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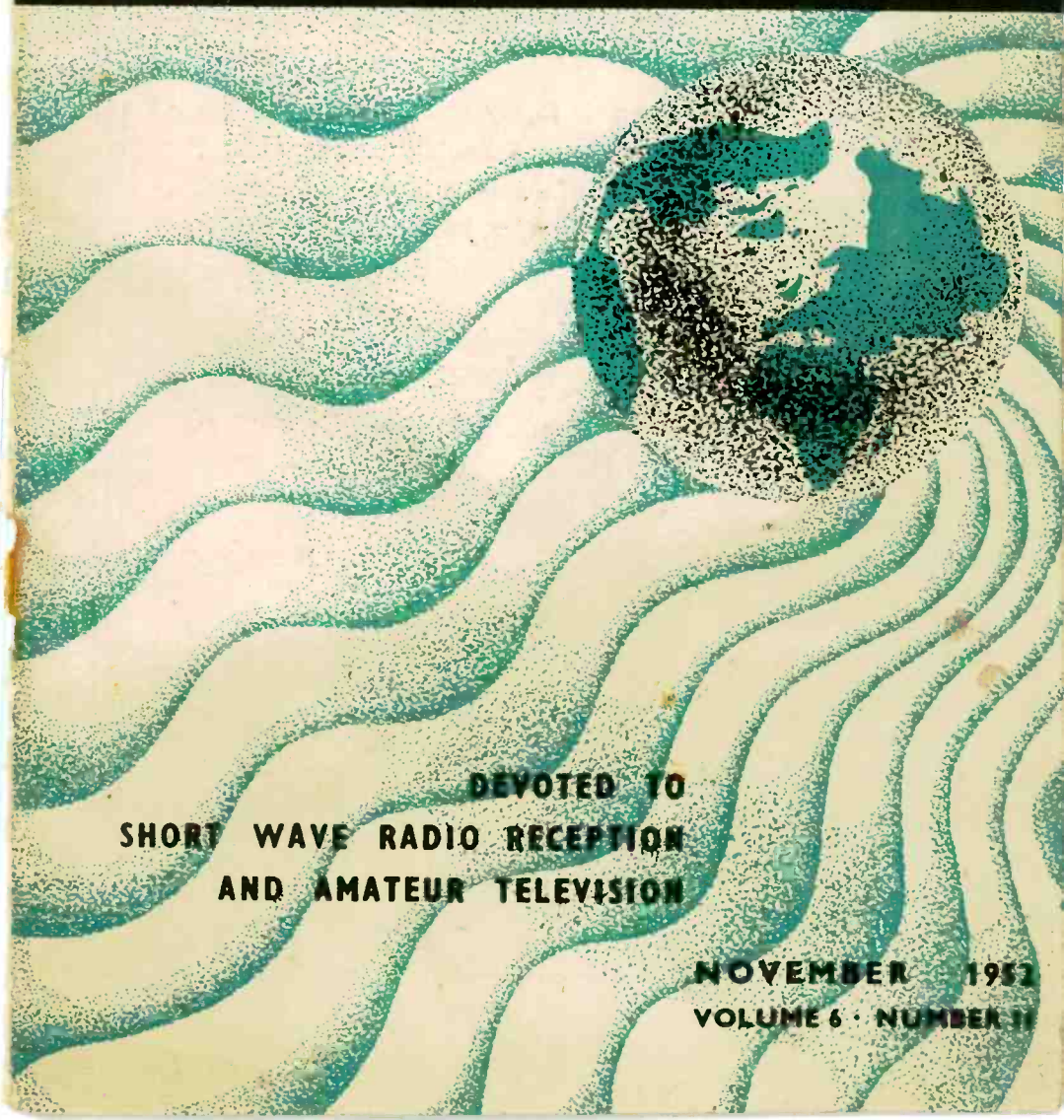
The SHORT WAVE LISTENER AND TELEVISION REVIEW



DEVOTED TO
SHORT WAVE RADIO RECEPTION
AND AMATEUR TELEVISION

NOVEMBER 1952
VOLUME 6 · NUMBER 11

THE SHORT WAVE LISTENER
AND TELEVISION REVIEW

VOLUME 6 **NOVEMBER 1952** NUMBER 71

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

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NOVEMBER 1952

EDITORIAL

TEN

Those readers who may see our SHORT WAVE MAGAZINE will know that the Editorial in the current issue discusses the use of the ten-metre band for local G working.

While it is not the intention that the DX potential of Ten should be neglected or lost sight of—we regularly publish ten-metre calls heard lists, and are always glad to see them—it would now be of interest to have, additionally, *separate* lists of G's only, heard in local QSO on ten metres. Taking the country as a whole, this would comprise a survey of G activity on the 28 mc band, and it is for this purpose that we would like to see such lists.

Most readers can probably listen on Ten—but the probability is that in not so many cases will the receiver be as good as it might be. This is because several of the standard patterns of communications receiver, particularly the older designs, fall off considerably in sensitivity above about 20 mc. It is often not realised that the frequency change from 14 mc to 28 mc is greater than that from the Top Band to Twenty; there are so many compromises involved in the design in order to meet this requirement that it is nearly always the HF end of the tuning range that suffers.

So along with the ten-metre listening there may also be the problem of effective receiving equipment for the band. This can easily be met by the use of a converter, designed specifically for Ten, to work into the existing receiver.

General-Purpose Reproducing Unit

MODIFICATIONS FOR THE RECEPTION OF CW SIGNALS

By W. N. Stevens (G3AKA)

(Details of modifications carried out on the original model for producing BFO action on the short-wave tuning section. Notes are also given on alternative methods which can be applied to any other type of superhet receiver, without the addition of an extra BFO valve.—Editor.)

SINCE the publication of the series of articles dealing with the above-named unit (June, July, August issues *Short Wave Listener & Television Review*), the author has experimented with methods of providing beat notes for the reception of CW. There being little room on the existing chassis for the conventional BFO and its associated components, an alternative method had to be found—and one, moreover, which required little in the way of extra components and certainly no extra valves.

The simplest solution seemed to be the introduction of regeneration in the IF amplifier. This not only makes CW reception possible but also improves the selectivity—both for phone and CW signals. The method finally adopted is shown in Fig. 1.

In the original receiver, R11 and C10 were the feed and decoupling components for both the V2 and V3 screen-grids. When making the modification (which requires variation of the V3 screen-grid voltage) it is necessary to disconnect the lead to the V3 screen-grid so that R11 and C10 are connected only to the hexode screen, as shown in the diagram. To be strictly correct, the value of R11 should be decreased slightly to allow for the smaller voltage drop but the original value works well enough in practice.

The screen-grid circuit of V3 is easily wired up, comprising R1 (47,000 ohms), R2 (50,000-ohms potentiometer), R3 (22,000 ohms) and C2 (0·1 μF). The potentiometer can be mounted at any convenient position on the panel but if the layout of the original model has been adhered to it will be found that there are very few places available. However, the writer finally mounted R2 on the right-hand side of the slow motion drive—exactly opposite the position taken by the mixer trimmer Ct2.

To simplify matters, R1, R3 and C1 were all wired directly across the tags of R2 and its casing. The potentiometer used was one in which the casing automatically made earth contact when bolted to the panel; if this is not the case then an alternative earth return point must be provided.

The two floating leads (one from the free end of R1 and the other from the slider of R2) were taken through the chassis by the side of the tuning gang and then, respectively, to HT+ and the screen-grid of V3. Make sure that R1 is returned to the HT+ line which is effective only when the short-wave section is in operation.

It only remains to fit the feedback condenser C1. Only an extremely small feedback capacity is needed and so the coupling can be made by running a short length of wire (insulated) from the grid to the anode circuits. Enough coupling was obtained on the original model by looping a length of wire once round the lead between V3 anode and the primary of IFT2 and taking it near the grid pin. To avoid running long leads through the chassis (the IF amplifier is a 6K7 which has a grid top cap connection) the coupling lead was taken to the unused tag on IFT1 which is actually the same thing electrically, as it is internally connected to the flying lead normally used to make the grid connection.

Adjustment

The regeneration circuit will need a little initial adjustment in individual cases. This is quite simple and is made as follows: Set R2 so that the screen-grid voltage is between 100-130 volts, then adjust the position of the coupling wire until the valve begins to oscillate. It may be found that the screen volts could be a little higher to obtain best results, but a little trial-and-error fiddling will soon show the best setting.

For normal reception of phone stations, the potentiometer is set with maximum resistance in circuit (low screen volts). For CW reception R2 is rotated until the beat note is such as to provide clear reception of the Morse signals. But there is more to it than that. R2 is not only useful for receiving CW but acts as a *variable selectivity* control. As the screen voltage is increased, so the response curve of the IF amplifier will narrow and it should be possible to advance R2 until speech is only just intelligible, due to the cutting of sidebands. When the adjacent-channel QRM is bad, the use of this control can often be of great help. With careful handling, IF regeneration can give near-crystal results.

Other Applications

Whilst on the subject of IF regeneration

other systems might be mentioned for those interested in applying this useful facility to existing or future receivers. Most of the alternative methods make use of a tertiary winding on the IF transformer and perhaps the most satisfactory method is that shown in Fig. 2(*a*). The cathode bias components R1/C1 are shunted by the series circuit R2/C2 via the coupled winding on the IFT. This is a simple system to get in working order; C1/R1 being the normal bias components, C2 about 0·001 μF and R2 a 1,000-ohms potentiometer —which must be of the non-inductive type. If an IF transformer cannot be obtained with a feedback winding, the coupling can be added by winding the tertiary coil with between a third to a quarter the number of turns on the original secondary winding and adjusting the degree of coupling to get maximum results. The valve should start oscillating when the potentiometer is about three-quarters full in.

Regeneration can also be applied to the frequency changer, as at Fig. 2(*b*). The regeneration winding should be similar to that described for the circuit of Fig. 2(*a*) and the potentiometer R can be around 10,000 ohms. Also, a subsidiary parallel trimmer (C) is required across the oscillator tuned circuit and can be about 25 $\mu\mu$F.

Operation of the system, with R at minimum resistance and C at minimum capacity, is that normally obtained from the receiver. When severe adjacent-channel interference occurs, R is adjusted until maximum separation is achieved (just before oscillation starts); in setting up, the coupling of the feedback winding should be such that with R between half and three-quarters in circuit oscillation takes place.

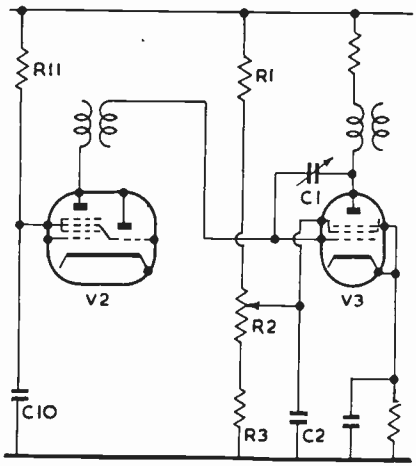


Fig. 1. BFO action on the S/W receiver section of the original GP Reproducer Unit design.

Unfortunately, variation of the resistance R causes a slight alteration in the resonant frequency of the oscillator circuit, so that after adjusting R for maximum selectivity it is necessary to retune the trimmer C to bring the receiver back to correct tuning. Despite this somewhat undesirable feature, the system has the advantage that, apart from variable selectivity and the provision of CW reception, it can greatly enhance the image-rejection ratio

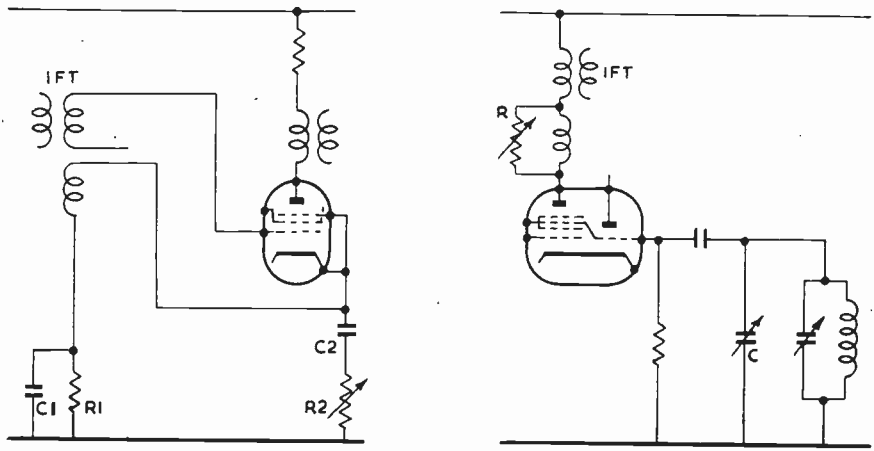


Fig. 2. The circuit, left, (A) and (B), right, discussed in the text; slight modifications only are involved.

so that as far as second-channel rejection is concerned, results equal to that of a double superhet are obtained quite easily.

If these regeneration systems are correctly used and adjusted, selectivity can approach that of a good crystal filter. It should be possible to increase selectivity so that one sideband is almost completely attenuated, with a pronounced peak on the other sideband. The writer hopes that the ideas mentioned in this article will provide scope for experiment amongst readers wanting to improve simple receivers, or who want to try "something different."

Some readers may be wondering why it seemed desirable in the first place to add IF regeneration to a unit primarily designed for broadcast station reception! The quick answer is that during the recent BSWL DX Contest the writer wanted to put it through its paces as a DX-getter on 14 and 7 mc. The original slow motion drive was replaced by one of the new models which provide an additional 10 : 1 reduction drive (thus spreading the 14-mc band to about 2 in. of dial). Then the circuit of Fig. 1 was fitted up. The results? Well over 100 countries on 14 mc alone during the Contest period—using only 20 ft. of wire round the shack picture rail! By direct comparison with a well-known commercial communications receiver it proved to have much greater sensitivity and selectivity. For a general-purpose simplified S/W receiver that is quite encouraging!

TV comes to Wales

AND THE PROBLEM OF PROGRAMME HOURS

By **F. L. de Baughn**

WITH part of Wales at last linked with the national television network immediate attention is likely to be given by the B.B.C. to the question of varying the hours of the programmes.

At what time do the people of Wales go to bed? And how far have they to travel to their homes from their places of business?

These are two of the most important factors governing television hours because, unlike sound radio, television programmes are radiated for only a few hours a day.

The main programmes since the war have gone out between 8 p.m. and 10 p.m. although, during the last few months, there has been a tendency to lengthen these hours slightly at both ends.

The question of the hours of television became a pressing matter with the opening of the Midlands transmitter, the first in the provinces. But it was decided to defer major changes for the time being and to await the extension of television in the North, to Scotland and to Wales.

Very small alterations in the hours followed the arrival of television in Northern England and Scotland. But with Wales linked with the network the B.B.C. may now decide they have all the evidence they require and proceed to consider a major change.

It may be—only experience can tell—that the existing hours will prove satisfactory to the people of Wales.

But the people of Yorkshire and Lancashire are not at all satisfied. On the other hand, Londoners do not want a change. People of the Midlands would like a 7 p.m. start with the programmes lasting longer.

The position is complicated by two factors:—

(1) Londoners generally travel longer distances to and from work than do people in other parts of the country. It is by no means uncommon for Londoners to spend two hours a day in 'buses or trains. So Londoners are not ready for the evening programmes until 7.30 or 8 o'clock.

(2) The lack of studio facilities and outside broadcast camera equipment means that one programme must satisfy the whole country.

In Leeds and Manchester, where people do not travel the distances covered by Londoners every day, there is a movement among viewers to press the B.B.C. to begin the evening's programmes as early as 7 o'clock, or even 6.30 and to end them always at 10.

Of course, the entire issue could be settled to the satisfaction of everybody with the development of regional programmes on the lines of sound radio. What are the prospects?

One is bound to say they are poor for a year or two ahead; that is, until the rearmament programmes are further advanced and vital raw materials released for civilian uses.

With regional television, a probable development would be the provision of alternative "national" programmes—on the lines of the present sound radio Home and Light programmes, available all over the country—with the addition of "regional hours," each relay station contributing its own special hour a day in its own area.

In this way, major programmes would go out at roughly the same times as at present. Regional stations would be able to vary these hours with the special district programmes.

The RF-27 for Ten and Fourteen

SOME NOTES ON MODIFICATIONS

By **A. J. Slater (G3FXB)**

THE release of the 21 mc band prompted the writer to think in terms of a reasonable receiver for that band.

Unfortunately the SX24 in use is far from satisfactory at either 21 or 28 mc, as it only has a single 6SK7 RF stage; with consequent low gain and poor image ratio. A converter seemed the obvious answer and the RF27 Unit makes quite a reasonable one for both bands—though the noise factor might leave something to be desired. However, to anybody possessing an RF27, and either using an old communications receiver or one not tuning these bands, it makes an inexpensive, quick and simple solution to the problem.

Modifications

The conversion is easy, but the details given may help, and avoid any cut-and-try methods. It provides for the tuning of both the 21- and 28-mc bands.

Firstly, remove the three orange-coloured postage-stamp type trimmers underneath the chassis, the three tuning coils and the aerial transformer at the extreme front of the chassis. The trimmer on the front panel can also be taken out and the space utilised for the fitting of an RF gain control; or, alternatively, it can be retained and wired across the RF grid coil to keep the input circuit "on the nose." The ribbed section of the coil formers can be extended by adjustment of the end pieces, and enough room will be found to wind the necessary 11 turns on the RF and mixer coils and 9 turns on the oscillator. A 2-turn link is also provided at the earthy end of the RF grid coil for 70-ohm aerial input. On replacing the coils the wiring in the RF and mixer sections is arranged for parallel instead of the original series tuning, one end of the coil being grounded and the other taken to the valve grid and tuning condenser.

The oscillator trimmer underneath the chassis at the rear is now replaced by a larger type (70 $\mu\mu$F should be adequate), and a slug inserted in the oscillator coil and screwed in till the screw cut is level with the top of the former. Quite probably the use of a slug could be avoided by increasing the number of turns on the oscillator coil, but slug tuning provides a means of varying the inductance at will and avoids coil pruning.

Alignment

The alignment of the unit is relatively simple. The main receiver should be tuned to 7 mc and the IF output coil slug adjusted for maximum hiss. The sub-chassis-oscillator trimmer should be adjusted to about half or two-thirds capacity, and the oscillator trimmer above the chassis adjusted to tune 28 mc at about 20 or 30 deg. The mixer and RF trimmers are set for maximum gain at 28 mc and the sub-chassis oscillator trimmer varied to bring the 21-mc broadcast band at about 120 deg., at the same time adjusting it to give maximum gain. The settling for 28 mc should then be repeated. It should be ascertained that both RF and mixer trimmers are resonating as indicated by a pronounced increase in gain at resonance, and if necessary a slug can be added to increase the inductance. Without a signal generator the 21-mc broadcast band is fairly easy to locate as a B.B.C. Overseas Service outlet is in operation much of the day, in addition to the American relay base at Tangiers.

Tracking is reasonably good, being flat to within about 5 dB, and undoubtedly with further experiment this figure could be improved. Gain is more than adequate. Finally, RF-27's when used *lower* in frequency than originally intended often produce a T7 note. Increased de-coupling on the heater of the EC52 should, however, effect a cure anything in the region of ·01 μF being satisfactory.

KING GEORGE VI MEMORIAL

We commend to all our readers a most worthy appeal—that for the National Memorial to His late Majesty King George VI, a great and good man who, among his many interests and activities, had time to study the art and practice of radio in the early days. It will be many years before the contribution made by King George VI to the history of our times will be fully and freely told, and when that time comes it will be found that he exerted a great and beneficent influence. It is planned to devote the proceeds of the appeal just launched to a worthy memorial, of a kind which would have been in accordance with His late Majesty's own wishes. Whether your contribution can be one shilling or one pound, send it to: The Lord Mayor, King George VI National Memorial Fund, London, E.C.4. Contributions thus addressed can be sent free of postal charges (unstamped).

Recovering Metal Panels

Practical Notes on Treatment and Finishing

NOWADAYS a large number of amateurs are using relay rack construction for their equipment. Good quality panels are not easy to obtain and are expensive, but a great deal can be done with second-hand panels which are often available from surplus stores for a few pence. It is generally found that these panels have a large number of holes of various sizes, and on first examination they look a hopeless proposition if neat and professional-looking equipment is the aim.

The types of panel commonly met with are (*a*) light steel up to $\frac{1}{16}$-in. thick, (*b*) heavy steel $\frac{1}{8}$-in. thick, (*c*) heavy aluminium $\frac{1}{4}$-in. thick. The latter are the most desirable because they are quite as rigid as the $\frac{1}{8}$-in. steel and are very much easier to work.

Steel

To deal with the light steel panels first. Holes up to $\frac{1}{2}$ in. diameter can be filled with solder using a heavy soldering iron. The edges of the holes must be thoroughly cleaned and the panel laid flat on a surface that will not itself take solder, such as a piece of wood or a stone slab. Flux is applied to the clean metal and the vicinity of the hole is thoroughly heated with the iron until it will take solder. Solder should then be run in until it is slightly higher than the level of the face of the panel. Meter holes are best dealt with by using them for meters if possible but they can be filled in as can large holes of other shapes by cutting a piece of metal to fill the hole and soldering it into position. A blow lamp is necessary for this treatment as sufficient heat will not be available from a soldering iron. $\frac{1}{8}$-in. thick steel panels are treated in precisely the same manner except that a blow lamp is necessary for all operations as the heat is conducted away too quickly for a soldering iron.

Treating Aluminium

$\frac{1}{4}$-in. aluminium panels have to be handled in a somewhat different manner because they will not accept solder. Holes up to $\frac{1}{2}$ in. diameter are filled in by obtaining a length of metal rod—preferably aluminium, copper, or brass—which is just oversize for the holes that are to be filled. The holes are then slightly countersunk on each side of the panel. Pieces of the filling rod are then cut off, each piece being slightly longer than the thickness of the panel. These pieces are then driven into the holes with a hammer and burred over to fill the countersink. A suitable filler for screw holes up to OBA is a short length cut from the shank of a brass bolt which is just too big to clear the hole. An anvil of some sort is necessary whilst driving in the filling plugs. A vice or any large block of hard metal with a flat surface can be used. It is not possible to treat really large holes by this method and the method outlined for steel panels is, of course, not practicable. The only method is to cut a neat plate, somewhat larger than the hole, from metal approximately $\frac{1}{16}$-in. thick and bolt this over the hole. This does not look at all bad when the finishing coat of paint is applied. Holes of the order $\frac{3}{4}$ in. to 1 in. diameter can often be filled with the little circular gauze covered-windows that were in vogue in the days of bright emitter receiving valves and give a useful peep-hole to see what is going on behind the panel. Most junk boxes contain some of these and they are readily obtainable from the older-established stores still having stocks of 1914-1918 war disposals.

When all the holes other than those which can be utilised have been stopped by the methods described, the plugs or solder fillings are filed off absolutely flush with the surface of the panels and will be quite invisible when the panel has been rubbed down and painted.

Filling Bolt Holes

There are two other methods of filling unwanted bolt holes. Both methods involve filling the holes with short bolts secured with nuts. They have the disadvantage that the projecting nuts may obstruct the layout of equipment on the back panel. In the first method the unwanted holes are countersunk and filled with short countersunk head bolts. This looks very much neater than roundhead or cheesehead bolts and is to be recommended for all constructional purposes provided that the countersinking is correctly carried out.

In the other method, the holes are again countersunk but somewhat deeper than usual. Bolts are inserted in the holes and secured with nuts; the hole is then filled up with cellulose stopper which can be obtained in small quantities from motor-car body builders and repairers. The filling will be quite invisible when it has been rubbed down and the panel painted.

Finishing Panels

And now for a few words on panel finishes. It frequently happens that one comes across panels with a slightly defaced black ripple or crackle finish. Black ripple can be restored so that slight scratches are invisible by giving it a coat of glossy black enamel. This should not be too thick. Black crackle finish can be quite successfully converted to black ripple by giving it a coat of glossy black enamel. Grey ripple or crackle can be converted to black by the same method.

Colour TV Demonstration

EXPERIMENTAL equipment constructed to study the problems of colour TV reproduction as affected by the properties of the pick-up tube and the CRT picture tube has been demonstrated by E.M.I.

A simple field sequential system, using 150 frames (double interlacing) giving a colour picture frequency of 25 per second and using 405 scanning lines with a line frequency of 30,375 c/s and a bandwidth of 9 mc was used.

The standards adopted were chosen for convenience in experimental working and to provide a ready comparison with existing monochrome standards rather than for broadcasting purposes. It is, however, suitable for closed circuit applications where questions of bandwidth economy and compatibility do not arise, or are unimportant.

The pick-up tube (the CPS Emitron) has an absolute black level, constant for all colours, which can be pre-set with accuracy thus avoiding colour change due to variable black level. AC lighting is possible due to the use of a line-by-line clamp circuit.

A contrast gradient control (γ-correction) produces an overall γ of unity through the system over the working range, which prevents any colour composed of a mixture of the primaries (*i.e.* nearly all colours) changing its hue with changes of temperature. The tube is free of spurious signals, thus any colour can be reproduced without being affected by the brightness and colour distribution of nearby objects.

These factors lead to improved picture quality and a considerable simplification of colour TV equipment. Amplitude controls for the three-colour channels need adjustment only when the quality of illumination changes—*e.g.* from daylight to artificial illumination. In the latter case, the flourescent lighting is supplemented with tungsten lamps to improve red response. Incident illumination needed for a good picture is 500 ft. candles at f5·6.

Flying Spot Film Scanning

E.M.I. also demonstrated the newly developed flying spot film channel designed for American TV standards of 525 lines 30/60 frames interlaced. Built especially for the U.S. market and other territories using the same standards, this apparatus is the first to provide for satisfactory television transmission of standard film (24 frames per second) on the American 60 frame picture. It will enable transmission of films by TV to be made in America at the same outstanding quality as is possible in this country.

THE NINETEENTH NATIONAL RADIO EXHIBITION

For this year's Radio Show at Earl's Court there were 108 exhibitors, of whom 32 were actual manufacturers of radio and TV receivers. The ground floor was given up mainly to this aspect of the show, and at every turn the visitor saw TV receivers of different types and sizes peering at him—for when the BBC was not radiating, a closed-circuit programme was provided from within the exhibition. While it is easy to be critical, it is fair to say that the quality of the entertainment was disappointing and the deficiencies of the present standard of definition all too evident. The attitude of the public, which is not buying television in the hoped-for quantities, is a reflection of this; the novelty of TV, which has been the flywheel for so long, is now wearing thin. It is for the BBC to find the solution by providing run-of-the-mill programmes of a much higher standard and of far wider interest, since we are now committed to the definition. On the other hand, the great and compelling interest of actuality TV transmissions, such as the great events connected with the Coronation next year, will always make it worth having a TV receiver if it can be afforded. And on this note, it is significant that the price trend is now distinctly downwards.

There were a number of interesting exhibits, involving either technical trickery of spectacular presentation, such as the robot announcer (press the button and he told you what was happening in your own language), the first public demonstration of underwater television, the application of RF heating in steel hardening, the radio control of models (done professionally, and on a scale and with control techniques which must have astonished every amateur radio control enthusiast who managed to get near enough to see anything) and the new GPO TV detector van.

The BBC exhibit, on the grand scale, has been adequately described in the public Press. Of considerable interest was the Radio Industry

Council's own studio and control apparatus, also on the first floor, where the three Services had their stands. The Royal Navy put on the best and most comprehensive show, including a full-size replica of the radio room ("radar and wireless office," as they call it in the Navy) in a modern submarine. Their demonstrations were also very effective, and, in fact, there was a lot to see on the Navy's stand. Not far away, the Regular Army had a large area with several interesting radio exhibits, including a jeep-type vehicle, with a trailer, providing HF and VHF short- and long-range communication, completely self-contained and with its own charging equipment. Once again, it is with regret that your correspondent has to report that (in his opinion) the Royal Air Force exhibit was stereotyped and unimaginative, failing to make the most of the extremely interesting and important work of the Signals Branch. It would surely have been possible to put on, say, a cut-away section of a Lincoln bomber showing the wireless operator and navigator positions; and some of the modern HF and VHF ground-station transmitters, showing their system of remote control. The stand was big enough to have accommodated these and several other non-secret exhibits on similar lines.

It is reported that the public attendance at this year's Radio Show was an increase on that of last year, and, generally speaking, a satisfactory level of business is recorded, with some substantial export orders.

Tuning Short Wave Broadcasters

Searching, Logging and Identifying

SUCCESSFUL listening to short wave broadcasting stations depends to a great extent upon four main factors. The first is the type of apparatus available for receiving purposes; the second is a matter of meteorology if you like, or perhaps it would be more accurate to refer to it as the existing state of the ionosphere.

The third factor is geographical and physiographical; the relative positions on the earth's surface of receiving station and transmitter are important, and the operating frequency used according to the particular season of the year is no less vital. Fourthly, there is the human factor, and this is not unimportant, for the successful DX listener must have patience and be careful and precise with his receiver dial knob. Indeed, to be able to identify any broadcasting station at a glance the listener must be in possession of facts relating to a particular transmitter, and it is suggested that he should have an elementary knowledge of languages or at least know some of the radio terms in tongues other than his own.

With regard to the apparatus, it is essential that the receiver itself is selective; it is desirable that a 10 kc separation can be made between stations. You do not necessarily require a multi-valved superheterodyne receiver, though a one-valve battery set is not really of much use for broadcast DX in these days, on the score of selectivity. However, many years ago the writer successfully logged all six continents on phone using only a one-valve portable with no more than 9 volts HT! Remember, too, that a good outdoor aerial is obviously better than a "piece of wire round the picture rail."

Propagation

If conditions are such that short wave signals propagated from the earth are being absorbed in the ionosphere, then no human can possibly improve the situation. When this is the case it is almost a certainty that the listener will receive nothing more than signals from the locals; that is, Europe will provide the immediate playground for listeners in the British Isles. Then it will be useless to continue to listen in the hope that a miracle will happen!

Assuming that conditions are reasonably favourable, the DX station will probably produce at least as loud a signal as the local, and on occasions the local may be quite insignificant. Again, distant stations are likely to be heard only at certain times of the day, depending to a great extent upon the band in which they are operating. Thus, the 60-metre band is good for South Americans only during the night, but Africans are best heard here usually just before sunset. During the summer you will hear nothing at all on this band during broad daylight. Here the writer must add that those stations operating with the greatest power are likely to prove more consistent in providing good reception than are those using a limited power.

The 49-metre band does not, as a rule, offer much DX during daytime during the summer months. Before 0400 GMT you may hear Canadians, Colombians or Panama stations on this band, but when the Dutch, Russian and BBC transmitters come on the air, there is little purpose in staying for more DX. In the winter, however, Australia and China can frequently be heard on 49 metres in the early afternoons. The 42-metre band stations heard are mostly European, and these often appear to overmodulate; that is, their signals tend to become

harsh and spread to a considerable extent on either side of the frequency channel allotted them.

The 31-metre band is likely to produce DX stations more readily in daytime during the winter and between midnight and dawn in summer. On the 25-metre band you can hear distant stations in South America at the end of the day. 19 and 16 metres produce DX results at various times during daylight, and this is most certainly the case at any period during the year for 13-metre stations.

Graphing the Bands

Let us suppose that conditions on a certain band, say 19 metres, appear to be good on a particular day in the summer season. It is advisable before hand to pick out some obvious stations to which we will refer as markers. Experience alone will show where the ever-presents are; perhaps you will choose GWC (15070 kc), SBT (15155 kc), VLA6 (15200 kc) and CKCS (15320 kc) as markers.

It will then be a comparatively easy job to determine by reference to your table of short wave broadcasting stations the frequencies of any intermediate stations you may chance to log.

The writer's method is to draw a graph by plotting receiver readings of known stations against their frequencies.

By joining up the points so obtained, the result is for all practical purposes a straight line; the method of interpolation can then be employed to obtain the frequency of a new station whose reading has been observed. Here is an example:—

Station	Frequency	Dial Reading
GWC	15070 kc	41·5
SBT	15155 kc	34·5
VLA6	15200 kc	31
CKCS	15320 kc	21·5
Unknown (A)	—	23
Unknown (B)	—	42

For unknown station (A) the scale reading 23 is noted on the bottom scale, and a vertical line is drawn to meet the line joining the original points. The corresponding horizontal line meets the frequency scale at 15300 kc. On looking at the table of frequencies in the back pages of the *Short Wave Listener* we find that this corresponds to the British Far Eastern Broadcasting Service station in Singapore. Perhaps you thought this was another home station, for the announcer certainly speaks with a BBC accent. In due course, however, he will clearly indicate in words that the transmission has its origin in Malaya. For station (B) the scale reading is 42. The corresponding frequency on the graph is 15060 kc, which is the channel at present being used by station ETA in Addis Ababa, Ethiopia.

Identification

Readers new to short wave listening will find the logging of broadcasting stations so much the easier if they have some previous knowledge of the transmissions they hope to receive.

Identification of English-speaking stations is comparatively easy, but for foreign broadcasters you will require to know what interval signals they use.

Radio Australia can quickly be checked through its musical box recording of "Waltzing Matilda," followed by the peculiar laughing call of the kookaburra bird before each transmission. All-India Radio uses a plaintive musical phrase in minor key as its interval signal, and the Canadian Broadcasting Corporation concludes each transmission with the playing of that fine tune "O! Canada." Lesser known networks in the British Commonwealth of Nations include Kenya (VQ7LO) which can be identified at the conclusion of its daily broadcast by the following brief direction: "Nairobi Calling! Cable and Wireless Broadcasting Station, Nairobi, is now closing down until 1 p.m. tomorrow." All the South African Broadcasting Corporation's stations relay certain hour chimes from Johannesburg's City Hall clock and close with: "Die Stem van Suid Afrika" and "God Save The Queen." Identification of Newfoundland is easy with the quarter-hourly direction "These are stations VONF and VONH of the Broadcasting Corporation of Newfoundland at St. John's," and elsewhere you may be fortunate to pick up either "Hong Kong Calling" or "This is the Burma Broadcasting Service in Rangoon."

French-speaking countries announce at fairly frequent intervals; nearly all use the following direction "Ici Radio Dakar" (or Saigon or Martinique, as the case may be), and usually close with the playing of La Marseillaise. Remember, too, that Radio Brazzaville uses a novel native instrument for the production of its quaint interval signal.

It is sometimes most difficult to distinguish between one Oriental station and another. For Chinese stations the directions are given in a hesitant manner, yet at the same time a pleasing musical intonation is noticeable: listeners who are lucky enough to log a Siamese broadcaster will no doubt observe the interval signal, the playing of the following musical notes in the order given: soh-doh-me-doh-me-soh-me. KZRH in the Philippines, however, uses three chimes and English announcements.

The Near East Arab broadcasting station in Jaffa, Palestine, can be recognised by its signature tune consisting of nineteen notes of Arabic music, followed by the announcement "Mahattat Asharq Al Adna"; and Radio Omdurman uses the well-known "Colonel Bogey March" for its identification signal before the English broadcast on Friday even-

ings. Another African which you will probably log in due course is CR7BV on 4915 kc. Quarter-hourly English sponsored programmes are each preceded by gong notes and the following announcement: "Radio Mozambique, Lourenco Marques, for Happy Listening in the 60- and 85-metre bands." Some acquaintance with the Portuguese language is necessary for Portuguese possessions in general, and remember that the same tongue is used by Brazilian stations, with the announcers rolling their "r's" to a marked degree.

European transmissions, in this country most easily received of all, can usually be distinguished according to language. Vatican City has a pretty musical-box tune played prior to opening up a particular broadcast; the clock chimes from St. Peter's, Rome, can be heard on the hour and all transmissions close with the Latin phrase "Laudetur Iesus Christus." Czechoslovakia has been heard using for its interval signal a melody from Dvorak's New World Symphony played on a horn, and Norway with six musical notes and "Hello Oslo!"

The bells of the Town Hall in Stockholm are heard in broadcasts from Sweden, and Finland adopts the tolling of two bells as an interval signal. Radio Wien, Austria, and Milan, Italy, have resurrected their original signals, a watch ticking and the twittering of birds respectively.

The Hard Ones

It is the Latin Americans of South and Central America who provide the big problem in identification, chiefly because so few of them give English announcements; less in fact than was the case ten years ago, although there has been a big increase in the overall number of stations. From Argentina you can expect to hear a reference to "Radio El Mundo" in many of its broadcasts, and stations in Uruguay are comparatively easy to handle with frequent announcements of call-sign with frequent announcements of callsign beginning with CXA (pronounced Say-Ekis-Ah). Paraguayan callsigns commence with ZP (Sayta-Pay) and Venezuelans with YV (Yay-Vay), but Colombians are, in the writer's opinion, much too sparing in their use of call-letters. No doubt most of you have heard HCJB announcing as "The Voice of the Andes, in Quito, Ecuador," and LRM, Mendoza, perhaps, with its slogan "Radio Aconcagua," a reference to the highest mountain in the Andean chain, but what about OAX4G in Lima, Peru, which closes daily with the Ted Lewis "Good Night Melody"?

Several Latin American stations, including HRN, Honduras, sign off with this popular melody, so one must needs be careful to observe the correct dial reading in order to check up on the particular transmitter under survey.

Mexican stations use vibraphone-produced notes, as a rule, before identification is made, and Cubans are meticulously careful in providing the listener with a clear direction. Some, like COBZ, have been heard with a bugle blowing or a cock crowing. Most Dominicans conclude with the playing of their national hymn, and in Costa Rica, TIPG uses the slogan "La Voz de la Victor," as does HP5K in Colon, Panama. Nicaragua stations make frequent use of the vibraphone for production of the interval signal, but when Guatemalans give TG as the first two letters of their callsign it sounds like "Tay-Hay," so do not be misled.

The concluding paragraph on identification is a quotation from a letter the writer received from the Director of Telecommunications in the Bahamas concerning the transmissions from the Isles of June broadcasting station ZNS in Nassau, from which you will gather that not all West Indian stations are Spanish in outlook. It reads: "The following items may be used for identification purposes. Opening signal, St. Margaret's Chimes, London, Relay of Big Ben and Westminster Chimes, London, when available. Signature tune, God Save The Queen"! No further comment of mine is, I think, necessary.

NOTE FOR SWL's

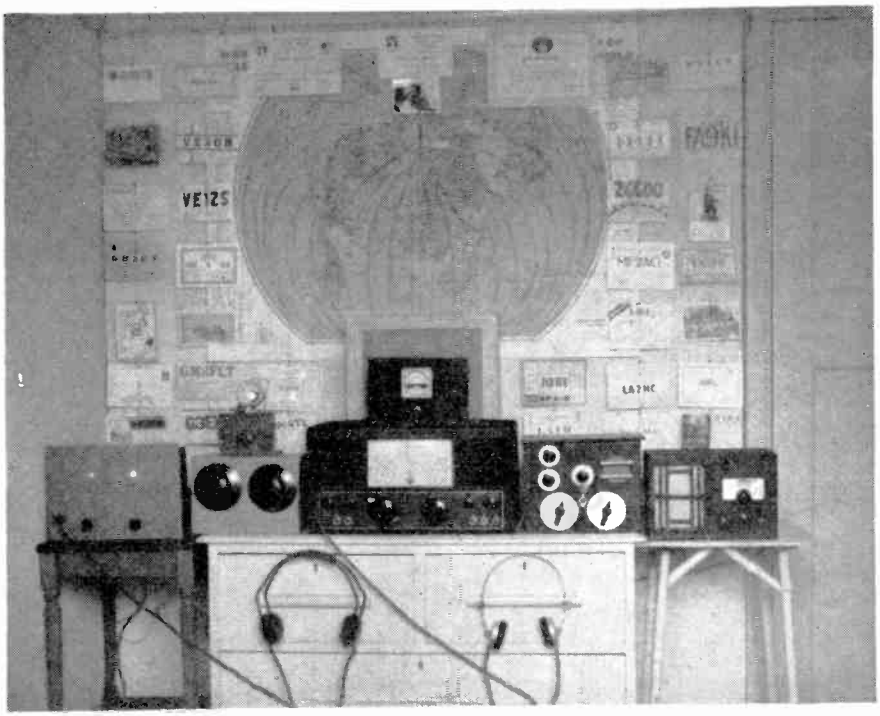
G3CWW (Hendon) reports that, since he has appeared with phone on the Top Band, he has received a number of unwanted SWL reports, some of which do not even check with his log. G3CWW wishes us to mention that he is interested only in SWL reports on his two-metre transmissions, and even then they must be from locations more than 100 miles from Hendon.

SWL Stations

NO. 49

J. F. R. WESTON, BSWL-3780, of Vickers, Kingsdown, Box, Wiltshire, who is now 18 years of age, started when he was ten with a crystal receiver—that would be in 1944. The bug having bitten, he then sold his stamp collection to buy the parts for an 0-V-0, which in due course was modified to cover the 30-100 metre waveband.

Going to Ilminster Grammar School as a boarder and taking his 0-V-0 with him, he was very fortunate to have as his science master G3DTB, who was running the school radio club and had a transmitter on the air under



that call. BSWL-3780 seized his opportunity and learnt Morse which, he says "was a very laborious job, but well worth it in the end." Early in 1950, he was able to do duty as second operator on G3DTB, and eventually was averaging about 100 contacts a term; he was tested for Morse by the GPO and passed out at 12 w.p.m., sending and receiving. By this time, the school had acquired a B2 equipment, which BSWL-3780 was able to modify for Phone/CW operation and also to add a VFO. This became the station gear—it is a combined receiver/transmitter assembly—at G3DTB, and many excellent QSO's were obtained on 80 metres, with an input of 20 watts and a half-wave dipole for that band.

At the home QTH in Box, '3780 installed an Eddystone S.640, complete with power control panel, aerial tuning unit, an 0-V-1 mains or battery stand-by receiver tuning 2000-18 metres, and a four-stage TRF job for long- and medium-wave coverage. The aerial now in use is 400 ft. long (J. F. R. W. gives its actual length as 397·7 ft!) and 50 ft. high, which is found to give better all-round results than a number of other systems tried against it—we are not at all surprised! Even with this magnificent aerial system, he finds the aerial tuning unit a vital piece of equipment for comfortable logging, since it enables the aerial to be brought right "on the nose" on all bands. BSWL-3780 is keen on QSL's and has a good collection—only a few of his cards appear in the photograph—and QSL policy has been to send 50 per cent. direct and the other half *via* the Bureau, he having become a member of the League in April, 1951.

Having passed the Morse Test, the next step for '3780 is the Radio Amateurs' Examination, since after all this experience he naturally aspires to a callsign of his own and activity on the air from his home station. For the immediate future, however, this must take second place to his studies to qualify as a civil engineer, and until this has been achieved, J. F. R. W. has quite rightly decided to confine his radio activity to listening only. We hope that he will be successful with all his plans, and look forward in due time to entering his call in the list of BSWL transmitting members. We know that he will always feel very grateful to G3DTB (one of those many science masters who, as active radio amateurs themselves, are doing so much to help and encourage the younger beginners) for having set his feet along the right road.

HAVE YOU HEARD?

WHATEVER conditions may be like by the time you open these pages, there is no denying that at the time of writing they are amazingly good. The 14-mc band is carrying more DX than I have heard on it since 1947, and the 21-mc band is wide open for CW from VK, VK9, KG6, ZL and all parts of the U.S.A. It is also true that some three days ago all bands were just about as dead as mutton—but one can stand that if one knows that there is a good chance of a reversal every now and then. So it seems fair to say that the general level of conditions is perceptibly better than last season, although the patchiness continues. If you have a disappointing session one day, don't let that put you off from listening carefully some 24 hours later.

The new forecasts from WWV have proved very reliable and very useful in this connection. For the benefit of those who don't yet know, this is what is available for you: WWV (who can be heard for long stretches of the day on 10, 15 and 20 mc respectively, doing his usual continuous time-signals), has for a long time been sending a single letter (U, N or W) just before twenty and fifty minutes past each hour. These letters have signified Unstable, Normal or Weak and have referred to the ionospheric conditions at the time of sending. Now, in addition to the letter, there is a figure, from 1 to 9, indicating the forecast of conditions for the following period of 12 hours. These figures are roughly analogous to our "S" code; for instance, 5 means "fair," 6 "fair to good," 7 "good" and so on.

So at 19½ and 49½ minutes past the hour, if you find WWV, you will hear "U6" or "N7" or some similar combination, which will tell you roughly how conditions are, and what they are likely to be for the next twelve hours. (It is only fair to add that they are not infallible!)

DX ON TEN METRES

First we will deal with the rather meagre information about the 28-mc band, which has attracted its usual habitués, but no one else! The lists in the Calls Heard section speak for themselves, everyone having heard roughly the same *kind* of stuff, but some more than others. D. L. McLean (Yeovil) has been troubled by short skip, and his best DX stations were ZS3O and W2NXO/MM (off St. Helena).

J. L. Hall (Croydon) found a few openings and heard HC1OY and VP6FR, both on phone. R. A. Hawley (Goostrey) found the band very little use until Sunday, September 21, when, quite suddenly, the ZS's rolled in at S7-9 and were QRM'ing each other.

K. Parvin (Thornton Heath) reports "conditions a little better but no startling DX." K. B. Ranger (Strood) finds the band "obviously improving," and most evenings are open for LU, PY, VQ2 and 4, ZS, CR6 and sometimes W4. B. J. C. Brown (Derby) noted distinct signs of life and collected a new one—ZS3H.

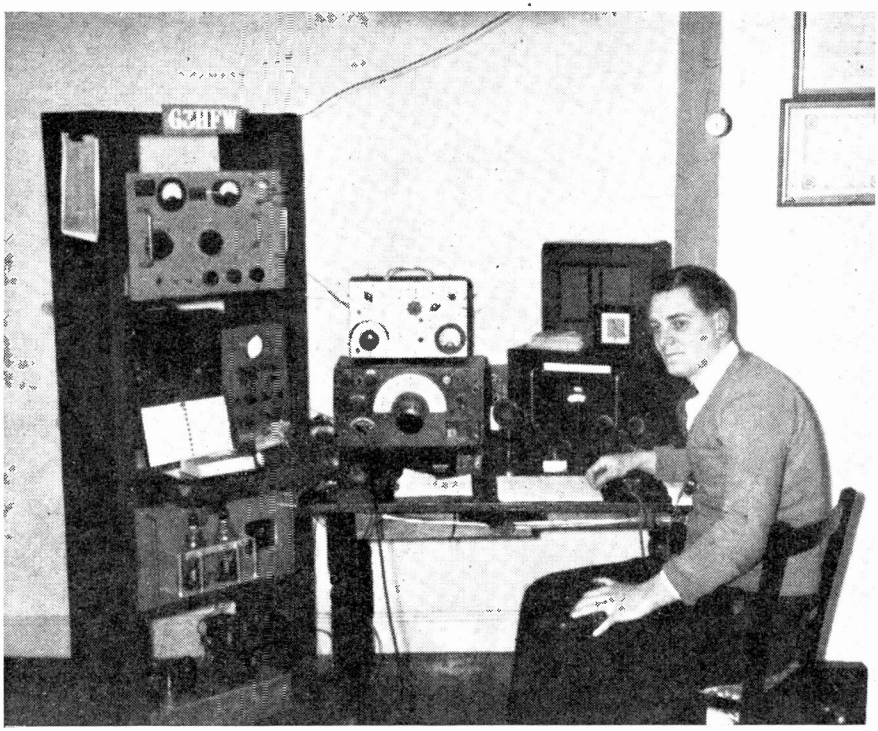
F. W. Hardstone (London, S.W.16)—note his nice list of Calls Heard—is pleased to find that his optimistic remarks of last month were well founded, and he says the band is showing the most definite and healthy signs of creeping up out of the trough. The way the paths alter at different times of day is becoming more normal, and things are most definitely better than this time last year.

M. S. Gotch (Saffron Walden) doesn't agree with this last remark but says there *is* an improvement; some of his best loggings were VQ2NS, VP6FR, HC1FF, W2ZXM/MM and the usual PY's and LU's. I. S. Davies (London, N.13) listened only between 1830 and 2040 GMT, but logged CR6AR, CX4CX and LU's, as well as the usual bunch of ZS's. He wants to know whether the phone that sounds like SSB comes from EA9AR?

P. A. Jackson (Bexley) heard ZS3O for his first ZS3, but otherwise found nothing of unusual interest. Various readers have queried LF2V or LF2B, heard on Ten, wondering whether he was on Jan Mayen Island or somewhere exotic. He was not—he was apparently just a Norwegian "expedition" within the mother country. The LB prefix also comes in for queries from time to time, but it applies to portables; if they happen to be on Jan Mayen Island, as LB6XD was—so much the better. But most LB's are just in Norway. LF, LJ and LI have all been used by Norwegian stations from time to time; some of you may remember that the portable on the Kon-Tiki raft was LI2B.

P. M. Crawford (Darlington) asks why the Faeroes use OY and Jan Mayen LB, and is apparently under the impression that they are in the same group. This is far from the case, the Faeroes being a Danish possession well south of Iceland and Jan Mayen a Norwegian possession equally far *north* of Iceland! (Incidentally, for the benefit of P. M. C., it is quite correct that LI is a Norwegian prefix, and its use, for a short time, to designate Libya was quite unofficial and irregular!)

AMATEUR BAND COMMENTARY ***by the DX Scribe***



G3HFW, Scarborough, Yorks., started as VS1BF, receiving his G call in December, 1950. The transmitter is 6V6-6L6-807, with 50 watts input on Eighty, Forty and Twenty, using a pair of 6L6's as modulator. The receivers are CR-100 and R.1155, with a BC-221 and an oscilloscope for measuring and checking. The aerial is a half-wave folded dipole made up of Telcon 300-ohm ribbon, coupled through an aerial tuning unit. G3HFW is also equipped for 114 mc operation.

THE NEW BAND OPENS UP

Yes—the 21-mc band has been wide open—but only for the devotees of CW, because very few of the real DX parts of the world seem to be allowed the use of phone as yet. N. C. Smith (Petts Wood) sends a fine list of Calls Heard and says he is now up to 55 countries, but still doesn't think the band has bucked up as it should. Some of these chaps expect a lot!

P. A. Jackson, coping with phone only, has heard 28 countries, the best being CE3CZ (for over three hours on September 17), ZD9AA, VP6, PY, OQ and others. I. S. Davies has also pursued phone and has found CE3CZ, FF8AP, 3V8AP, CN8AQ and VE3KF. CN8's, FA's and OQ5's come in for comment, the surprising thing being the terrific strength of some of them.

M. S. Gotch has collected 18 countries on phone, ZD9AA being the newest and best; B. J. C. Brown has an unusual one in VP6SD (phone) and he also managed to find W6VX on CW. K. Parvin found CE3CZ and VP6SD on phone, and tells us that the VE's are allowed to use phone from 21·2 to 21·45 mc—hence the logging of VE3KF, above.

D. K. Cocking (Farnborough) was listening to a PY and was delighted when his call was jammed out by another station who proved to be CE3CZ. . . . R. A. Hawley reports OQ5HL as S9 on phone, and ZC4RX the most consistent key-puncher. Others were KP4CC, TA3AA, VK4HR and the ZS's—on CW.

J. L. Hall (*see* Calls Heard) was pleased to log his first W7 and thinks there have been no contacts between G and W7 on the band as yet. Unfortunately he is not free in the mornings and so has not yet heard VK or ZL.

Summing up, and adding my own impressions, I should say that the "star-turn DX" on this band has been represented by ZL1AH (the first ZL to break through), VK9GW (very strong and consistent), VS2CR (elusive, but there) and the W6's. The most regular and

consistent CW signals have been from W2AJR, ZC4RX, TA3AA, VQ4HJP and the ZS's. Really elusive ones—ZP6CR, ZD9AA and a VS7 whose callsign I have not yet been able to decipher. (*Stop Press:* At the time of writing the ZL's have really broken through, the best being ZL1AH, 2HP, 3JA and 4GA.)

THE TWENTY-METRE BAND

DX listed as heard on this band is really too numerous to mention in connection with the names of all the listeners who send it in. So work it out from the Calls Heard, but excuse me if I only quote two or three of the best ones in each case. D. L. McLean mentions

FOUR-BAND DX

(POST WAR)

LISTENER	SCORE	28 MC	14 MC	7 MC	3·5 MC	COUNTRIES
N. C. Smith (Petts Wood)	558	113	236	142	67	241
J. L. Hall (Croydon)	537	26	239	175	97	243
N. S. Beckett (Lowestoft)	478	103	198	121	56	208
K. Parvin (Thornton Heath)	438	146	189	61	42	195 (P)
D. S. Kendall (Potters Bar)	422	150	175	62	37	189 (P)
D. L. McLean (Yeovil)	408	158	188	30	32	199 (P)
J. P. Warren (Croydon)	398	120	187	58	33	192 (P)
R. A. Hawley (Goostrey)	389	132	180	53	24	212
J. W. Cave (Parkstone)	375	183	146	21	25	194 (P)
N. Roberts (Launceston)	360	82	172	60	46	175 (P)
M. S. Gotch (Saffron Walden)	360	121	162	45	32	178 (P)
S. Smith (Kenilworth)	358	94	168	65	31	175 (P)
K. M. Parry (Sandwich)	340	123	154	34	29	164 (P)
I. S. Davies (London, N.13)	336	84	155	63	34	159 (P)
W. Neal (Birmingham)	323	82	157	63	21	169
H. M. Graham (Harefield)	304	92	144	38	30	158 (P)
R. W. Pennells (Lamberhurst)	289	56	157	46	30	163
A. L. Higgins (Aberkenfig)	269	79	131	36	23	153
S. A. Mann (New York)	264	112	138	10	4	173 (P)
A. E. Carter (Romford)	247	84	123	17	23	143 (P)
H. Warburton (BAOR)	246	18	166	36	26	169
J. H. Lloyd (Enfield)	245	15	147	44	36	156 (P)
A. O. Frearson (Birmingham)	238	81	107	35	15	134
D. K. Cocking (Farnborough)	220	70	112	23	15	124 (P)
J. Stubbs (Cleckheaton)	207	52	108	26	21	118 (P)
W. J. Amphlett (Smethwick)	194	24	96	50	24	112
B. J. C. Brown (Derby)	189	24	117	27	21	121 (P)
A. Deakin (Manchester)	180	25	126	18	11	129 (P)
H. D. Woodward (Manchester)	178	8	128	22	20	132 (P)
P. A. Jackson (Bexley)	170	27	103	27	13	116 (P)
P. L. O'Grady (New Zealand)	161	21	131	4	5	131

EAØAC, ZK2AA and 2AB and ZP5BV—the ZK's at 0745 on phone. J. L. Hall, working on CW, puts up FB8BB and 8BI, FR7ZA, LU4ZI (Deception Is.) and VP8AE.

G. Moses found it the best month of the year, although he keeps stalking ZK2AA without success; he finds that the DX doesn't seem to break through until it's time for him to leave for the daily toil. G. M. also comments on the way in which some stations boom through on an otherwise flat band—KL7AFR is quoted.

I. M. Marshall (Chelmsford) has heard VS9AW giving his QTH as the *town* of Aden; he also tells us that ZS6ZU is due to be working from Marion Island shortly, and that there is said to be a CF4CR operating from Formosa. (We recently heard C3AR and C3PG, both on Formosa.)

R. J. Saunders (Reading) was cheered up by FB8BB and XE1CQ, to say nothing of DU1AL. Other nice ones were FO8AI, VP2DC and 2AJ. Regarding last month's "UAØAYO thing"—he proposes to write it off unless someone else can provide more information about it. Pity, because he would have liked that Zone!

A. Deakin (Manchester) mentions VK6DX, VP9AV and AP5HQ during the early evenings, as well as W6 and ZS. H. D. Woodward, from the same city, collected HI, PJ, PZ and VS9AW for new ones, plus a beautiful but obvious pirate calling himself UO1LPI. R. A. Hawley "crawled out of bed," but obviously too early, because he didn't hear anything and went back again! Best DX was EL9A, KH5ER, VQ5AU and 5DDQ; he actually had trouble cutting his Calls Heard list down to 25 this month.

J. P. Warren (Croydon) was very interested and surprised to hear ZL3JD on phone at 1400 GMT. R. F. Veysey (Cardiff) found LU2FN for a new one and also heard an SM calling ZA1AA, without a reply.

J. Neal (Birmingham) reports after a long absence. He has built a 1-V-1 which seems to be paying fine dividends, since his list includes FB8BA, KA3AC, ZK1BC, ZS8MK and many other nice ones. During the one month he has reached a total of 33 Z and 99 C, so, as he says, conditions can't be called *bad.*

H. M. Graham (Harefield) also enjoyed the month, but comments on a total fade-out on September 20; at 2250 there wasn't the slightest sound on the band except a few local G's. Best of the month were HH2PB, HP1PV, YS1A and the like. H. M. G. was a bit mystified to hear K2USA calling PE2GE—some strange species of PA, doubtless. For consistency CO2SG and PJ2AA now rank very high.

L. Corder (Hadleigh) found VP1GM (1200) and FM7WF (2020) for two interesting ones—both on phone. G. Moore (Castleford) found KP4 the star turn, with 4JX, 4HF and 4MQ all logged. New ones came from VQ5DQ and PJ2AA, and two ZP's were heard. CW practice and the soldering iron took up more time than listening. A. W. Tideswell (Stoke-on-Trent) found the early morning sessions pretty futile, but enjoyed himself between 1800 and 1900 "following MP4KAC round W6-land." His best of the month were ZK2AA, KG6AD, KR6HW and FI8AC. The KA's, for the information of A. W. T. and others, are the former JA's—KA is the prefix for American nationals in Japan.

R. Williams (Birr, Eire) missed most of the DX owing to shortage of listening time, but mentions CO8MV and MF2AG. J. Stubbs (Cleckheaton) heard AP2K some time back and wonders if he was genuine. Well, there *is* a genuine and quite well-known AP2K. . . . J. S. also queries LF2V on 28 mc, but we have already covered this LF-prefix business.

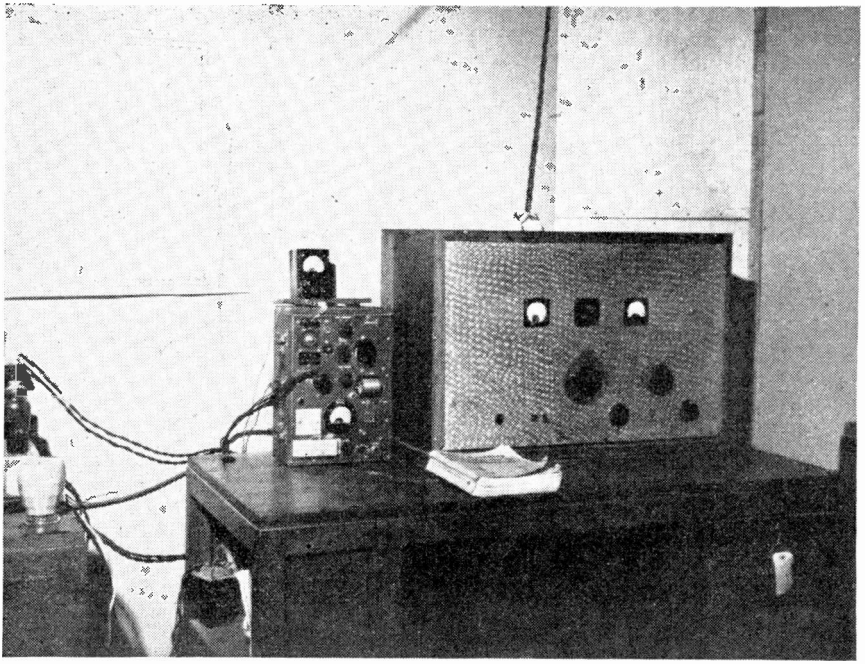
D. K. Cocking thinks the band has been falling off, but he heard VK2AGW on phone—the first for some months. VE8MA was logged at 1815 and TF5TP at 2100. EA6TA also gave him a new one. C. R. Burchell (Walsall) was made happy by DU1AL, FI8AC, HH, HI, HZ1MY/VQ6, TG9AZ and others. He missed HZ1MY when he went over to Qatar (by the way, he signed 6L6MY on that occasion!), so was glad to find him in VQ6. O. H. Black (Leicester) also logged him, along with FF8AP, PJ2AA and 2AB, and VE8MA.

H. J. Hill (Whitley Bay) has found the QRN level very high, but collected MP4KAC, ZA1AA (probably a phoney, alas), FB8ZZ, FQ8AJ and many others, giving him 13 new ones for 1952 and 10 all-time new ones. He heard a "CZ1EP"—another no-good, undoubtedly—and then logged "AC4YN," who proved to be CN8EI, quite unashamedly, giving himself a fancy call to try and raise some DX! !

K. Parvin heard the VQ6 episode, and his best, otherwise, were EAØAC, FI8AC and VP2DC. Alas! the Gotaways were even nicer, being ZK2AA and ZM6AA. K. B. Ranger heard AP2L/M and EQ3NA on phone, as well as KA8BW, EQ and TF on CW.

B. J. C. Brown heard the news (*via* VE3KF) that VP1AB is going to have a rhombic aimed at Europe before long; new ones logged were CR6BW and FQ8AJ, the rest of the loggings being in Calls Heard. M. S. Gotch found the band erratic, but came out with FM7WF, ZK2AA and VQ6MY; he says that the latter operated as plain HZ1MY to avoid pile-ups, but the news got round and he was snowed under just the same.

I. S. Davies heard the same report, and was one of those "put off" by it; he, too, has heard of 6L6MY in Qatar, who was worked by



The station of MP4KAI, Kuwait, Persian Gulf, operated by G3CBF (ex-ZC6BF, ex-4X4BF) runs 50 watts to an 807 in the PA, using half-wave centre-fed aerials.

SM5FL while I. S. D. was on holiday in Sweden. Best DX for I. S. D. was FM7, HI, KG4, PJ and the like. P. A. Jackson had a good month of it, with 16 new countries and three new Zones—mostly around Central America and including such as PJ, PZ, VP3 and 5, HH, HI, HP, TG, YS and so on. P. A. J. wonders if Egypt and the Suez Canal Zone count separately—they do *not*.

N. C. Smith had some beauties on CW, including CR8AB; and he heard G3AAM working KC6QF, but couldn't find him. N. C. S. recommends a little perseverance on CW when the short-skip seems to have wrecked the phone band. As he says, when GM's and things are rolling in at S9 plus on phone, CW will yield W6, W7, KH6, VE7, ZS3 and other interesting pieces. On phone, N. C. S. heard 4U-AJ and VR2CG.

H. Warburton (BAOR) found six brand-new ones in the shape of FB8BE, ZS3S, FP8AJ, M1D, VS9AW and VP8AP. He, too, queries LF2B (or was it LF2V? Opinion seems equally divided). M. E. S. Birch (also BAOR) only spent two week-ends listening, but put his total up with AP, KV4, KR6, KG6, OA, PJ and PZ.

P. Conway (Birmingham) is just starting up from a new location and will be reporting regularly. He gives his consistency prizes, meanwhile, to TA3AA and YI3BZL. The latter, by the way, has now returned to England, but the good work will be continued, using the same gear, by the Club station YI2AM. Incidentally, YI3BZL despatched *eight thousand* cards while operating under that call! D. E. Nunn (Hove) heard HZ, KV4, YA and VS7 for new ones (though I wouldn't give much for the YA's chances). He has found the Continental QRM decreasing, and late-night listening has been well worth the trouble.

P. M. Crawford (Darlington) was very surprised at last month's diversity of opinions regarding the state of Twenty. He, himself, thinks it is nearly always full of exotic DX, and he quotes a lot of calls to prove it. The CW list includes VP8's, VR2AA, KJ6AP, KX6AB, ZM6AK and FR7ZA. Phone has brought in FL8MY, AP, KR6IB, YA3VB (this one *was* genuine), HE, ZD9AA and lots more. He says that the station signing "X9S4AD" is an expedition in *Thailand*, in which 9S4AD is

participating. They have been heard on 14195 kc.

So much for Twenty; it only remains to add one or two of my own scrapings, which have included VR2CG, KX6AI, HR1RL and VP2MD—all, I regret to say, on CW!

THE DOINGS ON FORTY

Conditions on Forty are by no means good as yet, but a certain amount of interest is stirring. H. Warburton, for instance, says he has "discovered" the band as a possible source of points for the Four-Band DX Table, having heard ZL, VP8, YV, UP2 and UQ2 down the CW end. N. C. Smith, in contrast, logged ZL1QB up there on phone.

I. S. Davies, also chasing phones, found TI2AMZ and CO2OZ. M. S. Gotch also heard the latter, plus HC1FG and 9S4AD, but found he had to "excavate" for them. CO2OZ must be a pretty prominent signal, judging by the frequency with which he is mentioned—he appears in several other letters.

K. B. Ranger, listening to CW on the band, heard ZB1 and TF, but the best was an XE. K. Parvin heard ZC4RX on phone for a new country on the band, others being CO, EA9, HK, LU, PY and several ZL's. ZL1HY (phone) was logged by C. R. Burchell, and G3AAT/OX (CW) by J. Neal.

J. P. Warren started doing "a little serious listening" to 40 phone at the beginning of September, and came out of it with XE2OV, HK4DP and 5ER, CM2HD and a bunch of LU's and PY's. LX1DO provided a new country for H. D. Woodward, and finally J. L. Hall's bag included nice ones like VP8AJ and 8AP, ZD2 and ZD4, CR4AI, a UH8 and a UL7.

EIGHTY-METRE DX

Several listeners on Eighty have been picking out the W's on phone, but very little else of interest has been around. Those who mention the W's are H. D. Woodward, R. Iball (Worksop) and all the regular 'chasers on the band. H. Warburton logged YO6CA and CX1FY on CW, and J. L. Hall was lucky enough to find VP2KM (0100) for a new one. Apart from him, only KP4PZ and KP4QR were heard. J. L. H. tells us that ZS2HI has been off the band owing to a "blow-up," and that he received his QSL from CE4AD, complete with photo.

TOP-BAND TOPICS

An interesting flash-back to last season's Transatlantics is provided by G. C. Allen (Thornton Heath), who broke all records at one point by logging WØTQD—the farthest W and the longest path for overland reception ever reported on Top Band. He was somewhat disconsolate at never receiving verification of

HAZ MARATHON 1952

Listener	Zones	Countries
PHONE and CW		
N. C. Smith (Petts Wood) ..	39	193
R. G. Poppi (Beckenham) ..	39	185
R. Booth (Manchester) ..	39	164
B. R. Davies (Beckenham) ..	39	161
C. L. Bradbrook (Alton) ..	37	161
H. Warburton (BAOR) ..	37	146
B. R. J. Pooley (Pangbourne)	37	136
R. A. Hawley (Goostrey) ..	37	128
A. W. G. Boulton (Norwich)	36	149
D. S. Kendall (Potters Bar) ..	36	140
F. H. McClymont (Alloway)	36	135
O. H. Black (Leicester) ..	33	116
R. J. Riding (Wednesfield) ..	30	100
J. Butcher (Blackpool) ..	30	96
A. O. Frearson (Birmingham)	22	66
A. L. Higgins (Aberkenfig) ..	18	61
PHONE ONLY		
A. W. Tideswell (Stoke on Trent)	37	137
J. P. Warren (Croydon) ..	36	141
C. L. Bradbrook (Alton) ..	36	135
F. H. McClymont (Alloway)	36	133
H. D. Woodward (Manchester)	36	132
K. Parvin (Thornton Heath) ..	35	150
R. Goodman (Edgware) ..	35	143
M. Dransfield (Purley) ..	35	142
R. G. Poppi (Beckenham) ..	35	128
R. Booth (Manchester) ..	35	120
G. Moses (Crewe)	34	140
I. S. Davies (London, N.13)	34	133
D. S. Kendall (Potters Bar) ..	34	130
R. J. Saunders (Reading) ..	34	130
L. Corder (Hadleigh) ..	34	129
K. B. Ranger (Strood) ..	34	117
D. Vincent (Beckenham) ..	34	103
D. L. McLean (Yeovil) ..	33	143
S. Smith (Kenilworth) ..	33	116
P. A. Jackson (Bexley) ..	33	116
R. A. Hawley (Goostrey) ..	33	108
A. Deakin (Stretford) ..	32	121
L. W. Wilkins (Bromley) ..	32	118
B. J. C. Brown (Derby) ..	32	111
N. Roberts (Launceston) ..	31	123
C. J. Rourke (Belfast) ..	31	114
A. E. Carter (Romford) ..	31	107
W. J. Barwick (Romford) ..	31	92
H. J. Hill (Whitley Bay) ..	30	105
J. Stubbs (Cleckheaton) ..	30	100
S. A. Mann (New York) ..	29	85
H. M. Graham (Harefield) ..	28	103
D. K. Cocking (Farnborough)	27	82
R. J. Woollard (London, N.17)	26	76
R. T. Woodcock (Leicester) ..	25	27
G. Moore (Castleford) ..	23	83
A. Jackson (Huddersfield) ..	23	74
P. M. White (Williton) ..	23	57
P. L. O'Grady (New Zealand)	23	30
W. G. Semmens (Penzance)	21	77
F. J. Wooll (Beverley) ..	19	50

this nice piece of reception; however, WØTQD has now come through with his card, and all is well.

I. S. Davies, when he was recently in Stockholm, had a chance of listening round the band, and logged G3ERN and G3GYW in QSO on phone, both peaking at S7—a nice piece of phone DX! B. J. C. Brown has been getting some good medium-DX daylight reception between 1700 and 1930, which proves that the band is getting back into shape.

H. J. Hill has also been finding GDX on phone (even with a small indoor aerial) and finds there is always something worth logging.

W. Iball (Wigan) had some interesting GDX, mostly in daylight, including such stations as GI2ARS (1600) and G3LP in Glos. (1440). He also mentions the "rare" county of Pembrokeshire in the person of GW3CBX. Meanwhile his brother, R. Iball (Worksop), has collected many GM's, one of them being heard at 1020; he praises GM3IGW and 3IHL for their consistency.

GENERAL CHAT

E. P. Parry (South Harrow) wonders whether LF2V and KT1BB are phoney calls. LF2V we have already dealt with (Norwegian) and KT1 is the perfectly respectable prefix for W's in Tangier. F. A. Storer (Alfreton) wonders who on earth M4BJ can be—we all rather suspect him of being a phoney.

H. J. Hill passes on some information gleaned from HZ1MY, who says that some activity from VQ9 will take place before the end of the year. He also says there may be some activity in SV5 and SV6! H. J. H. apparently heard HZ1MY when he was in VQ6 land, but note that he was only there for *two days*, and normally, when you hear him signing HZ1MY, he is in Arabia. Other outbursts so far have been from FL8MY, 4W1MY, VQ6MY and 6L6MY (Qatar).

K. Parvin tells us that YA5XY (again according to HZ1MY) was a phoney operating from a plane, and not a genuine YA. K. P. also mentions the PJ's—PJ2AA is ex-PJ5RE, 2AC is ex-5BX and 2AD is ex-5FN. He would like to know whether MP4BBI is in Bahrein or not.

R. Booth (Manchester) would like to know whether UAØKSB is in Zone 18 or 19; others would like to know how to find any kind of a UAØ at all!

P. M. White (Williton) asks: Is Guantanamo Bay (KG4) a separate country? Yes, it is. Is Labrador a separate country? No—it counts in with Newfoundland and VE.

Excitement in the near future may be caused by such happenings as a Chilean expedition to Easter Island by CE3AG; look out for the call CEØAA, which may be heard for a few days between December and February. I1AHK plans a trip to San Marino in December, and the new prefix 9A1 will probably be used!

CONTESTS

For those who aspire to the supreme thrill of hearing Americans on the Top Band, we give the dates of this winter's Tests. They will take place between 0500 and 0800 on five Sundays—December 28, January 11 and 25, February 8 and 22. Other imminent contests are the *CQ* DX Contest (October 25 and 26 on phone, November 1 and 2 on CW), and the All-European DX Contest (December 6 and 7 on CW, December 13 and 14 on phone). Although SWL's as such cannot enter for these affairs, they do bring out a lot of activity on all bands, and make listening very interesting while they last. Probably the most intriguing feature of all, this year, will be that such contests have never before used 21 mc; so one imagines that everyone will be intent on scooping all the available DX from that band, and if conditions are good—well, anything might happen.

Next month's deadline is first post on October 30, and the following one first post on *November* 27. Address all your loggings, queries and heartaches to "DX Scribe," *Short Wave Listener & Television Review*, 55 Victoria Street, London, S.W.1. Meanwhile I wish you an interesting month of chasing. 73 and BCNU!

AMATEUR RADIO EXHIBITION

The Sixth Annual Amateur Radio Exhibition, sponsored by the Radio Society of Great Britain, is to take place at the Royal Hotel, Woburn Place, London, W.C.1, during the period Wednesday, November 26, to Saturday, November 29. Some 13 manufacturers have taken stands, others to exhibit being publishers in the radio field, the General Post Office, the Air Ministry and the War Office. Admission is by payment at the door, and the Royal Hotel can easily be reached by Tube (Russell Square Station) and by bus.

MODEL ENGINEERING EXHIBITION

The annual exhibition organised by our well-known contemporary, *The Model Engineer*, is to be opened on October 20 at the New Royal Horticultural Hall, Westminster, S.W.1, by H.R.H. The Duke of Edinburgh, K.G., F.R.S. Radio-controlled models, both ships and aircraft, will again be a feature of an interesting display covering the art and science of model engineering. The exhibition will be open for the week to October 25, and is well worth a visit.

CALLS HEARD

GENERAL

28 mc

G. Moses, 65 Railton Avenue, Crewe, Cheshire.
PHONE: CX4CS, EA9AR, LU4DA, OQ5VD, PY1DK, ZE1JO. (*Rx: S.*680*X.*)

I. S. Davies, 127 Hazelwood Lane, Palmers Green, London, N.13.
PHONE: CR6AR, CX4CS, LU4AL, 5AR, 9DCX, VQ2HN. (*Rx: R.*208.)

R. A. Hawley, Torview, Brookfield Crescent, Goostrey, Cheshire.
PHONE: LU5AR, 5DZ, 9DCX, ZS6AAF, 6BW, 6LF, 6OP, 6OY, 6Z. (*Rx: AR*88 *and S.*504.)

K. Parvin, 98 Winterbourne Road· Thornton Heath, Surrey.
PHONE: CE1AJ, 2CC, 3LE, CX4CS, LU5AR, 5DZ, 6DJY, 9DCX, PY1AGP, 2CK, 2JU, 4PQ, VQ2HW, ZE1JE, ZS6AFF, 6IH. (*Rx:* 504.)

D. L. McLean, 9 Cedar Grove, Yeovil, Somerset.
PHONE: CE3EZ, CX4CS, LU2TC, 3BU, 5AH, 5AR, 5BI, 5DZ, 9DP, PY1AGP, VQ4AQ, W2NXO/MM, ZE3JD, ZS3O, 6AFF, 6IH, 6OP, 6OY, 6WG. (*Rx: AR*88 *and SX*28.)

P. A. Jackson, 34 Blendon Drive, Bexley, Kent.
PHONE: CR6AG, 6AO, CX4CS, OQ5DW, 5VD, PY1AGP, 2AHS, VQ2HW, ZE1JE, 3JD, ZP5CB, ZS3O, 6AFF, 6IH, 6OP. (*Rx:* 8*-tube BC Super.*)

F. W. Hardstone, 43 Shrubbery ·Road, Streatham, London, S.W.16.
PHONE: CR6BX, CX4CS, 7BH, LU3BQ, 3DH, 4EC, 5AR, 5DZ, 7CB, 9DH, OQ5RU, 5VD, PY1AGP, 2JU, VQ2AP, 2AT, 2HN, ZB1KA, ZE3JD, ZS3O, 6AFF, 6B, 6BW, 6IH, 6LF, 6OP, 6OY, 6U, 6Z. (*Rx: AR*88.)

21 mc

J. P. Colwill, Hay Common, Launceston, Cornwall.
PHONE: CO8SA, EA8BF, F8XP, I1CSP, OQ5BQ, 5CX, 5HL, PY4RJ, VP6SD. (*Rx: Vidor CN*361.)

J. L. Hall, 2 Coombe Court, St. Peter's Road, Croydon.
CE3AG, 7AA, CR7AL, FA8CR, 9RZ, FF8AG, LU6AX, 9EV, TA3AA, VE4RO, VQ4HJP, W6AMA, 6BPD, 6DFY, 6HQM, 6VX, 6YZU, 7HXG, ZP6CR, ZS1BM, 1FD, 2AT, 5MP, 6BT, 6RX. (*Rx: S.*750.)

Please note these simple rules for sending in your lists of Calls Heard.

28 mc: No Europeans.
14 mc: No Europeans or North Africans, no East Coast U.S.A. or Canada, no PY.

7 mc: No Europeans.

3·5 mc: No Europeans.

1·7 mc: Nothing under 200 miles.

Arrange logs in the form given in this section with (*a*) Prefixes in alphabetical order, but not repeated after the first one; (*b*) Numbers in numerical order and repeated as part of the callsign; (*c*) Callsigns in alphabetical order. For example:—VK2GW, 2ZC, 3CP, 4UL, VP1AA, 2GB, 5BJ, 7NM, VQ4RF, 8AF. Underline each prefix; put your name and address at the head, and type of receiver at the foot; restrict your lists to a total of 25 calls. In short, make them out exactly as those shown herewith, but take as much space as you like. Microscopic writing is neither necessary nor popular. And if you want to use our Calls Heard Report Forms, specially produced for the purpose and supplied free of charge, send a large S.A.E. to the office, with a card marked—"Report Forms, please."

K. Parvin, 98 Winterbourne Road, Thornton Heath, Surrey.
PHONE: CE3CZ, CN8AJ, OQ5BQ, 5HL, PY2LM, 3SI, 4RJ, VP6SD, YV1BG, 5AB. (*Rx:* 504.)

N. C. Smith, 79 Greencourt Road, Petts Wood, Kent.
CW: CE3AG, FF8JC, KZ5WZ, LU3DD, 8NA, OA4C, SU1FX, TA3AA, VE2NI, VK4HR, W5LF, 6AMA, 6TZD, ZC4XP, ZD9AA, ZE2JV, 3JP, YI3BZL, ZS1BM, 1FD, 1H, 2AT, 2AV, 2CB, 4FF, 5MP, 6RX, 4X4RE. (*Rx: S.*750.)

R. A. Hawley, Torview, Brookfield Crescent, Goostrey, Cheshire.
PHONE: ON4IJ, OQ5HL.
CW: CN8CR, DL6FT, 7AP, 7CX, EA3CY, F3YR, KP4CC, PY2HT, TA3AA, VK4HR, ZC4RH, 4RX, ZS1FD, 4FF. (*Rx: AR*88 *and S.*504.)

R. W. Pennells, Neals Cottage, Lamberhurst, Nr. Tunbridge Wells, Kent.
CW: CE3AG, EA8BF, FA8CR, FF8AG, KG4AF, KP4KD, LU3DD, PY4EI, SU1FX, TA3AA, UG6KAA, VK9GW, VQ4DO, VS2CR, W1AW, 2AJR, 6FEE, ZB1BM, ZC4RS, ZE3JP, ZS4FF. (*Rx:* 0-*V*-1.)

P. A. Jackson, Bexley, Kent.
PHONE: CE3CZ, CN8AN, 8AQ, EA8BF, FF8AP, FQ8AQ, OQ5BI, 5BQ, 5HL, PY2OE, 4RJ, 5JP, VE1CR, 3KF, VP6SD, YV1BG, 5EE, ZD9AA, ZE3JY, 5A2TO. (*Rx:* 8*-tube BC Super.*)

D. L. McLean, 9 Cedar Grove, Yeovil, Somerset.
PHONE: FF8AR, OQ5BQ, 5CA. (*Rx: SX*28 *and AR*88.)

G. Moses, 65 Railton Avenue, Crewe, Cheshire.
PHONE: CN8AN, EA8BF, OQ5BQ, 5CX, ZE2JB. (*Rx: S.*680*X.*)

I. S. Davies, 127 Hazelwood Lane, Palmers Green, London, N.13.
PHONE: CE3CZ, CN8AG, 8AQ, 8CS, 8MI, FA3JY, FF8AP, IS1CYZ, OQ5BQ, VE3KF, 3V8AP. (*Rx: B.*36.)

14 mc

P. A. Jackson, Bexley, Kent.
PHONE: CE6AO, CO6LG, CX6AS, EQ3SAM / Airborne, FF8AP, HC1FG, HH2PB, HI6EC, KA2OM, KG6AD, KH6WU, KR6HW, MP4KAC, PJ2AD, PZ1WK, TG9RB, VE8MA, VK4CC, VP3LF, 5AK, YS1A, YV5AI, ZL2BE, ZP5CF, ZS7C. (*Rx:* 8*-tube BC Super.*)

R. J. Saunders, 43 South View Avenue, Caversham, Reading.
PHONE: CM9AA, CO2CY, 2OZ, CT2CCD, CX2CO, DU1AL, FB8BB, FM7WF, FO8AI, LB6XD, MP4KAC, PJ2AA, PZ1WC, TA2EFA, VK5FO, 5WB, 6AZ, 6MK, VP2AJ, VP2DC, 9AK, XE1CQ, YI2AM, YS1AG, ZP5CN. (*Rx: B.*36.)

E. P. Parry, 22 Rosebery Avenue, South Harrow, Middx.
PHONE: CM9AA, CO2OZ, SU1TX, VK2BX, 3TA, 5AJ, VP6SB, VQ5DQ, VS7SN YI3BZL, ZB1BZ, ZD4SK. (*Rx: S.*358.)

M. S. Gotch, Bridgett's, Widdington, Saffron Walden.
PHONE: FM7WF, KH6AHQ, KL7ADR, KP4HF, KR6IB, PJ2AA, VK3ABB, 3ADW, 3ASD, 3AVB, 3JE, 3MN, 3NF, 3VA, VQ6MY, VS7FG, 9AW, ZK2AA, ZL4FO. (*Rx:* 13*-valve Super, S.*640, *Q-5er.*)

A. P. Allchin, 52 Skelmersdale Road, Clacton-on-Sea, Essex.

PHONE: EL9A, FP8DZ, MP4KAC, OQ5BG, PJ2AA, VE8MA, VP6FO, VQ2DC, 5CY, ZD4JW, ZE2JA, ZS1BV, 3Y, 6AQ, 6AFN, 6EW, 6XT, 6YM. (*Rx: Domestic Murphy U*124.)

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

PHONE: CX2CO, EL9A, HH2EL, HK5ER, LU3EB, MI3LV, OQ5BG, PJ2AA, SU5EB, VP6AL, 6FO, 6SD, VQ5AU, 5DQ, VS7BE, 7EA, 7FG, 7GR, 7SP, 9AW, YS1MR, 1O, ZP5CF, ZS6OY. (*Rx: AR*88 *and S.*504.)

A. Deakin, 11 Cressingham Road, Stretford, Manchester.

PHONE: AP5HQ, HV1L, MP4KAC, OX3MW, VP9AV, VS9AW, W6IDY, 6WTJ, 6YX, ØCAA, ØCUX, VK6DX, ZS6ADF, 6AFF, 6AL, 6OY, 6TE, 4X4BL. (*Rx: HRO.*)

M. E. S. Birch, B.A.O.R.12.

PHONE: AP2K, KA2HB, 2US, KG6AD, KR6HW, KV4BB, OA4BC, PJ2AA, PZ1WK, VS1EG, VU2BH, 2JM, 2MA, ZD4BB, ZE4JW.

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

PHONE: EAØAC, EL9A, FF8CN, HC1FK, HZ1AB, 1MY, 1SD, KA5CW, KL7AFR, MI3LK, MP4KAC, OQ5BG, VQ5CY, 5DQ, VS7WA, 9AW, VU2MA, YI2AM, ZC4RX, ZD4AX, ZK2AA. 2AB, ZL2JB, 3LE, ZP5BV. (*Rx: SX*28, *and AR*88*LF.*)

T. Dale, 22 Lansdowne Street, Withington, Manchester, 20.

PHONE: CE5AN, EA6PR, 8BF, HI6EC, HP1JJ, HR1HM, HR4OS, HZ1AB, IS1BFJ, KG4AO, KP4CO, KV4BB, KZ5WJ, LU1JC, 3PF, OX3BD, PJ2AA, TA2EFA, VE3KF, 8MA, VO2G, VP5PK, 6SD, 9AX, VS7FG, WØDST, YI2AM, YV5AB, 8AD, ZC6UMJ, ZP5DC, ZS6KD. (*Rx: S.*740.)

I. M. Marshall, 38 Cedar Avenue, Chelmsford, Essex.

PHONE: CE3NG, CM9AA, CO2OZ, 8GM, CR6BW, EL9A, PJ2AA, PZ1WK, VK3HG, 4KS, VP3HAG, 5DX, 6CJ, 7NB, 9XX, VQ2AC, 4AA, 5DQ, VS2BS, 7SP, 9AW, YS1MS, ZE2KO, 4JW, ZL4FO, ZS6Q. (*Rx:* 1155/*A. mod.*)

R. G. Poppi, 265 Kent House Road, Beckenham, Kent.

CW: CR7AF, 7LU, 7RF, DU1GT, 1MB, FB8BB, 8BE, 8BH, FI8YB, FN8AD, FP8AP, FR7ZA, JA8AA, KA2US, KG6GX, KR6HW, KX6AI, UAØKKB, 9KYB, UI8KAA, VK9DB. (*Rx: AR*77*E.*)

D. E. Nunn, 7 Bigwood Avenue, Hove 4, Sussex.

PHONE: CO2CY, 6LG· EA8BB, EQ3SAM, HZ1MY, 1AB· KV4OP, LU4BH, 4CN, 4DD· PJ2AD, SVØWP, TA3AA, VS1EG· 7AA, YA2AN, YI2AM, 3AA, ZB1BJ, 1BZ, ZC6UNJ, ZS6OY, 6Z. (*Rx:* 12-*volt superhet.*)

D. C. Stace, Spring Creek, New Zealand.

PHONE: DU1AL, G4JW, JA2OM, 7SL, KH6AHQ. KJ6AW, KV4BB, TA3AA, VE7AFL, VK1RR, 2NO, 2TG, 3AKR, 3FX, 4DO, 4RW, 5DB, 5JW, 5WF, 5ZR, 6AZ, 6DX, 6ZZ. 9DB, VR1B, W1FH, 2KR, 2SAI, 3RIS, 4JVQ, 5DZ, 5QB, 6VAD, 6YY, 7IRZ, 7KT, 8HUD. 8UKS, 9KAS, 9TCT, ØCOZ, ØEDX, ØKRQ, XE2KW, YV5AB, ZL2JL, 4HY.

N. C. Smith, 79 Greencourt Road, Petts Wood, Kent.

CW: CR5AA, 7AF, 7LU, 8AB, 9AH, FB8BB, FP8AL, HR1RL, KG6CO, KH6AO, KL7CG, M1B, MP4BBD, 4KAE, PJ2AA ST2HK, VP5BF, 8AP, VS6CR, VU2RA, YI3BP. ZD2HAH ZL4FO, ZP6CR, 9AW, ZS3W. (*Rx: S.*750.)

G. Moore, 27 Briggs Avenue, Glasshoughton. Castleford, Yorks.

HI6EC, KP4HF, 4JX, 4MQ, LU2BG, PJ2AA, VQ5DQ, ZP5BL, 5CF. (*Rx: R*1155 *modified.*)

C. R. Burchell, 109 Dartmouth Avenue, Walsall.

PHONE: CR7IT, DU1AL, EQ3NA, 3SAM, FI8AC, FQ8AK, HH2PB, 3L, HI6EC, HZ1MY/VQ6, KH6OR, KL7ADR, MP4KAC, PJ2AA, 2AD, 2CB, PZ1WK, TG9AZ, VP3LF, 7NB, VQ3BU, VS1EG, 2BS, 2DB, 2DL, 9AW, YS1O, ZP5CF. (*Rx: H.M.V.* 1120.)

G. Moses, 65 Railton Avenue, Crewe, Cheshire.

PHONE: CE1CR, CT3AF, CX2CO, FF8AP, HP1CD, HR1UA, HZ1AB, KH6WU, KL7ADR, KV4BB, MI3LV, PJ2AA, PZ1WK, TI2ES, VK2QR, VP3LF, 5AL, YI3WH, YS1MS, YV5CI, ZD4AE, ZE4JW, ZL3LE, ZP5CF, ZS6RA. (*Rx: S.* 680*X.*)

J. P. Colwill, Hay Common, Launceston, Cornwall.

PHONE: CO7LG, EL9A, HC1FG, HK5ER, HZ1AB, KL7AFR, KP4EE, PJ2AD, PZ1WK, SU5EB, VE7VC, VK2ABA, VP6AL, VQ2AT, 2DC, 4AQ, 4CRM, 5AU, VS7WA, YI2AM, ZD4AE, 4AX, ZP5CF, ZS6AFF, 6OY. (*Rx: McMichael* 484.)

B. J. C. Brown, 196 Abbey Street, Derby.

PHONE: CE3HL, CO2CY, CR6BW, FQ8AJ, KL7AFR, KP4PM, LU5VP, MI3JV, MP4KAC, PJ2AD, 2CB, TF5TP, TI2HP, VK6MK, 7SA, VP5AK, 6JB, 9AV, VQ5AU, VS7EA, 9AW, YV5BQ, ZD4AX, ZP5CB, ZS6Z. (*Rx: S.*740.)

H. J. Hill, 12 Victoria Terrace, Whitley Bay.

PHONE: AP2L, CO3CB, CT3AR, CS3AC, EA8AW, FB8ZZ, FQ8AJ, HZ1MY, HI6EC, JY1AJ, KP4CO, 4HF, MP4KAC, PJ2AD, PZ1WK, SU5EB, TA2EFA, 3GCA, 3AA, VP5AP, 5DX, VP6AL, 6FO, VQ4AQ, 4ERR, VS7BE, 7EA, 9AW, YI2AM, 3BZL, ZA1AA, ZD4AX, ZS6AFF, 7C. (*Rx: R*107.)

I. S. Davies, 127 Hazelwood Lane, Palmers Green, London, N.13.

PHONE: CE3NG, CX2CO, FF8AR, FM7WF, HI6TC, KG4AO, KL7AMT, PJ2AA, 2AD, PZ1WK. TI2CAF, 2HP, VK2NG, 3ND, 4KS, VQ2AC, VS9AW, VU2HJ, ZP5CB, 5DC.
CW: LZ1KAB, VO1AN. (*Rx: B.*36.)

N. C. Smith, 79 Greencourt Road, Petts Wood, Kent.

PHONE: AP2L, 2K, EL9A, FM7WF, KA2JH, KH6OR, MP4KAC, PZ1WK, VK5AJ, 6MO, VP3LF, VQ5DQ, 8AL, VR2CG, VS1DQ, 2BS, 7SP, 9AW, VU2JM, YI2AM, ZS6Z, 4UAJ. (*Rx: S.*750.)

R. F. Veysey, 14 Richs Road, Birchgrove, Cardiff.

PHONE: CN8GH, HZ1MY, LU2FN, OD5AD, SU5EB. TA3AA, W4CRA, ZB1AH. (*5-valve, domestic Murphy.*)

R. Lear, 2 Central Cottages, Minions, Liskeard, Cornwall.

PHONE: AP2K, CS3AC, EQ3NA, HH3L, KH6WU, KJ6AW, MP4KAC, OQ5BG, OX3MW, PZ1WK, TI2HP, VK5FO, 5RN, 6EC, 6FL, 6MK, VP3HAG, 4TH, 9VV, VS1EG, 7EA. 7WA, 9AW, XE1WW, ZC6UNJ. (*Rx: SX*24.)

R. W. Pennells, Neals Cottage, Lamberhurst, Nr. Tunbridge Wells, Kent.

CW: CR5AA, 7AF, DU1GT, EQ3TT, FB8BB, FP8AP, FQ8AK, KA8LB, KG6FAB, KV4AQ, KZ5DC, MP4BBI, UG6KAA, VK2AH. VP8AE, 8AJ, VS6CM, ZD2HA, 4BC, ZL3HA. (*Rx:* 0-*V*-1.)

O. H. Black. 12 Gladstone Street, Anstey, Nr. Leicester.

PHONE: CX4CO, FF8AP, HZ1MY/VQ6, JY1XY, KG4AD, 6AD, KL7AMT, KV4AA, LU3EB, OX3PM, PJ2AA, TI2RCA, VE8MA, VK2AX, 3AKA, 5RN, VQ5DQ, VS7WA, 9AW, VU2BH, W6PWR, 7DL, ZE2JL, ZS6ME, 6Z. (*Rx: Hambander.*)

P. M. White, The School House, Williton, Somerset.

PHONE: CE2CC, CE3CZ, CX2CO, HK1HV, KG4AL, LU4AA, 4BB, 4BW, 9PA, 1KDR, LU6CY, LU7AAT, TA2EFA, TF5SV, VP6WR, YI2AM, YV5AB, 5AI, ZP5DC. (*Rx: Battery* 1-*V*-2.)

R. W. Pennells, Neals Cottage, Lamberhurst, Nr. Tunbridge Wells, Kent.

PHONE: EL9A, FF8AP, FI8AC, HC1FG, KL7ADR, PJ2AA, VK3GR, VQ3BU, VS2DL, 7GR, 9AW, VU2BN, ZD4AX, 9AA, (*Rx:* 0-*V*-1.)

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

PHONE: EAØAC, FI8AC, FQ8AJ, HH2PB, HZ1MY/VQ6, KL7ADR, 7AGU, MP4KAC, OA4EU, PJ2AA, 2AD, 2CB, PZ1WK, TG9RB, VE8MA, VP2DC, 7NB, VS1EG, 2DL, 7FG, 7WA, 9AW, YS1MS, ZD4AE, 4AX. (*Rx:* 504.)

D. K. Cocking, Farnborough, Kent.

PHONE: CE3CK, CO2CY, EA6AT, LU2FN, MP4KAC, VE8MA, VK2AGW, VQ5AU, 5DQ, VS7LB, YI3BZL, YV5AB, CS3AC, TF5TP. (*Rx: S.*640.)

D. Woodward, 16 Abbotsford Road, Charlton, Manchester 21.

PHONE: HI6EC, H21MY, KP4USA, KV4BB, MP4KAC, PJ2AA, 2AB, 2AG, PZ1WK, VP4CK, 6SD, 9BG, VS2DC, 7AA, 7BE, 7EA, 7ER, 7FG, 9AW, YI2AM, ZD4AX, ZS2BC, 6BW, 6Z. (*Rx: SX*24.)

F. A. Storer, 102 Nottingham Road, Alfreton, Derbyshire.

PHONE: AP2K, HZ1AB, HZ1SD, KV4AG, LU4DFD, LU6AJ, MI3VG, OD5AD, OX3MW, SU5EB, TA2EFA, TA3MP, VQ2DC, VS7FG, YI2AM, YV5BV, ZP5BY, ZS6KD, 5A2TZ. (*Rx:* 1155*A.*)

J. Neal, 217 Sladefield Road, Ward End, Birmingham 8.

CW: CP1AX, CR5AD, 7AF, 9AH, EQ3NA, FB8BA, FF8AG, FP8AI, FQ8AG, HC1JW, HH3L, JY1AJ, KA3AC, KG6GX, KH6ES, 6IJ, 6MG, KL7ADR, IG9RB, UG6KAA, VS6CG, 7XG, 9AW, VU2FH, YI2AM, ZK1BC, ZS8MK. (*Rx:* 1-*V*-1.)

7 mc

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

PHONE: CO2OZ, EA9BC, HK5ER, LU8CW, PY1AA, ZC4RX. (*Rx: S.*504.)

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

PHONE: CM2HD, HK4DP, 5ER, LU7BF, 8AAX, PY2EZ, 2HK, 6EP, XE2OV. (*Rx: R.*103.)

N. C. Smith, 79 Greencourt Road, Petts Wood.

CW: CE2GB, CM8BR, FP8AP, HK3HR, KP4UW, LU5IT, 6FAD, UA9DC, 9KCA, UL7KAA, VK3HT, 3PG, VP6AG, 8AJ, 8AP, W7CRB, ZC4RX, ZL1CA, 2BJ, 2IQ, 2KX, 3GQ, 3GU, 4BQ, 4JA. *PHONE:* ZL1QB. (*Rx: S.*750.)

3·5 mc

J. P. Colwill, Hay Common, Launceston, Cornwall.

PHONE: W1EMF, 9GWL. (*Rx: McMichael* 484.)

R. Iball, 1 Riddell Avenue, Langold, Worksop, Notts.

CW: KP4PZ, W1AW, 1BGW, 2HTH, 2YVP, 4CLH. (*Rx:* 1224*A.*)

1.7 mc

R. Iball, 1 Riddell Avenue, Langold, Worksop, Notts.

CW: G3AWL, 3IAS, GI2ARS, 3HFT, GM2CAS, 3EDU, 3GUS, 3IGW, 3OM, OK1AJB, 1FB, 1OA (*Rx:* 1224*A.*)

W. Iball, 213 Garswood Road, Garswood, Wigan.

CW: G2DTO, 2HBG, 2UX, 2YY, 3AGQ, 3BGW, 3BMY, 3CKF, 3ELZ, 3FWJ, 3GKB, 3ICJ, 3IGC, 3ISA, 3IVP, 5PP, 5QI, 8RC, GI2DYF, 3HFT, 6YW, GM2CAS, 3GUS, 6FB, 6RI, GW3CBX, 1HL, 8WJ.

PHONE: G2AK, 2BSR, 3GED, 5QG. (*Rx: S.*740.)

CARDS IN THE BOX

We are holding cards in our QSL Bureau for the SWL stations listed below, either because we are without a forwarding address or stamped addressed envelopes in which to send the cards. Will those concerned please let us have an envelope, stamped and addressed, and sent to: BCM/QSL, London, W.C.1. This is a full and sufficient address for our QSL Bureau, for which the office QTH must *not* be used.

In accordance with our usual practice, if these cards are not claimed within three months, they will be bulked to other bureaux for possible delivery.

BRS. 1147, 1371, 3852, 5896, 11150, 12403, 12789, 13497, 14000, 14400, 14535, 14675, 14996, 15058, 15639, 15698, 15743, 16152, 16263, 16880, 17285, 17447, 17468, 17664, 17880, 17886, 17896, 17912, 17969, 18069, 18088, 18126, 18127, 18212, 18238, 18248, 18326, 18348, 18395, 18431, 18475.

BSWL. 110, 173, 299, 574, 645, 883, 934, 1028, 1038, 1071, 1178, 1201, 1297, 1937, 2187, 2232, 2361, 2757, 2918, 3069, 3219, 3362, 3390, 3412, 3486, 3586, 3624.

ISWL. 261, 760, 814, 1044, 1156, 1232, 1498, 1642, 1717, 1819, 2074, 2145, 2187, 2261, 2561, 2608, 2643, 2761, 2827, 2875, 2959, 2966 3014, 3046, 3239, 3252, 3283, 3290, 3332, 3408, 3440, 3490, 3502, 3568, 3666, 3692, 3830, 3834, 3912, 3946, 3951, 3957, 3974, 4102, 4159, 4246, 4327, 4361, 4415, 4524, 4530, 4540, 4546, 4549, 4598, 4632, 4809, 4825, 4910, 4925, 4931, 4943, 4960, 4966, 4971, 5004, 5009, 5048, 5064, 5305, 5329, 5356, 5369.

A. 1054, 1068, 1072, 1094, 1137, 1144, 1149, 1151, 1170, 1187, 1188, 1202, 1209, 1211, 1219, 1220, 1221.

SWL. H. D. Woodward.

Joining the BSWL?

PSE QSL

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

DL1EL *Hans Hofner, Koditz Nr.* 78, *b. Hof/Saale Pbfr, Germany.* 3·5 mc CW, 2200-0100 GMT: 7 mc CW, 2000-2200 GMT· 14 mc CW, 1600-2000 GMT. VFO-controlled.

DL2TA *Unnenkamp* 26, *Munster-Lager, Germany.* Reports on 7 mc CW with details of keying quality and any QSB.

DL3NQ *Hubbergweg* 5, *Weinheim (Bergstr.), Germany.* Reports required on 144·334 mc phone and CW, operating 2000-2300 GMT.

DL6EN *Waldemarstrasse* 13, *Bad Kreuznach, Germany.* Critical reports on 3·5 and 14 mc phone, operating 1700 GMT onwards.

DL7BB *Kapuzinergraben 9.III, Aachen-Rhld, Germany.* Operating FM phone on approx. 3600 kc at 0545-0630 GMT.

DL7EA *Am Waldmannseck* 13. *Berlin-Wittenau, Germany.* Reports on 3·5, 7 and 28 mc phone and CW, 1900-2300 GMT.

DL7ES *Quitzowstrasse* 135, *Berlin, N.W.21, Germany.* 28 and 144-146 mc phone.

DL9MN *Loningerstrasse* 9, *Cloppenburg, Germany.* Reports required on 3·5, 7 and 14 mc CW, operating 1330-1420 GMT.

EA9AT *Pabellones de las Heras* 5, *Ceuta, Spanish Morocco.* Operating 14 mc phone, 1600-2100 GMT. Reports on modulation.

F3TT 23 *rue S . Sauveur, Evreux, Eure, France.* 7 and 14 mc CW and NB.FM. phone, Thursday and Saturday 1500 GMT onwards. Critical phone reports and details of CW stability.

F7BB *Lt.-Col. J. E. Ligon, Chateau Melleray, St. Denis en Val, Loiret, France.* 3·5, 7, 14 and 28 mc phone and CW, 1700-2200 GMT. Critical reports on speech quality and modulation.

F8OH *Dr. E. Plichon, place de Caen, Rethel, Ardennes, France.* 3·5, 7, 14 and 21 mc phone, operating 0700-0800, 1000-1100, 1700-1830 and 2100-2200 GMT.

G2BYK 2 *Barbican Terrace, Barnstaple, Devon.* Reports required on VFO-controlled 3·5 mc phone.

G2DHV 63 *Lewisham Hill, London, S.E.*13. 21, 28, 144·99 and 145·206 mc CW, most evenings 1900-2200 GMT.

G3ITB *Hanborough, South Street, Sheringham, Norfolk.* 3·5-3·6, 7·0-7·1 and 14·0-14·1 mc CW, 0400-0600 and 1700-2100 GMT, and various times during weekends.

HB9JZ *Hans Paul Wipf, Box* 31, *Goldau, Schwyz, Switzerland.* 14, 21 and 28 mc phone. Details of modulation.

HK4DP *Apartado aereo* 708, *Medellin, Colombian Republic.* Reports on 7050 kc CW, operating 0010-0030 GMT.

IICSO *via Aportl* 17. *Torino, Italy.* Operating 14 and 28 mc phone. Details of speech quality and modulation.

KA2OM *O. E. Means, H.Q. Sqdn.,* 1503*rd Air Base Group, APO.*226, *c/o Postmaster, San Francisco, California, U.S.A.* 14 and 28 mc phone and CW. Details of any other KA- stations heard.

KP4OA *Goyco* 52, *Caguas, Puerto Rico.* 3925, 14295 and 28600 kc phone, operating Saturdays and Sundays.

VK5VK *W. P. Kempster, Snuggery, via Millicent, South Australia.* 3·5, 7, 14, 26·96-27·23 and 30 mc phone and CW.

VK6VM 22 *Cross Street, Swanbourne, Western Australia.* Reports required on 7, 14, 21 and 28 mc phone, 1200-1500 GMT.

VP4LZ *J. A. Connors, c/o P.O. Box* 4022, *Rio de Janeiro, Brazil.* Operating CW on 1805, 1982, 3505, 7010 and 14020 kc.

W1TSL 26 *Hatch Street, Mystic, Connecticut, U.S.A.* Reports on 7 and 14 mc CW.

W1UQV 9 *Denison Avenue, Mystic, Connecticut, U.S.A.* 7 and 14 mc CW, operating 1100-1300 and 2200-2359 GMT.

K2CX 151-65 17*th Road, Whitestone, Long Island, New York, U.S.A.* Detailed reports on 14 mc CW, 2000-2359 GMT.

W2HSM *P. L. Snyder, Pine Street, Nelsonville, New York, U.S.A.* 14320 and 28580 kc phone, 1300-2300 GMT.

W2WH *R. Venegas, Osborne Lane, Easthampton, Long Island, New York, U.S.A.* 3500-3600 kc CW, 0400-0800 GMT.

VP6WD *W. D. Dear, King William Street, Bridgetown,* 5, *Barbados.* VFO-controlled 14140-14150 kc phone, 2200-0400 GMT.

ZD4BH *Sgt. G. M. Paul, T.X.*1., *Gold Coast Signals, Giffard Camp, Accra, Gold Coast.* 14 mc CW, operating 2000-2300 GMT.

3A2AQ *Lt.-Col. J. E. Ligon,* 46 *Rue Comte F. Gastaldo, Pte. de Monaco.* 3·5, 7, 14 and 28 mc phone and CW, 1700-2200 GMT. Critical reports on speech quality and modulation.

CALL BOOK—FOREIGN SECTION

We are glad to be able to say that once again it has been possible to arrange for the publication, separately, of the Foreign Section of the *Radio Amateur Call Book*—that is, the *Call Book* proper, less only the American amateur station listings. The new edition of the Foreign Section will be the autumn issue, containing the latest and most up-to-date lists of the world's amateur transmitters, exclusive of the U.S.A., shown alphabetically by prefix, country, callsign, name and address. Zone locations and QSL bureaux addresses are also given. The price of the Foreign Section is 10s., post free, and the edition is limited. Order on: Publications Dept., Short Wave Magazine, Ltd., 55 Victoria Street, S.W.1.

THE CLUB CONTEST

Rules for MCC, the Seventh Annual *Magazine* Transmitting Contest on 1·7 mc for Amateur Radio club organisations, have now been circulated to all clubs known to us as active. Members of clubs are asked to ensure that their honorary secretaries are on our circulation list—they will be if at any time in the last six months a report has been sent in to the "Month with the Clubs" section in our *Short Wave Magazine.*

THE VHF END

by **A. A. MAWSE**

Marathon Contest, Third Leg—

Spell of Bad Conditions—

Station News & Individual Reports—

Marathon Last Leg, October 25-26—

THE third leg of the Marathon Contest, September 27-28, was made very difficult for all who tried because it fell in a period of very poor conditions—actually, one of the worst experienced on the VHF bands this year! In fact, it may be said of September generally that conditions have been most disappointing. This has naturally resulted in low activity, and though the regulars have always been on, they have not been penetrating much beyond the 100-mile distances, so that the overall picture has been rather a miserable one.

Four SWL logs were received for the Third Leg, and the results to date are shown in the Table. Incidentally, this also makes it very evident that so far the best of the Marathon periods was the second, and the Transmitter logs indicate exactly the same thing. A. W. Blandford is still well out in front, but P. J. Towgood is creeping up on him very steadily, and the results of the last leg may well reverse their placings if P. J. T. can hit up a really good score for the final session over October 25-26.

A. W. B. shows a total of 60 log entries, but they are nearly all locals, and also represent a large proportion of second-time points, as permitted under the rules. This is where a station situated in an area of relatively high activity can score heavily when conditions are too bad for any real GDX reception; it also shows that, in the London and Home Counties area, stations can be found on Two Metres at almost any time. So A. W. B. was able to pile up a good score by steady listening throughout the period.

The log turned in by P. J. Towgood, Bournemouth, is a fine example of careful probing round the band under very poor conditions. He has only 32 log entries, but three of them are 20-pointers with G3MY/P (Derbyshire) and G3VM (Norwich) heard twice to score. P. J. T. heard no less than 17 different counties (against 12C claimed by A. W. B.) and he also had eight 10-pointers, from several stations heard twice. The fact that P. J. T. has comparatively few locals on which to draw is proved by his total of 12 points only in one's and two's! If conditions serve, and the activity comes up to the second-leg level, we expect to see a masterly entry from P. J. T. for the final session!

R. W. Thomas, London, E.5, had two good 10-pointers in G2FTS (Hailsham) and G3GHO (Roade), both of whom also scored as counties, but otherwise he depended upon locals. M. McBrayne (Westcliff, Essex) found activity low and conditions appalling, suffering also by reason of the fact that at his location he is not often in the line-of-shoot of the beams; the Londoners tend to look north or west, and the Midlands stations south and south-west, so that M. McB. has to spend a lot of time scraping after weak signals off the back and edges of the transmitter beams.

None of the SWL entries claim G5YV; yet he was on, and we have his own log for the third leg. This is a measure of the conditions prevailing during the September 27-28 week-end, and shows that there was little or no workable DX about.

Let us hope for a better break during the final session—and, once again, we ask for an entry (however modest) from *everyone*. The date is October 25-26.

Station Reports

M. McBrayne remarks that "If it was not for the amount of ignition QRM heard, the Rx would long ago have been suspect"! He has no new claims to make for the Tables, but is within striking distance of "100 Heard"—in spite of everything, some new callsigns made their appearance.

D. Flack (Liverpool, 19) runs an 1147A on Two, and is very anxious to hear from anyone who could help or advise him about putting an RF stage in front of it—*see* Calls Heard for QTH. He would also like the loan of a copy of the August 1949 and July 1950 issues of *Short Wave Magazine*—containing details of the

G2IQ converter. (These have long since been out of print). It will probably interest A. W. Malins, also of Liverpool, to know that D. F. is getting quite good results on his 1147A, as A. W. M. is still doubtful about whether he is even covering the two-metre band.

By the same token, A. H. Edgar may be interested to hear that he has another local SWL in N. G. Robson, BSWL-3887, Newcastle-on-Tyne, 3, who is welcomed as a new correspondent to these pages. '3887 remarks that so far he has been able to find locals only, with G8AO roaring in when he is at home. N. G. R. also tells us that A. H. Edgar is very badly situated, so that the excellent results he is able to claim are all the more creditable. (We make these remarks with due caution, as these two apparently do not know one another!)

From A. H. E. himself we have the usual interesting report; he had only one week's activity in the month, September 13-22, when the 14th was the best day, with GM3EGW coming in all the afternoon and evening. G3BW (Whitehaven, Cumb.) was heard during this period, and G8AO worked G13BIL. The following Sunday, 21st., also gave good results, but activity was very low. During the month, A. H. E. rolled in another five new stations, making the total 77 heard to date, with two additional counties—Cumberland and Berwickshire (GM3EGW/P). He has got his converter working nicely on weak phone, and is quite surprised at how it is possible to resolve a "tiny carrier" into readable speech. (A good many others would like to have the recipe for this, too.) All readers of this column will congratulate A. H. E. on the fact that, now and henceforth, he will be known as G3IOE, this being the new callsign just issued. He is not sure when he will be able to come on, but will be joining a group of local VHF operators who are keen on GDX, and are busy hotting up their receivers. The local preference is for the Cascode, on the grounds that the G2IQ 6J6-job is "harder to neutralise." But as G3IOE rightly remarks, the Cascode itself depends upon close and accurate neutralising if it is to do its best. They still hear G3WW regularly in the Newcastle area, and it is remarkable, says G3IOE, how consistent he is —yet nobody is able to poke a signal down to him at Wimblington.

A. W. Malins (Liverpool, 21) is working hard on his receiver, but still can find nothing but the Port Radar on 164 mc; he is trying the lecher-wire arrangement as suggested last month, and is going to build an entirely new (and separate) VHF receiver as soon as all the parts are to hand. A. W. M. offers his condolences to R. Williams BSWL-4263, over in Offaly, Eire, and hopes that he too will soon start getting some results. BSWL-4263 himself writes that he has decided to follow our advice (*see* this space, September issue) and having built a GDO, will then build another receiver when he knows he can find the band. '4263 would be glad to hear from any other SWL in Eire who may have some small-capacity split-stator condensers for disposal.

P. J. Towgood (Bournemouth) remarks that he is in full agreement with our suggested method of preparing reports (*see* last month) and says that he has always kept what he calls "A 144-mc Diary." He was on during the evenings of September 7-8, 10-12, 14-23, and

VHF CALLS HEARD

TWO METRES

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

Phone and CW: 0-50 miles: G2BCY, 2DKH, 2DKH/P, 2FO, 3CYY, 3EGF, 3GEA, 4LX, 8AO. 50-100 miles: G2DRA, 2FCL, 3BW 3FFV/P, GM3EGW/P.

100-150 miles: G2FZU, 6LI, 6PJ, GM3EGW.

150-200 miles: G3WW.

A. W. White, 38 Cliffsea Grove, Leigh-on-Sea, Essex.

Phone: G2AJ, 2BCB, 2FTS, 3ANB, 3BEX/P, 3BWS, 3DIV, 3DIV/P, 3FAN, 3FMK/P, 3GHI, 4AC, 4OT, 5DS, 6AG, 6RH, 8IL. (*Rx: Eddystone converter into* 1155. *Ae:* 3 *element c.s. beam* 25 *ft. high. Aug.* 29-*Sept.* 28.)

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

G2AHP, G2ANT, 2DUV, 2FCL, 2FTS, 2HDZ, 2PU, 2XC, 2YB, 3BLP, 3BEX, 3BVG, 3CAT, 3CGQ, 3CVO, 3DT, 3EDD, 3EYV, 3FGB, 3FSD, 3FSG, 3FUM, 3FZL, 3GHI, 3HSC, 3WW, 4DC, 4HQ, 4RO, 4SA, 5QL, 5YV, 6BO, 6GR, 6JP, 6LR, 6NB, 6RH, 6WU, 8IL, 8OU, 8PX, GW2ADZ, GW6NB/P. (*Rx:* 6J6 *pre-amp. into RF*27 *mod. into S*640. *Aerial:* 5-*ele Yagi. September* 3-30.)

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

Phone and CW: 100-150 miles: G2FNW, 2HCG, 2PU, 2XV, 3ANB, 3BK, 3GHO, 3HAZ, 3IIT, 3WW, 5SK, 8SY.

150-200 miles: G2FJR, 2OI, 3MY/P, 3VM.

200-250 miles: G5YV. (*Rx:* 6J6/6J6/2 × 6C4 *converter into* 9 *mc xtal controlled converter, into* 1·6 *mc I.F./A.F. amp. Aerial:* 4-*element c/s Yagi* 22 *ft. high. All heard September* 7-28.)

N. G. Robson, 69 Granville Road, Gosport, Newcastle upon Tyne, 3.

Phone: G2BCY, 2DKH, 3BEJ, 3BKE, 3CYY 3CYY/A, 3EGF, 6GS, 8AO. (*Rx: R.F.* 26 *mod. into S.*740. *Aerial:* 3-*element beam in false roof, approx.* 185 *ft. A.S.L. All heard September* 6-30.)

D. Flack, 26 Woodend Avenue, Speke, Liverpool, 19.

EI2W, G2DCI, 2HGR, 2OI, 3AYT/P, 3BOC, 3BPJ, 3DA, 3FMI, 3GMX, 3HII, 5YV, 8SB. (*Locals only; July to September.*)

70 CENTIMETRES

R. L. Bastin, BSWL-3484, 152 Avon Street, Coventry.

G3ABA (2 m.), G3BKQ (21 m.), 6YU (1 m.). (*Rx: ASB*8 *into* 16-*element Stack. Heard September* 29 *only.*)

MARATHON VHF CONTEST

SWL SECTION

Aggregate Scores

First, Second and Third Legs

(*July* 19-20, *August* 23-24, *September* 27-28)

OPERATOR AND LOCATION	SCORE				RECEIVER	AERIAL
	1st	2nd	3rd	Aggr.		
A. W. Blandford, Mitcham, Surrey	187	577	211	975	Cascode/1155	4-ele Yagi
P. J. Towgood, Bournemouth, Hants	—	415	302	717	1RF-M-Osc, 9 mc CC Converter, 1·6 mc IF/AF	4-ele Yagi
R. L. Bastin, Coventry, Warks. ..	—	385	—	385	G2IQ/S.640	3-ele Yagi
M. McBrayne, Westcliff-on-Sea, Essex	102	203	39	344	6J6/R.1155A	4-ele Yagi
R. W. Thomas, London, E.5. ..	—	94	75	169	RF26/R.107	4-ele Yagi
E. R. Crane, London, W.1. ..	—	39	—	39	CV66-RF26/Hambander	5-ele Yagi

27-28. The best date appears to have been the 23rd, and the worst patch of conditions occurred during the Contest, particularly on the 28th! Fading was bad, and the weather was generally very unsettled. P. J. T. heard the G3EHY-end of the G3EHY/GI3GQB schedule on the evenings of September 15, 22 and 23, but though GE3HY was giving an RST-559 report, GI3GQB was not getting into Bournemouth. Seven new stations logged—G2BM, G2FJR, G3DKZ, G3GVL, G3IIT, G3MY/P and G5OB—put him up to a total of 390, with counties as last month. P. J. T. has hopes of pushing his array up another 10 or 15 ft., which would help to clear local obstructions, though it will mean exposing the beam to strong south-westerly gales.

For Ray Bastin, BSWL-3484, of Coventry, the third leg of the Marathon was a wash-out—so we'll let it go at that! And passing over the fact that conditions have been terrible and Ray has not been able to get on very much, he has nevertheless heard six new stations on Two, of which the most interesting were probably GW6NB/P for Denbighshire, on September 15, and G2BAT for Cornwall (at last). Particularly exciting for '3484, however is some success on 70 cm with three stations heard around 434 mc—we have given him a little Seventycem Calls Heard list all to himself on this! G3BKQ at 21 miles is nice going for a start on the GDX on that band; Ray's receiver is an ASB8 modified, and the aerial a 16-ele stack (which is a very simple assembly on 430 mc) in the roof space, matched with Q-bars and coupled through 300-ohm Telcon line. On other matters, '3484 says that he is going to have a crack at the R.A.E. next May, and if he succeeds will "Move to a high QTH for serious VHF work"! Some changes are contemplated for the two-metre receiver, his intention being to try the well-known and very successful G6VX CC circuit (*Short Wave Magazine*, February, 1951).

Len Whitmill (Harrow Weald) found September 14 a good day, with GW2ADZ (nr. Oswestry) heard, and then on the 15th GW6NB/P at Colwyn Bay for a new county. Other interesting signals have been G5YV and G8IL (Salisbury) neither of whom has been reported by many others. L. A. W. has tidied up his aerial (by using emery paper on the copper tube elements) and is another of our SWL's who is able to listen on Seventycems; his regulars on that band are G2MV, G3FP and G5DT.

Like all those who report poor conditions and low activity, A. W. Blandford (Mitcham, Surrey) is nevertheless able to claim new stations heard, 12 in all, of which five are /P's. He also listens on 70 centimetres, and during the Contest period logged G2RD, G3FP, G5DT and G6YP. On Two, he thinks he may have heard

MARATHON VHF CONTEST

Final Session

OCTOBER 25-26, 1952

All SWL's equipped for VHF invited to enter. See pp. 250-251 August issue for Rules. Logs by November 5, for Table in December issue. Every entry will be fully credited.

TWO-METRE COUNTIES HEARD IN 1952

***Starting Figure*, 10**

P. J. Towgood	47
R. L. Bastin	44
W. C. Askew	34
A. W. Blandford	31
L. A. W. Whitmill	30
A. H. Edgar	23
M. McBrayne	21
J. R. Paul	19
H. J. Balsam	18

NOTE: Only Counties heard since January 1, 1952, may be claimed for this Table.

ALL-TIME

***Starting Figure*, 10**

P. J. Towgood (Bournemouth)	54	(390)
E. A. Lomax (Bolton)	47	
R. L. Bastin (Coventry)	47	(267)
L. A. Whitmill (Harrow Weald)	39	(434)
A. W. Blandford (Mitcham)	37	(440)
H. J. Balsam (Didcot)	36	(167)
W. C. Askew (Melton Mowbray)	36	(145)
A. H. Edgar (Newcastle)	24	
E. R. Crane (London, W.1)	22	(256)
M. McBrayne (Westcliff-on-Sea)	22	
J. R. Paul (Lymington)	20	
P. Finn (Iver)	17	

NOTE: The figure in brackets gives the total number of different stations heard. Entries start with 100 stations.

G5YV (during the third leg) but it was not a positive identification.

From Leigh-on-Sea, A. W. White puts in a Calls Heard list; his results and experiences are very similar to those of M. McBrayne, not far away. In about 15 weeks of regular listening, A. W. W. remarks that he has heard but 21 stations on phone and a few others on CW, varying in distance from 10 to 110 miles. He says that he expected more, and is going to have a period of reconstruction so that the aerial and receiver at least will be above suspicion.

This and That

Though the tale this month is in general a little depressing in terms of conditions and activity, reports have been more numerous than usual and it is clear that there are many SWL's who take a serious interest in VHF reception. We would not pretend that the going is not hard—that is one of the factors helping to make it all so much worth while—and there are times when the most enthusiastic VHF operator will say to himself "For cripes sake, let's get on to a band where we can *hear* something." But it is also true to say that there is a steady increase in VHF interest and activity and all round the country there are new stations building or planning to come on.

It is when we strike those periods of good conditions, when the GM's break through to the south, and the GI's are working into the Midlands, that one feels all the effort and the wasted hours are worth it. Results are then being obtained under conditions which all radio men know to be difficult—and in radio, it is the difficulties which are there to be overcome.

Finally—

Closing date for the next appearance of "The VHF End" **is November 7,** which gives plenty of time for lots of things to happen. Please set out your reports in the form suggested on p. 312 of the last issue, and send all your VHF news, views, ideas, claims and suggestions to: A. A. Mawse, "The VHF End," *Short Wave Listener & Television Review,* 55 Victoria Street, London, S.W.1. BCNU on November 20, all being well.

PHOTOGRAPHS

Remember that we are always interested in seeing clear, sharp photographs of Amateur Radio interest—whether stations, equipment or personalities. Payment is made for all prints used, but in the nature of things it is not always possible to publish photographs as received.

WORLD WIDE RECEPTION OF SHORT WAVE PROGRAMMES

DX *broadcast*

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

WE would like to open this commentary with a reference to some pertinent remarks made by some of our correspondents during the past month.

From New York we have a letter from Mr. James F. Thompson, W2DGS, Chief of the Division of Radio Facilities Operations of the Department of State, in which he pays tribute to the complimentary remarks which were made by V. T. E. Hovell (Great Dunmow, Essex) and others, and quoted in our September article about the Voice of America broadcasts. He suggests that our readers may be interested in the VOA "Radio Amateur Program"—of which we have given full details in a previous number—which is transmitted on Sundays at 1915-1930 from the U.S.A. in the 25-, 19- and 16-metre bands, and from Overseas relay bases in the 41-, 31- and 25-metre bands. Included in his letter is an item about the s.s. *Courier*, which is now operating near the island of Rhodes on 1194 kc with 150 kW power into a balloon-supported antenna, and on 6040 kc and 7200 kc in the short-wave bands. On September 20 we heard the 7200 kc transmitter opening up at 2230 with the words, "This is the *Courier* seaborne relay base of the Voice of America"; the full schedule is: 1394 kc: 1700-2115, 2230-0000; 6040 kc: 1700-2115, 2230-0000; 7200 kc: 2230-0000. A word of warning, however! There is likely to be intense jamming on all these channels.

C. R. Johns (Northbourne, Bournemouth) has a word to say about this jamming; he writes, "I have lately noticed an increase in jamming, so much so that on the 30- and 31-metre bands there seems to be more QRM stations that BC! It seems a pity that certain countries try to control the listening matter of their peoples instead of letting them judge for themselves and think as they please." Further comment from us is unnecessary!

Here is another aspect of the short-wave broadcast business. R. P. Welch-Bartram (Aylesbury) writes, "I thought it might be opportune to mention some of the interesting things which are given away by many programmes on certain stations. They are to be had free for the asking, with no strings attached, and each one is of real value. They are an indication of the way in which the listener is esteemed. I have in mind, expecially, Radio Boston, The Voice of the Andes, and Radio Luxembourg, although the same can be said of some other stations. Booklets on many varied subjects, which provide an opportunity for the listener to become well informed, are offered, as well as many other things, including now, even gramophone records! A week or two back, Radio Boston had a stock of books on steel-making for listeners who requested them. Each copy actually cost 10 dollars to produce, it having a wealth of information in it, and its binding would look well in any bookcase. I know, because I have one. If a listener is interested in gaining information as well as DX'ing at the same time, it would seem that the opportunities are there!"

Australasia

J. M. Simpson (Hassocks, Sussex) has logged VLM4, Brisbane, 4918 kc, with a News at 2005, and the new outlet to South-East Asia, VLC7, 7220 kc, with News at 1600 and closing at 1615. Radio Australia also has a Central European service from 1800 onwards over 7215 kc. V. T. E. Hovell gives other frequencies for this service: Sundays to Thursdays: VLC9, 9580 kc; VLA11, 11760 kc; Fridays and Saturdays: VLA9, 9580 kc. He has had very loud and clear reception of VLB9, 9580 kc, for the ABC "Hospital Half-Hour" at 2215. Another interesting feature which you can hear from Australia is "Mail Bag" presented by Graham Chisholm on Sundays at 0730 over 9580 kc; prior to this one there is, of course, "Calling DX'ers."

R. T. Blackmore (Exeter), recommends "Breakfast Parade" conducted by Russ Tyson from 2125 to 2150 over 11760 kc; this is preceded by a "Children's Session" with music and some amusing yarns. W. Jenkins (Douglas, I.O.M.), is full of praise for the 0655-0845 English broadcast over VLB9, 9580 kc; he has lately listened to the Brisbane

Eisteddfod, Australian Amateur Hour (Saturdays, 0745), Radio Reel, and "Happy To Know You" for newcomers to Australia. He has been impressed by the Sunday religious services from Claremont Congregational Church, Perth, W.A.; Manly, N.S.W. Methodist Church; and St. Andrew's C. of E., South Brisbane.

Once again, on September 20, we had perfect reception of VLB21, 21540 kc, between 0630 and 0715 for the Saturday "Sporting Session"; rousing commentaries on the Rugby League game between Western Suburbs and South Sydney, and the Australian football game between Fitzroy and Collingwood, played on the Melbourne Cricket Ground, were heard. To English ears the score —Collingwood 11 goals 13 behind, 79 points—Fitzroy 9 goals 6 behind, 60 points—is somewhat startling, however! VLI, Sydney—a local station not often heard here—has a new schedule which reads: VL16, 6090 kc, continuous from 2000 to 1330 daily; the 31-metre band channel has been dropped.

J. M. Simpson heard Radio New Zealand with dance music at 0845 over ZL2, 9540 kc, on August 13. Radio Noumea, New Caledonia has moved from 6035 kc to 6000 kc and is on the air daily with the schedule 0700-1040.

Africa

A comparatively unknown station has suddenly blossomed forth on a new frequency of 4826 kc. It has been audible here only

TABULATED SCHEDULES

I. Radio Espana (Spanish National Radio), Madrid

Frequency: 9363 kc.
Daily Transmissions in English.
To Great Britain: 2015-2145.
To North America (I): 2300-2340.
To North America (II): 0300-0340.

II. Radio Nederland, Hilversum, Holland

English Transmissions (Weekdays only).
(i) 1600-1640: To South Asia and Africa: 17775 kc, 15220 kc, 6025 kc.
(ii) 2130-2210: To Europe and North America: 11730 kc, 9590 kc, 6025 kc.
(iii) 0230-0310: To North America, Australia and New Zealand: 11730 kc and 9590 kc.
The "Happy Station" English Programme (Sundays only).
(i) 1030-1200: To Far East, Pacific, Europe: 13, 16, 19, 49 m bands.
(ii) 1600-1730: To Near and Middle East, Europe: 19, 25, 49 m bands.
(iii) 2130-2300: To Europe: 25, 31 and 49 m bands.
(iv) 0230-0400: To North America: 25 and 31 m bands.

III. Radio Switzerland, Berne.

Daily Broadcasts.

To United Kingdom and Ireland:	1845-2030:	9665 kc, 6055 kc.
To North America	1330-1515:	6165 kc, 7210 kc, 9535 kc, 9665 kc, 11865 kc.
	1515-1600:	6165 kc, 7210 kc, 9535 kc, 9665 kc, 11865 kc.
To South Africa:	1445-1630:	15305 kc.
To East Australia and New Zealand:	0715-0900:	11865 kc, 15305 kc, 17784 kc.
To West Australia and Far East:	0900-0945:	11865 kc, 15305 kc, 17784 kc.
To South-East Asia and Japan:	1245-1430:	11865 kc, 15305 kc, 17784 kc.
To India:	1445-1530:	11865 kc, 17784 kc.
To Middle East:	1645-1730:	11865 kc, 15120 kc.

IV. Radio Srinigar, Kashmir

Daily: 0230-0430, 4860 kc; 1200-1700, 3335 kc.

V. Radio Ceylon (Commercial Service), Colombo

Daily English Service.
0145-0730. 11975 kc; 0915-1115, 9520 kc; 1130-1700, 11975 kc.

VI. The Voice of the Andes, Quito, Ecuador

Russian Broadcasts.
Sundays: 0130-0200, 11915 kc; 1600-1700, 17890 kc, 15115 kc.
Daily except Mondays:
To Far East and Australia: 1100-1130: 11915 kc, 9745 kc.
To Western Hemisphere: 2230-2300: 15115 kc, 11915 kc, 9745 kc.
Daily except Tuesdays:
To Europe: 0530-0600: 15115 kc, 11915 kc, 9745 kc.

VII. Radio Peking, Communist China

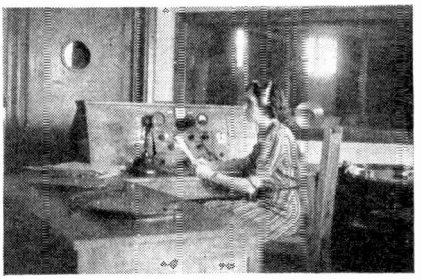
Daily English Broadcasts.
0900-0930: 6100 kc, 9040 kc, 11690 kc, 15060 kc, 15170 kc.
1330-1400: 11690 kc, 15060 kc.
2230-2300: 11690 kc, 15060 kc.

between 1700 and 1730, when programmes of continuous dance music have often been noted. The identification is clearly given at the end of the period, "This is the Central African Broadcasting Station in Lusaka. The time is 7.27½ and we shall be closing down until 4 o'clock tomorrow afternoon. Goodnight, Everybody, Goodnight."

A man and a woman appear to operate on alternate days as announcers. There is a final musical rendering of a regional Anthem followed by "God Save The Queen." Tuesday appears to be the day when an English session is held. There is a 10-minute news at 1700, followed by a musical interlude. At 1715 on September 23 there was a religious service with the hymn, "Praise My Soul, The King Of Heaven," The Lord's Prayer and other intercessions, the Grace, and a concluding hymn, "Veni Creator." Before the close, the announcer invited patrons to "find out all about our new programmes" in a specially prepared pamphlet. The address for reports is, Broadcasting Officer, P.O. Box 209, Lusaka, Northern Rhodesia.

Johannesburg on 11937 kc was well heard at 1700 on September 13 with a News. The identification was, "This News comes to you from the South African Broadcasting Corporation." A musical-box interval signal at 1710 was followed by a weather forecast and programme summary; then came the result of a Rugby Union match played at Port Elizabeth, Soccer scores in the 1st and 2nd Divisions of the Transvaal League, and lawn tennis results from Ellis Park, Johannesburg.

N. J. Pollard (Bacup, Lancs.) comments on the fact that Radio Brazzaville is stronger over 11972 kc than on 9440 kc for the English transmission at 1815. The dance tunes "Again" and "Lavender Blue" were enjoyed by J. M. Simpson from CR7BV, Lourenco Marques, 4810 kc, at 2015, and he notes that occasionally, Nairobi, 4855 kc, can be heard with orchestral music and an S7 signal after 1830. J. G. Watkinson (Hedon, Hull) has sent along a tip-top first report, but he is an old hand on the short waves and at one time operated his own amateur station. He logged CR5SB, Sao Tome, 17677 kc, at 1210 on Sunday, September 7, when it was giving its weekly programme of musical recordings. J. G. W. hears Cairo, 11815 kc, as early as 1927 until the sign off at 2100. Programmes consist of talks, together with light and classical music. After the closing direction just before 2100, the Egyptian Broadcasting Service ends the transmission with its national anthem and a time signal. V. T. E. Hovell notes that Cairo is a very strong signal these days but is subject to very deep fading at times; on September 8 he heard dance music from the roof garden of a hotel with which he was familiar when out that way.



Some studio scenes at the Central African Broadcasting Station, Lusaka, capital of Northern Rhodesia. The station is well heard in this country.

Radio Addis Ababa, 15047 kc, has been particularly prominent with special programmes, some in English and French, to commemorate the Federation of the Empire under H.M. The Emperor. A rebroadcast of a special concert on September 11 was given at 1100 on September 14; one of the items was a superb tango danced by "a lady in black, flower in hair, and dark eyes." A session of dance music ended at 1625 on September 19 with the words, "This is Radio Addis Ababa, the Voice of Ethiopia. We have just brought you one half-hour of light entertainment, music and song, from the wonderland of Ethiopia." The address was given as, Radio Addis Ababa, Post Box 1364, Addis Ababa.

J. Lippold (Cricklewood, N.W.2), listened

to an English broadcast from this station at 1600 on September 7. The programme consisted of recorded music interspersed with public announcements concerning a forthcoming convention, presumably the Federation ceremonies mentioned above. J. L. has heard Ponta Delgada, Azores, 11090 kc, between 1930 and 2000 with News in Portuguese and light music. N. J. Pollard asks for the address of this station, CSA92; it is, Emisora Regional, dos Açores, Ponta Delgada, San Miguel Azores.

The Sudan Broadcasting Service is still audible on Fridays at 1730 with its English News; the new wave-length is announced as 42·85 metres (i.e. 7001 kc), and the direction is, "This is Omdurman calling!" After the News on September 12 there was a talk on the Finance Committees in the local Governments. Reception on this channel is frequently marred by intense Morse interference. N. Swarbrick (Longridge, Lancs.) hears Tangier, 9685 kc every evening at any time (1900-2100, 2200-2245) with an excellent signal.

Asia

R. P. Welch-Bartram gives full details of English and other broadcasts from the Voice of Free China, Broadcasting Corporation of China, Central Broadcasting Station, Taipei, Taiwan, Free China. The transmitters are BED2, 670 kc (100 kW); BED29, 6095 kc (3·5 kW); BED7, 7130 kc (20 kW); BED6, 11735 kc (50 kW); BED4, 11920 kc (20 kW); BED3, 15235 kc (20 kW). They broadcast to the U.S.A. daily from 0400 to 0500 on 11735 kc and 15235 kc. Broadcasts to Japan, Korea and the Chinese mainland are made daily in various dialects as follows : 1030-1600—670 kc, 7130 kc, 11735 kc and 11920 kc; 1600-1730—670 kc, 7130 kc, 11735 kc and 6095 kc. These are in addition to the recently mentioned European schedule. The "Voice of Righteousness" Broadcasting Station, Taipei, Taiwan, appears to be a separate system; it operates BEC36 with a power of 3·5 kW on 7400 kc. J. M. Simpson reports hearing BED7 at 1615 with Chinese News and another Taiwan transmitter on 10065 kc with Western dance music and Chinese directions from 2205 to 2230. J. M. S. has further logged various Chinese mainland stations: Shensi, 7500 kc at 2205; Wuhan, 6648 kc at 2215; Peking, 6816 kc, signing on at 2200 with marches followed by Chinese talks and on occasions a "Russian by Radio" broadcast at 2230. J. Lippold still hears Radio Peking, 15060 kc, with English transmissions at 0900-0930 and 1330-1400.

Your commentator was surprised to hear HLKA, Seoul, Korea, 7935 kc, with News in Korean at 2132 on September 4; on the same date the former North Korean Pyenyang channel of 7784 kc was logged with News in an Eastern language at 2138. On September 23 at 2030, JKI, Tokio, Japan, 4910 kc, put in an appearance with music of a Western flavour followed by a talk in Japanese given by a male speaker.

R. T. Blackmore says that Radio France-Asie, Saigon, 9750 kc, has been a good signal on many occasions during its English session commencing at 2230. J. G. Watkinson heard this one with an English News at 2245 and it closed down at 2258. According to Radio Australia, Sarawak, British North Borneo, will soon be on the air on short waves; it has already been heard on 7215 kc at 0600 on Saturdays with racing commentaries from Kuching, the capital, and from Jesselton.

In the Philippines, DZH8, 15300 kc, has been logged consistently by J. Lippold during its final 1600-1630 Sunday English session; the direction was "You are tuned to the Call of the Orient."

J. M. Simpson heard DZH8 with hymns and a religious talk from 2245 until 2300 when the time was given as "0700 in Manila." V. T. E. Hovell notes that the Voice of America relay base in Manila on 11890 kc provides good signals on its Far East beam during the afternoons; at 1445 there is an English News followed by Comments.

J. Lippold has found YDC, The Voice of Indonesia, Djakarta, 15150 kc, very clear for its English News at 1445; it was S9 on September 13. J. G. Watkinson heard YDF7, 11770 kc, signing off with the Indonesian national anthem at the conclusion of its evening broadcast in English at 2000. Singapore is now using 6110 kc instead of 6170 kc at 0930-1115, and 7120 kc is in operation in addition for the BBC News relay at 1100.

One of the less frequently heard stations, Rangoon, Burma, on 9540 kc, was logged by us at 1500-1515 on September 13 with the News in English (male reader). After a programme preview for the morrow a female announcer said, "This is the Burma Broadcasting Service now closing down. Goodnight, everyone," and the Burmese national anthem brought the transmission to a close at 1518. From India, VUD5 has been heard on 11780 kc with a "terrific" signal for its European broadcast at 1845-1945, by J. Lippold, who thoroughly recommends their music and talks; 7120 kc is the other channel used. R. T. Blackmore heard this programme on September 5 with Music of Afghanistan at 1855 and "Current Affairs" at 1910; V. T. E. Hovell finds the South-East Asia beam on 11780 kc a very reliable signal around 1500 and for programme value this service earns full marks! J. M. Simpson logged VUB2, Bombay, 4840 kc, with eleven chimes at 1715 and VUC2, Calcutta, 4880 kc, and VUD2, Delhi, 4960 kc, in parallel with native songs at 1700.

On September 12 at 1815 we heard native music on approximately 3950 kc; at 1830 came the direction in English, "This is All-India Radio. You have been listening to our programme in Turkish."

C. R. Johns considers Radio Pakistan's 9484 kc programme of classical, modern and native music to be a most interesting and entertaining selection at 1940-2000. J. G. Watkinson hears Radio Pakistan's test transmission to the British Isles at 2015-2100 on 9484 kc, but he has yet to log it on 11914 kc. The address for reports is 71 Garden Road, Karachi. Radio Ceylon, 11975 kc, was heard by J. G. W. between 1530 and 1700 despite severe Morse QRM; programmes were chiefly Voice of America relays.

Kabul, Afghanistan, 9980 kc, continues to improve. R. T. Blackmore heard it from 1650 to 1720 on August 31 with a programme of recorded dance music despite intense Morse interference. The broadcast terminated with the words "God bless you all." Since then your commentator has had much better reception of this station, September 21 being the best day so far. At 1640, after a musical introduction came the words, "You are tuned to the Kabul studios of the Afghanistan Broadcasting System on 445·1 metres, 674 kc and 30·06 metres 9980 kc. Here is the News read by ———." Of only four minutes' duration, this included items from Kabul and Kandahar. During the special Sunday half-hour of musical recordings which followed the compère said: "Please write and tell us that you are hearing us for we would like to know." At 1717 the announcer said that the station was on the air with English News every day at 9.30 p.m. Kabul Time.

J. G. Watkinson tells us that the English programme from "The Voice of Zion" Jerusalem, 9000 kc has been a good signal from 2015 to 2100. On September 1 C. R. Johns heard a talk on Jewish trade during this transmission. The address for reports and suggestions is The Voice of Zion, P.O. Box 754, Jerusalem, Israel. C. R. J. also logged SBS, Damascus, 11915 kc, with News during its English transmission at 2220. He also heard Radio Ankara 9515 kc, with news at 2315; J. G. Watkinson says that the programmes directed to the British Isles have been interesting from 2100 to 2145 over TAP, 9465 kc, and TAU, 15160 kc.

Europe

HBQ, Geneva 6672 kc, provides a very powerful signal with its English transmission of the United Nations bulletin given at 1830 each evening, Monday to Friday, according to J. Lippold. He has received a verification from Radio Yugoslavia for its English transmission heard over 15320 kc at 2145-2200 and which is also given on 6100 kc. George Vukovitch has informed J. L. that a 100-kW transmitter is used for the 15320 kc channel, and that as from January 1, 1953, the English broadcasts will be extended. Their address is 6, Mose Pijade, Belgrade, 2. C. R. Johns listened to Radio Nacional de Espana, Madrid, 9363 kc, from 2025 to 2045 on September 1 during the broadcast to English-speaking peoples; there was a talk on "Spanish Courtiers" Spanish folk music and a geographical feature. On September 14 he heard Radio Switzerland's 11865 kc "World Youth Magazine" from 0750 to 0800.

R. P. Welch-Bartram includes a note concerning Radio Luxembourg's verifications. Listeners who wish for QSL cards should send their reports to Radio Luxembourg, London, W.1 and ask specifically for the card. If reports are sent to the Grand Duchy of Luxembourg, it is probable that a letter verification only will be obtained. From Paris, on August 26, N. Swarbrick listened to a commentary on the World Motor Cycle Race; he has also heard OIX1, Helsinki, Finland, 6118 kc, at 1220, and HVJ4, Vatican City, 9655 kc, at 1815. HVJ gives a News in English at this time on 15120 kc, 11740 kc 11680 kc and 9655 kc; you can also hear another English broadcast earlier at 1500-1510. Monte Carlo, Monaco, with the direction "Ici Monte Carlo," has been logged at 1402 with a Chopin violin obbligato; the frequency was 9785 kc.

P. Kiddle (Halifax) has sent along some European schedules, which we have included elsewhere.

America

J. M. Simpson logged what he presumed to be KWID2, San Francisco, 9570 kc, at 0715-0755; at this time KWID2 is broadcasting an AFRS programme to Alaska and the Aleutian Islands. N. Swarbrick has logged the following American stations at the times stated: WRCA3, Brentwood, New York, 11830 kc, at 2200; CHOL, Sackville New Brunswick 11720 kc at 2130; CKLX 15090 kc at 1345; CKEX 11900 kc at 1720. C. R. Johns logged CHOL at 2245 with "Canadian Chronicle." The CBC has a new outlet CKLP, 9585 kc, for its European service at 2100-2330; however, CKLO, 9630 kc, is listed as an alternative frequency at this hour. WRUL, Boston, Mass., 15230 kc, has an impressive religious service entitled "Nation at Worship" on Sundays at 1715-1745, followed by a World News.

Once again we invite readers to send along their comments on short wave broadcasting; the next deadline is first post on November 16. The address is R. H. Greenland, *Short Wave Listener and Television Review*, 55 Victoria Street London, S.W.1.

SHORT WAVE BROADCAST STATIONS

Revision 37·33 to 47·47 Metres

Giving Frequency, Wavelength, Callsign and Location

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

Frequency	Wavelength	Callsign	Location
8037	37·33	FXE	Beirut, Lebanon.
8000	37·50	PMB2	Bandoeng.
7950	37·74		Duala, Cameroons.
7940	37·78	FET	Alicante.
7935	37·81	HLKA	Seoul, Korea.
7934	37·81	PSL	Marapicu, Brazil.
7860	38·17	SUX	Cairo.
7855	38·19	ZAA	Tirana, Albania.
7670	39·11		Mukden, China.
			Sofia, Bulgaria.
7644	39·25	YNDG	Leon, Nicaragua.
7585	39·57	CR6RO	Silvo Porto.
7575	39·68		Godthaab, Greenland.
7550	39·74	FET	Mahon, Menorca.
7517	39·90	EA8AB	Teneriffe, Canary Is.
7500	40·00		Shensi, China.
7440	40·32		Stalinabad, U.S.S.R.
7400	40·55	BEC36	Taipei, Taiwan.
7390	40·60		Moscow.
7380	40·66	FET	Madrid.
7360	40·76	RWG	Moscow.
7340	40·87		Leningrad.
7330	40·93		Moscow.
7327	40·94	BEM6	Lanchow, China.
7325	40·96	GRJ	London.
		VED	Edmonton, Alberta.
7320	40·98		Moscow.
7310	41·04		Moscow.
7300	41·10		Moscow.
7298	41·11	SVD2	Athens.
7295	41·12		Johannesburg.
			Moscow.
7290	41·15	VUD5	Delhi.
7285	41·18	TAS	Ankara, Turkey.
7285	41·18	JKJ	Tokio, Japan.
7280	41·21	GWN	London.
		VLA7	Shepparton, Vict.
		VLT5	Port Moresby,
			Paris.
			Moscow.
7275	41·24	ZRH	Johannesburg.
		VUD10	Delhi.
7270	41·27	YDB3	Djakarta, Indonesia.
		YSO	San Salvador.
			Tangier.
			Moscow.
7265	41·29		Moscow.
7260	41·32	GSU	London.
		OZU	Copenhagen.
		VUD5	Delhi.
		VUM2	Madras.
		APK2	Karachi, Pakistan.
			Moscow.
7258	41·33	JKH	Tokio, Japan.
7255	41·35	ZRK	Cape Town.
7250	41·38	GWI	London.
		PJC1	Willemstad, Curacao.
			Munich.
			Rome.
7245	41·41		Moscow.
7240	41·44	VUB2	Bombay.
		VUD8	Delhi.
		LLR	Oslo, Norway.
		TAM	Ankara, Turkey.
		VLQ7	Brisbane, Queensland.
			Paris.
7235	41·46		Tangier.
			Moscow.
7230	41·49	GSW	London.
7229	41·50		Johannesburg.
7225	41·52	VUD10	Delhi.
			Moscow.
7222	41·54		Budapest.
7220	41·55	ZQP	Lusaka, N. Rhodesia.
			Benghasi, Libya.
		VLC7	Shepparton, Vict.
7215	41·58		Moscow.
7214	41·58		Tangier.
			Rabat, Morocco.
7210	41·61	HEI3	Berne, Switzerland.
		GWL	London.
		VUC2	Calcutta.
		LLS	Tromso, Norway.
			Moscow.
7205	41·63		Warsaw.
7200	41·67	GWZ	London.
			Tangier.
			S.S. Courier.
			Moscow.
7190	41·71		Colombo, Ceylon.
7185	41·76	GRK	London.
7180	41·78	EDV10	Madrid.
			Moscow.
7165	41·87		Moscow.
7155	41·93		Delhi.
7152	41·95	CR6RD	Nova Lisboa, Angola.
7150	41·96	GRT	London.
7147	41·98		Hollandia, N. Guinea.
7140	42·02	APD1	Dacca, Pakistan.
7135	42·05	BED7	Taipei, Taiwan.
			London.
7126	42·10	EA9AA	Tangier.
7125	42·11	VQ6MI	Hargeisa, Somaliland.
7120	42·13	VUD	Delhi.
		GRM	London.
7110	42·19		Rome.
7100	42·25	FBS	Nairobi.
			Katamandu, Nepal.
			Moscow.
7098	42·26	YDJ2	Djokjakarta.
			Harbin, China.
7095	42·29	APD	Dacca, Pakistan.
7092	42·30	YI5KG	Baghdad, Iraq.
7075	42·40	GRS	London.
7037	42·63		Moscow.
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