4.
East Ham
W. H. PEEK (G2ZZ), 180 Lathom Road, E.6.
Harlow
A. T. WHITE (B.R.S. 21706), The Chestnuts, Fyfield, Ongar, Essex.

LONDON NORTH
Welwyn Garden City
G. GIBBS (G3AAZ), "Chesilbank", Digswell, Welwyn, Herts.

LONDON SOUTH-WEST
Reigate & Redhill
P. D. LUCAS (G3JDN), 2 Hazel Road, Reigate.

LONDON SOUTH
Coulsdon & District*
R. POUNDER (G3DVQ), 44 Hartley Hill, Purley, Surrey.

* Mr. R. M. Herbert (G2KU) withdrew his nomination for the office of Area Representative for Coulsdon & District.

## Affiliated Societies' Representatives—List No. 2

IN addition to the names listed last month the following Corporate Members of the R.S.G.B. have been nominated and elected as Affiliated Societies' Representatives for 1958:

CORNISH RADIO & TELEVISION CLUB: J. Brown (G3LPB/T), The Waterworks, Penryn, Cornwall.

MIDLAND AMATEUR RADIO SOCIETY: M. A. Brett (G3HBE), 55 Chestnut Drive, Erdington, Birmingham 24, Warwicks.

# Forthcoming Events

### REGION 1

**Blackpool (B. & F.A.R.S.).**—Wednesdays, Gadsby Street Hall, off Nelson Road.
**Bury (B.R.S.).**—February 11, 8 p.m., George Hotel, Kay Gardens.
**Chester (C. &. D.A.R.S.).**—Tuesdays, 7.45 p.m., Tarran Hut, Y.M.C.A.
**Crosby.**—Tuesday, 8 p.m., over Gordons Sweetshop, St. John's Road, Waterloo.
**Isle of Man (I.o.M.A.R.S.).**—January 15, February 5, 19, 7.30 p.m., Manor Guest House, 48 Victoria Road, Douglas.
**Lancaster (L. & D.A.R.S.).**—February 5, 7.30 p.m., George Hotel, Torrisholme.
**Liverpool (L. & D.A.R.S.).**—Tuesdays, 8 p.m. Room "A", Wavertree Community Centre, Penny Lane, Liverpool, 18.
**Manchester (M. & D.R.S.).**—February 3, 7.30 p.m., Brunswick Hotel, Piccadilly.
**Manchester (S.M.R.C.).**—Fridays, 7.45 p.m., Ladybarn House, Mauldeth Road, Manchester 20.
**Preston (P.A.R.S.).**—Wednesdays, 7.45 p.m., 48 High Street, off Lancaster Road.
**Southport.**—Thursdays 8 p.m., Sea Cadets' Camp, Esplanade.
**Stockport (S.R.S.).**—January 15, 29, February 12, 26, 8 p.m., Blossoms Hotel, Buxton Road.
**Warrington (W. & D.R.S.).**—January 16, February 6, 20, 7.30 p.m., Royal Oak Hotel, Bridge Street.
**Wirral (W.A.R.S.).**—January 15, February 5, 19, 7.45 p.m., 4 Hamilton Square, Birkenhead.

### REGION 2

**Barnsley (B. & D.A.R.C.).**—January 17, 31, 7.30 p.m., King George Hotel, Peel Street.
**Bradford.**—January 21, 7.30 p.m., 66 Little Horton Lane.
**Doncaster.**—February 4, 7.30 p.m., Lord Nelson Hotel, Cleveland Street.
**Hull.**—Second and last Tuesdays, 7.30 p.m., "Royal Oak" (Tony's).
**Leeds.**—Wednesdays, 7.30 p.m., 4 Woodhouse Square.
**Pontefract.**—January 16, 30, 8 p.m., Queen's Hotel, Tanshelf.
**Rotherham.**—Wednesdays, 7 p.m., "Cutler's Arms," Westgate.
**Scarborough (S.A.R.S.).**—Thursdays, 7.30 p.m., Chapman's Yard, North Street, Scarborough.
**Sheffield (S.A.R.C.).**—January 16, 8 p.m., Co-op Festival Room. (Annual Dinner.)
**Slaithwaite.**—Fridays, 7.30 p.m., 3 Dartmouth Street.
**South Shields (S.S. & D.A.R.C.).**—January 29, 7.30 p.m., Visit to Rediffusion, Blackett Street, Newcastle.
**Spen Valley.**—January 15, 29, 7.30 p.m., Temperance Hall, Cleckheaton.
**York.**—Thursdays, 7.30 p.m., Club Rooms, Y.A.R.S., Fetter Lane.

### REGION 3

**Birmingham (M.A.R.S.).**—January 21, 7 p.m., Midland Institute, Paradise Street. **(Slade).**—January 24, 7.45 p.m., The Church House, High Street, Erdington, Birmingham, 23. **(South Birmingham).**—February 7, 7.30 p.m., Committee Room No. 4, Cadbury Bros., Bournville. **(Bournville).**—Tuesdays, 7.30 p.m., Committee Room No. 4, Cadbury Bros., Bournville.
**Coventry.**—January 17, 7.30 p.m., Vine Street School. **(C.A.R.S.).**—January 27, February 10, 7.30 p.m., H.Q., 9 Queens Road. **(Courtaulds).**—Wednesdays, Courtaulds Ltd., Foleshill Road.
**Solihull.**—January 27, February 10, 7.30 p.m.
**Stourbridge & District.**—January 24, 8 p.m., White Horse, Amblecote, February 4, 8 p.m., Brotherhood Hall, Scotts Road. ("Simple Circuitry" by Frank Bills, G3CLG.)
**Wolverhampton & District.**—Mondays, 8 p.m., Nechells Cottage, Stockwell Road, Tettenhall.

### REGION 4

**Alvaston (D.S.W.E.C.).**—Tuesdays, Thursdays, 7.30 p.m., Sundays, 10.30 a.m., Nunsfield House, Boulton Lane, Alvaston, Derby.
**Chesterfield.**—Tuesdays, 7.30 p.m., Bradbury Hall, Chatsworth Road.
**Derby (D. & D.A.R.S.).**—Wednesdays, 7.30 p.m., Wednesday, February 5, Annual General Meeting, Room 4, 119 Green Lane, Derby.
**Ilkeston (I. & D.A.R.S.).**—Thursdays, 7 p.m., Thursday, February 6, Annual General Meeting, Room 5, Ilkeston College of Further Education, Field Road.
**Leicester (L.R.S.).**—Mondays, 7.30 p.m., Old Hall Farm, Braunstone Lane, Leicester.
**Lincoln (L.S.W.C.).**—February 5, 7.30 p.m., Technical College, Cathedral Street.
**Newark (N. & D.A.R.S.).**—February 2, 7 p.m., North Gate House, North Gate, Newark.
**Northampton (N.S.W.C.).**—Fridays, 7 p.m., Clubroom, Allen's Pram Works, 8 Duke Street, Northampton.
**Nottingham.**—January 17, February 21, 7.30 p.m., Room No. 2, Albert Hall Institute, Derby Road, Nottingham.
**Retford & Worksop.**—January 20, 7.45 p.m., King Edward VII Hotel, Ryton Street, Worksop.
**Scunthorpe (S.A.R.S.).**—January 30, February 11, 7.30 p.m., Talbot Hotel, Earl Street.

### REGION 6

**Cheltenham.**—February 6, 8 p.m., Great Western Hotel, Clarence Street.
**Cheltenham (C.A.R.S.).**—Wednesdays, 8 p.m., Club Room, St. Mark's Community Centre, Brooklyn Road.
**Gloucester (G.R.C.).**—Thursdays, 7.30 p.m., The Cedars, 83 Hucclecote Road.
**High Wycombe.**—January 22, 7.30 p.m., G3DQC, 218 Totteridge Hill, High Wycombe.
**Newbury (N. & D.A.R.S.).**—January 24, 7.30 p.m., The Canteen, Elliotts of Newbury, West Street.
**Oxford (O. & D.A.R.S.).**—January 22, February 12, 7.30 p.m., Club Room, Cherwell Hotel, Water Eaton Road, Oxford.
**Portsmouth.**—Tuesdays, 7.30 p.m., 183 Albert Road, Southsea (over Scarrs, Drapers).
**Southampton.**—February 1, 7 p.m., 1 Prospect Place, Above Bar, Southampton.
**Stroud.**—Wednesdays, 7.30 p.m., Subscription Rooms.

### REGION 7

**London.**—January 24, 6.30 p.m., I.E.E., Victoria Embankment (Presidential Address by L. E. Newnham, G6NZ, followed by "The Human Machine as a Radio Operator," by F. J. H. Charman, G6CJ); February 14, 6.30 p.m., I.E.E. ("The TVI Problem," by G. A. Bird, G4ZU).
**London (L.M.L.C.).**—January 24, February 21, 12.30 p.m., Bedford Corner Hotel, Bayley Street, Tottenham Court Road.
**London (U.H.F. Group).**—Friday, February 7, 7 p.m., Bedford Corner Hotel (Annual Dinner).
**Acton, Brentford and Chiswick.**—January 21 (A.G.M.), February 18, 7.30 p.m., A.E.U. Rooms, 66 High Road, Chiswick, W.4.
**Bexleyheath (N.K.R.S.).**—Second and Fourth Thursday, 7.30 p.m., Congregational Hall, Chapel Road, Blexheyeath.
**Chingford.**—For date and venue phone Wanstead 2321 or Silverthorne 1740.
**Croydon (S.R.C.C.).**—February 11, 7.30 p.m., "Blacksmiths Arms," 1, South End, Croydon.
**Ealing.**—Sundays, 11 a.m., ABC Restaurant, Ealing Broadway, W.5.
**East London.**—January 19, 2.30 p.m., Ilford Town Hall. ("World Wide Press Radio Communications," G3AAE).
**East Molesey (T.V.A.R.T.S.).**—February 5, Carnarvon Castle Hotel, Hampton Court.
**Harlow & District.**—Tuesdays, 7.30 p.m., rear of G. E. Read, G3ERN, 6, High Street, Harlow, Essex.
**Holloway (G.R.S.).**—Mondays and Wednesdays (RAE & Morse), Fridays, 7 p.m., January 31, 7 p.m. (Mullard Film "Ultrasonics in Industry"), Montem (ex-Isledon) School, Upper Hornsey Road, N.7.
**Ilford.**—Thursdays, 8 p.m., G2BRH, 579 High Road, Ilford.
**Norwood & South London.**—January 18, February 15, Windermere House, Westow Street, Crystal Palace.
**Slough.**—February 4, QTH from G2HOX, 13 Quaves Road, or G3GYD, 5, Parklands Avenue, Slough.
**Welwyn Garden City.**—February 13, 8 p.m., I.C.I. Recreation Club, Blackfan Road, Welwyn Garden City, ("The Antenna Match", Frank Hicks-Arnold, G6MB.)

### REGION 8

**Worthing (W. & D.A.R.C.).**—January 23, February 6, 27, 8 p.m., Beach House; February 10, March 10, 8 p.m. Adult Education Centre Union Place.

### REGION 9

**Bath.**—February 10, 7.30 p.m., 12 James Street West ("Capacitors," G3FBA); March 8 (Hamfest).
**Bristol.**—January 17, 7.15 p.m. (Radio Astronomy and the I.G.Y., A. F. Collins), Carwardine's Restaurant, Baldwin Street.
**Exeter.**—Second Thursday in each month, 7.30 p.m., Heavitree Social Centre, Fore Street, Heavitree, Exeter.
**Falmouth.**—First Wednesday in each month, 7.30 p.m., Y.M.C.A., Bar Road, Falmouth.
**North Devon (Bideford).**—February 6, 7.30 p.m., G3BO, Rosebank, Westcombe, Bideford.
**Plymouth.**—Thursdays, 7.30 p.m., Virginia House Settlement, Barbican.
**Torquay.**—Second Saturday in each month, 7.30 p.m., Y.M.C.A., Castle Road.
**Weston-super-Mare.**—Second Wednesday in each month, 7.30 p.m., Albert Hotel, Sea Front.
**Yeovil.**—Wednesdays, 7.30 p.m., Grove House, Preston, Yeovil.

### REGION 10

**Cardiff.**—February 10, 7.30 p.m., "The British Volunteer", The Hayes, Cardiff.
**Pontypool.**—Tuesdays, 7 p.m., The Educational Settlement, Rockhill Road.
**Port Talbot.**—January 21, February 4, 7 p.m., GW5VX, 14 Holland Street, Port Talbot.

### REGION 14

**Falkirk and District.**—January 17, 7.30 p.m., Temperance Café, Falkirk.
**Glasgow.**—January 31, 7.15 p.m., Christian Institute, 70 Bothwell Street, Glasgow C.2.

### REGION 15

**Belfast.**—January 27, 7.30 p.m., 73 Lisburn Road.

### REGION 16

**Chelmsford (C.A.R.C.).**—February 4, 7.30 p.m., Marconi College, Arbour Lane ("DX Operating", H. Lowe, G2HPF).
**Norwich.**—Fridays, 7.30 p.m., "The Golden Lion", St. John's Maddermarket.

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## Wedding Bells

Old Timers, and South London members in particular, will be pleased to learn of the wedding of Les Sanderson, G8TN and Miss Lottie Payton, sister of Jack Payton, G2JB (now of Waltham, near Grimsby) on Sunday, December 8 at Raynes Park, London, S.W. Among those present were G2GZ and G2KX.

The couple will reside at 234 West Barnes Lane, Motspur Park, Surrey.

## Forthcoming Events

As from the February 1958 issue of the R.S.G.B. BULLETIN the *Forthcoming Events* column will be restricted to the dates and times of specific meetings, demonstrations and special functions. Details of the new arrangements are given on page 336.

Local representatives and club secretaries are requested to send information for inclusion in *Forthcoming Events* to their appropriate Regional Representatives, whose addresses appear on page 332, to arrive not later than the 18th of the month preceding publication.

# New Members

## Corporate Members, Home (Licensed)

G2FPI †H. Willets, 16 Lever Edge Lane, Great Lever, Bolton.
G3CTM †T. H. C. Martin, 42 Pound Road, Bursledon, Southampton.
G3EEN †C. G. Clark, Rainbow Radio Mfg. Co. Ltd., Mincing Lane, Blackburn.
G3FYW †D. H. Lester, 115 Osborne Road, Forest Gate, London, E.7.
G3HQT P. J. Ball, 6 Tintern Street, Clapham, London, S.W.4.
G3HZL †D. F. J. Walmsley, Flat 3, 270 Twickenham Road, Isleworth, Middx.
G3IFA †F. Allsopp, 43 Canal Street, Derby.
G3KKU H. Roberts, 67 Parthenon Drive, Liverpool 11.
G3LFY K. J. Salter, 22 Warstones Crescent, Penn, Wolverhampton.
G3LLK J. Gale, Wild Hedges, Crookham Common, Newbury, Berks.
G3LIO J. A. L. Gibbs, 30 King John's Road, Kineton, Warwicks.
G3LNG G. H. Robbins, 35 Sunlight Street, Anfield, Liverpool 6.
G3LPK F. F. Bryan, 11 Hawstead Road, Catford, London, S.E.6.
G3LVK N. A. Lambert, 22 Sunderland Terrace, Bayswater, London, W.2.
G3LZT G. H. Hall, 183 Aldersley Road, Tettenhall, Wolverhampton.
G3MAB J. P. Stott, Bank House, Baildon Green, Shipley, Yorks.
G3MBJ M. Acton, 55 Elizabeth Road, New Oscott, Sutton Coldfield, Warwicks.
G3MCP P. G. Goadby, 535 Welford Road, Leicester.
G3MDW A. Robinson, Candy Cabin, 7 Upper Brockholes, Ogden, Halifax.
G3MFB J. G. Whitney, 104 Grand Drive, Raynes Park, London, S.W.20.
G6PO †H. Hillgrove, 125 Ashington Grove, Whitley, Coventry.
GI3MDA Sgt. D. W. Beeden, Sgts.' Mess, R.A.F., Ballykelly, Limavady, Co. Londonderry.
GM3LYY J. T. A. Johnston, 131 Glencairn Street, Stevenston, Ayrshire.
GM3MDX †J. Lawson, Shandwick, Bentinck Crescent, Troon, Ayrshire.
GM3YS †G. Troy, 64 Broomlands Street, Paisley, Renfrewshire.
GW3LCQ M. Williams, 12 Penrhos Avenue West, Llandudno Junction, Caerns.

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G3COR P. F. D. Cornish, 56 Chelmsford Road, Southgate, London, N.14.
G3DXO †R. J. Lewis, 67 Rothmans Avenue, Great Baddow, Chelmsford, Essex.
G3FDC †H. Makin, 46 Upper Highfield, Mount Tabor, Halifax, Yorks.
G3FXI †P. H. Cardwell, 22 Linaker Street, Southport, Lancs.
G3GNO †P. J. Boonham, Hitchin Road, Upper Caldecote, Biggleswade, Beds.
G3HYO †K. Harris, 18a Montagu Street, Kettering, Northants.
G3IAC †T. G. Charlton, 17 Thelwall Lane, Latchford, Warrington, Lancs.
G3IKN V. A. Stagg, 59 A.M.Q., R.A.F., Marham, Kings Lynn, Norfolk.
G3IUU †J. Elliott, 305 Ashby Road, Scunthorpe, Lincs.
G3KUM D. O. Boddey, 1 Kingsgate Drive, Ipswich, Suffolk.
G3KYO J. H. Cook, 246 Dalston Lane, Hackney, London, E.8.
G3LCI H. V. Young, 9 Eastcroft Road, Wallasey, Cheshire
G3LDG B. E. Gee, 12 West Grove, Bedford.
G3LIJ R. Collington, 71 Hampden Close, Hemswell, Lincs.
G3LJC D. J. Hinds, 4 Keswick Gardens, Ruislip, Middx.
G3LNQ F. I. R. Hunt, 5 Hillfield Close, North Harrow, Middx.
G3LSW K. L. Willis, 60 Black Butts Lane, Barrow-in-Furness, Lancs.
G3LTI P. Hillman, 378 Upminster Road, Rainham, Essex.
G3LVB G. R. Brooks, 247 Park Road, Loughborough, Leics.
G3LVF H. D. Fawcett, 433D Richmond Road, East Twickenham, Middx.
G3LVM R. E. Ault, Lill Kurk, Clare Hill, Esher, Surrey.
G3LWO P. A. Smith, 28 North Hill Road, Ipswich, Suffolk.
G3LXW H. A. A. Graves, 21 New Road, Orpington, Kent.
G3LZC A. E. Stirland, 156 Hands Road, Heanor, Derbys.
G3MAI R. W. Stevens, 165 Whitworth Road, Swindon, Wilts.
G3MAP A. F. Pavis, 22 David Road, Bilton, Rugby, Warwicks.
G3MBG P. B. Appleby, 17 Hillmorton Road, Rugby, Warwicks.
G3MBS *S. H. Gibbs, St. Mary's Lodge, Cottage Place, Chelmsford, Essex.
G3MBU 5019976 S.A.C. M. Standige, Block 44, Room 5, R.A.F., Digby, Lincs.
G3MCG H. P. Dadd, 32 Keswick Road, Bexleyheath, Kent.
G5TP †R. G. W. Page, Roenda, Stoke Row, Henley-on-Thames, Oxon.
G8TH †G. W. Guy, 15 Ballantine Street, Wandsworth, London, S.W.18.
GI3MDA Sgt. D. W. Beeden, Sgts. Mess, R.A.F., Ballykelly, Limavady, Co. Londonderry, N. Ireland.
GM3LYS D. A. McCansh, 29 Knowe Road, Muirhead, Nr. Glasgow.
GM3KIG †W. J. H. Eaton, "Cauldhame," Innerleithen, Peebleshire.
GM3MBC J. H. A. L. Churchill, 46 Dalziel Drive, Glasgow S.1.
GW3ACF †A. J. Glassford, 22 Smallwood Road, Baglan, Port Talbot, Glam., S. Wales.
GW5TW †T. H. Williams, 12 Treharne Road, Morriston, Swansea, Glam., S. Wales.

## Corporate Members, Overseas (Licensed)

CR9AK F. A. Macedo Pinto, General Post Office, Macau.
DL2UZ E. J. J. J. G. Tassin, 81 Cie T. Tr.—BPS.9, F.B.A. (Aachen), Germany.
KL7MF Harold D. De Voe, P.O. Box 644, Anchorage, Alaska.
K8CKZ J. D. Haller, 5007 West Bancroft Street, Toledo 7, Ohio.
KL7PJ C. H. Sappah, 1705 Foraker Street, Anchorage, Alaska.
KN2YDP C. M. Reed, Albany College of Pharmacy, 106 New Scotland Avenue, Albany 8, New York.
OZ1PR P. V. Rasmussen, Aurikelvej 8, St. Tv, Valby, Copenhagen.
SP1JN R. F. Pacan, Krzywoustego 2/8, Szczecin, Poland.
SV1AE S. Coutroubis, 4 Krinon Street, Psychico, Athens.
VE1OJ W. E. Ratford, 10 Copp Street, Lakeburn, N.B., Canada.
VE2GN B. E. Franklin, 2019 Lenormand, Sillery, Quebec.
VE3MK C. H. Wilson, 7 Cadillac Avenue, Downsview, Ontario.
VE3XK †B. Morgan, P.O. Box 619, Copper Cliff, Ontario.
VP1GLG G. C. La Grenade, P.O. Box 19, Stann Creek, British Honduras.
VQ5FS/EI9G T. Tierney, Box 118, Jinja, Uganda.
W1PNR W. D. Beal, Jr., Dundee Road, Jackson, New Hampshire.
W2LTT G. G. Ambrose, 1532 Park Avenue, Williamsport, Pa.
W6RW R. D. Mace, 8600 Skyline Drive, Los Angeles 46.
W9EUQ A. Richard King, 808 Ridgely Bldg., Springfield, Ill.
W9VL Luther M. Allman, 1493 Maple Street, Des Plaines, Ill.
ZS5PG T. J. E. Winter, 184 Loop Street, Pietermaritzburg, Natal.

★ ★

EI9V C. C. Hunter, 14 Griffith Avenue Extension, Glasnevin, Dublin, Eire.
K1ACW E. A. Knox, Norris Street, Searsport, Maine, U.S.A.
K2ITH C. S. Laczynski, 228 Summer Street, Apt. 7, Buffalo 22, New York, U.S.A.
K6ENL Mrs. A. B. Cash, 7309 Walnut Road, Fair Oaks, Calif., U.S.A.
K6JAJ G. Haugen, 4693 Luther Street, Riverside, Calif., U.S.A.
KH6CL H. T. Arakaki, 956 Puu Kula Drive, Pearl City Heights, Hawaii.
ON4FP H. J. H. L. Mulkens, Rue du Calvaire 222, Liege, Belgium.
VE6IO J. V. Davies, 417-26th Avenue, N.W. Calgary, Alta, Canada.
VK4DK J. A. Kelly, District Hospital, Ayr, Queensland, Australia.
VQ4FK W. C. Fry, P.O. Box 61, Nairobi, Kenya.
VS9AC †C. J. Dempster, International Aeradio Ltd., c/o Aden Airways, Aden.
VE7MI L. Ratner, 1237 Seymour Street, Vancouver, B.C., Canada.
VS9AP Sgt. E. G. Corlett, Sgts. Mess, R.A.F. Khormaksar, Aden.
W1AZW P. M. Bailey, 49 Pleasant View Drive, Dalton, Mass., U.S.A.
W1COL Mrs. M. R. Welsh, 1228 Cambridge Street, Cambridge 39, Mass., U.S.A.
W1EUE F. W. Horn, c/o Louis Dupret, 7 rue Georges Ville, Paris, France.
W1ZDL G. H. Crozier, 6950th Rgm., Box 392, R.A.F., Chicksands Priory, Nr. Shefford, Beds.
W1SAD W. G. Welsh, 1228 Cambridge Street, Cambridge 39, Mass., U.S.A.
W5NVW L. F. Breedlove, 133 W. Coe Drive, Midwest City, Oklahoma, U.S.A.
W6CTO E. H. Burgman, 8057 El Manor Avenue, Los Angeles, Calif., U.S.A.
W6UF W. W. Eitel, 200 Family Farm Drive, Woodside, Calif., U.S.A.
W7IIZ M. C. Wines, 1 Westbourne House, Mount Park Road, Harrow, Middx.
W7RT †J. P. Gruble, 1921-Atlantic Street, Seattle 44, Wash., U.S.A.
W8AYV R. O. Heath, 2801 South Dort Highway, Flint, Michigan, U.S.A.
W9CKU P. O. Wyman, 2406 Greenview Avenue, Chicago 14, Ill., U.S.A.
W9NN R. E. Baird, 524 Crestwood Drive, Des Plaines, Ill., U.S.A.
W9YZA W. H. Fritz, 1721 Summit Avenue, Racine, Wisconsin, U.S.A.
ZB2U F. W. Hooper, 2 Lighthouse Quarters, Europa Point, Gibraltar.
ZB1CR C. R. Burchell, Officers' Mess, R.A.F. Luqa, Malta.

## Corporate Members, (British Receiving Stations)

21621 *L. M. White, 152 Crofton Road, Orpington, Kent.
21622 G. A. Smith, 86 Weston Street, Bermondsey, London, S.E.1.
21623 G. J. Meikle, 34 Victoria Road, Netley Abbey, nr. Southampton, Hants.
21624 W. J. C. Pinnell, 40 Melville Road, Sidcup, Kent.
21625 B. A. R. Phillips, 24 Ombersley Road, Bedford, Beds.
21626 W. L. Thomson, Wilmarth, Ambleside Road, Lightwater, Surrey.
21627 Cpl. W. D. Bullock, M.T. Section, R.A.F. Station, Kenley, Surrey.
21628 T. A. Cottrell, 29 Red Post Hill, London, S.E.24.
21629 C. J. Brend, Le Chalet, The Creek, Fordbridge Road, Sunbury-on-Thames, Middx.
21630 W. C. Smart, 12 Capel Road, Enfield, Middx.
21631 T. H. Parkman, 1 Amherst Gardens, Hastings, Sussex.
21632 C. E. Dixon, The Wood, Rawnsley, Cannock, Staffs.
21633 C. J. Randle, 128 Wolverhampton Road, Walsall, Staffs.
21634 *G. K. Rawstron, The Spinney, Desford, Leics.
21635 R. G. Marden, 46 Highfield Road, Winchmore Hill, London, N.21.
21636 T. K. Owen, Frondeg, North Park, Gerrards Cross, Bucks.
21637 L. R. Hughes, 23 Ebrington Avenue, Sheldon, Solihull, Warwicks.
21638 J. E. Truscott, 92 West Hill Road, Wandsworth, London, S.W.18.
21639 T. C. Wylie, Riverside, Taw View Estate, Fremington, Barnstaple, Devon.
21640 C. G. Evans, Silver Birches, 182a Derby Road, Beeston, Notts.

21641 C. F. SIMPSON, 2 Mead Street, High Wycombe, Bucks.
21642 D. H. PHILLIPS, 1 Danycraig, Abertridwr, Caerphilly, Glam.
21643 A. P. L. CASLING, 35 Hotson Road, Southwold, Suffolk.
21644 W. H. HOWELL, 28 Bryanstone Close, Guildford, Surrey.
21645 G. A. E. NEWMAN, 25 Elms Lane, Sudbury, Wembley, Middx.
21646 D. P. SCULLY, 53 Valley Road, Portslade, Sussex.
21647 A. J. CROW, 6 Fermaine Avenue, Brislington, Bristol 4.
21648 A. B. PLANT, 178 Clay Lane, South Yardley, Birmingham 26.
21649 T. E. P. ELLIS, 64 Chantry Road, Handsworth, Birmingham 21.
21650 C. W. EVANS, 66 Marshall Grove, Birmingham 22, Warwicks.
21651 D. A. BARRETT, 4 Mayfield Place, Eastbourne, Sussex.
21652 S. M. OLIVER, 21 Swains Lane, London, N.6.
21653 J. K. ROWELL, 136 Broad Lane, Coventry, Warwicks.
21654 R. L. TRANTER, 7 Dugdale Road, Radford, Coventry, Warwicks.
21655 E. J. TURNER, 11 Fairfield, Farnham, Surrey.
21656 T. H. HODGSON, Dept. of Aerodynamics, College of Aeronautics, Cranfield, Bletchley, Bucks.
21657 J. PFIEL, c/o 1 Tideswell Road, Putney, London, S.W.15.
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21659 J. H. WILKINS, 53 Canada Road, Cobham, Surrey.
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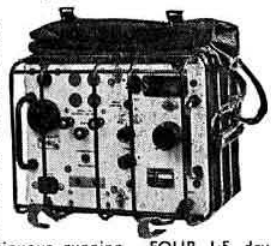

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