THE T&R

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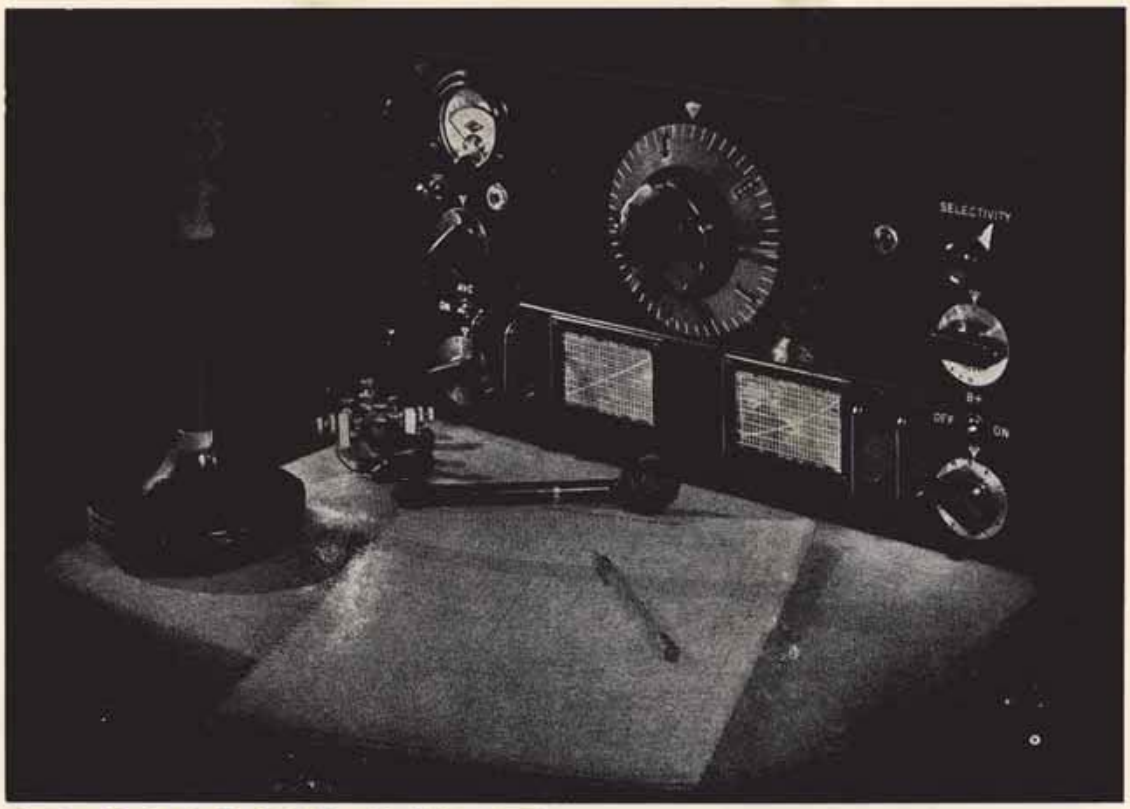

THE T. & R. BULLETIN

OFFICIAL JOURNAL OF THE RADIO SOCIETY OF GREAT BRITAIN

DEVOTED TO THE SCIENCE AND ADVANCEMENT OF AMATEUR RADIO

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SEPTEMBER, 1940

AN OLD ARGUMENT WITH A DIFFERENCE

BEFORE the war there were two subjects which could always be depended upon to start a fierce discussion wherever amateurs gathered for a ragchew. "Phone on 40" was one, "District Notes" was the other. It is of the latter subject that we would comment upon to-day, for we have a grouse—and a legitimate one we think at that. Why are D.R.'s finding it increasingly difficult to prepare even short notes for publication? Apathy on the part of civilian members must be the answer, but it's a poor one when we stop to consider that nearly 1,000 of our members on active service look forward with more than ordinary interest to reading news and gossip from those remaining at home.

September has always been regarded in Society circles as the opening of the season for meetings, and did we not hear a still small voice say "of DX as well?" Local meetings *must* continue even if their scope is limited, as a result of petrol rationing, and war work. Such meetings should provide ample material for District notes—they did a year ago so why not now? In addition every D.R. receives visits or letters from those on active service. Other members will be glad to read of news from their pals, so lets begin this season right by telling the membership what *every* District is doing, no matter how everyone is scattered.

In some areas we know that D.R.'s have little time for District activities, but there is assuredly someone willing in *every* district to undertake the duty of Scribe.

Town Representatives, where they still function, would render a valuable service by sending in all items of interest to the D.R. or Scribe each month.

Remember that members on active service in strange surroundings appreciate to the full every opportunity to meet local amateurs. Town meetings, provided they are advertised well in advance, will enable every one in the area, who is able, to forget the war for an hour or two. Ham friendships by the hundred are being created every month; with the approach of autumn we must, as a Society, do everything possible to provide additional opportunities for the fostering of such friendships.

Proof of the desire to meet on the common ground of our hobby has been provided on many occasions this year, but probably with no greater force than at the R.A.F. Conventionette staged on August 4 at No. 2 E. & W. School.

All who were fortunate enough to attend that memorable meeting will share our view that the Spirit of Amateur Radio is to-day many times greater than a year ago.

Wherever you may be, your D.R. extends a warm invitation to write a few lines regularly. In the words of Herbert Morrison "Go to it now" with pen and paper.

J. C.

HOME MADE RELAYS

By P. W. WINSFORD (G4DC)

" It's the little things in life that put the joy in living."

HOW aptly the above quotation applies to the ubiquitous relay and what added joy to the operation of an amateur station is achieved by its intelligent use.

To-day, with our transmitters in cold storage or otherwise out of action, the thoughts of most keen amateurs must frequently turn to the future. Wherever two or three kindred spirits are assembled in shacks, on board ship, in barracks or in A.R.P. posts, it is safe to assume that station planning comes in for a fair degree of attention. Paper planning it might almost be called. Yet there is *real* planning to be done for those who are still living at home.

The purpose of this article is to show how the enthusiastic amateur may set about the task of planning a better order of things by constructing a series of relays.

The Use of Relays

By placing relays in correct sequence, any order of switching can be arranged. For example, a chain of relays can be made to produce the following set of conditions :

1. Change over an aerial from the " receive " to " send " position.
2. Apply anode voltage to the oscillator of the transmitter.
3. Cut off the high tension supply to the receiver.
4. Apply anode voltages to the buffer and final amplifier stages.
5. Apply high tension voltages to the modulator.

With an arrangement such as the one mentioned high tension is not applied to the P.A. stage until first, the aerial is connected to the transmitter, and second, the oscillator is brought into operation. Furthermore, the supplies to the modulator can only be applied after the P.A. stage is drawing normal current.

By adding further relays any number of power supplies or stages can be switched at will.

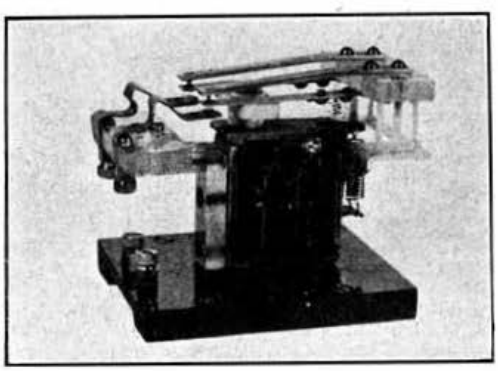


Fig. 1.

Aerial change-over relay of the first type described by the author and constructed from an old motor car cut-out.

Construction of Relays

No pretence is made that a home-made relay looks quite as professional as its commercial counterpart, but providing care is taken in construction the amateur-built component will fulfil its function with reliability and efficiency.

Relays can be built up from old car generator cut-outs, which are usually obtainable from car salvage dumps for about 1s. 3d. each. Incidentally, it was as a result of seeing a heap of old cut-outs at a car-dump that the writer first set about the task of devising schemes for their conversion to relays.

The condition of the windings is of little importance so long as the pole pieces and contacts are still usable.

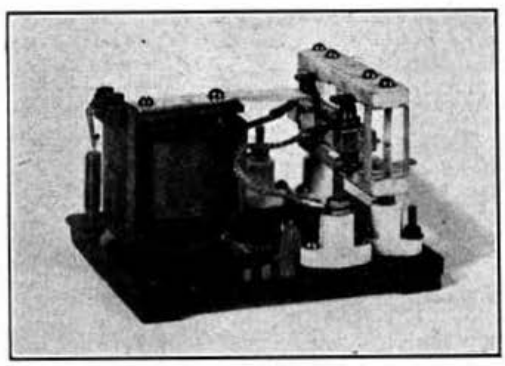


Fig. 2.

An improved type of aerial relay.

The cut-outs should be dismantled and all old windings removed, care being taken to see that the insulation around the pole piece is in good condition. If this is not the case a few layers of Empire tape or oiled silk will be quite satisfactory. The fibre end-pieces should also be renewed if damaged in any way.

The spool is now ready for rewinding with 34 or 36 S.W.G. enamelled wire, obtained from an old L.F. choke or transformer. The winding operation can be carried out quite easily by placing the spool in the chuck of a drill clamped securely in a vice. Before commencing this operation it is a good plan to screw the nut on the bottom of the pole piece, so that if the thread becomes damaged it will be renewed when the nut is unscrewed.

Relays for High Voltage Circuits

When a relay is used to break high voltage, circuits it will be necessary to redesign it slightly, because the original insulation will not withstand the larger potential differences encountered. This modification is, however, easily effected, since it is only necessary to mount the contacts remote from the framework of the relay. Both the fixed and moving contacts are removed, and small pieces of paxolin or ebonite, suitably drilled and tapped, are used as extensions.

Aerial Change-Over Relay

The construction of an aerial change-over relay presents very little difficulty if it is borne in mind that whatever mechanical means are employed to accomplish the switching, the insulation must be suitable for R.F. work. As the writer had a small supply of ¼ in. Trolitul on hand it was decided to use this for the job. Trolitul is very easy to work and the final appearance leaves little to be desired The junk box provided the contacts which were obtained from an old double-section Dewar switch. This was dismantled and reassembled in the form shown.

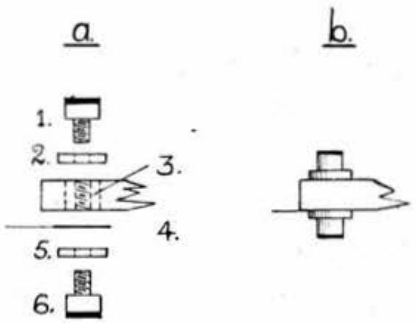


Fig. 3.

(a) Details of home-made relay contacts.

1. Contact
2. Washer
3. Insert
4. Soldering tag
5. Washer
6. Contact

(b) Completed contact assembly.

It was later found that the movable arm was too stiff to be operated by the upward movement of the relay mechanism. This difficulty was overcome by cutting the leaf shorter by 1 in., and then restoring it to its original length by bolting to it a piece of ¼ in. pendulum spring (obtainable from the local jeweller's). The two upper leaves (fixed) and the two centre leaves (movable) were then bolted to a piece of Trolitul measuring 2 in. × ¾ in. Smaller pieces were screwed to each end to act as supports. (See Fig. 1.) The whole assembly was then mounted on to a bracket, and fixed to the relay framework by drilling out two of the rivets which hold the spring mechanism in place. These two holes were used for bolting the bracket in place. The third pair of leaves were then bent as illustrated and mounted on another bracket at the other side of the relay. The bracket at this end was made up by screwing and bolting two pieces of Trolitul together. Finally an *Eddystone* ceramic terminal mount was bolted to the flap of the relay, its position in relation to the rest of the mechanism will be made clear from the illustrations. The up and down movement of this block causes the two centre leaves to move, thereby effecting the change-over.

The second type of aerial change-over relay illustrated is also quite simple to construct. The mechanical principle used enables the moving contacts to be mounted on an extension of the relay flap. The fixed contacts are mounted on two pieces of ceramic or Trolitul (in the writer's case, the ceramic strips were taken from an old Formo coil base) and spaced so that the moving arm has an excursion of about ⅛ in. The whole assembly of fixed contacts is then mounted on midget stand-off insulators.

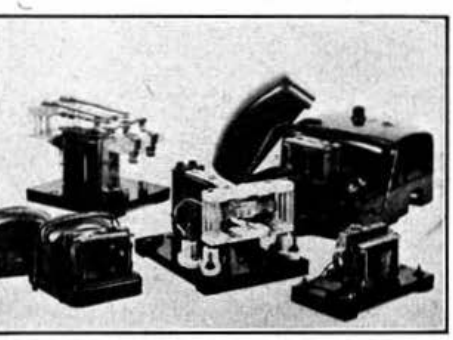


Fig. 4.

Before and after. A group of cut-outs and finished relays.

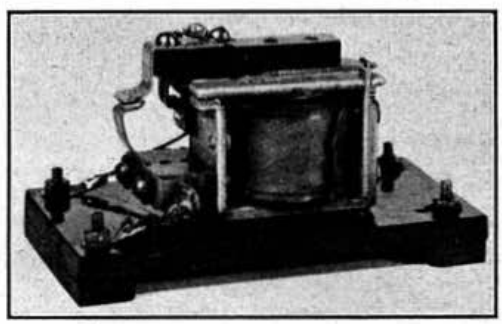


Fig. 5.

A make and break relay. Note the extended contacts.

Construction of Moving Contacts

Perhaps the most interesting part of relay construction lies in assembling the moving contacts. Four pieces of thin sheet platinum about ¼ in. square should be obtained from the local jeweller's, and soldered to the heads of four 4 B.A. cheese-head bolts ⅜ in. long. When the soldering is finished any surplus solder and platinum should be filed off until the contact surface is the same size as the bolt-head. Next, two pieces of ½ in. diameter brass rod ¼ in. long are drilled and tapped 4 B.A. Finally a strip of Trolitul is prepared by drilling two ¼ in. holes, the centres of which correspond with the centres of the fixed contacts. All that now remains is to assemble the various parts in the following order :—

(*a*) Insert one of the pieces of drilled brass into the Trolitul.

(*b*) Screw in one of the platinum contacts, having first placed a 1/16 in. thick washer and soldering tag on the bolt.

(*c*) Screw in from the opposite side a second contact with another 1/16 in. thick washer in place.

(*d*) Tighten up both contacts until the whole assembly is gripping the Trolitul strip.

If the assembly should not grip, it proves that the brass insert is too thick and should be filed down. Fig. 3 makes clear the above description.

The process should be repeated with the remaining pair of contacts. The moving arm will then be completed and ready for mounting on the flap of the relay. The way in which this is effected will be apparent from the photograph. The remainder of the constructional work is simple and can be left to the individual who will, no doubt, have some ideas of his own.

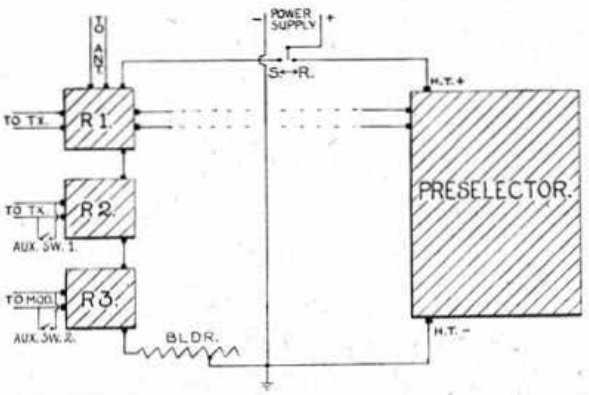


Fig. 6.

Block diagram illustrating method used by author to operate relays. See text for details.

R1	Aerial change-over relay.
R2, 3	Make and break relays.
BLDR	Bleeder resistance.
S.R.	Send receiver switch.
AUX.SW 1, 2	Single pole single throw switches which enable transmitter to be operated whilst receiver is running.

Relay Circuits

Finally a few words in regard to a suitable circuit for the operation of these relays, which incidentally require an energising current of 35 to 45 mA., depending upon the size of the winding. In the writer's case the energising source was obtained from a power pack used normally to supply H.T. to a preselector. It is thus only necessary to switch the H.T.+ from the preselector to the relays for instant change-over from "receive" to "send."

All the relays should be joined up in series and these, together with a variable bleeder resistance, make up the load for the power pack when the switch is in the "send" position. The bleeder resistance should be adjusted until a current of between 35 and 40 mA. is flowing, when all relays should go over with a sharp crisp click. This is by no means the only way in which they can be operated and other arrangements more suitable to individual requirements, will undoubtedly occur to those who decide to build and use them.

In conclusion, the writer wishes to record his thanks to a group of stalwarts who have offered many suggestions, and given him the use of their shacks during the last few months, whilst evacuated to a South Coast town.

Radio Interference Suppression

The attention of members is directed to the publication of a new British Standard for :—

"Anti-Interference Characteristics and Performance of Radio Receiving Equipment for Aural and Visual Reproduction (excluding Receivers for Motor Vehicles and Marine Equipment), (B.S. 905–1940)."

and revision of

"Components for Radio Interference Suppression Devices. (B.S. 613–1940)."

The new specification (No. 905) prescribes the general conditions to be complied with in the design of radio receiving equipment, and gives guidance on the method of installing such equipment and interference suppression devices with the object of minimising the effects of radio interference.

Whilst being of importance to the makers of radio receivers the specification is also of particular interest to the users of receivers as it would help them in the elimination of interference emanating from sources beyond their control. Some pertinent remarks are made about inefficient aerials and a section is devoted to the characteristics and performance of "anti-interference" aerial systems. Another section deals with community aerials specially designed to permit simultaneous operation of two or more receivers from the same aerial. The methods of eliminating radio interference from the electric supply mains and means of protection against atmospheric electricity are also described.

The revised specification (No. 613) differs from the original publication when relating to capacitors and in the addition of two entirely new appendices dealing with shock and earth leakage considerations, and with wiring and maintenance. The appendix giving suggested values of components for various types of suppressions has been extended and revised. There are other important changes.

Copies of these specifications may be obtained from The British Standards Institution, 28, Victoria Street, London, S.W.1. Price 2s. 3d. each (post free).

Medway Society Still Flourishing

Mr. W. E. Nutton, G6NU, 42 Richmond Road, Gillingham, Kent, informs us that meetings of the Medway Amateur Transmitting Society are still held at his home. Members located in the Medway area are cordially invited to communicate with or call upon Mr. Nutton.

THE IONOSPHERE & RADIO TRANSMISSION*

PART III

Effects of Ionosphere Irregularities

THE primary effects of the ionosphere on radio wave propagation are those already described, which are due to the normal or regular characteristics of the ionosphere. The modes of variation of those characteristics have been shown to be of a regular and fairly predictable nature. There are some other ionosphere phenomena which are irregular in their times of occurrence and make radio phenomena in general much less predictable. Five types of such phenomena have been identified: sporadic E layer reflections, scattered reflections, sudden ionosphere disturbances, prolonged periods of low-layer absorption, and ionosphere storms. While all five are irregular in time, the first two are primarily due to irregularities in space.

Sporadic E

It sometimes happens that waves are reflected by the E layer on frequencies higher than that at which the E layer waves normally disappear and the reflection of waves by higher layers begins. Thus in the example shown in Fig. 3 waves may sometimes be reflected at the E layer height of 110 kilometres on frequencies of 4, 5, or more megacycles. These reflections are due to a process different from the normal reflection in the ionised layer; the process is probably one of reflection from a sharp boundary of stratified ionisation. The existence of these "sporadic E" reflections necessitates a re-definition of the term "critical frequency," previously defined as the highest frequency at which waves sent vertically upwards are received back from the layer. When sporadic E reflections occur they may be received simultaneously with reflections from higher layers; thus, *e.g.*, in the case shown in Fig. 3, vertical-incidence reflections might be received at 8 Mc. from both the E and F_2 layers. The E layer critical frequency, more precisely defined, is the value (3,300 kc. in the example shown in Fig. 3) at which the observed virtual height shows a sudden rise to large values as the frequency is increased. Except for the occasional occurrence of sporadic E reflections, all waves of higher frequency pass through the E layer and are not reflected by it.

Sporadic E leads to interesting results in long-distance radio transmission. It accounts for long-distance transmission up to higher frequencies than by any other means. Strong vertical-incidence reflections by sporadic E sometimes occur at frequencies up to about 12 Mc. By reason of the large angles of incidence possible with the E layer, this makes occasional long-distance communication possible on frequencies as high as 60 Mc. Such communication is generally for only a short time and for restricted localities. Sporadic E is thus patchy or sporadic in both geographical distribution and time.

Sporadic E occurs most commonly in the summer, May to August, particularly in the morning and evening, but may occur any time of day or night. It occurs occasionally at all seasons, particularly in the evening. It occurs more at high latitudes than in equatorial regions.

Scattered Reflections

An irregular type of reflection from the ionosphere occurs at all seasons, and is prevalent both day and night. These reflections are most noticeable within the skip zone, or at frequencies higher than those nominally receivable from the regular layers. Like sporadic E, they occur at frequencies which may exceed the F_2 critical frequencies, but are unlike sporadic E in that they are complex and jumpy, thus causing signal distortion; they occur and disappear fitfully, and are almost useless for communication purposes. Some types are of very weak intensity. The scattered reflections are characterised by very great virtual heights, usually somewhere from 400 to 1,500 kilometres. Their occurrence was for a time thought to indicate the existence of another layer above the F_2 layer which might be called the G layer. It is now, however, thought that they are of several types, and that some of them are due to complex reflections from small ephemeral scattered patches or "clouds" of ionisation in or between the normal ionosphere layers, and thence to one or more layers and ground by single or multiple reflection.

Sudden Ionosphere Disturbances†

The most startling of all the irregularities of the ionosphere and of radio wave transmission is the sudden type of disturbance manifested by a radio fade-out. This phenomenon is the result of a burst of ionising radiation from a bright chromospheric eruption on the sun, causing a sudden abnormal increase in the ionisation in the D layer (below the E layer), frequently with resultant disturbances in terrestrial magnetism and earth currents as well as radio transmission. The radio effect is the sudden cessation of radio transmission on frequencies over about 1,500 kc.

The drop of the radio signals to zero usually occurs within a minute. The effects occur simultaneously throughout the hemisphere illuminated by the sun, and do not occur at night. The effects last from about 10 minutes to an hour or more, the occurrences of greater intensity in general producing effects of longer duration. The effects are more intense, and last longer, the lower the frequency in the high-frequency range (*i.e.*, from about 1,500 kc. up). It is consequently sometimes possible to continue communication during a radio fade-out by raising the working frequency.

The radio, magnetic and other effects are markedly different from other types of changes in these quantities. The effects are most intense in that region of the earth where the sun's radiation is perpendicular, *i.e.*, greater at noon than at other times of day, and greater in equatorial than in higher latitudes.

* *Letter Circular LC575 of the Department of Commerce, National Bureau of Standards, Washington, U.S.A.*

† *Now known as "Ionospheric Irruptions" in this country.* ED.

Taking due account of the variation of the effects with frequency and distance, varying effects in differing directions can be explained. Reception in the United States from stations in the southern hemisphere usually exhibits greater effects than reception from other directions (because of passing the equatorial regions). Similarly, when the disturbance occurs at a time when it is morning at the receiving point, the effects are usually greater in reception from the east than from the west, and *vice versa* for the afternoon (because of passing the region where it is noon). A radio fade-out sometimes occurs when it is night at the receiving point, but only when the path of the waves is somewhere in daylight.

Prolonged Periods of Low-Layer Absorption

This phenomenon is similar to the sudden ionosphere disturbance in its effects and characteristics, except that its beginning as well as recovery is gradual and it has a longer time duration, commonly several hours. The intensity diminution is in general not as severe as in the more intense fade-outs, but sometimes the intensities fall to zero.

The low-layer absorption effect appears to be due to increased ionisation in the D layer (below the E layer), exactly as for the sudden ionosphere disturbances. The increased ionisation is caused by an abnormally great outpouring of ultra-violet light from the sun, but in this case it is not so sudden as in the eruptions which cause the sudden ionosphere disturbances. The variation of the effects with frequency and other characteristics are the same as for the sudden ionosphere disturbances.

Both phenomena occur at all seasons, but the prolonged periods of low-layer absorption have been found to occur in a group of several weeks' duration at periods of high sunspot activity, the groups being separated by more or less quiet periods of several months. They frequently, but not always, occur during periods when sudden ionosphere disturbances are numerous.

Ionosphere Storms

An ionosphere storm is a period of disturbance in the ionosphere in which there are great anomalies of critical frequencies, virtual heights, and absorption. Radio transmission is poor (except for the low frequencies, below 500 kc., which are sometimes improved). An ionosphere storm usually lasts one or two days, and occurs both day and night. It is usually accompanied by a magnetic storm (*i.e.*, a period of unusual fluctuation of terrestrial magnetic intensity). During the first few hours of very severe ionosphere storms the ionosphere is turbulent, stratification is destroyed, and radio wave propagation erratic. During the later stages of very severe storms and during the whole of more moderate storms the upper part of the ionosphere, principally the F_2 layer, is expanded and diffused. The critical frequencies are much lower than normal, and the virtual heights much greater, and therefore the maximum usable frequencies are much lower than normal. It is often necessary to lower the working frequency in order to maintain communication during one of these storms. There is also increased absorption of radio waves during an ionosphere storm. Ionosphere storms are most severe in auroral latitudes, and decrease in intensity as the equator is approached. Ionosphere storms occur approximately simultaneously over wide geographical areas. The condition of the ionosphere is much less uniform from point to point than on undisturbed days.

Concluded.

Down Zummerzet Way

2.—Granfer and The Convenshun

By "Granfer."

"US doezn't get much exzitement in West Zummerzet like them vellers up in the big zities doo, zo immagine me zurprise when I getz a porst card vrom a veller in Lunn'un to zay that they be evackeating Convenshun to our lil village.

Well virst I goez up to zee Jarge (eez Lan'lord to the "Blue Ball" our best pub) an' I tellz 'im what I 'eard coz the'll wan a lot o' zider in. Them hams getz dreadful dry arter quite a zhort time. Zo orderz in a couple o' barrelz extra to make zhure.

Then I goez to zee me ol' pal Charlie, 'ee 'adn't been called up as yet coz 'eez only a lil veller—only dree partz grawd. I 'elpz 'em clean out 'is zhack like an' polizh up 'is key as them vellers 'll go a'ztation visiting arter clozin' time I'll be boun'. We didn't arf use some zpit an' polizh too make things look spick an' span like.

Us all preparez for they vizitorz like an' when day arrivez us all paradez down at ztation to meet 'em. Bill 'as 'is best bowler on—(what 'ee 'ant warn zince Aunt Sarah's weddin' vive yer ago cum next 'aymakin'). An all they YL's was thur too, some of 'em what cuden't get orf in our village thawt as 'ow they mite ztand a chance with them Zity vellers, an' all village turned out to zee zites of zity arrive.

Us 'ad harranged a real rezeption for 'un, us 'ad local vire brigade out with both the viremen. Us 'ant a Town Band but 'Enry brawt 'eez Cornet an' zed 'ee thawt thickee wude blow loud enough when time camed.

The village Cunstable were thur jus' to keep horder, zo 'ee zed, but I believ he'd cum jus to zee what was a'gwain on an' to zee if 'ee cude vind out what aerials they vellers use as 'ee 'adn't 'ad no zuczess with 'is quarter wave Macaroni or zumm'at.

Arter a time thickee train 'ee cum in all a puffin' 'an blowin' 'ee be, 'an all a villed up with troops. Arter they'd a got out like, (our ztation iz at end o' line zo they cuden't go no vurther), us lukes ver they hammaters but us cuden't vind any. T'were like lookin' ver 'ens eggs in the dark.

Then I spiez a grupe of vellers an' zome women, an' mighty queer they did luke to be zhure. They'z all a' dressed up in zhortz an' zuch get up as you cuden't tell men vrom women!

Then I zees they've got gert big bundlez on thur backs zo I goez up an' axes wun of 'un if 'eez brawt 'is gear with 'un an' 'ee zez zhure we've all brawt our gear with us. Zo I callz over t'other local chaps an' tellz 'un R.S.G.B. vellerz 'as cummed.

But they doezn't zeem to un'nerztand 'bout radio an' us cuden't make it out t'all. They zez they be down vor R.S.G.B. Convenshun, but 'un zeemz

(*Continued on page 92.*)

A COMPACT TWO VALVE RECEIVER

By W. E. Bartholomew (G8CK)

In a world of superhets, it is refreshing to publish the design of a simple two-valve receiver. The neat lay-out should appeal to many readers.

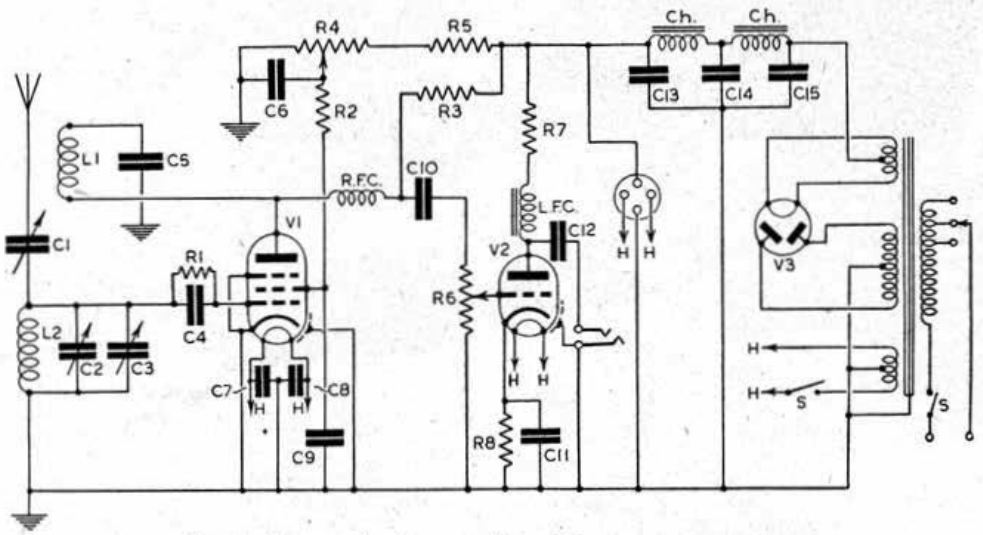
AFTER enlisting as a wireless operator in the Royal Corps of Signals last October, the writer found himself "Somewhere in England," with nothing in particular to occupy his off duty time. So, wishing to keep in touch with the amateur bands it was decided to build a compact receiver which would give comfortable headphone reception on all frequencies, using any aerial that happened to be handy.

A 6J7 was employed as the detector and a 6C5 as audio amplifier. A small power pack using an 80 was mounted in the same cabinet. The only apparent originality of the circuit was the use of four-pin coils with a fixed reaction condenser, the regeneration being controlled by the screen potentiometer. It will be seen from the circuit that provision is made for operating the receiver from batteries in the event of no AC being available, in which case the heater secondary is switched out.

Construction

The metal cabinet was procured from *Webbs Radio*, the dimensions being 12 in. wide by 8 in. high and 6 in. deep. The transformer, also obtained from the same firm, was wound for 200 to 240 volts tapped input, 200–0–200 volts at 20 mA., 5 volts 2 amps. and 6·3 volts 1 amp. output.

The panel and chassis were cut from plywood, lined with copper foil, assembled, and the components roughly placed in position. After drilling



Circuit diagram of a Compact Two Valve Receiver.

Keyed Components

C1	65 μμF Eddystone, type No. 978.
C2	103μμF Eddystone, type No. 900–100.
C3	22.5 μμF Eddystone, type No. 900–20.
C4	100 μμF.
C5	100 μμF.
C6	.1 μF tubular.
C7, C8, C9	.01 μF tubular.
C10	.05 μF tubular.
C11, C12	2 μF.
C13, C14	8 μF x 16 μF T.C.C.
C15	12 μF T.C.C.
R1	1 meg. Dubilier.
R2, R3	100,000 ohms. Dubilier.
R4	50,000 ohms. potentiometer Centralab.
R5	25,000 ohms. Dubilier.
R6	.5 meg. potentiometer Centralab.
R7	50,000 ohms. Dubilier.
R8	2,000 ohms. Dubilier.
R.F.C.	Eddystone, type No. 1010.
L.F.C.	Eddystone, type No. 980.
V1	6J7 Raytheon.
V2	6C5 Raytheon.
V3	80 Raytheon.
S	Tumbler switches, Bulgin.

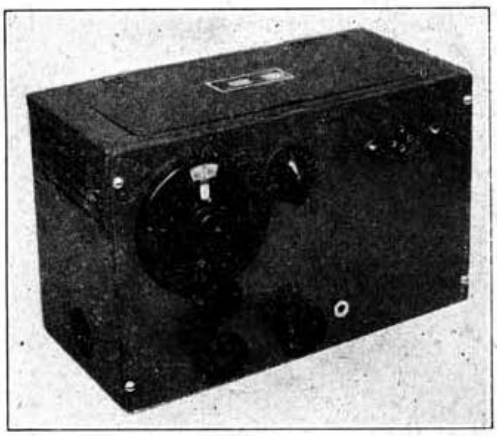
C.H. Smoothing choke, 10-20 H., 30 mA.

Other components :—

1 Igranic jack and Socket.
1 Indigraph dial.
1 Eddystone dial and pointer.
2 Eddystone knobs, type No.
1 Chassis type valve-holder.
1 Transformer 200-240 v., input 200-0-200 v., 20 mA., 6.3 v. 1 amp., 5 v. 2 amps. output. Webbs Radio.
1 Metal cabinet. Webbs Radio.

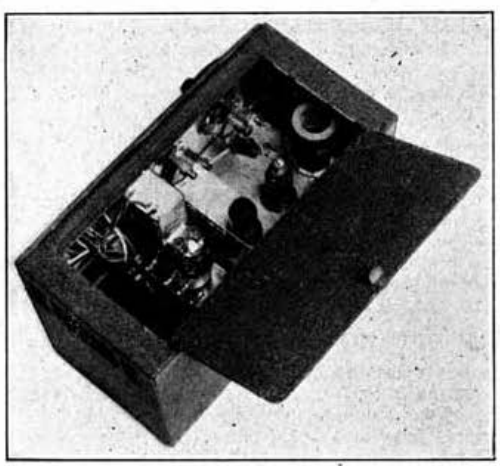
the holes for the coil, valve-holders, condensers, etc., the chassis was reassembled and the components bolted in place. The top and sub-chassis screens for the power pack were cut from a piece of aluminium.

An effort to save space was made by omitting the input condenser in the power pack. A faint ripple was audible in the headphones so it was included, resulting in a quiet background comparable to that of a battery receiver. Initially a ·00025 μF regeneration condenser and a 5 megohm grid-leak were wired into the detector circuit. However, this produced a violent howl when regeneration was advanced



Front view of receiver showing various tuning controls. The regeneration control is at the bottom left followed by the volume control and headphone jack. The heater secondary switch and on-off switch are at the top towards the right.

beyond the gently oscillating point. Cure was effected by reducing the value of the condenser to ·0001 μF and grid-leak to 1 megohm. This was the only trouble encountered during the building of the receiver, presumably due to the care taken in keeping the wiring short to lessen the possibility of instability. Bearing in mind the conditions under which the receiver would be operated, the chassis and all bare metal connections were given a thin coating of varnish for protection against moisture.



A plan view showing layout of components, the 8 x 16 μF condenser and the second smoothing choke are mounted beneath the mains transformer.

Operation

When the receiver was finished, the only wire available for an aerial at the time, was a 9 ft. length, which was optimistically hooked onto the aerial terminal and slung up to the picture rail of the billet, in the hope of at least hearing a few commercials. On locating the 14 Mc. band, plenty of U.S.A. amateurs were heard at S9 working neutral stations in Europe, while the 19 metre telephony band yielded WGEA at S9 plus. A speaker was substituted for the headphones and the programme was heard at quite comfortable strength, much to the enjoyment of fellow listeners.

The writer would be pleased to hear from any member in the Services who is listening under similar circumstances. He would also like to compare results with those building similar receivers.

Book Review

There is always a certain fascination attaching to the possession of a pocket book of technical facts and figures, possibly because it strikes a more personal note than does an ordinary text book.

The new *Radio Engineers' Pocket Book*, edited by F. J. Camm and published by George Newnes, Ltd. at 3s. 6d., is the only vest pocket book of its type available to radio men. The data sheets which form the basis of the publication first appeared in *Practical Wireless*, but due to popular demand it was decided to publish them in pocket book format.

It is impossible here to enumerate the vast amount of data covered, but the scope ranges from Abbreviations and Anti-log Tables to Wavelength Conversion Tables and Wire Gauges. Over 120 sheets are included, whilst extensive cross indexing makes the finding of data a simple task.

The book is full value for money and should find a place in many service tunic pockets, to say nothing of civilian vests. J. C.

National Book Council

The response given to the request on page 22 of our July issue for the titles of suitable books for inclusion in the projected National Book Council List of Radio and Telecommunication Publications has been most disappointing, only one member—Mr. D. H. Tomlin—having sent in a selection.

We would again ask all those interested in the subject to send us a list of titles they would like to see included.

The arrangement adapted in preparing the lists should follow the lines given in our earlier issue.

Now We Know

A trawler op. complained about another of his colleagues missing dots. He was told by the latter when next ashore that the dots left his end all right, after which he accepted no responsibility !

EXPERIMENTAL SECTION

Manager: A. M. H. FERGUS (G2ZC)

THE publication this month of a report from Mr. O. M. Derrick, our Aerial Group manager, is especially welcomed because it provides proof, if such is necessary, that even in such abnormal times as the present, interest in all phases of experimental work is being maintained.

We are particularly pleased to see that references have been made to three interesting American aerial developments, for with the passing of time it will become even more difficult to remember developments in our own special field. This thought brings to mind a further aspect of the present situation. Many of our most prominent members are engaged in important research work which for the time being may not be disclosed. To such members we would urge that they endeavour to retain some form of private record so that it can at a later date be used as a basis for articles and lectures. Following the last war many invaluable contributions were made to the Society by members who had been engaged on Government work in the field of radio communication. It is safe to assume that these could not have been prepared from memory alone.

The part being played by many members of the Experimental Section now serving with the armed forces is, we are convinced, of the utmost importance to the country. To them in particular we send a special word of greeting and an assurance that we at Home Stations greatly appreciate all that they are doing in the common cause.

Mr. Heap's timely advice on superhet servicing should prove extremely useful to many members who have in the past been chary about opening up their commercial receiver when trouble has occurred. His generous offer to give assistance and advice to any member in difficulty is a further example of the spirit of co-operation which to-day is bringing forth much praise for the radio amateur from high places.

We would most strongly urge all members of our Groups to maintain regular contact with their G.M., drawing his attention especially to published descriptions of any new development within the sphere of the Group.

G2ZC.

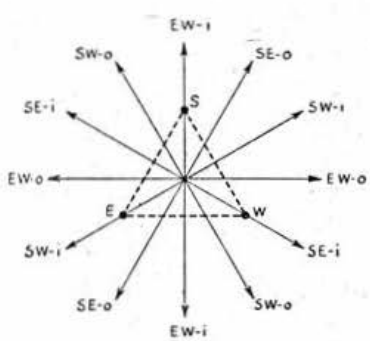


Fig. 1. Triangle aerial arrangement.

Aerial Group.

The G.M. offers sincere apologies for the absence of notes during past months, the remissness has been due to pressure of other duties. Incidentally, no activity reports have been received from members of the group.

Whilst it is realised that most interest lies in the use of transmitting aerials, it is hoped that until more favourable times arrive experiments will continue with receiving aerials.

A number of interesting transmitting systems have recently been described in American publications and the following summary of a few such designs may be worth recording.

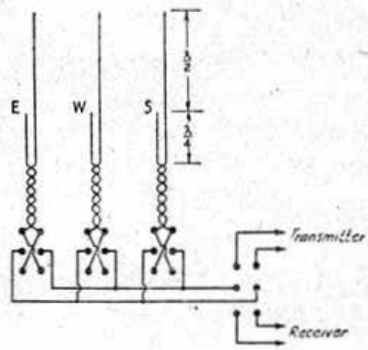


Fig. 2. Switching arrangements of triangle aerial.

The Triangle Antenna, by W6QCC.

This consists of three vertical radiators located at the vertices of an equilateral triangle which is a ½ wave on a side. Two radiators are operated at a time, either in or out of phase, the third being left open. The beam is bi-directional and effectively gives selection of 12 directions covering 360°. This aerial provides a means of radiating a rather broad beam in steps of 30° without the usual mechanical complications. The radiators being vertical, a large portion of power goes into low angle radiation. Figs. 1 and 2 show aerial and switching arrangement.

The Double Vertical Antenna, by ex W8CHT. (QST, June, 1940, p. 21.)

When an ordinary vertical aerial is operated on a harmonic frequency, the vertical angle of radiation increases considerably. If, however, such an aerial is operated on its harmonic with the two halves excited in phase, the angle of radiation is lower and substantial gain is obtained. To obtain this result either a matching stub or a phasing coil located at the centre of the aerial can be used. Normally the use of a stub is out of the question owing to mechanical difficulties, but conversion can easily be accomplished by the use of a phasing coil. A switch is employed so that the aerial can be used on two bands.

For fundamental operation:—

$$\text{Aerial length} = \frac{492 \times 0.95}{\text{Mc.}}$$

For second harmonic operation:—

$$\text{Aerial length} = \frac{492 \times 0.97}{\text{Mc.}}$$

On the harmonic it is necessary to insert a phasing coil in the centre of aerial. This is brought in by a small knife switch operated by cord and spring. The coil is used with a condenser and tuned to the harmonic frequency.

Improving Flying Skywire, by W2AOE. (QST, April, 1940, p. 32.)

Here a kite aerial is described particularly for 56 Mc. operation. The kite itself measures 8 ft. 2 in. high by 8 ft. 2 in. wide and is so constructed as to be easily dismantled. On 56 Mc. a long wire consisting of a hundred or more half-waves does not work so well as a dipole located in the kite with single wire feed, which is used as the "string." GM3OM.

Propagation Group.

All three sub-groups continue active and letter budgets are circulating. The G.C. of the Aurora sub-group has devised a method of reporting signals enabling easy comparison to be made with the various natural phenomena which may possibly affect the propagation of radio waves. The sun, moon and weather are amongst the matters with which comparison is being made. At the end of 12 months the G.C. hopes to draw up a large chart summarising the results obtained.

The 28 Mc. letter budget shows that signals are still to be heard on that band even if one does have to wait till midnight for them. The G.M. hopes to publish a summary in an early issue of THE T. & R. BULLETIN of the data gathered by this sub-group during the past year. In spite of reduced activity on the band and the many other difficulties encountered by members, an almost complete record of conditions during the last 12 months has been obtained.

The 56 Mc. sub-group, with an almost entire absence of signals to study, discusses various circuit developments and extracts from contemporary literature. In this way it is hoped to keep together all those interested in 56 Mc. propagation, so that when the time comes for more active work to be resumed a sub-group will be ready to start immediately.

G8DA sends details of the solar eclipse of October 1, 1940. The path of totality will begin on the western coast of Ecuador at sunrise, crosses the north of South America, the Atlantic Ocean, the southern part of Africa and will end in the Indian Ocean. The Huancayo Magnetic Observatory in Peru will be making ionospheric observations and other stations are being set up in various parts of the totality belt. Any group member noticing unusual conditions during the period of the eclipse is asked to communicate with the G.M. G2XC.

Receiver Group.

For the benefit of those readers who own commercial communication receivers a few hints are given on the servicing of such instruments. Although enthusiasts may be keen to do their own repairs, a great many fight shy on the assumption that they are not competent to start dabbling with commercial receivers. Actually there are few experimenters who need to resort to the professional service man, for in the majority of cases the faults are simple to detect and well within the scope of an amateur to correct. What very often may stump a novice is how to locate the trouble, and although there is no substitute for experience one can give a few ideas on how to get started.

For receivers which are absolutely "dead" or are in a state of violent oscillation the quickest way to locate the faulty stage is to place a finger on the grid of each valve in turn, starting from the output valve. For sets which are quite "dead" it is always advisable to check up the speaker and output transformer with its associated connections, for it is surprising how frequently these come adrift. The whole of the L.F. portion can be checked by taking the grid connection off the detector and touching the grid terminal of the valve. If the L.F. portion is working correctly there will be a very loud hum or howl.

Violent oscillation in one of the I.F. or H.F. stages will stop as soon as the grid of the offending stage is touched and the trouble will often be found to be due to an "open" by-pass condenser. If this is not the case the valve should be replaced.

Failure of the H.F. oscillator to oscillate is often due to dirty coil or valve contacts, a very simple point to check but one which is often overlooked.

Where receivers are operated very closely to a transmitter there are a multitude of faults which may develop, the commonest being noise. An increase in noise may only occur slowly as the receiver ages and will probably not be noticed until either it is excessive or until the set is compared with another. The remedy is usually to replace the first H.F. or the frequency changer, because a valve may be very noisy although its emission test may be "good." It is also advisable to remember that new valves are not always satisfactory from the point of view of noise, therefore if possible, several should be tried out before the replacement is selected. A valve may not be the only cause of noise, for R.F. burns may be found on the switch contacts and on the condenser wipers.

An open circuit on a volume control or in the A.V.C. system may cause excessive bias on one of the valves, resulting in grid blocking. This can quickly be checked by measuring the grid voltage of the suspected valves.

The golden rule for servicing, as distinct from experimenting, is not to alter resistances and condensers from the original values, because the designer probably had a very good reason for choosing them. Readers who encounter difficulties when tackling faults on their own receiver should communicate with the Receiver Group manager, who will endeavour to give every possible assistance. G5HF.

Stray

Mr. A. B. Sullivan 2DGF, would like to get in touch with members interested in valve making, which was his special hobby in peace-time. His address is 6 Worthing Road, Southsea, Hants.

Cosmic Notes

By E. J. WILLIAMS, B.Sc. (G2XC)

DATA is available for the six weeks from June 16 to July 27.

Sunspots

The provisional daily sunspot number issued from Zurich exceeded 100 every day from June 24 to the end of the month. The mean for the month was 84·8 compared with 130·3 in 1937, 97·5 in 1938, and 101·0 in June, 1939. The central meridian passage of a large group of spots is recorded on June 22, and another on June 25.

From Tokio comes a report of a large prominence on the north-west limb of the sun on June 25, and another on the south-east limb on July 5.

Magnetic Elements

A small disturbance (K—index 5) was recorded on June 18, with maximum intensity during the morning, while a very slight disturbance occurred on June 22, starting at 10.50 G.M.T. A storm (K8) was experienced on June 25, beginning in the early morning and reaching greatest intensity in the afternoon. A less intense storm followed on the next day, its onset occurring at 17.18 G.M.T. June 30 was a slightly disturbed day. The dates of these storms suggest they were a result of the rather intense solar activity at the same period.

A somewhat disturbed period was experienced from July 3 to 6, and again on July 9 and 10. A storm (K6) began on July 13, and continued with decreasing activity until the early hours of July 15. There was also a slight disturbance on July 22.

Radio Conditions

The following are the F_2 layer critical frequencies (extraordinary ray) reported from Washington D.C., at midday local time: June 19, 7,200 kc.; June 26, 6,400 kc.; July 3, 6,600 kc.; July 10, 5,800 kc.; July 17, 6,700 kc.; July 24, 6,800 kc. Sporadic E ionisation was evident in the measurements made on July 3.

Several short-period fade-outs, presumably due to ionospheric irruptions, were reported from various sources. On June 20 both Tokio and the U.S. Naval station in Samoa recorded a fade-out at 00.45 G.M.T. The latter reported a complete fade-out for all frequencies above 2,000 kc., and lasting 42 minutes. Other fades occurred at 00.10 on June 24, 18.20 on June 26, 02.20 July 11, and 01.06 July 20. The fades at the end of June were, no doubt, due to the large sunspot groups visible at the time.

The writer noticed very bad conditions for transatlantic signals on August 9, and this was confirmed by reports in the daily press and by BRS3003, who also reports poor reception of WGEA on 15 Mc. on the following dates during July and August: July 5, 9 to 11, 13, 22 and 30, August 3, 8 to 11, 14 and 15, and 21. It is interesting to compare the dates in July with the magnetic data given above.

Ionospheric Irruptions

With reference to the note under this heading in last month's Cosmic Notes, a reply has been received from Greenwich Observatory confirming that the quotation from their report in the May issue was made correctly. The following is from *Occasional Notes of the Royal Astronomical Society*, No. 3, 1939: "The ..... type of ionospheric irruption, which often gives rise to a complete cessation of radio communication on the circuits traversing the illuminated side of the earth was first recognised by Mögel, who also noted that such interruptions coincided with a characteristic perturbation of the earth's magnetic field. During the recent sunspot maximum period many workers all over the world have contributed to the elucidation of these interesting phenomena."

The Editor Nods—Nine Months Late.

To the Editor, THE T. & R. BULLETIN

DEAR SIR,—With reference to a small paragraph under the title "Merchant Navy" on page 319 of the January issue, I desire to point out that the term "Telegraphist" is incorrect. This term applies to ratings in the Royal Navy and is not used in the Merchant Navy.

Wireless operators in the Merchant Navy are signed on ship's articles as Radio Officers, the Senior Radio Officer having complete charge of the installation on board and being responsible to the Captain of the ship only.

I greatly deprecate that such an error should have appeared in the pages of THE BULLETIN, and trust that an early apology and amendment will be made.

Yours faithfully,
A. C. WEBB (G6WQ),
Snr. Radio Officer,
Merchant Navy.
(Messrs. I. M. R. & Co.)

August 14, 1940.

Editorial Note.—We publish the above letter as received. Whilst we appreciate that Mr. Webb's dignity has been offended (quite unintentionally, let it be said), we would point out :—

1. *The two gentlemen referred to in the January issue have not complained to us.*
2. *Whilst endeavouring to interpret correctly the subtleties of rank and position, we are even now not fully versed with such matters.*
3. *When we are in error we like to be told about it in a friendly manner.* J. C.

Strays

Any reader who has at any time worked Frank Robb, GI6TK and has not received a QSL should write to him at 60 Victoria Avenue, Sydenham, Belfast, N.I., when a card will be sent by return.

* * *

One of our Vice-Presidents, Capt. G. C. Price GW2OP, of the Bank House, Meyrick Street, Pembroke Dock, will be pleased to welcome any Society member who finds himself in the Pembroke Area. Among his recent visitors was VK6NP. Capt. Price saw active service during the last war and was for many years a district representative.

* * *

Due to a slip of the pen in preparing the Northern Ireland notes published last month, the name of the holder of G2YN was given incorrectly. As most readers know, this call is held by Sgt. Frank Adams, R.A.F., late of *Webbs Radio*.

The 28 Mc. Band

By NELLY CORRY (G2YL)

THE only amateur signals reported during August were from the U.S.A., but a few commercial harmonics from Europe, Egypt and South America showed that the band was at times open in other directions. Towards the end of the month there was a slight but perceptible improvement in conditions, and the Autumn DX season will probably be approaching its climax by the time these Notes appear. What sort of a climax it will be, now that the W's are debarred from working DX, remains to be seen.

North American signals were logged on July 31, August 8, 13, 21, 22, 24 and 25, and unidentified 'phone carriers, probably W's, were heard in the band on August 11, 14, 21, 23 and 26. 2DYN burned some more midnight oil and was successful in hearing W2 and 4 on July 31, W1, 2, 3 and 8 on August 8, W1, 3, 4 and 9 on August 13, and W1, 2, 4 and 5 on August 21. All these were logged at times between 22.20 and 24.30 G.M.T. 2BGU heard a weak W station on August 24, and the following evening, 20.40—21.10 G.M.T. heard five stations in W1, 2 and 3. Two were calling CQ, and three working W6, and all were fading badly. BRS3003 heard a W1 at 18.26 on August 13, and W4YC on the 22nd, and G4MR logged WQA/W2XS, 31 Mc., at 18.30 G.M.T. on August 26.

From South America, G4MR and BRS3003 heard LSA/LSA2's 27 Mc. harmonic on 20 days, and the 31 Mc. one on 11 days. SUC was heard on August 14, and European commercials, viz., EAX, HAS2 and HBJ/HBW were heard on July 31 and on eight days in August.

Many thanks are due to G4MR, 2BGU, 2DYN and BRS3003 for their reports.

The Ultra-High Frequencies

By CONSTANCE HALL (G8LY)

Home News

ONE contributor to this month's notes evidently feels that he has little of interest to report, for he suggests that, if the writer understands the technique of news and does a good deal of scratching about, she might find a few scraps of news in his letter. Having obediently " scratched "—and let it be said that the writer *has* been scratching about for a whole twelve months now for news—the following details came to light. BRS1151, on August 3, at 19.10, found background noise in the 56 Mc. band very " bubbly," being two points above normal, and no signals heard, up to 20.00. August 5, at 20.15, noise level slightly above normal ; also on August 14 at 12.45, but back to normal at 20.35 (G.M.T.).

In a short article on S.W. conditions in the September issue of *Wireless World* a fade-out is reported as having taken place at 11.40 on July 9, and it was on this day (as reported here last month) that BRS1151 found 56 Mc. lively and heard C.W. for a few seconds at 19.30. Also included in the article is a list of days when static was troublesome, including all the days on which he noticed and *reported* it. Surely this again proves the value of reporting even if it does not appear to be of interest at the time.

G3YY and G8OS both report this month, but unfortunately neither has had time for much listening, though 8OS is, like most of us, thinking out his U.H.F. plans for later on !

In answer to 3YY's queries of last month, BRS1151 thinks that the difference in time between reception of fundamental and U.H.F. harmonics will necessitate stop watches and headphones attached to two receivers, one earpiece to each, but seems willing to co-operate—next spring.

2DXS writes for the first time, the question about possible reflection from the moon interesting him. It is hoped to give his theory in detail next month.

American News

Congratulations to W6QLZ and W3RL for their 1940 56 Mc. DX record of 2,000 miles, made at 08.15 (M.S.T.) on July 27, when the band appeared otherwise dead at QLZ. On the same morning, at 10.45, W6QLZ worked W8QQS, 1,650 miles, QLZ reporting 3RL 589X, and 8QQS 549X. It was on this day that BRS1151 reported a commercial harmonic after finding the band dead for 14 days.

We should also like to congratulate W6QZA/6 and W6MKS for their 213 miles contact on 112 Mc., and for a second one of 206 miles between W6QZA/6 and W6BK/6 on June 23 ; also W6BTI/6 and W6KIN/6 for a 255-mile contact on 112 Mc. with W6BJI/6 operating from a plane. This later contact took place on July 4.

Amateur Television

Three frequency bands are available to American amateurs for television transmissions, viz. : 112 Mc.–116 Mc., 224 Mc.–230 Mc., and all frequencies above 300 Mc.

* * *

G8OS, G3YY, 2DXS and BRS1151 are thanked for keeping the flag flying this month.

Air Defence Cadet Corps

One of the most urgent needs in the R.A.F. to-day is for trained wireless operators. In order to save a vital month or six weeks in the training of a new R.A.F. recruit, the Air Defence Cadet Corps Squadrons are making every effort to provide facilities for the training of Cadets.

Many Squadrons are held up in their training by lack of equipment, including buzzers, morse keys and head telephones.

Members who are in a position to donate morse equipment to the A.D.C.C. are invited to write to the London Area Controller, Sq. Ldr. H. W. Woollett, 1A Kinnaird House, Pall Mall East, S.W.1.

Qualified radio amateurs are still needed as Signals Instructors.

More Good Work by Amateurs

George Belsey, G4PX, and G. R. Pearson, G4DH, have for some months past been holding morse instruction classes in Birmingham for R.A.F. recruits who have enlisted and await calling up.

They have, up to date, passed out 130 trainees with speeds varying from 5 to 12 w.p.m. Practical oscillators have been built and presented to the recruits.

THE MONTH "OFF" THE AIR—August, 1940

By ARTHUR O. MILNE (G2MI)

THERE has been a welcome increase in the number of reports. Please keep it up. We apologise for the non-appearance of the cartoon, but our artist has been on leave. The series will be continued next month.

Here and There

G8PR says HB9CU is still going strong at 599. According to G8UO, this station gives his QRA as Hochalpen. So " hoch " that it smells ! 8PR also reports EK1JF. Is this EK1AF with a new call ? The station was heard working LU1CA.

Another comic call was S2M, or it may have been H2M. The spacing was very poor. Heard working UK3BJ on 14 Mc. SV1UF was also heard in contact with a Russian station, UK5KA.

G4AB reports HH2DNC on 7 Mc., rather a queer call, especially as he was S8 on an empty band.

JZJ, Tokio, 25·42 metres ; PMN, Bandoeng, 27·24 ; Chunking, XGX, 25·2, and JDY, Tawan, Formosa, have all been good on the short-wave B.C. bands.

G8UO mentions a contact between EA3XR and OK3SN, in which the former, congratulating the latter on his 5-watt signal, mentioned that he himself was using 2 kW. !

PY4AP has been a consistent signal on 14 Mc. with K5BR and CE3AG second best. K1JFK is an obvious suspect, as is SV1UU, heard working a D3.

BRS3766 heard KF6SJJ, C.W., at S4 on 14,375 kc., and KH6SHS at S3–4 on 14,390. The latter station uses 10 watts input to a 6L6 from D.C. mains, and was working W2VY at the time. Another good one was XU4DG, C.W., at S5. This shows what a full moon can do, comments 3766. Reminds us of a similar remark made by the owner of some greenhouses after an air raid !

Outstanding C.W. stations heard are J2IH (14,350 kc.), CX1BG, K5AG, ZP6AB, J2KY, CE3AG, K6PLZ, CR6AF, CM2WD and K6SJA, whilst the phones are OQ5AB—still going strong—HK2APP, K4DSA and TG9BA, together with a goodly sprinkling of LU's and PY's. He says the most consistent PY is PY4BR, who is usually S7–8.

G3YY has logged the following on 7 Mc. : U1AH, UK5KA, EA3XV, U3GI, UK5RA, UK5CX, ES2F, LZ3BK (!), UK3AA, UK5AA, HA5L, " LA8A," UE6BC, and about a dozen Germans. U3GI was calling " Test."

BRS3821 has a good list of DX heard, including CE3CK, CE3AK, CE3OG, CE4AD, LU6DJK our old friend CX1BG, XU8MY, TI2JC and ZP6AB, besides many others.

CM2WD was being called by VX2NA on July 31, but we have no information regarding this latest phoney. 3821 uses a mains 1–V–2 with a north-south doublet.

BRS3003 has heard " LZ1R " and " ZB2OL " on 14 Mc., and also K7LX, T7 at 22.10, G.M.T.

American News

Our usual notes from U.S.A. have not arrived this month, but the following odds and ends of information may be of interest :—

YN1OP, whose address is E. H. Andreas, P.O. Box 118, Managua, Nicaragua, says YN9G is not, and never was, in Nicaragua, so G2ZQ will not mind so much having lost him after all.

If anyone worked PK6XX and has not received a card they may be interested to know that the operator, VK4HN, is now at Tanque Verde Ranch, P.O. Box 1831, Tucson, Arizona.

BRS3627 tells us that OA7A, heard working W6MWK, is part of an expedition on the Rio del Madres, in Peru. The transmitter is mounted in two dugout canoes lashed together, and consists of a 10-watt final powered by storage batteries. He also mentions that cards are still coming through from some places. KA4LH, XU8LA, PK3GD, PK3BD, K6NYD and CO2RL are recent arrivals.

Sidney Hall, G3BR, who is serving with the R.A.F., advises us that YV2CU has been a ship operator since the war. Any amateur who contacted his station should have received confirmation *via* A.R.R.L.

Morse Proficiency

QST publishes details of a new certificate which is being offered for code proficiency, confined at present to members within U.S. territory who submit satisfactory copies of the matter sent out from W1AW for this purpose. Our own members may be interested in these transmissions, which are made simultaneously on 1,761, 3,825, 7,280, 14,254 and 28,600 kc. at the following times :—

15 w.p.m.	.. .. ..	03.15 B.S.T.
20 ,,	.. .. ..	03.20 ,,
25 ,,	.. .. ..	03.25 ,,
30 ,,	.. .. ..	03.30 ,,
35 ,,	.. .. ..	03.35 ,,

It will be noted that speed and number of minutes past the hour are the same.

In Memoriam

We feel sure that the announcement last month of the passing of dear old John Karlsson must have come as a great shock to his many friends in this country. SM6UA was one of those perfect gentlemen of the old school who seem to be dying out as the years go by.

A man of culture and some affluence, he possessed great charm and that calm dignity combined with genuine humility which denotes strength of character. There will be many amateurs in this war-wracked world who will mourn the death of this genial old friend. If there were more John Karlssons and fewer Adolf Hitlers in this world it would be a much happier place.

QSL BUREAU

It is regretted that the Society's QSL Bureau has had to be closed down for the time being. A further announcement will be made next month. G2MI.

* *44 Leeds Road, Harrogate, York.*

KHAKI AND BLUE

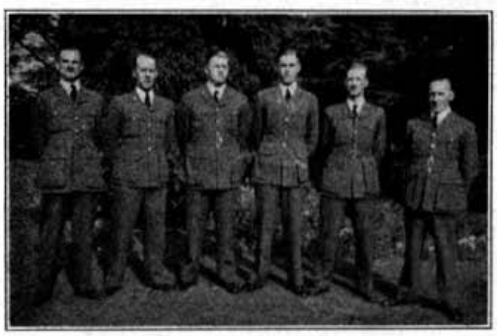
Items for inclusion in this exclusive feature should reach the Secretary-Editor not later than the first day of the month preceding date of publication.

F./Lt. John Hunter, G2ZQ, one of our premier DX men in days gone by, tells us that his party is very "hammy" in character, for included are F./O. Stan Conway, VS6AQ, F./Sgt. Ted Laker, G6LK, Sgt. Joe Rockell, G2ZV, Sgt. Maurice Swann, G5MS, and A.C.2 Phillip Malvern, G8DA. W. G. Pyke, G6PK, was recently with the "ZQ unit," but he has now obtained his commission and has joined a new unit.

* * *

Congratulations to F./Lt. Clarence Goode, G2OH, who was recently mentioned in despatches. Mr. Goode was a pre-war R.A.F. C.W.R. District Controller, and was in charge of the first party of reservists to go over to France.

* * *



DURING THE TAMING PROCESS!
A photograph taken at an R.A.F. Training School where (L. to R.) Pilot Officers Drage, 2BNI, Thorogood, G4KD, Dunsford, G6KD, Turner, BRS3823, Hendry, BRS3840, and Hubbard, G5OX, were undergoing a spot of physical jerks before being posted to courses!

L.A.C. Frank Lane, G3GW, tells us that as a result of an earlier reference in this column he has had a personal QSO with an A.A. from Tunbridge Wells. In reply to another "test call," *i.e.* a QSL card in the hut window, a G station replied, but unfortunately G3GW was on duty!

* * *

Our congratulations to P./O. Bert Simpson, G8DI, who, in addition to being granted a commission from the ranks (after serving as an A.C.1 for nine months in France), has recently taken unto himself a wife. Bert was for awhile stationed in GI, and from what we hear he has been much impressed with the fine Ham spirit shown by local amateurs. He tells us that they see to it that no G ham has a dull moment off duty, and from personal knowledge of Belfast's ability to show hospitality we can well imagine what that means! A recent party included EI8N, G3BR, 3AH, 6KS, 8SM and GI6TK. It was undoubtedly a "party" in the broad sense! G8DI visited GI5ZY (Whitehead) whilst in GI.

* * *

Many home members who knew Ted Cook, ZS6BT, under his English call of G6UO will be interested to learn that he has enlisted in the South African Corps of Signals. His present rank is lance-corporal. Ted wishes to be remembered to old friends.

* * *

Quartermaster Jean Gouillou, F8AY, is stationed near Warrington, and would like to meet local members. His full address can be obtained from Headquarters.

* * *

Friends of L/Sgt. Waddington, an operator of ZB2B, will join us in offering congratulations upon the arrival of a junior operator on June 25.

* * *

News is to hand from Sam Pollard, G2GB, who has recently taken charge of an A.M.E.S. in North Wales with the rank of Acting F./Lt. Sam will be glad to hear from old friends, who should write *via* his parents temporary, QRA, "St. Padarn," Madeira Drive, Widemouth Bay, near Bude, North Cornwall. He sends special greetings to Tony Chapman, G2IC.

* * *

North London members will join us in offering congrats. to Douglas Drage, 2BNI, who after a spell in France with the R.H.A. as a Signaller, has been granted a commission as P./O. in the R.A.F.V.R. Associated with him on a recent course in Leicestershire were such well-known calls as G4KD, 5OX and 6KD. He has now been posted to a station in Cambridgeshire.

* * *

Our Newport (Mon.) T.R., R. V. A. Allbright, G2JL, is now serving as Ord. Tel. in the R.N. At the moment he is receiving instruction at a naval camp in Gloucestershire. He will be pleased to hear from all old friends *via* his home address at 2 Palmyra Place, Newport.

* * *

Dvr. J. Cairns, G3VC, records that during the Dunkirk evacuation he left eight copies of THE BULLETIN in the bandstand at the eastern end of the beach. He would be interested to know if any amateur came across them later, as the bandstand was invariably full of men awaiting their turn for boats.

G3VC has recently had the pleasure of meeting G3WP, 8LI and 8WC, and was a welcomed visitor to the recent meeting at G2YL. He will be glad to hear from old friends *via* his home address at 45 Denmark Street, Lancaster.

F. Moore (G3ZM), of Nelson, is serving as a L.A.C. in the R.A.F.

Presenting the new **MURPHY**

SHORT-WAVE "STATION-MASTER"

The Murphy Short-Wave "Station-Master" Mains and Battery Models feature short-wave station names which at last have a true meaning and lead to unusual simplicity of short-wave tuning. The accuracy and stability of the calibration are such that it is possible to tune and re-tune any given short-wave station with certainty.

The Short-Wave Station-Master embodies marked advances in all the requirements which the Murphy tradition of short-wave "specials" has established in the last few years: (1) Ease of tuning; (2) Adequate image suppression; (3) Adequate gain—more sensitivity being required on short waves than on the ordinary wavebands; and (4) Frequency stability to permit accurate tuning and retuning of a given short-wave station.

STATION NAMES ON SHORT WAVES

The most striking feature of the "Station-Master" is the scale, on which no distinction is made between the six short-wave bands covered and the two normal broadcast bands. A separate scale with station names has been provided for each of the short wavebands, as well as for the medium and long wavebands, the required range being selected by one of the eight push-buttons provided. No fewer than 95 short-wave stations are calibrated by name on the six short wavebands. A separate set of coils is brought into operation for each short waveband, and band-spreading is achieved by small condensers in series with the main tuning condenser. The effect is to make tuning on the short wavebands as "broad" and as easy as it is on medium and long waves.

Hitherto, tuning short-wave stations, even on sets with some form of band-spreading, has been more difficult than tuning medium-wave stations, largely because it has not been possible to provide the ten-fold increase in calibration accuracy needed to make the scale markings equally reliable. Under such conditions, calibrating short-wave scales with station names was not only useless, but also misleading.

As an alternative, logging dials of various sorts have been provided and have proved quite useful to people who were prepared to take a little trouble—but they still fell short of our ideal of real simplicity and certainty in tuning short-wave stations.

The "Station-Master" represents an approach to this ideal—an approach made possible by our previous experience in producing commercial "band-spread" receivers, coupled with the evolution of more stable circuits, in the following ways. In the oscillator circuit "warming up" drift due to changes in valve capacities has been reduced by using larger fixed tank capacities across the coils. One of these has a negative temperature coefficient, so that drift due to changes of temperature, whether due to the heating up of the set itself, or changes in room temperature, are compensated. Drift due to changes of atmospheric humidity has been reduced by suitable impregnation of the oscillator coils. The fixed tuning capacities are of the silver-on-mica type and are wax impregnated.

WAVEBANDS COVERED

The usual 21-metre amateur band has been replaced by the 13-metre broadcast band, and the 42-metre broadcast band has been incorporated with the 49-metre band. The tuning arrangements are such that this can be done while maintaining adequate band-spreading, but only a very rough station name calibration is possible on 42 metres. This band is not considered important enough to justify the added complication and cost of a button and scale to itself.

On laboratory tests the accuracy and stability of the short-wave scales are surprisingly good, but with such a radically new development caution is necessary, and it would be unwise to expect the short-wave station names to be as completely reliable indications as the normal medium-wave station names, especially since the stations themselves cannot all be relied on to keep their allotted wavelengths.

But if the short-wave names are regarded as "signposts," they will be found extremely useful, and the improvement in ease of operation is remarkable.

OTHER TECHNICAL ADVANCES

A new image suppression circuit using the capacity-tap principle has been developed for short waves, and is extremely simple and effective.

Automatic volume control on the "Station-Master" is undelayed. This tends to minimise the annoyance of selective fading on short waves, and also results in a slight increase of selectivity. Gain is increased by the use of an HL41DD valve following the mixer, in place of the usual variable-mu type. A heterodyne whistle-filter is connected in the anode circuit of the output valve.

A high-slope R.F. amplifying stage, using a Mazda television type SP41 valve, is employed on short waves only and is followed by the new image suppression device mentioned earlier. A Colpitts oscillator circuit is used, and is band-spread, in common with the inter-valve circuit, by small condensers in series with the main tuning condenser. As the aerial circuit is in any case damped by the aerial itself, it is pre-set to the middle of the various bands.

A limit is set by the prevailing noise-level to the amount of sensitivity which can be usefully employed in a receiver. Too much gain in the R.F. stage is a frequent cause of interference, due to stations 465 kcs. apart interacting with each other and with the wanted station at the frequency-changer.

There is thus a more or less definite optimum value, and advantage is taken of the fact that we use switched inductances in the "Station-Master" suitable to "doctor" the R.F. stage on each waveband to maintain its gain as close as possible on all wavebands to this optimum value.

REPRODUCTION

Emphasis has been placed in the "Station-Master" on range and performance. Variable selectivity has been omitted in the interests of other features felt to be more important at the present time, but apart from this limitation, quality will be found to be of an unusually high standard. The Pen45 output tetrode delivers ample power to the 8-inch moving-coil speaker, which has a remarkably well-balanced response.

Special attention has been given to the response on short waves, and here emphasis must be placed on speech rather than on music, and where a response which is optimum for music is liable to have too much bass for optimum intelligibility on speech. This effect is accentuated when the tone control is turned down, as is so frequently necessary on short waves to remove noise and interference. For this reason, the bass response has been slightly restricted on the short-wave ranges, and the intelligibility of "difficult" short-wave stations has been thereby improved.

* * *

THE BATTERY SHORT-WAVE "STATION-MASTER"

There is also a battery-operated edition of the "Station-Master" incorporating most of the outstanding short-wave performance features of the mains model. It is, in fact, the first commercial battery receiver to offer anything like this high standard of short-wave performance.

CASH PRICES:

A.C. MAINS SHORT-WAVE "STATION-MASTER" £15-15-0 **BATTERY SHORT-WAVE "STATION-MASTER" £14-10-0 (without Batteries)**

All Murphy sets, exclusive of valves and batteries, guaranteed for one year. Prices do not apply in Eire. Hire Purchase Terms are still available from most Murphy Dealers.

C.R.C.963

Martin Bourke, 2AOU, until recently our representative in the Channel Islands, and now a Signalman in the R. C. of S., would like to meet any members located in the Bucks area. His home QRA is now 205 Park Road, Barnsley.

* * *

P./O. H. W. Pope, G3HT, indefatigable worker for the Edgware Society, sends greetings to all old friends, especially those in Districts 12 and 15.

CAPTAIN TITCH
One fine day Capt. C. R. Emary, M.B.E., G5GH, VS6AX, etc., may tell us something of his adventures. At the moment we can only present him giving Nelly Corry the GO TO IT grin.

A.C.2 Philip Malvern, G8DA, would like to hear from F./Lt. Mansell, G6IH, and F./Lt. W. G. Money, G2UP. Letters should be sent *via* his home address, 10 Selkerk Street, Cheltenham.

* * *

Sig. K. N. Smith, serving with the R. C. of S., has met many hams in the course of his duties. His greatest surprise was when he discovered that his section sergeant was VU2FX !

* * *

T. C. R. Littlemore, G8AX, is now serving at a R.N. shore W./T. station and would like to meet local amateurs. He can be reached *via* friends at 19 Vermont Street, Beverley Road, Hull.

* * *

The mess at No. 2 E. and W. S. continues to house a number of well-known hams. Present trainees include G5OX, 5LB and 3HT, all of whom hope to remain there for the meeting on September 29. Meantime, they extend a hearty welcome to any member who has occasion to visit the School.

* * *

The many friends of Capt. R. H. B. Candow, R.A.O.C. (GM3SC) will be pleased to hear that although in the water for three hours after the *Lancastria* went down, he arrived back safely to England little the worse for his experience.

* * *

Bill Wadsworth (VE5ZM) best known of all the Canadian amateurs in England on active service, receives our warm congratulations upon being granted a commission as Pilot Officer in the R.A.F.V.R. Bill has been itching for a chance to get into the R.A.F. having discovered that many of his DX pals are in that Service ! We wish him good luck in his new sphere of activities. Letters may be sent via G6CL.

* * *

Information has reached us from Mrs. Margaret Frost that her son 2/Lt. E. M. Frost, R.A., BRS.-2692 of Derby, is now a prisoner of war.

Although it will be impossible to convey our greetings to Mr. Frost, *via* the medium of this Journal, we associate ourselves with his relatives and friends in a prayer for his early return.

* * *

Congratulations to H. B. Dent, R.A.F.V.R. G2MC, late of *The Wireless World* Technical staff, and a very old Society member, who has recently been promoted to the rank of Squadron Leader.

* * *

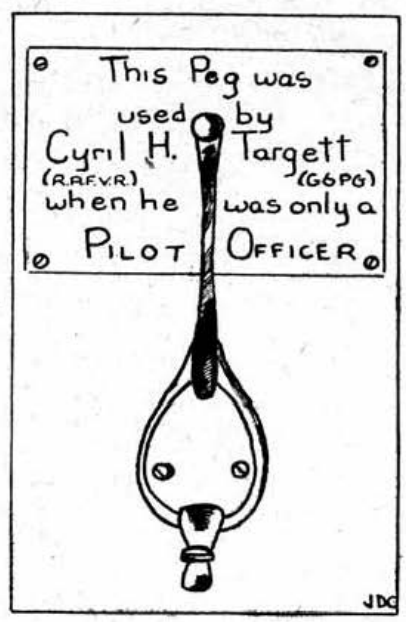
Scottish amateurs will be interested to hear that Bill Grant, GM4DG has just completed his first voyage to Brazil as a Radio Officer in the Merchant Navy. He had no time to visit any of the PY hams, but hopes to do so on his next trip. His best DX was the reception on 600 metres of Lands End when about 15° south of the Line.

* * *

Vic Sims' call sign is G5VS, not G5VB as erroneously given in the caption accompanying the photograph which appeared in our last issue.

* * *

Cpl. T. B. Wimbush, R.A.F., ex SU1TW and G6HP, has just left for Canada. Before his departure we understand he changed his bachelor estate. In wishing him good luck whilst abroad we offer our felicitations on his marriage. Tom can be written to *via* Stay Brite, Grange Road, Bristol 3.



At the moment of writing the above highly-honoured peg is achieving still higher honour by supporting the forage cap and gas mask of Pilot-Officer OXO.

WINGS OVER THE WEST

SUNDAY, August 4, 1940, will long be remembered by the forty odd radio amateurs who were lucky enough to attend the first official R.S.G.B. meeting ever held at the No. 2 E. & W. School of the R.A.F. The meeting itself took place in Camp due to food rationing difficulties in the "outside world," the actual venue being the library of the N.A.A.F.I. Canteen.

The meeting was fortunate in having as its guests Squadron Leader H. W. St. John, D.F.C. (MQI) and Cadet F./Lt. Clarricoats (G6CL), Secretary-Editor of the R.S.G.B. The proceedings were opened by F./Lt. C. W. Plant (G8DU) who introduced G6CL to the company, although this formal ceremony was scarcely necessary as our worthy "Sec." had personally introduced himself to all present.

In opening his talk, G6CL stressed the necessity of upholding, for the duration of the meeting, the theme of the old Toc H motto "Abandon rank all ye who enter here." How well *all* ranks responded, was apparent during the latter part of the proceedings when everyone mingled, as in days of peace.

During Clarry's talk he outlined for the benefit of newer members, the growth of the Society, stressing the importance of August 4, 1914, as a date which was a turning point in amateur radio, as well as world history. He described the work being undertaken by the Society to-day, especially stressing the desire of Headquarters to render a maximum degree of service to members in the armed forces. His announcement that nearly 1,000 members had been listed as on active service brought forth a round of applause.

The importance of co-operation between all amateurs was emphasised and a strong appeal made for the continuation of regular meetings in Camp. In this connection a suggestion that weekly Ham gatherings be held was promptly supported, as was a suggestion to hold a further official meeting on September 29.

The news that the second Edition of *The Amateur Radio Handbook* was now available, resulted in a minor stampede to place orders for copies!

Among other subjects dealt with by G6CL was the future of THE BULLETIN, Experimental Section activities, subscriptions, liaison with the R.A.F. and the other Services, the C.W.R., Ham Hospitality, and organised meetings for service members. The work being done by Society members in connection with A.D.C.C. Squadrons was mentioned and the suggestion made that R.A.F. personnel when on long leave should contact their local Squadron with a view to giving the cadets a lecture on R.A.F. life.

Following the talk, the company prepared itself for the ordeal of the camera after which F./Lt. J. S. Bamford (G5JB) contrived to put history on to his film camera. The rush towards the operator (at his own request) did nothing to upset the dignity of our old friend from Scotland!

R.A.F. Conventionette, No. 2 E. & W. School, August 4, 1940
Present in the centre of the group are Sq./Ldr. H. W. St. John, G2JH, 3JR, 5JB, 5JU, 5VU, 6CL, 6PG
Seated centrally F./Lt. Plant, G8DU, Chairman of the meeting.

At this stage P./O. J. N. Walker (G5JU) who had put in an appearance from the skies, was compelled to return from whence he came. His visit was greatly appreciated by all.

Tea followed, at which rag chewing predominated. Many were the tales of DX that winged their way across the tables.

The meeting was then resumed, with Cpl. Alec Heathcote (G3JR) playing the role of chief actor. In most entertaining style he discussed the results obtained with a special type of three band aerial which he designed just prior to the war. His discourse was followed by a series of five-minute talks "invented" by G3JR and Cpl. Bridges

(BRS.935) (a prime mover in arranging the meeting who was prevented at the last minute from attending). Under the watchful eye of G6CL, P./O. Henton (G5VU) and Squadron Leader St. John contrived (some said by a wangle!) to make our worthy Chairman (G8DU) rise to deal with the first query out of the haversack. And what a subject! In a truly brilliant effusion which lasted *exactly* five minutes F./Lt. Plant told us which he preferred —marriage or radio. As Mrs. 8DU may read our scribbling, we refuse to record which he chose—if either! Other speakers had the task thrust upon them of dealing with such awkward subjects as "Some Queer QSO's I have had," "Forty Metres on Sunday mornings" and "DX I have not worked." F./Lt. J. H. Hankinson (G2JH) did his best with the latter subject but was counted out after 3 minutes, 28 seconds, having exhausted his list!

The meeting terminated with a vote of thanks to G6CL proposed by Squadron Leader St. John who, in the course of his remarks made clear the tremendous amount of good work done by our Secretary both on behalf of the Society and in connection with the C.W.R. He spoke warmly of G6CL's live interest in the R.A.F. and its problems and his desire to find out for himself what is happening to members on active service throughout the country. P./O. Henton supported the motion which was carried with great enthusiasm.

In his reply Clarry expressed, on behalf of those present, thanks to all who had contributed to the unqualified success of the meeting, mentioning in particular Messrs. Plant, Henton, Heathcote and Bridges. He paid warm tribute to Squadron Leader St. John for his great help to, and interest in, the Society, and as a small token of appreciation presented to him a suitably inscribed copy of the new edition of the Society's Handbook.

Among those present were: G2YK, 2SX, 2JH, 3JR, 3VI, 3UG, 3XP, 4BQ, 4HJ, 4PA, 5JB, 5JU, 5NA, 5PN, 5PQ, 5VU, 6FU, 6PG, 6ZP, 8BA, 8DU, 2AIJ, 2AJW, 2BRM, 2DGJ, 2HBG, BRS.2550, Messrs. Adams, Baines, Brookes, Chadwick, Donald, Kidson, McMillan, Towers, Trelease. Several of the latter have now joined the Society.

Tail Piece

It is rumoured that a special size of parachute harness is being produced in time for the meeting on September 29 as G6CL refuses to allow a repetition of the undignified conduct of three strong "hams" who endeavoured to make ends meet with the standard harness. MQI's evidence as to tail heaviness of the "Magi" would be of interest!

C. H. T.

KHAKI AND BLUE IN GI.

By Tick Tock

IN company with all their G, GW and GM friends the GI's went off the air just a year ago, but did that stop amateur radio in the good old North? No Sirree! True, quite a lot of the locals left to join the forces, including GI3ML, 5HV, 2DYO (Royal Navy), and GI4OB, 5AJ, 4DX, 5SQ, 8MI, 2BNM, 2COF, 2DZG, 2FDL (Royal Signals). Incidentally all of them have seen service in France or other parts of the world.

But while our own folk have been away, our friends from all over Britain have been paying a visit to GI and having a good time into the bargain. Visitor No. 1 was our old friend John Graham, GM3TR, who in pre-war days operated the most northerly station of our islands. John stayed quite a time and just as he was getting settled to life in GI away he went to other fields. Then came L. E. H. Scholefield, G5SO ex EP5SO, who will remember our country because he took the air in it and learned how to fly. Good luck O.M. if you should read this story. Then the Navy arrived in the person of Lyn Jones, GW3XY, and although he had but a short stay he made many friends. Lyn is 6 ft. 3 in. and is every inch a Ham. Then the Gang started to arrive in earnest, first came Harry Caunce, G6KS of Liverpool, G4LZ of Bristol with 2AJV, 2CKQ and 2DBO. This little bunch attended some of the Y.M.C.A. Radio Club meetings and lectures before the season ended. Of these G4LZ and 2AJV have returned to G. Alan Mears, G8SM shortly afterwards arrived and is now residing a few hundred yards from GI6TK. Alan whose photo is herewith, is Treasurer of the Thames Valley A.R.T.S., and a local R.S.G.B. T.R.

Newcomers in recent weeks included FrankAdams, G2YN (late of *Webbs Radio*), Bert Simpson, G8DI (now a pilot officer), Sidney Hall, G3BR, J. W. Wightman, G3AH, and Stan W. Clark, 2AMW (assistant editor of the *S.W. Magazine*), and herewith hangs one of many tales. G3BR, 3AH, 8DI, 2AMW, an ex-amateur Mr. Siddon, with GI6TK as "gang leader," decided to visit Tommy Smith, GI5ZY, who owns a well-known P . . B! in Belfast. On the way to meet 5ZY at about 7.30 one Saturday night the party were suddenly brought to a standstill outside a famous hotel by the sight of a super Dodge with two large R.S.G.B. emblems proudly displayed on the rear informing the world at large that the car belonged to EI8N/G4JL. This "shock" was of course too much for six hams, consequently a

G's IN GI

From left to right: Harry Caunce, G6KS, Bert Simpson, G8DI, and Frank Adams, G2YN. The little lady is daughter of the photographer, Frank Robb, GI6TK.

(*Continued on page* 92.)

ON ACTIVE SERVICE

TWELFTH LIST

WE publish below our twelfth list of radio amateurs on active service. Additional details and corrections should be advised to Headquarters as early as possible. The present list contains information received up to September 2, 1940.

Rank and Name	Regiment or Branch	Pre-war Call or B.R.S.
Ord./Tel. R. V. Allbright	R.N. ..	G2JL
A.C.2 P. T. Beer ..	R.A.F. ..	G3AM
A.C.2 G. D. Bolam ..	,, ..	3833
Sig. M. G. Bourke ..	R.C. of S. ..	2AOU
A.C.2 R. Buckstone ..	R.A.F. ..	G5JR
Pte. R. Butler	A.M.P.C. ..	2BUW
Sig. F. H. Chambers ..	R.C. of S. ..	2FYT
L.A.C. C. Clark ..	R.A.F. ..	2ASU
L./Cpl. E. R. Cook ..	S.A. Corps of Signals.	ZS6BT-G6UO
L.A.C. J. C. Croome ..	R.A.F. ..	2CXP
Lt. (E) I. D. Cuffe* ..	R.N.V.R. ..	VK2XC
Cpl. R. A. Farmer ..	R.A.F. ..	3836
F./O. R. A. F. Farquharson	,, ..	G4IK-VS7RF
A.C.2 F. Field* ..	,, ..	2CFD
A.C.1 A. W. Gale ..	,, ..	G3XN
A.C.2 F. W. Golding ..	,, ..	3561
F./Lt. J. Hankinson ..	,, ..	G2JH
A.C.2 K. T. Harvey ..	,, ..	G5KT
P./O. D. Hendry ..	,, ..	3840
A.C.2 H. W. A. Holloway	R.A.F. ..	2DGW
Sig. N. G. Hyde ..	R.C. of S. ..	2AIH
A.C.2 R. C. Kenny ..	R.A.F. ..	3825
P./O. H. F. Maddox ..	,, ..	3828
Capt. H. G. Mappin* ..	R.C. of S. ..	G3BS
A.C.2 L. Melville ..	R.A.F. ..	3843
2/Lt. A. D. Monkhouse	—	2DTS
Pte. W. W. D. Moore ..	R.A.P.C. ..	2CDM
A.C.2 G. R. C. Parry ..	R.A.F. ..	2993
A.C.2 J. Payton ..	,, ..	G2JB
P./O. G. R. Pearson* ..	,, ..	G4DH
F./Lt. C. A. J. Plant ..	,, ..	G8DU
P./O. H. W. Pope ..	,, ..	G3HT
L./Cpl. A. Roebuck ..	A.D. Corps	G8VK
Writer T. L. Stevens ..	R.N. ..	G3XV
L.A.C. E. Sugden ..	R.A.F. ..	3839
L.A.C. H. Tipton ..	,, ..	3938
F./Lt. R. Turner ..	,, ..	3841
Lt./Comdr. G. C. F. Whitaker	R.N. ..	AC3GW
Cpl. F. E. Wyer ..	R.A.F. ..	G8RY

* *Non-members.*

P./O. D. Drage, R.A.F. (2BNI), previously recorded as Sig., R.H.A.

P./O. W. D. Wadsworth, R.A.F. (VE5ZM), previously recorded as Gnr., R.C.A.

Ham Coincidence No. 7

Frank Adams, G2YN, who is a sergeant in the R.A.F., recently had the job of erecting four masts, each 70ft. high, and of wiring up two receivers and two fairly powerful transmitters with remote control. The job was urgent and as he had the services of only four very inexperienced assistants, he asked for some skilled labour. As an expert fitting party had just arrived at his station from England, they were deputed to report to G2YN. As he had not met a single ham after ten months of service in France, his pleasure can be well imagined when the party introduced themselves as G3BR of Bromley, 3JO of Swindon, 3AH of Manchester, and 2AMV late of the Short Wave Magazine. To quote Frank's own words, " It would be superfluous to add that we had the job buttoned up in a very short time."

Ham Coincidence No. 8

The scene is a tiny village post office in the county of Pembroke, South Wales. The time, early afternoon. Enter LAC Henry Abraham, GW3AJ, for the set purpose of purchasing stamps.

For some reason, best known to the parties concerned, talk turned to radio. Within a matter of seconds GW3AJ was confronted with the Active Service list from the May BULLETIN. The postmistress with pride pointed to the name " W. T. J. Cox, GW8QI." " That's my son, who is serving with the R.A.F. as a radio mechanic."

Small world, eh, Chums ?

Ham Coincidence No. 9

Southgate (North London) was among the first boroughs to organise open-air M.O.I. public meetings. At the third of the series the speaker was Beverley Baxter, M.P. for Wood Green. Accompanying him was an R.A.F. officer wearing Great War medal ribbons and the oak leaf symbol, signifying a mention in despatches.

After the principal speech, the R.A.F. officer, who had been seated on the platform by the side of G6CL, was asked to say a few words about the R.A.F. No inkling of his identity had reached the ear of the writer of this coincidence, but there occurred in his address four words which arrested attention—" near the Maginot Line."

Immediately the meeting was over G6CL made contact and began probing for a clue. It came within 10 seconds. The speaker was none other than F./Lt. Clarence Goode, G2OH, one of the original C.W.R. Controllers, and O/C. the first C.W.R. draft to France.

On the green sward of the Rose Lawn in Broomfield Park, Southgate, a hundred or more miles away from G2OH's home town in Leicester, the two " Clarry's " indulged in reminiscences until there came a tap on the arm from Mr. Baxter reminding G2OH that they had a DX journey to make.

The many members who went to France with F./Lt. Goode will be interested to learn that he is now engaged with Mr. Beverley Baxter upon important work in connection with the Ministry of Aircraft Production.

73.

WE would direct the attention of those sending in lists of calls for inclusion in this feature to the fact that no useful purpose is served by referring to Continental and foreign call signs other than U.S.A.

To avoid any further misunderstanding we have drawn up the following simple rules :—

1. Lists must be set out in strict alphabetical order of call sign.
2. The style must adhere exactly to the example given below :

   G9AA* (20 Smith Street, London, S.W.30) to G1AB, 2ZZ, 3YY, 4BB, 5ZO, 6ZY.
3. Lists of Calls *must* be sent to Headquarters on a separate sheet of paper or postcard and be very clearly written.
4. Only British Isles, British Empire and U.S.A. calls may be included.
5. Not more than 12 calls may be included in any one list. Lists which fail to conform to the rules will not be published.

* *Service members will give their regiment or home address only.*

G2YN (R.A.F.) to G2CN, 3JX, 4IG, 5UM, 5ZJ, 6CT, 6IF, 6UT.

* * *

G3NA (52 Prout Grove, Neasden, N.W.10), to G3FS, 3GS, 3YK, 3ZI, 4IG, 4BW, 5BQ, 6QF, 8AX, 8NA.

* * *

G3WW (6 St. Peters Road, March), to G4BO, 5TN, 6BW, W8AAJ, EI8L, EI7M.

* * *

G3RB (R.C. of S.) G2FX, 3AC, 3II, 4FM, 4HW, 5YV, 6ZN, 8KP.

* * *

G4DF (5 Cumberland Road, Southport), to G2IN, 3FM, 4CF, 6WH, 6YR, 8QG and all Southport amateurs on active service.

* * *

G8AX (The Radio Centre, Mattishall, Dereham, Norfolk), to G2GU, 2JP, 2SO, 3FT, 3WW, 5BW, 5LW, 5QO, 5TZ, 6JB, 8TL, W1DQ.

* * *

G3YY (1A Dover Road, Brighton), to G3LK, 4AY, GI5HU, G6FO, 6RM, GM6WD, 2AAH, 2CIL, BRS.1173, BERS.195, W3CWU.

* * *

G3UC (R.A.), to G2VO, 3KO, 3IM, 3WP, 3ZO, 4FO, 6VX, 8LI, 8MV, 8UB, 8WC, 2DYV, 2DYU, 2DAF, 2GCQ.

* * *

G4CH (30 Bower Lane, Hollinwood, nr. Oldham), to G2FX, 3FS, 3IV, 3WU, 3XK, 3YW, 4NY, 8BW, 8PO, GI8GK, GM8RU.

* * *

G8KP (R.A.F.), to G3RB, 4HW, 5YV, 6ZN, 8PO, W2GW, W8JAH. Correspondence via home QRA.

* * *

G8RY (Wolverhampton), to G2AA, 2NO, 3AG, 8FP, 8RO, GM8MN, EI2L, 4L, 6J, 8J and W8LIH.

* * *

2DQL (19 Woodstock Road, Barnsley), to GM5FT, GI5UW, G5SB, 8AO, GW8HZ, W2IXY, 9FOD and all old ham friends.

G3QA (2 St. Mary's Cottages, Hart Road, Thundersley), to G2LC, 3GF, 3JW, 5IL, 5RI, 5XI, 6NU, 6RQ, 6VC, GI8LF and all 1·7 Mc. friends.

* * *

G3XV (Post Office, Donnington Wood, Wellington, Shropshire), to G2FX, 2SO, 3GS, 3WP, 3XN, 4CP, 5FA, 6KR, 8JC.

* * *

G4HK (R.A.F.), to G3HZ, 3MR, 2DRR, 2BKO, 2FPM and all members of the Manchester Section (Group 1).

* * *

G8DA (R.A.F.), to G2UP, 2ZC, 3LZ, 3YZ, 4IT, 5KV, 6IH, 8BA, SU1RD, W1KTG.

* * *

G3HK (Nelson, Lancs.), to G2OB, 2RB, 3IV, 3IY, 3KT, 3LP, 3UF, 3WU, 3XK, 3ZM, 8UO, EI9M.

* * *

G5KT (R.A.F.), to G2JL, 3GH, GW5BI, G5JL, 6GM, 6LM, 8JM, W1GBO, 1IKT, 3AWH, 3KT, 6TI.

* * *

2BVD (3 Bedford Place, Bristol, 2), to G3RQ, 4CM, 5JU, 2BSU, GW3CR.

* * *

G4DR (7 Padwell Lane, Thurnby, Leics.), to G4BB, 4FD, 4OM, 5MY, 5UQ, 8FM, 8LO, GI3KN, 3KV, GM8HM, EI4P.

* * *

G4NU (Leeds), to G3BB, 3PT, 3RO, 4BM, 4GH, 4OH, 4QC, 8DZ, 2FZM.

* * *

G6KR (" Ardlui," Wenlock Road, Shrewsbury, Shropshire), G3PX, 3XV, 4KX, 5YP, 8DK, 8JC, 2AFA, 2BMN, 2DAQ, 2OAU, VK4EL.

* * *

G3WP (c/o 41 Queen Street, Brightlingsea, Essex), to G2GU, 2SO, 2SZ, 3BI, 3FT, 3OJ, 3UC, 4GT, 6ST, 8TL and the operators at ZB2B.

* * *

G8VN (7 Lawrence Road, Rugby), to G2NJ, 2UJ, 3CJ, 3DI, 3FT, 3GS, 3LT, 5UM, 6CI, 6OZ, 8GI, 8SG.

* * *

G4BO (1 Cinder Lane, Liverpool, 18), to G2HB, 2IU, 2IW, 3DJ, 3YK, 3ZO, 4JS, 4JZ, 5CJ, 5MV, 5RT, 6BW, 8IT, 8JN, 8QJ, 8UJ.

* * *

GI6TK (60 Victoria Avenue, Sydenham, Belfast, N.I.), to EI2M, 2L, 8N, 9J, G2YL, 4CI, 5CJ, 8DI, 8FU, GM2UU, GM3OM, VE5ADD.

BRITISH ISLES NOTES AND NEWS

DISTRICT 5 (Western)

The appended report has reached us from our Bristol T.R., Mr. A. A. Uppington, 2BAR, 63 Stapleton Road, Bristol, 2.

Bristol.—Members who remain at home desire to send a special message of greeting to their local friends on active service. Those present at the August meeting and associated with that sentiment included G3YT, 6RB, 8PN, 8TC, 2BAR, 2BDV, 2BYU and 2FBV.

G3YT has recently constructed a super bug-key, whilst 2BVD says that " now he can't " he *could* pass his morse test standing on his head ! 2BFV has completed and perfected his push-pull amplifier with dual input and output control. Many members are too busy to attend monthly meetings, but they extend best wishes to all absent friends and wish them a safe and speedy return.

gatherings for the Services owing to the difficulty of finding venues in the particular localities that would be convenient for such members. Attempts are still being made to overcome this difficulty, and we hope to have better news next month.

Guildford and Woking.—Congratulations are extended to G8NT, who is to marry soon. Rumour has it that 6NA is contemplating a similar step. A very bronzed 6LK has been seen around the town recently, showing that life in the R.A.F. agrees with our " DX Hound." 5YA returned for a few days whilst recuperating from his sojourn in hospital. 6NK is busy instructing the local A.D.C.C. Squadron in the mysteries of the dot and dash. Welcome to 2UX and 6WO, who have been evacuated to this area.

Bournemouth.—G4KV, after escaping from the " Lancastria," arrived home safely from a series of

KHAKI, BLUE AND TWEEDS

Pre-war parties at G2YL were famous, but surely few can have brought together so many well-known names in the ham world as the one held at "Redholm" on August 25, 1940. Present in the above group are G2YL, 8LY, 2ZC, 6NF, 5WP, 6LK, 5GH (VS6AX), 5YA, 2NH, 5LT, 4CL (ZB2A), 6LL, 6CL, 8KZ, 6NK, to say nothing of many other service amateurs, including VE3UH (RCN), 2BQC and 8TB (two of the R.A.F. " Early Birds ").

DISTRICT 7 (Southern)

A most enjoyable Ham Gathering was held at G2YL's home on August 25. Among the 40 odd members and friends present we observed representatives of all three fighting services and not a little " real DX " of pre-war days. Outstanding visitors were Capt. Emary, VS6AX–G5GH, M.S.M. Chas. Kirk, ZB2A–G4CL, with VE3UH representing Canada and FRS48 Egypt. G2NH, 6LL, 6NF and " Clarry " represented Headquarters—the latter wielding a pretty knife when cutting the special " Ham " cake, put on by our hostess and her parents. The photograph which accompanies these notes will convey an idea of the " cosmopolitan " nature of the gathering.

On behalf of all who attended, the writer extends warm thanks to Mr., Mrs. and Miss Corry for their hospitality.

It is regretted that it is not possible at present to make an announcement concerning further district

remarkable adventures. Best wishes to 5OH and 2HMX, who have left for Birmingham and Southampton respectively. 2HNO has been appointed T.R. for this area. Please send material for inclusion in these notes to him at " Maitlands," Parkwood Road, Bournemouth.

DISTRICT 8 (Home Counties)

The only member to report this month is G2NJ, of Peterborough, the most indefatigable of all our T.R.'s. One or two other members have called on the D.R., but absence of news is understandable under present conditions.

Cambridge.—G5BQ recently called on 2XV and found that he has all his sky-wires neatly labelled and stored. He longs for the day when they will be aloft again. 5DR, now employed by the Air Ministry, is in South Wales for a time. 5DQ, still stationed in Suffolk, has been transferred to the Signals branch of his regiment. 5JO is putting in

long hours on war work. 2PU is interested in the possibilities of Television transmissions for amateurs, and is following U.S.A. developments with interest.

Peterborough.—G3DY is at the key again—but not on the air. Actually he is giving the Home Guard, of which he is a member, tuition in Morse. Seeing that he is also attached to A.R.P. control, his spare time must be very fully occupied. 2NJ, who does a lot of listening, comments on the increased activity on 7 Mc in the evenings. D's seem to be increasing and he also reports hearing an OK on this band.

Luton.—Mr. Folland, BRS3610, who is attached to the G.P.O. is working in Cambridge for a time. He called for a rag-chew, and reported the Luton Group as being well, but busy.

St. Ives.—G4AZ means to develop into a real C.W. DX man when he does get on the air again. He, and 5RL, occasionally fetch out the old buzzer, and indulge in a spot of 35 w.p.m.

While these notes were in preparation 5DQ looked in, being home on 24 hours' leave. He sends 73 to all the boys.

Will some of you who have not reported recently please make an effort during the coming month? We get plenty of enquiries, but can so rarely give definite information of your whereabouts. (See Editorial remarks in this issue.) G5BQ.

Forthcoming Events

Sept.	21	District 15, 2.30 p.m. at The Excelsior Hotel, Ladbroke Grove, W.
,,	29	R.A.F. Conventionette, 2.30 p.m. No. 2 Wing, N.A.A.F.I., No. 2 E. & W. S.
Oct.	6	District 12, 3 p.m. at G5FA, 35 Torrington Gardens, N.11.

DISTRICT 10 (South Wales and Monmouth)

Although no meetings have been held in Cardiff for the past two months, the T.R., GW4KQ, and the Scribe, G5FN, hope to start them up again almost at once. Members in and around the city are asked to communicate with either of the above so that advice can be forwarded as soon as arrangements have been made.

Several reports have been received from outlying parts of the District.

Best wishes are extended to the Newport T.R., Mr. R. V. Allbright, G2JL, who has joined the Navy. News from other Service members will be welcomed by the writer. Correspondence should be sent to him at 38 Africa Gardens, Cardiff. G5FN.

DISTRICT 12 (London North and Hertford)

As announced in last month's issue, local meetings are to recommence. The first will be held at G5FA, 35 Torrington Gardens, New Southgate, N.11, on Sunday, October 6, at 3 p.m. (Telephone, ENTerprise 4347). It is proposed that meetings shall mostly be held at members' homes as was the case last winter, with occasional lectures or talks at the Orpheum, Temple Fortune, as circumstances permit, the latter to enable the district as a whole to meet together.

News is scarce again this month—will members please endeavour to send notes by the 25th of each month, so that full use may be made of this column.

Mr. Gregory, BRS3734, has just finished his radio course in the Navy and is shortly being posted to a new QRA. GM3TR, from the Orkneys, visited G5FA and 6CL while on a few days' holiday in London. Both of the above send 73 to their old friends in the District. G5FA.

DISTRICT 15 (London West, Middlesex and Buckinghamshire)

No one who attended the August meeting will forget it easily, for we had the pleasant surprise of meeting many of those serving with the forces, including G5ND, who is a corporal in the R.A.F.; BRS3754, Boy Telegraphist in the Navy and a new member to the District; ZB2A, who came from York; VE3UH, of the Canadian Navy, who has already experienced having lost his ship; and our old friend FRS48. We also had the Home Guard present as well as G8KZ, the chief warden for North Kensington.

Soon after the meeting started the sirens were sounded, and KZ left to take up his duties, while the rest were asked if they wished to adjourn to the shelter; but the reply came, "Let amateur radio carry on." So the meeting resumed after a few uncomplimentary remarks had been made about a certain person!

Letters were read from G2IJ, 3XI, 3YM, 5CV, 8VM and BRS3754. Cigarettes were handed to 5ND and BRS3754, whilst a supply has been sent to G2LC. Autographed handbooks were presented to VE3UH and ZB2A. The DR has recently received a letter from G3HT, the TR for Edgware, informing him that he has joined the R.A.F. as a Pilot Officer. He shares a room with G5LB; 2BRF of Eastcote is also with him, and will take part in the written skeds. Good luck to them all! G5ND has, since the meeting, written G5SR saying how he enjoyed the meeting, and wished to convey his thanks for the "smokes."

We take this opportunity to congratulate Douglas Walters, G5CV, on both his promotion in the R.A.F. and his taking unto himself a wife. We wish him every happiness.

We extend a welcome to all serving members who happen to be within the District at the time of our meetings. The date of the next will be found under Forthcoming Events. G6WN.

DISTRICT 16 (South Eastern)

We are glad to have received a letter from the Gravesend T.R., G2IZ, for although he finds little to say, he adds that the area is actually a hive of industry and in some sphere or other everyone is pulling his weight. Congratulations are extended to G6BQ on the arrival of a junior Op. Mrs. Box, by the way, is a daughter of G5IL.

G3WR (Brighton and Hove) reports as usual, in spite of the fact that no meeting was held in August. He is still at work on pre-selectors, whilst 3YY continues to take an active interest in the 56 Mc. band. 6CY has fitted a crystal filter to his home-made receiver; 3JF is likely to be called

(*Continued on page* 90.)

HEADQUARTERS CALLING

American Publications

The following are the current rates for American Publications handled by the Society:

A.R.R.L.	s.	d.
Annual Subscription	17	6
A.R.R.L. Handbook	8	6
A.R.R.L. Antenna Handbook ...	4	0

Radio	s.	d.
Annual Subscription	21	0
Two Years' Subscription ...	35	0

Members are advised that these rates are subject to alteration without previous notice.

Ham Radio Crosswords

From several sources we hear that the Ham Radio crossword puzzles published in recent issues were popular, especially among Service members.

Readers with a flair for the construction of puzzles with a topical flavour are invited to communicate with the Secretary-Editor.

Mathematics for the Radio Amateur

We wish to record our grateful thanks to Mr. T. R. Theakston, B.Sc., Mr. E. A. Lever, B.Sc., Mr. D. H. Thomas, M.Sc., and F./Lt. R. Turner for offering to prepare a series of articles dealing with mathematics.

The offer made by Mr. Theakston, which was the first received, has been accepted, and it is hoped to publish his first article in an early issue.

An Author Wanted!

We shall be glad to hear from any member who is in a position to prepare a comprehensive article dealing with the design and construction of input amplifiers for oscilloscopes. Offers should be directed to the Secretary-Editor.

Royal Army Ordnance Corps needs Clerks and Storemen

We are advised by the Chief Ordnance Officer, Woolwich Arsenal, that authority has now been received to enlist a further quota of men with radio experience under the voluntary recruitment scheme.

The requirements of the Corps are for about 70 per cent. clerks and 30 per cent. storemen, whose general qualifications should be in line with the details given in the June issue of this journal.

Men may be enlisted between the ages of 20 and 45 years, and there are many opportunities for the rapid promotion of suitable recruits. After a simple written test given soon after reporting for duty, the pay of a selected candidate will move from 2s. to 2s. 9d. *per diem*. Further up-grading may later be effected to Grade II, at 3s. 3d., and to Grade I, at 3s. 9d. *per diem*. Promotion to non-commissioned rank is accompanied by further increases beyond the figures quoted. In addition, a further 6d. *per diem* is added to the pay of a private soldier in accordance with a recent Government announcement. The need for recruits is urgent.

Members may obtain a copy of the form of application by sending a stamped and addressed envelope to Headquarters, or may write direct to the Chief Ordnance Officer, Central Ordnance Depot, Woolwich Arsenal.

"The Early Birds"

Thanks to the foresight of L.A.C. Leslie Coupland, 2BQC, we have just come into possession of a list of 35 R.A.F. Civilian Reservists who went to France on September 4, 1939. Whilst Mr. Coupland has endeavoured to check names and call signs, he is anxious to avoid any errors when the list is published.

Those readers who were in the draft are urgently requested to write to Mr. Coupland c/o his home address, 38 Norfolk Street, Boston, Lincs, giving their full name, call sign, R.A.F. number and present rank.

Mr. Coupland asks that all who see this paragraph will bring it to the notice of any of the party who are non-members of R.S.G.B.

Can another advise Headquarters how many C.W.R. members were in the original draft? Was it 50 or 60?

Ham Hospitality

We are pleased to give publicity to the following additional names of members who have kindly offered to extend "Ham Hospitality."

Bangor, N. Ireland.—I. G. Campbell (2DDI), 106 Seacliffe Road, or "Bon Marche," Main Street.

Barnsley.—G. D. Dixon (2DQL), 19 Woodstock Road.

Bristol.—R. A. Bartlett (G6RB), 31 Kings Drive, Bishopston (Bristol 46960).

Chelmsford.—R. L. Varney (G5RV), 184 Galleywood Road.

Shefford (Beds).—C. J. Ellett (BRS3585), Meppershall (Shefford 351).

Whitehead.—T. Smith (GI5ZY), "Belair," York Avenue. Business premises at corner of Upper North Street and Winetavern Street.

DISTRICT NOTES—(*Continued from page* 89).

up soon but in the meantime is working at his receiver. He is expecting to join the R.A.F. as a Radio Mechanic. 2RU is another member still active on the receiving side. We are glad to know that so many are keeping up their interest both in radio and in the Society. G2WS.

Scotland

"A" District.—Due to holidays, the attendance at the August meeting was somewhat low. The lecture as arranged had to be cancelled due to the speaker getting an unexpected break from work. It is hoped to have GM6ZV's talk on frequency sub-standards, at the October meeting.

"B" District.—Members will hear with regret of the death of David Milne, ex. GM6BM, who went to England nearly two years ago. Mr. R. M. McRobb GM5LF, would appreciate hearing from GM3QH, 3RL, 3SF, 6ZP and 8AT wherever they may be. He sends his best wishes to them. All letters should be addressed to his old address at 10 Orchard Street, Aberdeen. GM6ZV.

New Members

G. F. BARRETT (G8IP), 23 Warfield Road, Hampton, Middx.
F. E. WYER (G8RY), 315 Stafford Road, Oxley, Wolverhampton, Staffs.
A. ROEBUCK (G8VK), 79 Balmoral Avenue, Crosland Moor, Huddersfield.
C. CLARK (2ASU), R.A.F.
C. A. ROGERS (2BCS), 105 East Street, Farnham, Surrey.
W. J. MCCLUNE (2BGM), Model School, Londonderry, N.I.
W. B. N. ALTHORP (2BTI), 85 Copperfield Road, Rochester, Kent.
J. W. TURTON (2DTV), 59 Marple Street, Alfred Street, Nottingham.
J. C. CROOMER (2CXP), 107 Lowther Road, Bournemouth.
A. L. EATON (2FWH), 18 Cow Lane, Gt. Sankey, nr. Warrington.
W. O. CLARKSON (2HJK), 43 Salisbury Road, West Ealing, W.13.
H. J. D. Newburn (2HJN) Montbretia, Cleveland Avenue, Holyhead.
F. E. WOODHOUSE (BRS3824), 11 Potters Lane, New Barnet.
R. C. KENNY (BRS3825), 30 Churchbury Road, Enfield, Middx.
E. J. VALENCIA (BRS3826), 143 Church Hill Road, E. Barnet.
C. G. HILL (BRS3827), Cherry Dene, Misbourne Road, Denham, Bucks.
H. F. MADDOX (BRS3828), 27 Cranford Avenue, London, N.13.
E. J. M. BLANCKÉ (BRS3829), 69 Ellison Road, Sidcup, Kent.
H. BUXTON (BRS3830), 31 Main Street, Kimberley, Nottingham,
F. R. JOYCE (BRS3831), Park House, Stanton, nr. Burton-on-Trent.
D. WILSON-JONES (BRS3832), Beam Wireless Station, Lanivet, nr. Bodmin, Cornwall.
G. D. BOLAM (BRS3833), R.A.F.
A. C. ETTER (BRS3834), c/o Anglo-Saxon Petroleum Co., Plymouth.
J. M. S. ADAMS (BRS3835), 14 Fontmell Park, Ashford, Middx.
Cpl. R. A. FARMER (BRS3836), R.A.F.
R. F. GOUGH (BRS3837), 17 Farfield Avenue, Beeston, Notts.
H. TIPTON (BRS3838), 2 Brookway, Featherstone, Pontefract.
E. SUGDEN (BRS3839), 30 Strawberry Lane, Armley, Leeds 12.
D. HENDRY (BRS3840), Livingstone Memorial, Blantyre, Glasgow.
R. TURNER (BRS3841), 32 Deansway, Chippenham, Wilts.
F. J. BROWN (BRS3842), 95 Warren Drive, Elm Park Romford, Essex.
L. W. MELVILLE (BRS3843), 16c Lee Terrace, Blackheath, S.E.3.
G. W. CUMMINGS (BRS3844), Nursery Cottage, Prebends Gardens, Durham.
J. SIMPSON (BRS3845), 516 Baltic Street, Bridgeton, Glasgow.
C. A. BETTS (BRS3846), 19 Wychall Lane, Kings Norton, Birmingham 30 (transferred from Associate).
T. C. DANDS (BERS488), Box 50, Entebbe, Uganda.

SIR OLIVER LODGE
Past President

It is with much regret we record the death on August 22, at the advanced age of 90, of Sir Oliver Lodge, one of our most illustrious Past Presidents.

The Society has always been proud to have had the name of so eminent a person as Sir Oliver upon its roll of Presidents, not only on account of his pioneer radio work and the many developments coupled with his name, but also because of the intense interest he took in amateur work. He served the Society as President during the year 1925 but, as far as the writer remembers, only once took the chair at one of the regular meetings. This was on the occasion when he was installed as President and gave a most interesting address on the subject of electrons and their relation to radio transmission. At that meeting he intimated that, while he was proud to serve the Society as its President, we could not hope to obtain much active work from him. In fact, the late Brigadier-General Holden, as Vice-President, deputised for him on all other occasions.

The writer, who was serving the Society as Secretary during this time, had several occasions to come in contact with Sir Oliver, whose charming personality and sympathetic nature could not but fail to impress those who had dealings with him.

Sir Oliver held many high academic distinctions including those of Doctor of Science, and Doctor of Law. He was also a Fellow of the Royal Society, and prominently associated with the survival after death movement. The Society to-day mourns the loss of one who they have always been pleased to think was one of its early members, and whose name will remain for ever among those Pioneers of Radio.

H. B. S.

IS YOUR SUBSCRIPTION DUE?
PROMPT PAYMENT
SAVES TIME AT HEADQUARTERS

DOWN ZUMMERZET WAY—(*Continued from page* 70).

awful h'ignarant like, an' doesn't zeem to know nort 'bout it.

Then I axes wun what R.S.G.B meanz as Izeez they bain't a wearin' our badge, an what 'ee zez you wuden't guess not in a month o' Zundayz. 'Ee zez it means Ramblers Zosiety of Gert Britain.

Now what doo 'ee think o thick arter all we'd dun an' they doesn't zend down no Convenshun arter all. Ztill us 'ad a gude laff 'bout it, an' us took 'em up to " Blue Ball," wur us managed to drink they thur barrelz of Zider 'ad got down as us all dezided t'wud be most terruble zhame to waste it."

KHAKI & BLUE IN GI.—(*Continued from page* 85).

duty watch was posted while 5ZY was located. After much telephoning, etc., the whereabouts of EI8N was not forthcoming, with the result that everyone retired to a local tavern except G3BR who was left on guard! Eventually 3BR turned up accompanied by EI8N/G4JL, who, as most readers will know, is the Hon. John Forbes. Cutting a very long story short, the party broke up about 23.00, and after an ingenious attempt to black-out the lights of EI8N's car we left him to continue his journey to a northern seaside resort to see his YL! During the party toasts were given to everything pertaining to ham radio and a good many other things besides, including the Irish Signals of which force EI8N is a member. QSL cards were signed, and these provided a nice souvenir of a very happy

Alan Mears, G8SM, on a visit to G16TK.

evening. Recent visitors to GI are Ronald Munn, 2FUV, D. W. Harries, G3RF, both in the Navy, whilst the R.A.F. has brought Donald Rock, G8PR, R. Wilson, G3OI, and Ronald Towler, 2CWQ. G3JO was also with us for a short stay but is now back in G.

It is the hope of all resident GI's that our service visitors will, during the long winter evenings, meet as many of us as possible. They can be assured of a very special welcome at the City of Belfast Y.M.C.A. Club, Wellington Place, where a directory of how to find any GI is available to all visitors. Club night is Wednesday at 8 p.m.

The writer has met many ham visitors, all of whom agree that the GI YL's are FB, the Beer is FB, but like Manchester it is always raining or going to rain! So come to GI and have a good time, and if you think it's safe bring the XYL too!

EXCHANGE AND MART.

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TRADE advertisements. 2d. per word, minimum 3/-.

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