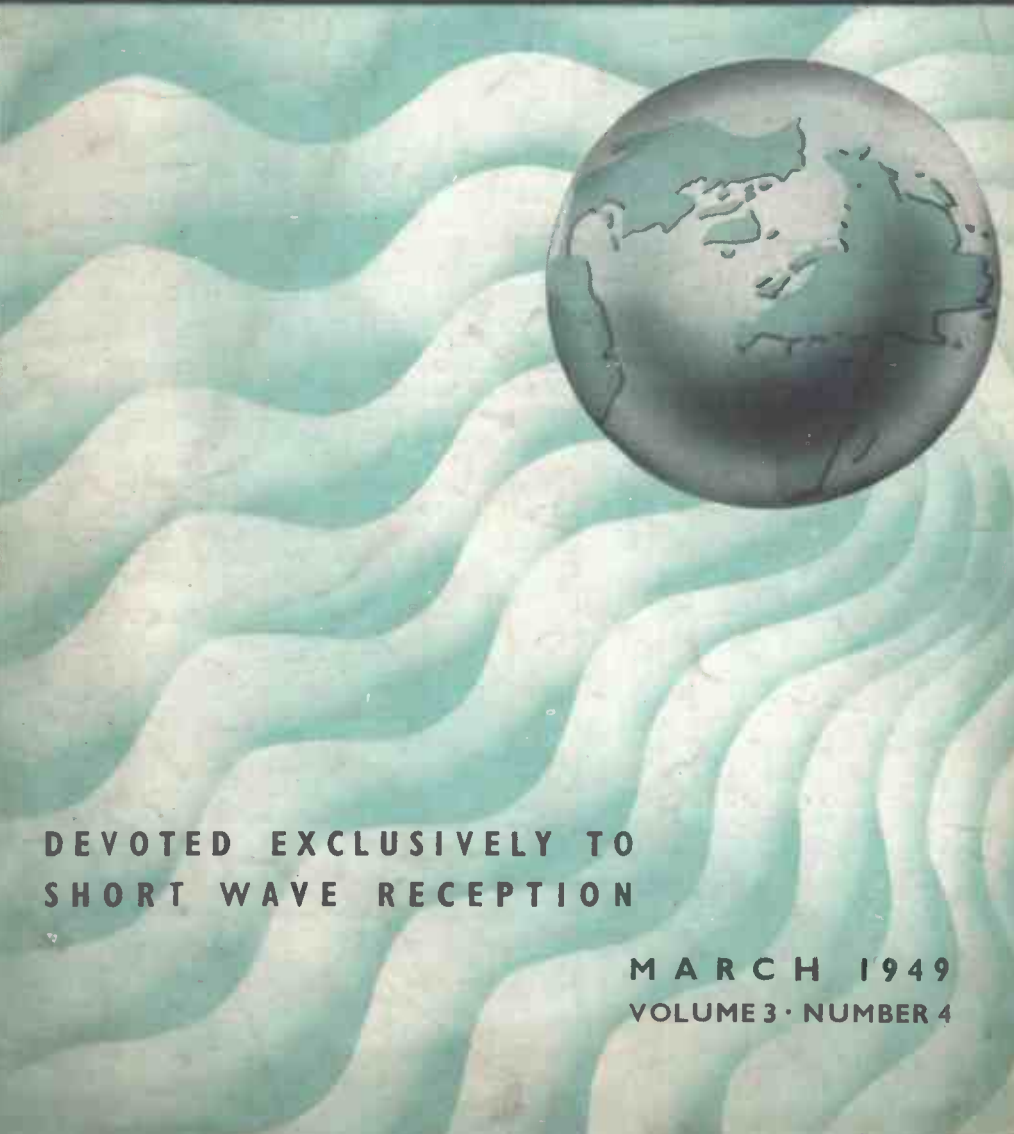


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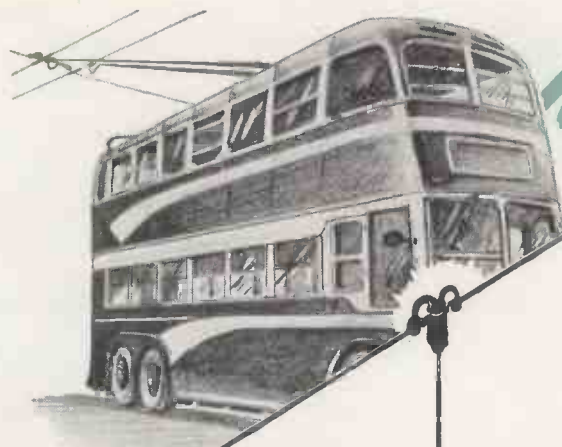
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MARCH 1949
VOLUME 3 • NUMBER 4



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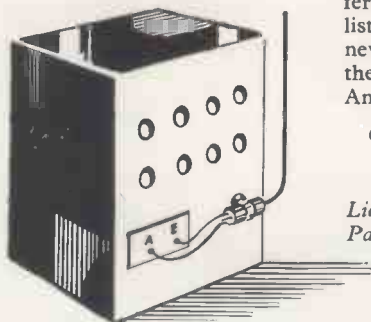
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THE SHORT WAVE LISTENER

A MONTHLY MAGAZINE FOR THE LISTENING AMATEUR

VOLUME 3

MARCH 1949

NUMBER 28

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EDITORIAL

Co-operation

We have frequently emphasised our close concern and interest in the local club movement—as distinct from those organisations having a “national” or “international” flavour or conception.

Local clubs have done a great deal—perhaps more than any other such agency—to bring out and emphasise what is a very important factor for the continuing development of Amateur Radio: the spirit and willingness to co-operate.

We are constantly surprised at the wide range of talent, knowledge and experience possessed collectively by the membership of the average established club. It is this which makes local club organisations so different, and so much more alive to the interests and requirements of their members.

A successful club can be started by no more than three or four enthusiasts prepared to “work up the connection.” The financial side can be regarded as a matter of quite secondary importance until the organisation becomes so large that expenses are incurred by the actual holding of meetings.

The most important first move is the appointment of a keen secretary, able and willing to devote a good deal of his spare time to the club’s interests. If such an individual can be found from the very beginning, the club is doubly fortunate and its success is assured—for it is upon the industry and character of the hon. secretary that the club’s fortunes ultimately depend.

It may be that in your district there is a radio club; if so, join it if you are not already a member. If there is as yet no club to join, why not consider forming one? A notice in the local paper and the radio periodicals is usually all that is required to bring the enthusiasts together.

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R.A.E. Questions Answered

From the May 1948 Examination
by **THE OLD TIMER**

(In our issues for March, April and May, 1948, he covered the questions set in the May, 1947, Radio Amateurs' Examination. The Paper for the 1948 R.A.E. appeared in full on p. 327 of the "Short Wave Listener" for October, 1948, and we propose to run a set of specimen answers on this Paper in the next two or three issues. Those concerned should remember that their entries for the Examination in May next must be in by March 1, through the local Technical College or Education Authority.—Ed.)

QUESTION 1. How is a low-power transmitter likely to interfere with broadcast reception? What steps would you take to prevent such interference?

ANSWER: The possible interference caused to broadcast reception by a low-powered amateur transmitter working on the amateur bands falls into two categories: (a) Interference due to a faulty receiver and (b) interference due to a faulty transmitter. In the category "faulty receiver" I include intentionally, old and insensitive receivers which are incapable of the necessary discrimination.

Interference of type (a) can generally be described as "wipe-out," and may occur at surprising ranges. One old receiver of the O-V-2 type, operating on an aerial 150 ft. away from a 25-watt transmitter, was found to be receiving a signal of some 5 volts at the detector grid when the key of the transmitter was pressed! The result was spectacular—everything disappeared completely. Fortunately we do not encounter many receivers of this type nowadays, but insensitive superhets still exist in

plenty, and complaints from their owners are nearly always dealt with by installing a wave-trap in the aerial lead.

The first step, naturally, is to find out which band the transmitter is operating on when the interference is caused. A parallel resonant circuit tuned to the centre of the band and installed in series with the aerial lead of the receiver should then be tried. A good air-dielectric trimmer and a compact coil across it will form a trap circuit with a good rejection characteristic and will almost always cure the trouble.

In category (b) we cannot deal with interference quite so simply, because the transmitter may be faulty in several different ways, none of which will have been obvious until the complaint arrives. If only CW operation is indulged in, the complaint is probably of key-clicks. If only telephony is used, the somewhat analogous fault of "splash" or "whiskers" may be present. With either CW or telephony, there may be some radiation of unsuspected parasitics. And, lastly, it may be that the frequency mainly used happens to beat with a harmonic of the broadcast receiver's local oscillator when it is tuned to the most favoured station.

Key-Clicks

Bad key-clicks are almost invariably due to a simple condition, in which either the "make" or "break" is too abrupt. There may be actual sparking at the key, or there may not. But too "square" a make or break will give clicks. The cure depends upon the method of keying; if the key is in a cathode lead, or even a screen lead, the conventional filter consists of a small audio choke in series with the key (to slow down the "make") and a condenser across the key (to delay the "break"). The values

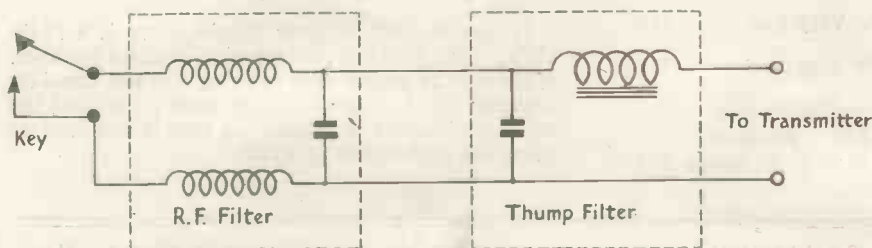


Fig. 1. Filter circuit for keying the transmitter.

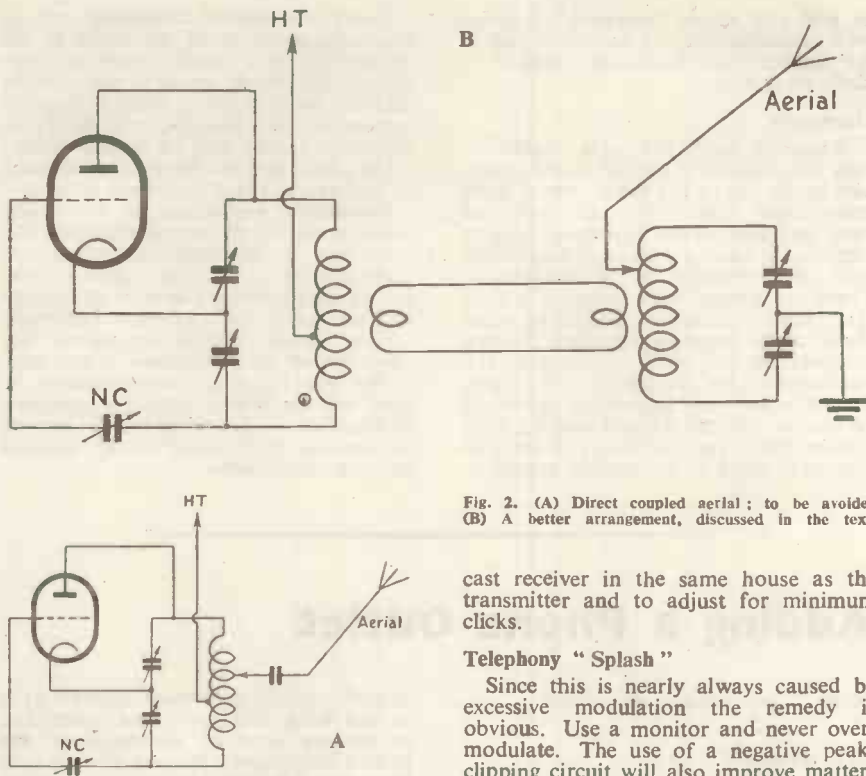


Fig. 2. (A) Direct coupled aerial; to be avoided (B) A better arrangement, discussed in the text.

depend upon the current flowing through the keying circuit; if it is heavy, as in a cathode circuit, it may well be found that a choke of 12 or 20 henries and a condenser of 0.1 or $0.5 \mu\text{F}$ will be required. But such a lag circuit would be far too heavy for a case in which screen keying was used. So it must be said that a choke of between 1 and 30 henries and a condenser of between $.01$ and $.5 \mu\text{F}$ should be tried.

Particularly if the keying line is lengthy, it may be necessary to use an RF filter right at the terminals of the key itself. This consists of two RF chokes and a fixed condenser; and again the values must be found by experiment. If an elaborate form of relay keying is used, the trouble may still be coming from sparking at the key itself, even on a 6-volt or 12-volt line, and the RF filter at the key terminals should not be neglected.

Fig. 1 shows the combined RF and key-click filter, which, by suitable choice of components, may be made to suit almost any type of keying; the best check, of course, is to listen on a broad-

cast receiver in the same house as the transmitter and to adjust for minimum clicks.

Telephony "Splash"

Since this is nearly always caused by excessive modulation the remedy is obvious. Use a monitor and never over-modulate. The use of a negative peak-clipping circuit will also improve matters considerably. There is a fairly common condition, however, in which the PA stage of a transmitter is not inherently stable and, when driven, is operating in a "locked" rather than a "driven" condition. This may not matter under steady carrier conditions, but may show up in the form of fringes or "whiskers" when the stage is either keyed or modulated.

Careful attention to the stage concerned, including the neutralisation of a tetrode PA, is the remedy for this trouble.

Parasitic Oscillations

Parasitics are of several kinds; a power amplifier may be radiating HF or UHF parasitics, or it may be tending to run in the manner already mentioned, as a tuned-plate tuned-grid circuit. There may even be low-frequency oscillation present—*i.e.* at a lower frequency than that on which it operates. Tests for all these can be made adjacent to the transmitter by covering the entire frequency range with a receiver—but *not* under steady-carrier conditions. The transmitter should be keyed or modulated. The judicious use

of grid and screen "stoppers," together with neutralisation and careful choice of RF chokes, will eventually result in a clean transmission.

Harmonics

When this desirable state is reached the only likely source of trouble on the broadcast bands will be the use of one of those unfortunate frequencies at which the local oscillator in the broadcast receiver happens to have a harmonic somewhere near the frequency of the transmitter. There are several such spots: as a rule, their exact frequencies depending upon the IF of the broadcast superhet. Mutual co-operation can settle this matter and the owner of the transmitter will be able to find a few spot frequencies on which he cannot operate without beating with certain BBC transmissions; these can then be avoided, as the simplest approach.

Other fundamental conditions, such as over-tight coupling of the aerial to the transmitter, will cause broadcast interference but should never in any case be allowed to exist in a modern amateur transmitter. For instance, no form of end-fed aerial should ever be tapped directly on to a tank circuit—an arrangement such as is shown in Fig. 2 (b) should be used.

Insufficient smoothing in the transmitter power supply, or the excitation of a good PA by a poorly smoothed and stabilised VFO, will also cause trouble, but as such obvious pieces of bad design will also render the transmitter unpopular on the amateur bands themselves they should never be perpetrated in any case.

The two important considerations, to sum up, are these: first, the complete elimination of key-clicks; and second, the tracing and curing of all possible parasitic oscillations.

Adding a Phone Outlet

Some Circuit Considerations

By L. MILLER

(For serious short wave listening, the receiver should be arranged to provide quiet headphone reception. This article discusses the practical aspects of the matter in some detail.—Ed.)

PROVIDING a headphone outlet on an existing receiver normally used for speaker reception is not necessarily as simple as it may at first seem.

In most instances the requirements are (a) Freedom from possible shock which may be caused by component breakdown, and (b) The actual sound output reaching the listener's ears *via* the phones should be at least as great in intensity as would reach the same listener's ears were he to employ a speaker on the same signal.

Requirement (a) is of course of utmost importance. In the electro-medical profession electric shocks applied through the head are used to produce artificial fits in a patient. Usually a voltage of less than 150 volts DC passing a current of only a few *milliamps* is sufficient to obtain the

desired results, and when applied as a sudden shock (as it is in at least one method of treating cases of schizophrenia) the patient immediately doubles up with such force that it *has* been known that some of his bones get broken.

This may sound extremely gruesome (1) and although it is very unlikely that a potential difference of 150 volts could be set up from one side of the head to the other when wearing phones no matter *how* they were connected to the receiver, it does help to point out that the first sentence of the preceding paragraph should be taken in all seriousness, as it is surely reasonable to assume than even a comparatively small voltage could, under certain circumstances, have unpleasant consequences.

In any case, the usual sequence of events for producing a shock would be for HT to get into the phone windings, the insulation to break down between the phone windings and the metal case and headband, and for the listener to touch the receiver chassis with one hand.

Discussing requirement (b) we can get a little more technical. Usually the main reason for wishing to provide for headphone reception on a normal receiver is the unselfish one of sparing other (dis-

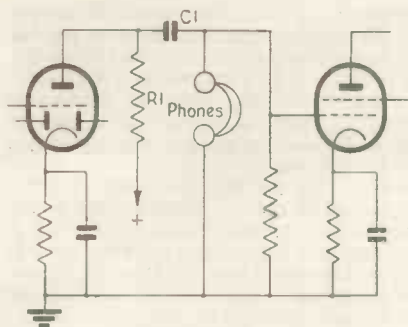


Fig. 1. If C_1 breaks down, the full HT will appear across the headphones.

interested) people from having to listen to the appalling row (DX to you!) and to enable the ardent DX'er to listen through the early hours without keeping the rest of the street awake.

Some Circuit Arrangements

Obviously far more audio gain is available than can be used for headphone reception. However, it is often advantageous to utilise a little of the audio in order to boost the weak signal, so that, in effect, signal strength will be slightly greater on phones than would be when the speaker is used. It is not practical to take all the audio from the output pentode into the phones, as the noise would be unbearable, but nevertheless the signal strength of a weak station can be usefully increased by tapping off some of the amplification afforded by the output stage.

Let us first of all consider the circuit of Fig. 1. Here the phones are shunt-connected across the output of the double-diode triode (or triode, in the case of a TRF job).

Although the phones are isolated from HT by the coupling condenser C_1 , the impedance of the phones is in parallel with the normal load resistor R_1 , and if this load resistor is of a high value—as it often is when a high- μ triode such as a 6Q7 (or a pentode of the 6J7 class) is used—the gain of this stage and hence the audio gain may be appreciably lowered when the phones are plugged in; the net result is that the sound output from the phones is less than that obtained with the speaker.

Using a low-slope valve (for V1, Fig. 1) where R_1 may be as low in value as 10-20,000 ohms, the impedance of the phones may be considered sufficiently high

to have a negligible effect on the true value of R_1 , and the gain will not be materially affected.

Unfortunately, we now have to take requirement (a) into consideration, as in the event of C_1 breaking down (dead-shortening) we now have a DC potentiometer across the HT supply consisting of R_1 (say 10,000 ohms) and the phones (say 4,000 ohms). If the HT supply is 250 volts the voltage at the high potential end of the phone windings will be 72 volts, nearly. This is rather too high a voltage completely to satisfy requirement (a). When a high-slope triode or RF pentode type of valve is used with a load resistor of, say, 250,000 ohms, the voltage appearing at the high potential end of the phone windings (in the event of a condenser breakdown) would be in the region of 4 or 5 volts only, which can be considered completely safe—but of course the stage gain will drop when the phones are connected.

One simple method of increasing the odds against condenser breakdown is to use two condensers in series, as shown in Fig. 2. If C_2 is of a largish value, say 0.1 μ F or greater, the bass cut will not be noticeable, but in any case this is usually of no great importance for phone reception. Although two condensers will reduce the possibility of the phone windings becoming "live," it does not entirely eliminate the danger, as if one condenser broke down it would have no effect on the performance of the receiver and would not be noticed, unless the listener tested the condensers each time he contemplated using the receiver (which is very unlikely!)

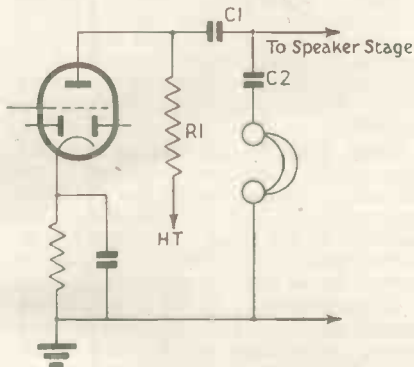


Fig. 2. Two condensers C_1 , C_2 , in series will safeguard the wearer against shock.

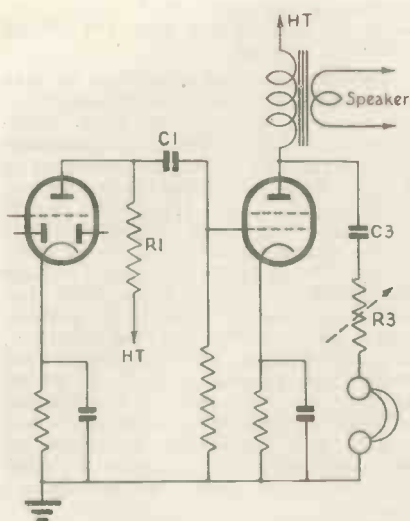


Fig. 3. A circuit arrangement allowing the use of some of the available audio output from the final stage in the receiver. R3 is a variable resistor set to give comfortable working and C3 can be 0.1 μ F.

Safety with Efficiency

The method shown in Fig. 3 seems to cover requirements (a) and (b) admirably, and moreover it is possible to arrange matters so that the audio gain is actually greater (from the "sound-in-listener's-ears" point of view) when phones are used as compared to speaker reception.

The amount of audio gain can be varied by adjustment of R3 (Fig. 3) and is only limited by the amount of valve noise which the listener is prepared to tolerate. We are of course only concerned with *maximum* audio gain, as, on all signals except the weakest, the usual volume control will be set at some position less than maximum which will reduce the valve noise proportionately.

Briefly, it will be seen that the amplified signal at the output is developed as an alternating voltage across the potentiometer network C3, R3 and the phones, the reactance of C3 being sufficiently low at normal audio frequencies that it can be ignored for all practical purposes.

As the resistance of R3 is very much greater than the DC resistance of the phones, the voltage which could be developed across the phones (in the event of C3 breaking down) will be very low. If R3 is of 100,000 ohms (a normal value),

the phones of 4,000 ohms, and a DC supply of 250 volts, the voltage across the phones in the event of a condenser breakdown will be only about 10 volts, which is negligible.

Under normal working conditions, however, when the signal only is applied across R3 and the phones, the impedance of the phones is of course very much greater than the DC resistance of 4,000 ohms and the ratio of signal voltage across the phones to that across resistor R3 is considerably higher than the DC ratio. It is for this reason that the value of R3 can be made quite high and still utilise some of the gain afforded by the output valve.

In practice, R3 may be determined by trial and error, trying standard values between 200,000 and 50,000 ohms—or by connecting a variable resistor of, say, 250,000 ohms maximum in circuit and adjusting for the desired gain. If the variable resistor is used for R3 it is desirable from the point of view of safety to mount it on the chassis, or at least away from the control panel, so that it cannot be inadvertently turned up.

The writer, using a 6F6 output valve, found that when R3 was 100,000 ohms the difference in noise level between phones and speaker was undetectable, and that 75,000 ohms gave an appreciable gain on phones. Naturally, if a higher slope output valve is used, such as a 6V6 or any of the English pentodes, R3 can be more than 100,000 ohms, so making the breakdown voltage across the phones even less.

WINTER CALL BOOK

Of 340 pages, the latest *Radio Amateur Call Book* contains 224 pages of W/K amateur station call signs with addresses, the remaining 116 pages covering the rest of the world. The general layout has been slightly changed, in that countries are now listed in alphabetical order of prefixes instead of by country names—which is a convenience when looking up a callsign in a hurry. All countries are also given their Zone number identification. The British amateur stations listed run to 41 closely printed columns.

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Listening for DX

Help for the Beginner

by D. RAVEN

(There will be few experienced SWL's who will disagree with our contributor on any of the points he makes here. Successful DX reception is neither a matter of luck nor the possession of a handsome receiver, but is an art acquired only by patient and careful self-training. This article will go a long way to helping those less-experienced SWL's who have yet to acquire DX confidence.—Ed.)

THERE must be many SWL's who read the Calls Heard columns of the *Short Wave Listener* with a mixture of irritation and despair. They themselves put in an average amount of listening time: their Rx appears to be as efficient as the next man's: they have taken some trouble to provide themselves with an aerial which should (at least in theory) give results: yet somehow, month after month, they seem to have missed the DX which the others are pulling in—or what is worse, they find logs they have regarded as DX treated as the merest bread-and-butter stuff by the older or wiler hands. These notes have been written by one who was, until recently, in that particular boat himself: and they are offered in the hope that the experiences of another DX beginner may be more helpful to them than the reflections of the experts, who have perhaps forgotten their own early difficulties.

Conditions

First, conditions. Conditions are sometimes bad: but very rarely, save at sun-spot peaks, impossible. One's tendency to switch off because the bands seem relatively quiet should be firmly avoided. It is natural to feel that if conditions are "as poor as that" DX must be impossible anyway: but nothing could be further from the truth. On 14 mc, for instance, during the late evening, one is accustomed to find a positive babel of W's blowing in their kilowatts like locals: when the W's are absent, or relatively weak, the band sounds curiously dead. With slightly greater innocence, one may even feel the band to be dead because the I's, the OK's and (on CW) the UA's are missing. The

fact is that the liveliness of a band should be, at least to the beginner, a *warning* rather than an invitation. It is precisely when all that short-skip stuff *isn't* there, and when the rowdy W's are at their poorest, that he is most likely to find some really exciting DX. It cannot be too strongly emphasised that because conditions are bad from one direction they are not necessarily bad from all. In practice, the comparative beginner finds his DX when conditions appear to be on the poor side—not when everything on earth is crowding in at once.

When to Listen

Second—time. The importance of choosing your listening time is dealt with excellently in the *DX Operating Manual*, and is obviously of prime importance. But the fact remains that the average listener has precious little choice in the matter: He listens when he can; so it becomes rather a matter of choosing his band to suit his time, rather than the other way about. Nevertheless, he will be well repaid if he does make such effort as he can to vary his listening hours as much as possible. If he can squeeze half-an-hour between bed and office in the morning, for example, he is pretty sure to be rewarded by a bunch of VK's and ZL's which, while not particularly exciting, will at least do something to restore his confidence.

This matter of confidence is really important: To say that you will hear what you expect to hear may sound just silly, but it contains a very large grain of truth.

Third—a small but vital point—don't listen too long at a spell. After, say, half-an-hour, concentration flags, irritation sets in, one's standard of operating falls off—and one approaches the set on the next occasion in a mood of frustrated annoyance which doesn't help in the least.

Operating

Fourth—learn to operate. This may seem *too* elementary to apply possibly to yourself, but there are not so many people who wouldn't gain by spending a bit of time in the actual practice of how to get the best out of their Rx in their own particular way. No two sets are the same—nor, certainly, are any two operators. But fundamentally it does help to regard the set as a delicate scientific instrument—which, after all, it is—and to forget its very frail kinship with the push-button domestic radio. It is excellent practice to take as weak a signal as one can find, in as much of a smother of QRM as



OKIAW, Mestec Kralove, testing a portable transceiver.

possible, and to train oneself to bring it out into the clear so far as possible, without the least anxiety as to *from* where the signal may be coming. Most DX beginners do rather tend to run before they can walk in this matter, and they lose a great deal thereby. The DX will still be there tomorrow!

Fifth—don't listen blind. This, too, is a point of some importance. Try, straight away, to get the *feel* of the state of the band generally at the particular time you switch on before you start searching. The best way to do this quickly and fairly completely is to make use of the commercial telegraph stations—they are often enough a nuisance to us; it seems a pity not to make such use of them as one can! If these powerful stations can't get through from any particular part of the world it is very unlikely to be worth while listening

for either amateur or broadcast transmissions from that quarter. Make a note of a few of them, adjacent to the bands you are likely to use, and get accustomed to their strengths on good and bad days. You then have a handy system of landmarks, and don't sit down to the set blind. Many weather stations transmit continuously (MQU, Delhi, 17670 kc, GEH, Almaza, 13615 kc, FOG, Algiers, 17270—and WWV, with its laboratory standard signal on exactly 10, 15 and 20 mc): others (XRRK, Tsingtao, 11295, and NPN, Marianas, 17060) transmit at frequent and published intervals. It is well worth while making your own selection, and having a quick look to see how adjacent stations are coming through before plunging into any particular band.

Lastly—CW. It is tremendously worth while learning or polishing up one's Morse. For one thing, DX is of course easier on CW, and once you have brought it through that way you will feel a great deal more comfortable about looking for it on 'phone. Another point, seldom emphasised, is that where local interference is bad and the noise level high, CW can get through, with the noise limiter clamped right down, when telephony is pretty well out of the question.

Summary

To sum up these rather disjointed suggestions, then: Don't let yourself be put off by the quiet state of a band—the absence of the noisy boys may be all to the good: Choose your band to suit the time of your listening: Do your serious listening in short spells: Learn to operate your set as a precision instrument—you will get a considerable kick out of pulling a seemingly impossible station through into the clear, even if it proves to be a weak ground-wave G! Don't listen blind—find out what is likely to be there, and you are ten times more likely to find it: And learn Morse.

One final tip, which you may regard as a low trick: Always listen to any G's you can hear to see what DX stations *they* are working—you will know then who is there for the finding.

If all these remarks seem childish, the childishness must be attributed to the writer, for he has found attention to them has improved his own DX listening out of all knowledge.

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BIRMINGHAM 31



GREETINGS to you all once more, and especially to the many new readers who have reported for the first time this month. There is, in fact, a strong feeling of "the old order changeth", chiefly because of the new Competitions which have displaced the old familiar table of Zones and Countries. The same names appear but in a different order, and with them many new ones.

The most gratifying thing to your Scribe is the strong support for the 1.7 mc Counties Heard competition, and the large number of readers who have broken a long silence and jumped into that with both feet!

The one thing that hasn't changed, however, is the pile of Calls Heard lists which reposes on my desk. They have been very numerous again this month and more than a few have had to fall by the wayside; but don't be discouraged if you sent in a list

**Have
you
heard
?**

14 mc, practically everything, as usual; 7 mc, coming up nicely, what with FF, VP3, VP4, HH, KV4 and the like; 3.5 mc, note the DX for yourselves!

Regarding the 1.7 mc lists, you will doubtless remember

although it was clearly stated last month that this would be on a *Post-War* basis, a few readers have worked out totals on their 1949 listening. As a matter of fact, several say that they would prefer it to be that way. W. J. Barwick (Romford), who started listening in January, asks what chance a newcomer has of catching up on the old hands' scores. Personally, I think it is a very good one indeed. The old hands, or many of them, are well and truly stuck by now, and have to fight for a single new country, whereas an enterprising newcomer can go on piling them up at twenty per month for quite a long time to come. A. Bannister (Manchester) disagrees for another reason, saying that a Four-Band Table based on *Post-War* figures is like Monday's hash from Sunday's joint—and let bygones be bygones!

Both points of view are reasonable, but the majority

AMATEUR BAND COMMENTARY *by the DX Scribe*

and it has not appeared—please try again.

The following points arise from this month's Calls Heard: The SLP on 14 mc was reasonably interesting but not very well supported, for some reason. There was not much good phone about, but the CW lists show some very nice DX. The 3.5 mc period had to face the intense competition of warm beds, which appeared to triumph in all but two cases. L. E. P. Holgate (Jersey) was rewarded with some very good listening; N. A. S. Fitch (London, E.10) didn't think so much of it. Maybe there is a considerable difference in conditions between the two localities.

Turning to the General Lists, those on the DX bands can be very quickly summed up: 28 mc very good;

that last month I asked for them to be restricted to one station from each county heard, so as to keep their length down. Well, it's a funny thing, but hardly any readers set them out in the proper form for using as lists of Calls Heard. They showed the stations vertically, or in order of counties, or just anyhow, instead of sticking to the normal numerical/alphabetical sequence of call signs. Note the few lists that are published and please do likewise in future! And please also comply with the ruling that further 1.7 mc lists should contain only the counties additional to those already logged and credited.

FOUR BAND DX

The Four-Band Table has made a beautiful start, but

wanted at least *one* Competition that maintained some continuity with the past, and as the other two are both 1949 affairs I think the layout is fair enough, and we will leave it at that. T. W. W. Dearlove (Frimley Green) says he was getting a little jaded with DX, but the Four-Band affair has made the bug bite again.

This month's Four-Band Table is set out in order of 28 mc priority, and it is interesting to see that the two top-scorers are both in the 'Phone Only class. The order will be considerably changed next month when I put 7 (or 3.5, or 14, as the case may be) in the first column. I don't propose to state in advance which band will have preference; so you will just have to keep awake on all four of them!



W9AHD, 27 East 112 Place, Chicago 28, Illinois, sent us this nice photo-card, with a word of good wishes to G SWL's, whose reports he says he greatly appreciates.

MONTHLY ZONES HEARD

January's best figures were from R. S. Stott (Upminster) with 37 and 119 in the "all-in" category, and A. Bannister with 34 and 91 for 'Phone Only. I have a suspicion that many readers failed to make clear whether their scores were for 'Phone Only; but I don't think any of the doubtful cases would have headed the column. Please see that all your claims are clearly marked in this way; if no remark appears on them it is assumed that they are for 'Phone and CW.

COUNTIES HEARD, TOP BAND

Now here we are going to have some intense competition. L. H. Waine (Yeovil) has streaked away from the field with his score of 41, but this is a Marathon and not a monthly competition like the Zones Heard affair, so someone will be after him shortly. Two or three comments have arisen on this one, chiefly in the matter of stations' QTH's. If you don't hear the QTH

over the air, and it isn't in the Call Book—send the chap a report! The band being what it is, you will probably receive a QSL (if your report is a useful one) and then you can claim him as an addition later on. In order to help with this, we are asking all 1.7 mc operators (through the *Short Wave Magazine*) to announce their locations as often as possible. But there will still be the odd QTH which will have to be tracked down. There have been many letters about the good points of the 1.7 mc band. J. Bagshaw (Callington) says the general air of friendliness has made him like it so much that he is learning Morse, so that he won't miss anything! E. Nottingham (York) already has GC8OK's card, and says he is a very good signal up there. D. T. Bradford (Denham) considers that a Scottish station using 5 watts on the Top Band is as good a piece of DX as a 100-watt ZL or a 500-watt VE7 on the 14 mc band; D. T. B. would

like a nice receiving contest on 1.7 mc.

L. H. Waine, the leader in the 160-metre Counties Heard affair, calls it "The Gen. Band" and says you can hear everything discussed up there, from the local football results to the bad behaviour of DX-chasers on 14 mc. He has found conditions very good from 2100 onwards, with plenty of S9 'phone from the North of England. G. C. Allen (Thornton Heath), who is a very Old Timer among SWL's, has been logging Counties, and has also heard DL, GI and GC. He passes on the interesting news that G5XM and G200/A are trying to contact VE on the Top Band with the aid of balloon aerials. G5AU (Warrington) is working on similar lines, so some really long-distance contacts may soon be taking place. Follow them up and see if you can log both ends.

L. E. P. Holgate (Jersey) finds himself at a disadvantage because all signals have to

FOUR-BAND DX					
Listener	28 mc	14 mc	7 mc	3-5 mc	Total
A. Bannister (Manchester)	119	130	14	17	151 (P)*
D. S. Kendall (Potters Bar)	109	122	19	27	140 (P)
M. E. Bazley (Birmingham)	101	190	34	15	202
F. A. Herridge (London, S.W.12)	101	77	36	14	130
E. J. Parish (Watford)	99	133	5	23	148 (P)
R. S. Stott (Upminster)	96	180	63	23	180
N. A. S. Fitch (London, E.10)	95	114	3	14	136
T. W. W. Dearlove (Frimley Green)	94	84	5	11	126
W. J. C. Pinnell (Sidcup)	79	164	75	28	173
A. M. Levi (Belfast)	74	96	9	17	142 (P)
A. W. Robertson (Cranford)	73	135	17	20	142
A. E. Carter (Romford)	70	72	24	20	106 (P)
K. Parvin (Thornton Heath)	66	121	18	27	128 (P)
K. Smeeton (Barnton)	66	111	17	21	118 (P)
S. J. Chapman (Leicester)	65	108	20	23	121
D. G. Martin (Cheltenham)	64	104	14	15	124 (P)
J. G. P. Butler (Portsmouth)	58	102	34	17	112
T. W. Jones (Birmingham)	54	166	61	22	168
O. A. Good (Oswestry)	52	195	14	8	195
M. G. Whitaker (Halifax)	52	95	21	21	108 (P)
D. Powell (Wilton)	51	111	52	27	121
T. A. Studley (Harrow)	47	131	45	30	131
H. M. Knott (Margate)	38	71	15	13	88
P. G. Lucy (East Barnet)	27	66	2	12	72 (P)
P. Bysh (London)	22	61	13	6	69 (P)
C. S. Poole (Ipswich)	18	31	8	12	50 (P)
J. L. Hall (Croydon)	7	176	121	54	189
H. M. Graham (Harefield)	2	36	7	13	40 (P)
A. M. Norden (London, N W 11)	1	111	17	11	112 (P)

* (P) Signifies 'Phone Only.

cover an extra 150 miles before they get to him! But he is doing well with Northern stations. Finally, H. M. Graham (Harefield), E. C. Palmer (Bath) and J. H. Woodward (Stoke-on-Trent) all mention the trouble in finding out QTH's, a subject which I have already mentioned.

THE 14 MC DX

Now back, for a while, to the DX where D is for Distance! Three or four very nice stations have turned up on the band, such as FO8AC (14010 CW), KH6VP/VR4 (14070 CW), FF8GP and 8MM, FQ8SN (both CW, but no fixed frequency). These are mentioned by so many readers

that I won't refer to them again. O. A. Good (Oswestry) lists HI6EC (2130), KH6AQ (1740), KL7LL (0900), VE8MI (0905), VE7ZZ (0010) and VP3MCB (0025), all on 'phone. On CW he adds FE8AB, CR6AI, KX6AF, UAØVB, VQICUR and some KG6's. He asks whether the new JA calls for Japan follow the

same scheme for Call Areas that the old J calls did. I think the answer is Yes.

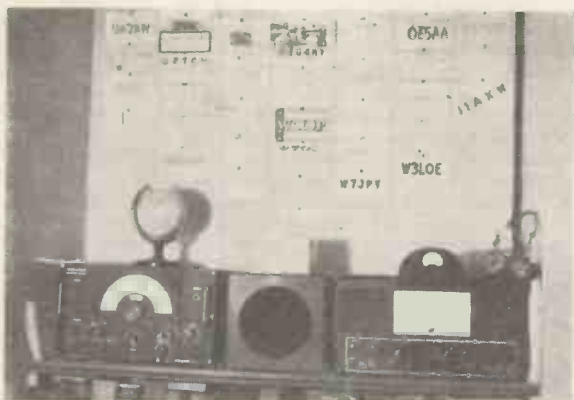
A. W. Robertson (Cranford) lists: VP3CDA, XE1AC, CO8BL, ZS3F, ZD2G and ZD1BD on phone, plus OY3G on CW. Best from R. S. Stott (Upminster) were KP6AB, ZD9AA, VQ1CUR, VS2CH and HE1CB. J. E. Fuller (Ealing) found the band pretty lively all the month except for being flat at odd times. He says that African signals were particularly good after 1700, but afternoons became trying with the Northern European stations (OH's and the like) rolling in at S9 plus. Of course there were three or four days towards the end of January when Aurora conditions practically wiped the band out altogether. I listened for two hours one morning and didn't hear a single signal except KH6VP/VR4! And on one afternoon there were four VS7's coming through, but nothing else—not even a European.

D. W. Bruce (Eltham) has at last taken his 1-V-2 to bits and is using a 13-valve superhet which, at present, only covers 14 mc. On CW he has logged VR2BD, ZD9AA and UAØKSB; on phone CP6AJ and 6AL, EA8CO (2355), KZ5AO (2135), VK6AP (1815); and also mentions S9 phone from HI6EC and TI2OA.

D. K. Cocking (Farnborough) tells us that IIAXE is now MF2AC, and adds that MF2AA is S9 plus every Saturday morning. So if you want Trieste... I might add that I have heard IIYAT a lot on CW (about 14050), and he is also in Trieste. D. K. C. queries whether anyone ever hears CE on 14 mc phone nowadays?

QUERY DEPARTMENT

The more general questions of the month are these: Who, or what, is YQ5B? I think he is definitely Roumanian,



H. Emerson runs this SWL station at 25 Ravenscourt Road, Mottingham; London, S.E.9. A Hambander (left) and an Eddystone 640 (right) take it all in for him.

because they have in the past used YO, YP, YQ and YR according to taste. What about PIIL? Well, he is the Dutch weather ship *Cirrus*. N. A. S. Fitch (London, E.10) heard the operator giving his position as 47 deg. N., 15 deg. W.—incidentally it was a Dutch operator using an American transmitter and a French receiver, speaking English! And now for MO1A (Mexico Ocean One Able)? Well, he is apparently in Libya, so it may mean that one of the prefixes has been changed yet again; possibly Cyrenaica uses MD1 and MO1, not MD1 and MC1 as formerly stated.

L. E. P. Holgate (Jersey) asks for the Zones of ZC8PM and MT2D, which I make 20 and 34 respectively. A. M. Norden (London, N.W.11) asks why some German stations use D4 and others DL4; I presume the change-over has not been simultaneous, but DL is the official prefix for all Service stations in the Allied Zones of Germany. D4AAA becomes DL4AA, and so on. A. M. N. adds that MD2C is now licensed as MT2FU.

In answer to S. J. Chapman (Leicester): MD1 and MD2

count as separate countries; ZS3 (South West Africa) is separate from ZS1, 2, 4, 5, 6; and the Leeward and Windward Islands count as two different groups. The former comprises Antigua (VP2A), Montserrat (VP2M) and St. Kitts-Nevis (VP2K); the latter Dominica (VP2D), Grenada (VP2G) and St. Vincent (VP2V).

C. S. Poole (Ipswich) asks whether G, GC, GI and so on are all separate; yes, they certainly are. He has heard a station signing FM5ZM, and would like to know whether there is a hope of his being genuine. I should say not. K. Parvin (Thornton Heath) thought he heard an FR8 but is afraid he was probably wrong; but is there any activity at present in FB8, FR8 or VQ9? He would also like to know where the KV4 and KZ5 stations bury themselves on 28 mc—do they hide in the American 'phone band or do they emerge sometimes? And, lastly, is there really an EA6CN, or is that one wrong, too? I hope someone can answer these queries by next month, because A. Bannister (Manchester) somewhat sternly "tears me off a strip"

for continually asking questions and never giving the answers. He thinks there should be *some* answer, even if it is only "Don't know"! His own query this month concerns W4AXC/??, heard on 28 mc. What came after the oblique stroke? (Don't know!) It might be interesting. He also brings me to the subject of the new Philippine Islands prefix, which is DU instead of KA.

28 MC NEWS

A. M. Levi (Belfast) heard a station signing (he thinks) VU1FH at 1135 one day, but it was wiped out by ignition. I make the obvious suggestion that it might have been W1FH . . . B. Needham (London, W.11) comments on the number of Cuban stations on the

band—he heard nine in a month. . . D. L. McLean (Yeovil) listened to one of the fashionable "multi-ways" between American "MM" stations and gathers that they are pressing the ARRL to recognise them as countries when they are in port, because at present no one seems to want to work them since they cannot be counted for DX records. That's probably why an increasing number of them have been using country prefixes after their call instead of "MM". D. L. M.'s best on the band have been CR9AG, FF8MM, W7KMV/Iwojima and KH6OT/KJ6.

R. S. Stott (Upminster) has logged H18WF, YN1RO, VS6AM and XZ2KN ('phone) plus FL8AN (CW). A. W. Robertson (Cranford) con-

tributes VS9AH, VP7JC, VU2GB, HK3AB, W7KMV/Iwo, KR6BL and ZD4AX (all 'phone).

SUPER DX ON 7 MC

This much-neglected band still yields plenty of thrills to those who persevere. J. L. Hall (Croydon) has bagged ZD9AA, VQ4SC, KH6IJ, KL7QK, 7FA and 7UW, KH6VP/VR4 and sundry ZS's—what's wrong with that for DX? D. Powell (Wilton) adds FF8GP (2245) and VQ2GW (1910) plus a rather doubtful Y11FC. The W's have been coming in as early as 2000 and are still there sometimes at 1000; I heard W7IYA at 1015 one morning.

DON'T FORGET 3.5!

Much of the amazing DX recently reported on 3.5 mc appears to have been produced by an enterprising pirate or pirates, using well-known call-signs belonging to other people. So I regret to tell you that such nice ones as VP8CH, VS9AN, VS6AJ, VK7YL, AC4YN and YJ2FF are bogus. But there *has*, nevertheless, been some very good and genuine DX on the band. C. S. S. Lyon (Liverpool) has found 3.5 below normal this winter for W and VE, but the other DX has compensated for it. He says that VK5KO will QSL "all worth-while SWL reports". D. Powell (Wilton) has logged VK5KO (1850), VK2RA (1900) and also VK2EO and 2QL—all believed genuine. Other DX from him includes several FA's, also ZB1AR and CM8MZ. H. M. Graham (Harefield) has heard MF2AA on the band, and S. J. Chapman (Leicester) weighs in with MT2 and ZC6 in addition. S. J. C. tells me that he heard G8VB say that his card from New Mexico had arrived, giving him W.A.S. on 80-metre phone! What a band!

ZONES HEARD (JANUARY)

Listener	Zones	Countries
'PHONE and CW		
R. S. Stott (Upminster)	37	119
M. E. Bazley (Birmingham) .. .	37	110
D. W. Bruce (Eltham)	35	112
D. S. Kendall (Potters Bar) .. .	35	95
O. A. Good (Oswestry)	34	99
H. M. Knott (Margate)	31	88
K. Parvin (Thornton Heath) .. .	31	83
S. J. Chapman (Leicester) .. .	28	78
J. L. Hall (Croydon)—7 mc only ..	23	64
M. G. Whitaker (Halifax) .. .	22	49
W. J. Barwick (Romford) .. .	16	43
'PHONE ONLY		
A. Bannister (Manchester) .. .	34	91
R. S. Stott (Upminster)	33	93
O. A. Good (Oswestry)	31	77
D. G. Martin (Cheltenham) .. .	25	58
H. M. Graham (Harefield) .. .	16	40
K. G. Harland (Westcliff) .. .	12	38
J. C. Edwards (Cricklade) .. .	8	19

1.7 mc COUNTIES HEARD—1949

Listener	Counties	Listener	Counties
'PHONE and CW		'PHONE ONLY	
L. H. Waine (Yeovil)	41	W. Eyre (Whaley Bridge)	31
E. C. Palmer (Bath)	30	J. Bagshaw (Callington)	25
R. S. Stott (Upminster)	28	E. Nottingham (York)	22
J. Woodfield (Hayes)	25	N. Allatt (Barnsley)	21
G. C. Allen (Thornton Heath)	22	P. N. Marriage (Newbury)	21
L. E. P. Holgate (Jersey)	21	C. Watts (Liss)	21
M. G. Whitaker (Halifax)	18	A. M. Levi (Belfast)	18
D. Powell (Wilton)	16	E. C. Palmer (Bath)	16
D. Webber (Newton Abbot)	15	R. S. Stott (Upminster)	16
D. T. Bradford (Denham)	13	J. H. Woodward (Stoke on Trent)	12
M. E. Bazley (Birmingham)	10	K. Smeeton (Barnton)	10
K. Parvin (Thornton Heath)	10	A. E. Carter (Romford)	9
A. C. Blair (Farnham)	8	K. G. Harland (Westcliff)	9
D. Shallcross (Borrowash)	7	H. M. Graham (Harefield)	6

SUPER-DX

It is very difficult to know what to put under this heading these days, but the list from M. E. Bazley (Birmingham) seems to qualify. He gives VQ8AD, UAIKEC (Franz Josef Land), ZD9AA, KX6AF, ZS3G, VP8AM, ZK2AA, VR2BK, FE8AB, FO8AB, KC6AE, YK1AF and SV5UN (Rhodes). D. S. Kendall (Potters Bar) has heard ET3AH, XZ2KN, VS9AH and ZD1AS on 28 mc phone, giving him the fine total of 109 countries in that category. Turning to 3.5 mc, he remarks on the good conditions during January 13-15; at one sitting of two hours he logged 42 North Americans between 3.9 and 4 mc, and also heard seven VO's in a multi-way contact.

GENERAL NOTES

N. S. Beckett (Lowestoft) has returned to DX once more, but says that we don't seem to hear so much of the "little sets"—0-V-0 and 0-V-1—as we used to. He put his

to the test on 3.5 mc and emerged victorious with VK5KO, FC8AC (?) and VQ5JTW. He heard FB8AB being called. . . Note his list of 7 mc Calls Heard.

K. Smeeton (Cheshire) remarks on the effect that the Aurora conditions had even on the top bands. On one occasion he found 28 and 14 and 7 mc quite dead; three weak signals on 3.5; two on 1.7! T. E. Botham (Walsall) describes himself as an SWL with no special gear—he listens on a Bush RG3 with an indoor aerial. Incidentally, he queries the funny prefix of EZ7CW (Stuttgart). "EZ" used to be the prefix for the Saar. A. Bannister (Manchester) found January 1949 better than January 1948, in spite of the bad week at the end of the month; but he says 7 mc is "one long howl from one end to the other", although he thinks one might make something of it by learning Spanish.

A. W. Robertson (Cranford) remarks that the "relatively

poor" conditions of the last three months on the DX bands are likely to last—hence the increasing interest in 7 and 3.5 mc. W. J. Wills (London, E.9) lives in an LCC flat and is not allowed an outside aerial; he is limited to about 16 ft. indoors, and would like some hints on the best design thereof.

Miss Pat Litson (Saffron Walden) has been hearing W, VE and VO on 3.5 mc and found 14 mc "same as usual". She asks where these troublesome 4X4's are supposed to go in the alphabetical order of Calls Heard—between W and Y, or at the beginning, or at the end? I suggest the end, if you log them at all; they aren't DX, these days.

D. G. Martin (Cheltenham) has been getting down to CW practice, so his totals should be soaring soon. . . F. J. Hermann (Hull) says the same thing. He is taking the advice I gave in the January issue.

L. C. Marshall (Barnet) asks whether PZ1Z (14020) is genuine. I think he is all right. L.C.M. also comments on

the shocking "buzz-saw" notes from certain stations, including some G's. He is particularly interested in the West Indies and would like some listener there to write to him about the best times for HH and HI stations.

M. G. Whitaker (Halifax) received S9 'phone from W1, 2, 3 and 4 at 0200 on January 16. He found 1.7 mc particularly good on January 15.

IDEAS DEPARTMENT

J. Lloyd (Sale) amused himself while recovering from 'flu by wading through *twelve months* of Calls Heard! He said he was shaken by the amount of repetition—the same listeners seem to send in the same calls month after month. He makes the very sound suggestion that the DX Kings should try to send in lists of "New Calls Heard", thereby reducing the length but increasing the value and interest. I'm not introducing any new legislation just yet,

but think it over, some of you, please!

FROM OVERSEAS

ZBIAR (Full QTH in list) says that he will QSL all *useful* reports, and then suggests these minimum requirements: (i) station worked; (ii) time and date; (iii) RST; (iv) RST of other ZB1's or Middle East stations at the time; (v) calls of any stations causing QRM; and (vi) exact frequency. Reports over a period would also be appreciated, as well as reports of stations calling him but not being heard.

W3LTU (Sellersville, Pa.) asks me to thank all listeners who have sent him reports on 14 and 28; he has had some very fine ones, and hopes to be able to have a QSO with every one of the listeners later on, when they are on the air themselves.

A long and newsy letter from Earl Roberts (Indianapolis) calls attention to some

of the new prefixes which I have already covered—DL, DU, JA, KC6 and so on. He adds that when Canada "takes over" Newfoundland on March 31, there is a possibility that it will no longer be counted as a country, so get those QSL's now, if you can. Other news from E. R.: VE8MI is in Zone 1; K4USA is "just another American"; and an expedition has left for Cocos Island to spend a few months excavating for buried treasure, so keep an ear in that direction.

Finally, the same Earl Roberts (2308 Roosevelt Avenue, Indianapolis 18) would like to swap USA commemorative stamps of 1948 for British issues such as Olympic Games, Channel Islands and so on—so if there are any philatelists among my circle of readers, get cracking.

SET LISTENING PERIODS

February 26, 2000-2200
GMT—14 mc Phone Only.
February 27, 0800-1000
GMT—14 mc CW Only.
March 26, 1900-2100 GMT
—7 mc CW Only.
March 27, 0900-1100 GMT
—28 mc Phone and CW.

Deadline for next month is first post on March 2. Please send in your competitive claims on a post-card, or at least a separate sheet of paper from your letter, and remember:

Four-Band Table—*Post War*;
Zones Heard—February only;
1.7 mc Counties Heard—1949.

Address them, with all news, Calls Heard and so on, to DX Scribe, *Short Wave Listener*, 49 Victoria Street, London, S.W.1. Good Hunting and Good Listening!

Late Note: It is expected that licences will be issued to about 500 German Nationals (DL1AA—DL1ZZ) by the end of this month.

DX QTH's

AR8XA	Francis Semeraro Orsini, Hotel Normandy, Beyrouth.
EA8CO	Crescencio Ollas, Box 346, Las Palmas, Tenerife, Canary Islands.
EK1AD	Spanish P.O. Box 2, Tangier.
FA9JK	C. Fernandez, Avenue Edgar Quinet 36, Sidi-bel-Abbes'
FO8AC	c/o Radio FZP, Papeete, Tahiti.
IYAT	Aplari Street 4 Trieste.
M13LZ	} APO 843, c/o PM, New York.
M13NC	
M13ZZ	Box 379, Asmara, Eritrea.
OQ5DE	c/o Symetain Compagnie, Kalima, nr. Kindu, Belgian Congo.
VK9NR	N. Roberts, c/o Dept. of Civil Aviation, Norfolk Island, via Sydney, N.S.W.
VP9T	S/Sgt. S. Weiss, HQ 137 Sqdn. AACs, APO 856, PM, N.Y.C.
VS2CQ	G. F. Bloomfield, Box 150, Kuala Lumpur, Malaya.
V57LA	Cpl. L. Adams, SHQ Sigs, RAF Stn. Koggala, Habaraduwa.
VU7AF	ARC of India, Box 6666, Bombay 20 (<i>Station at Khatmandu' Nepal.</i>)
W6CAL/TA	Voldar, 243 Ataturk Blvari, Ankara.
YK1AF	QSL via W3KXS (<i>Station at Damascus.</i>)
YR5A	Box 326, Bucharest, Roumania.
ZB1AR	Sgt. Watson, REME Workshops, APO, Malta.
ZE2KH	Box 390, Sallsbury, Southern Rhodesia.

CALLS HEARD

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

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

7 mc : No Europeans.

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

SET LISTENING PERIODS

14 mc

Jan. 29, 1700-1900 GMT

B. Davies, 73 Eden Road, Beckenham, Kent.

CN8BA, EK1DI, FT4AP, MD1A, M13CD, OX3MC, VQ2JD, ZS3D, 3F, 5S, 61R. (Rx : 0-V-1.)

R. J. Barwick, 8 Kingston Road, Romford, Essex.

*PHONE: EK1DI, FA3GZ, 8WHF, FT4AD, 4AP, OX3BD, 3MC, ZS1BV, 3F, 6AJ. (Rx : RCA AR88.)

T. H. O'Dell, 203 Hawes Lane, West Wickham, Kent.

*PHONE: CN8BA, MD5ZQ, OX3BD, 3MC. (Rx : 9-valve Superhet.)

O. R. F. Mason, Greenways, Fairlawn Gardens, Prittlewell, Essex.

*PHONE: EK1DI, FT4AP, M13CD, OX3MC, ZS3F.

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

*PHONE: CN8BA, 8BV, 8MA, FA3GZ, M13CD, 3SC, OX3BD, 3MC, PY1ACQ, 7QG, VQ2JD, 4ERR, ZS3F, 4D, 6AJ. (Rx : Hambander.)

L. E. P. Holgate, Lorraine Guest House, Jersey, C.I.

*PHONE: CN8BB, EK1AD, 1DI, FB8AD, KL7EW, LU4PC, 7WM, M13DC, OX3MC, PY1CQ, 2OF, 3AF, 3JS, 5CD, VK2JP, VQ4GJD, ZL4DC, ZS3O, 5F.

CW: FA9IR, 9RW, FF8OP, KH6CT, KL7PB, KP6AC, M13GH, OQ5AV, 5QF, 5QR, PY1DH, 4NK, 7VA, TF3EA, UF6KAB, UG6KAA,

UL7BS, UO5AD, VO1B, VE8MJ, VP5FR, VQ4CUR, 4ERR, 4SGC, W7PAQ, ZS1DK, 1ST, 1EB, 1FG, 1HH, 1OP, 1JY, 2CR, 2DV, 2G, 2GM, 2GR, 5MK, 6UR. (Rx : S640.)

D. W. Waddell, 25 Hillfield Place, Nantwich, Cheshire.

CW: FA9IR, FF8GP, M13GH, PY6AW, 7VA, PZ1Z, TF3JS, 3MB, 3SF, VERMA, 8MD, 8MJ, VO1B, VQ4CUR, ZS2G, 5JI, 6KK, 6UR. (Rx : R1155A.)

N. S. Beckett, 48 Beaconsfield Road, Lowestoft.

CW: FE8AB, FF8GP, OQ5QF, VE8MD, VK6RU, ZB1AR, ZS3G, 5BW, 6DY, 6FZ, 6JR, 6KK, 6RT. (Rx : 0-V-0.)

E. Nottingham, Lyndhurst, Upper Poppleton, York.

*PHONE: CN8BA, 8BB, EK1AS, 1DI, M13CD, 3ZZ, OX3MC, VQ2JC, 4CJG, 4CUR, ZC6UNZ, ZS3F. (Rx : Eddystone 640.)

W. J. Wills, 17 Alfred House, London, E.9.

*PHONE: CN8BB, MO1A, MT2FU, OX3MC, PY1ACQ, ZS4D.

CW: FA9IR, M13GH, OX3MF, PY6AW, VO1B, VQ2GW, ZL2AI, ZS2DV, 2FJ, 2G, 5FE, 5JI, 5WD, 6DZ, 6KK, 6UR. (Rx : Eddystone 504.)

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

*PHONE: CN8AR, 8BA, 8BV, FA3GZ, 8CC, 8WH, 9KJ, FT4AP, M13CD, 3ZZ, OX3MC, VQ2JD, ZC6UNZ, ZS3F, 5FS, 6U.

CW: EL3A, FA9IO, 9IR, KH6CA/KP4, OQ5QF, PY7VA, PZ1Z/TF3MB, VE8MD, VO1B, VQ4SGC: ZE2JS, ZS1DK, 1M, 2G, 5JI, 6CT, 6KK, 6SS. (Rx : V55R with Preselector/Converter.)

D. W. Bruce, 39 Dunkery Road, Eltham, London, S.E.9.

*PHONE: EK1DI, OX3MC, PY6CO, 7VB, VO1S, ZS3F.

CW: KH6IJ, PY7WS, TF3SF, ZS1HR, 1HT, 2G, 5FE, 5JI, 6CT, 6DZ, 6J, 6KK. (Rx : 13-valve S.H.)

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

*PHONE: CN8AM, 8BK, EA9AI, EK1DI, FA8WH, FT4AP, M13CD, OX3BD, 3MC, PY1ACQ, VQ4CJG, ZS3F, 3O, 5II. (Rx : AR88LF.)

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

*PHONE: CN8AR, 8BB, 8BV, EA9AI, EK1DI, FA3GZ, 8BE, 8CC, 8JO, 8WH, 9KJ, FT4AA, M13CD, 3SC, MO1A, MT2FU, OX3BD, 3MC, VQ2JC, ZS3D, 3F, 4D, 6AJ. (Rx : S640.)

3.5 mc

Jan. 30, 0600-0800 GMT

L. E. P. Holgate, Lorraine Guest House, Jersey, C.I.

*PHONE: W1ASD, 1MZQ, 1HGF, 5KMZ, 8HUD, 8KWI.

CW: CM7RA, 7ST, CN8MI, FA8BG, 8IH, KP4KD, UA3AW, 3AZ, 3BB, 6GH, 6JL, 6MA, 9AVE, VK3EP, 3GT, 5KO, ZSX.

N. A. S. Fitch, 79 Murchison Road, London, E.10.

CW: DA5XZ, G3CKL, 5BZ, 6GM, 8JR, OH1NI, OK1HU, PA0DC, ØVQ, VE1ZZ. (Rx : Mains 1-V-1.)

GENERAL

28 mc

C. Sheppard, 5 Roman Avenue, Tolladine, Worcester.

K9AAL, ZS6TP, ZE1JO, ZB1AM, ZD4AX, VO2CZ, 2CT, W7LAP, UA1BE. (Rx : S640.)

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

*PHONE: W6YYT/CR7, HZ1AB, JA2BJ, W7KMV/Iwojima, KG6DE, W5MTA/KG6, KP4AZ, 4CU, 4ES, 4HR, 4IE, KR6BL, M13LZ, PZ1RM, VK3AOL, 5SW, VP3TR, 6HR, 6JC, VQ4CRU, VS9AH, VU2HG, W2DUM/MM, 2LDH/MM, Z2BA/MM, 3NCV/MM, 4HRN/MM, 5AXI/MM, 5OTF/MM, 5PFY/MM, 6DMR/MM, 7LAP/MM, ZD4AU, 4AX, ZE1JI, ZL2BN, 4BN, 4HP, ZS1FD, 6LR.

A. Bannister, 58 Demesne Road, Manchester.

*PHONE: AP2G, CE2CO, CR9AG, CX4CS, 5AP, ET3AF,

3AH, HC2OT, HK4AR, 4CO, HR1MB, KG6AD, 6DQ, 6EP, KR6AC, 6AM, 6BG, 6BL, KZ5CL, M13BL, NY4LB, OA4AM, OQ55CL, 5LL, PK4DA, SV5UN, VE7SR, VK3CO, 5GD, 5WG, 6DD, 6MU, 7LJ, VP3TR, 5AS, 6HR, 6JC, VQ4ERR, 4RF, ZS6AE, 6AM, 7CS, 9AH, 9AJ, VU2CH, 2GB, 7AF, W7KKH/KG6, 7KMV/IWO, XE1PH, YV1AN, 4AM, ZDGZ, 4AV, 4AX, ZE1JO, ZL3CS, ZS3G. (Rx: Modified P.22.)

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

'PHONE: AR8AB, 8BM, CN8AI, 8MI, CR9AG, FF8MM, HZ1AB, JA2BJ, KG6DE, 6DX, 6ED, 6EO, 6EP, 6ET, KR6BL, 6EL, M13ZZ, MT2D, 2E, PY2CK, ST2AM, VK2LX, 6AF, 6JW, VQ4CRE, 4SC, VS9AH, 9AJ, W2LDH/VU2, 3NCV/SVG, 5MTA/KG6, 6YYT/ZS3, 7KMV/IWO, ZC6XY, ZD4AB, 4X, ZE1JL, 2JV, ZL1ON, 3LE, ZS6AM, 6JU, 6PT, 6Q. (Rx: AR88LF.)

B. Needham, 31 Bomore Road, Kensington, London, W.11.

'PHONE: AR8AB, CN8ER, CR9AG, KP4CU, 4FT, M13LZ, PZ1M, 1RM, VK2AGL, 3AQL, VP4TAI, VS6AE, 6AM, 9AH, W2UDUM/MM, 5AXI/MM, ZBIAK, 1AM, 1FK, 1KQ, 1L, 1S, ZC6XY, ZD4AX, ZL3DS, 4HT, 4LN, ZS2ET, 3G. (Rx: R208.)

P. Bysh, 118 Campsbourne Road, Hornsey, London, N.8.

'PHONE: AR8AB, KP4AC, 4AJ, 4AZ, 4LI, 4IL, MT2E, PZ1RM, TA3GVU, VP9F. (Rx: SX24.)

N. A. S. Fitch, 79 Murchison Road, London, E.10.

'PHONE: AP2J, AR8AB, CO2LW, FA3JY, KG6CX, 6ET, KP4CU, 4EZ, KR6DL, M13LZ, MT2D, 2FU, OQ5BA, 5CA, PZ1M, 1RM, ST2KR, VK3KG, VS9AH, ZC6XY, ZD4AX, ZS4BL, 6CY.

CW: UA9CC, ZD2GHK, ZS2AQ, 2CB. (Rx: Mains 1-V-1.)

A. O. Frearson, 66 Wheelwright Road, Erdington, Birmingham, 24.

'PHONE: AP2F, FA3FB, LUSHG, M13LZ, MT2D, 2FU, OQ5AB, 5BA, PZ1RM, ST2M, VOIT, 2BP, 2CT, VQ2HW, VS9AH, W2ZBA/MM, 3NCV/MM, 5PFF/MM, 6PRB, ZE1JO, ZS1DH, 1X, 5DD, 6KD, 6MO, 4X4AB. (Rx: S640.)

T. W. W. Dearlove, Lattices, 138 Coleford Bridge Road, Frimley Green, Surrey.

'PHONE: CR9AG, CX2CL, HH1SH, KP4AT, LU5DL, M13LZ, MT2FU, OQ5AB, PY1JP, ST2KR, SV0WA, TA3FAS, VE3AKN, VK2VA, 6HM, VO2VP, VP2KM, 4TZ, 6CDI, VS6AE, 9AH, W6ANJ, ZD4AX, ZL4HP. (Rx: CR100.)

1.7 mc

L. H. Waine, 27 Summerleaze Park, Yeovil, Somerset.

G2AN (Suffolk), 2ATJ (Northumberland), 2BHN (Som.), 2DQ (Essex), 2DTD (Herts), 2DTO (Notts), 2FB (Bucks), 2MM (Wilts), 2NQ (Middlex), 2NY (Lancs), 2VO (Yorks), 2LY (London), 3AJD/A (Salop), 3AKU (Hunts), 3AKW (Cheshire), 3ARJ (Beds), 3ATO (Worcs), 3BSX (Devon), 3COV (Cumberland), 3DDM (Hants), 3DSR (Derby), 3DYO (Sussex), 3NA (Hereford), 3PU (Dorset), 3BMM (Staffs), 4DH (Surrey), 4IV (Cornwall), 4MU (Northants), 5BK (Glos), 5SK (Warwick), 5SU (Kent), 6QC (Leics), 8KO (Berks), 8QR (Norfolk), G12HML (Antrim), GM3AWF (Fife), 6SR (Middlethian), 8MJ (Lanark), GW2BG (Mon), 4FW (Glam), 8HZ (Carnarvon). Total: 41 counties. (Rx: S640.)

A. E. Carter, 86 The Drive, Romford, Essex.

'PHONE: G2CXW (Lancs), 2PU (Cams), 2RO (Essex), 3AHA (Herts), 3BGU (Kent), 3DCC (Middlex), 5WW (Suffolk), GM6SR (Edinburgh), GW2BG (Mon). Total: 9 counties. (Rx: 0-V-1.)

W. McBey, 12 Albert Street, Kirkwall, Orkney.

'PHONE: G2AVW (Northumberland), 2BAR (Glos), 2BJT (Cheshire), 2DQ (Notts), 2FLK (Essex), 2FNW (Rutland), 2LC (Middlex), 2VO (Yorks), 2XS (Norfolk), 3BGU (Kent), 4MI (Worcs), 5JO (Cams), 5LC (Surrey), 5XB (Berks), 5XM (Lancs), 6II (Hants), 6LL (Herts), GC8OK (Guernsey), GD5CZ (Isle of Man), GM4HZ (Aberdeen), 6SR (Middlethian), GW2FRB (Lancs), 8CT (Mon). Total: 23 counties. (Rx: R107.)

3.5 mc

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

'PHONE: CN8MZ, MF2AA, VE1GD, 1IE, 1LG, 1RQ, 2MS, VO2AQ, 3X, 4AH, W1AJA, 1AW, 1KKJ, 1KMM, 1PWD, 1QEI, 1QLP, 2MI, 2SAS, 3LEU, 3VNF, 4KOU. (Rx: Eddystone 640.)

C. S. S. Lyon, 15 Ullet Road, Liverpool, 17.

'PHONE: KP4CO.
CW: FA8BG, 8IH, 9RZ, OX3MG, VK2EO, 2RA, 5KO, 7YL, W0CFB, ZBIAR, 1Q, ZC8PM, ZL1MB, 2BD, 2NJ, 4JA, ZS1M.
CW: but almost certainly pirates: — CE3BC, KH6IJ, KL7GH, VK5KO, (0800), VP8CH, VS9AN, YJ2FF. (Rx: 1-V-1.)

A. E. Carter, 86 The Drive, Romford, Essex.

'PHONE: VE1GD, 1IE, 1K, 2TO, VO1AB, 1T, 1X, W1AJA, 1AW, 1KKJ, 1PPI, 2JWK, 2SAS, 3BFZ, 3DGO, 4DCN. (Rx: 0-V-1 Battery.)

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

'PHONE: OX4K, VE1MD, W1CZ, 1IF, 1JOC, 1KNH, 1NHT, 1NPV, 3UBG. (Rx: AR88LF.)

C. S. Poole, 27 Bedford Street, Ipswich, Suffolk.

'PHONE: VE2KAN, W1AJA, 1AUR, 1DBY, 1GHL, 1MT, 1KIH, 1KKJ, 1QEI, 2LIR, 2SAS, 2VGI, 3DGO, 4CSC, 4KOU. (Rx: HRO.)

D. S. Kendall, 40 Aberdale Gardens, Potters Bar, Middlesex.

'PHONE: FA8CF, FT4AS, MF2AA, VE1BB, 1FG, 1GD, 1JY, 1KU, 1LM, 1NB, 1TF, 3AOL, VO1AB, 1J, 2AQ, 2BL, 2H, 2K, 2P, 4A, 6P, W1AAH, 1AJA, 1BCP, 1DBY, 1EMQ, 1JHL, 1KKJ, 1KMM, 1MGY, 1NHG, 1NVA, 1OQG, 1PLK, 1PWG, 1QEI, 1QFQ, 1QLP, 2AFY, 2AQF, 2AWY, 2BJO, 2FNO, 2FAS, 2JL, 2JWC, 2LIR, 2MI, 2NHM, 2PJF, 3BFZ, 3BNF, 3DJA, 4BEI, 3HYO, 3IG, 3KFR, 4YX, 4FOL, 4CPG, 4TOU/4IPO, 4IWA, 4JEU, 4KOU, 4LPL, 4LR, 4MCL, 4PM, 4YZS, 8HSC, 8RHZ, 8WDH, 8WHV, 9BAQ. Rx: Modified R1155A.)

A. W. Robertson, 149 Firs Drive, Cranford, Middlesex.

'PHONE: LX1DC, MB9BM, VE1LR, 2GM, W1CGR, 1CMP, 1IS, 1KKJ, 1MT, 1NQ, 1NZO, 1OEN, 2LMP, 2LNH, 2SNF, 2UBW, 3BSZ, 3ET, 3LEU, 3LID, 3RBP, 4IYC, 4JAH, 4LVT, 5DNV, 6RGR, 8BNJ. (Rx: TRF.3.)

A. Studley, 274 Kings Road, Harrow, Middlesex.

CW: CMTRA, OX3XE, VE1BR, 1EA, 1RF, 1ZV, 3AGX, W1EHT, 1EKG, 1KR, 1OAL, 2RJJ. Rx: 1-V-2.)

R. L. Bastin, 101 Aldermans Green Road, Coventry.

'PHONE: VE1LR, 1RQ, W1GZB, 1KAJ, 1KKJ, 1QEI, 2AOP, 2AWR, 2FPM, 2MI, 2MIR, 2SAX, 4KOU, ZC6XY. (Rx: Hambander.)

7 mc

D. Powell, Loughrigg, Shaftesbury Road, Wilton, Wilts.

CW: FA8BG, FF8GP, HZ1JE, OX3MG, UF6AA, 6AB, 6AC, 6KAF, UG6WD, VK2EO, 2MR, VP3AA, 4TZ, VQ2GW, YHFC, ZC6LJ. (Rx: 0-V-1.)

K. J. Foskett, 19 Pattison Road, Child's Hill, London, N.W.2.

CW: AR8XA, CM3AB, 7MC, 7RA, COZLN, 6AG, 8FH, HH3L, KP4HU, 4KD, KS4AD, KV4AA, OX3XE, PY2TD, 4CJ, VE8RO, VO1P, 2CO, 2RF, VP2KS, 3AA, W5GEL, 9DUY, 9KYQ, UD6AF. (Rx: Collins TCS12.)

N. S. Beckett, 48 Beaconsfield Road, Lowestoft.

CW: FA8BG, UA9KAB, UF6AA, UO5AD, VP3AA, VQ3SC, W1BGI, 1BOA, 1DP, 1FB1, 2ALB, 2BV, 2CRV, 2SMK, 4O1X, XE1A, ZB1Q, ZC6UN. (Rx: 0-V-0.)

14 mc

Miss D. Hall Taylor, Red House, 2 York Road, Birkdale, Southport, Lancs.

'PHONE: CN8AR, 8AM, 8BK, 8DI, 8MR, DU1AI, EK1AD, 1DI, 1MD, KH6CT, LU6AJ, M13CD, MT2MU, OX3BC, PY6EO, 7QG, 7QH, 7VE, VK6MK, VO2AQ, VP3CW, W6PWR, 4X4AD, YV5AB, ZB2E, ZC6XY, ZD1SW, 2G, ZS6CT, 6LR. (Rx: BC-348-G) January 15-31, 1500-2200 GMT.)

W. J. Barwick, 8 Kingston Road, Romford, Essex.

'PHONE: 4X4AB, 4AD, AR8BM, CN8AB, 8AR, 8BA, 8BB, 8BK, 8CR, 8EI, 8EM, 8EN, EK1AS, 1MD, FA3DS, 3FB, 3JY, 8IH, 9ML, FQ8SN, MD1A, M13CD, MO1A, MT2FU, OQ5CL, OX3BC, PY7DD, 7QG, VK6AK, VO6AL, VP2KM, VQ2JC, ZB2E, ZC6XY, ZS1BV, 1CN, 2DY, 2X, 4D, 4N, 6FU, 6GV, 6NT. (Rx: AR88, 1745-1930 GMT, 4 hrs.)

T. E. Botham, 4 Victoria Terrace, Walsall, Staffs.

'PHONE: CN8AM, 8BB, 8BV, 8WJ, CO7CX, 7VP, 8MP, CX1VA, 2CO, EK1MD, FA8FC, HK3SO, KP4AU, 4CL, KZ5AO, LU4BH, 4DJ, 6AJ, OX3GE, PY1GQ, 2AC, 2JU, 4BU, 4EJ, 4IK, 4PT, 6LO, TZ0A, UA3KA, VK3JT, VO1Y, 2FL, 6J, VP5AR, 5RS, 6IS, 9G, VO2JD, WT1QO, YV1AD, 1AU, 5AB.

D. Streetfield, 2 Palmerston Road, Wimbledon, London.

'PHONE: CN8BA, 8EP, 8MZ, EK1DI, 1MD, FA8BE, 8DE, LU6AJ, 7AJ, 7CK, M13BC, 3CD, 3LZ, PY1TZ, 7DD, PZ1RM, ST2AM, VE8MI, 8UH, 8PX, VO2BX, 4Q, 6AL, VO2BH, 2LS, WK7LU, XZ21B, YV1AU, ZC6UN, ZD1PW, 2AQ, ZS1DH, 1KO, 5AW, 5DK, 6MD, 4X4AC. (Rx: S640.)

P. Bysh, 118 Campsbourne Road, Horsey, London, N.8.

'PHONE: CN8AB, 8BQ, EK1DI, FA3FB, 3JY, FT4AP, KL7SO, PY6AG, VO6AL, YV5AY, ZC6UN, ZS6DW. (Rx: SX24.)

Miss P. A. Litson, 115 Little Walden Road, Saffron Walden, Essex.

'PHONE: CN8BA, 8BQ, 8BV, 8EI, EK1AD, 1DI, FA3FB, FT4AD, 4AS, M13SI, 3ZZ, PY1ACQ, 6AG, 7QG, VO1AF, 4Q, VQ2JC, 4CJG, W6ATF, 6PWR, 6QYQ, 7EIM, 7IQO, ZC6UN, 6XY, ZD1BD, 2E, ZL2BT, ZS6EU, 4X4AD. (Rx: R1155.)

K. Smeeton, 36 Runcorn Road, Barton, Northwich, Cheshire.

'PHONE: CN8AH, 8AM, 8BB, 8BQ, 8EI, 8EQ, 8MB, 8MZ, EK1AD, 1AS, 1DI, FA3FB, 3GZ, 3JY, 3KC, FF8AA, 8MM, FT4AP, MD1A, 1L, MT2E, PY7QJ, VO1AF, 2FL, VQ4RC, 2ZB, ZD1BD, 1SW, ZS1OK, 1VY, 2EV, 3D. (Rx: Hambander and 1155A unmodified.)

D. G. Martin, 65a Winchcomb Street, Cheltenham.

'PHONE: CN8BA, 8EQ, HI6EC, LU2FN, 7BO, MD1A, M13SI, OX3BD, 3MC, PY1ACQ, 4LZ, VK3HW, 3JD, 3VA, 4UL, 4VG, VO6AH, VP9G, ZC6XY, ZD1BD, ZL1HY, 2BT, 3FX, ZS4N, 6GV, 6HS. (Rx: S.640) 1 hr. 15 mins.)

A. M. Norden, 9 Leaside Crescent, London, N.W.11.

'PHONE: AR8CC, CN8BB, EA9AI, EK1AD, 1DI, FA3FB, 3GZ, 8CC, 8JO, 9IO, FT4AD, 4AH, 4AP, 4AV, KH5AQ, 6CT, MD1A, MT2FU, OQ5CL, OX3BD, VE7AAD, 7ZM, VO1AF, 2AF, 2AP, 2AQ, 6AN, 6EP, 6P, W6NIG, 7AKE, 7H1A, 7IQO, 7JFU, 7JMY, ZC6XY, ZD2G, ZS2BY, 3F, 6BY, 6CZ, 6DY. (Rx: Philips B.C.)

A. O. Frearson, 66 Wheelwright Road, Erdington, Birmingham, 24.

'PHONE: CN8BA, 8DQ, 8MI, FA3JY, OX3BD.

CW: CN8MI, MD2KP, OH2QE/MM, VK4KS, W2VYO/JA2. (Rx: S640.)

G. Braithwaite, 15 Ayr Street, Belfast.

'PHONE: AR8AB, EA9AI, EZ7CW, KH6AQ, M13CD, 3ZZ, VE7CN, 7HC, 8RD, VK3BA, 3HW, 3SW, 3AWN, VQ2JD, 8AE, V59AH, W6PWR, 7CFA, 7EKA, 7EYS, 7IOQ, 7JMY, ZDISW, 2G, ZS1AT, 2AQ, 2CB, 3D, 6AJ, 6CT, 6CZ, 6DY, 6FU.

CW: EL3A, FF8GP, M13NC, OQ5AV, 5QF, VK5LY, ZS1AT, 1CN, 1HL, 2AQ, 2CB, 3G, 6CT, 6GI. (Rx: V55R.)

M. G. Whitaker, Stile House, Shelf, nr. Halifax, Yorks.

'PHONE: ET3Y, FA3GZ, 3YB, FQ8SN, MD1A, M13CD, 3SC, 3SR, MT2FU, OX3BD, PY7QG, VE7HC, 8MI, VK2GR, VQ2JD, 2HC, W7JMY, ZB2A, 2E, ZC6XY, ZD1BD, 2G, 4AB, ZE2JG, ZL1AH, ZS1AJ, 5II, 6AJ, 6CZ, 6DW, 6EY, 6JS, 4X4AB, 4AD. (Rx: Battery 0-V-1.)

D. S. Kendall, 40 Aberdale Gardens, Potters Bar, Middlesex.

'PHONE: CO2DQ, 2LY, 7CX, 8MP, 8WM, CR7Z, EK1DI, FT4AD, 4AP, KH6AO, KL7WE, 7LL, VE7ZM, 8PO, VO4Q, 6AL, VP2KS, 9F, 9WW, VQ2HW, ZD1SW, ZS1BV, 3F, 3G, 4D, 6AJ, 6QJ. (Rx: Modified R1155A.)

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

'PHONE: CN8AM, 8BA, 8EI, CR7AF, EA9AI, EK1AD, 1DI, 1MD, FA3GZ, 8WH, 9KG, FF8GP, 8MM, FQ8SN, FT4AV, 4AP, MD1A, M13CD, 3SC, 3SI, 3ZZ, MT2FU, OQ5CL, 5DE, OX3BC, 3BD, 3GG, 3MC, PY7AT, 7QG, VE8RD, VK6AP, VO6AW, VP6YB, 9M, VQ2HC, 2JC, 4ASC, 4CJG, 4CUR, 4ERR, 4SC, 8AD, V59AH, ZD1BD, 1SW, 2G, ZE2KH, ZS1B, 1BF, 1CN, 1DY, 1EZ, 2AA, 2CO, 2DY, 3D, 3F, 3O, 4N, 5EX, 5II, 6AJ, 6BB, 6DW, 6DJ, 6FU, 6GV, 6HS, 6JS, 6LR, 6OJ, 6U. (Rx: AR88LF, 6 hrs. 1730-1930 GMT.)

M. E. Bazley, 2 Bagnell Road, Birmingham, 14.

CW: CN8BI, 8MI, 8MZ, CR6AF, 6AJ, 7AG, 7BB, 7BC, CT3AA, EK1IB, FA3WW, 8BG, 8JO, FE8AB, FO8AB, HK3CK, JA2AB, 2KG, KC6EA, KH6AR, 6BA, 6IJ, 6MI, KL7BB, 7CG, 7IB, 7LL, 7PB, 7UB, KP4AZ, 4FJ, 4KD, KV4AA, KX6AF, KZ5AX, 5CP, LU7AZ, MD1A, M13AB, 3DH, 3GH, OX3BG, 3MF, 3MG, PY1AGP, 1AHF, 1AHL, 1OR, 2TO, 2UQ, 7WS, PZ1Z, ST2ET, TA3AA, 7F3EA, 3SF, 3ZM, UA2KEC, 9CC, 9CL, 9HA, 9KA, OKFA, 0FA, 0VB, UD6AH, 6KBB, UF6AB, UG6AB, 6KAA, UH8KAA, UI8AE, 8KAA, 8KAB, UL7BS, VE6AL, 7AAB, 7AFN, 7HC, 7HO, 7ZM, 8AW, 8PS, 8RB, 8RN, VO1B, VP8AM, VQ2WG, 4CR, 4MX, 4RAW, 4SGC, 8AD, VR2BK VS2CC, 7BJ, 7NX, VU2BF, 2DF, 2NX, YK1AF, ZC6UN, 9PM, ZD1PW, 4AM, 9AA, ZE2JS, ZK2AA, ZS1BK, 1FK, 1JM, 1M, 1OK, 2CR, 2FH, 2G, 5BS, 5BW, 5BZ, 5FE, 5II, 5MK, 6A, 6BD, 6CT, 6GI, 6HL, 6JK, 6JN, 6JT, 6MK, 6MN, 6MR, 6SK, 6UB, 6UR, 4X4CZ. (Rx: AR88LF, 0530-0900 and 1700-1900.)

PSE QSL

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

- CO2LN Calle Primera No. 1, General Peraza, Habana, Cuba. 7 mc CW, 0100-0500 GMT.
- CR6AI Box 51, Lubango, Angola. 14060, 14110, 14200 and 14360 kc 'phone and CW, 1700 GMT.
- CT1NC Rua do Cardal a San Jose 6-3, Lisbon, Portugal. 7165 and 14320 kc 'phone, 2300 GMT.
- DL2CU 23 Paratroop Field Ambulance, Brunswick, B.A.O.R.11. 3-5, 7, 14 and 28 mc 'phone and CW, 0700-0100 GMT. Details of condx.
- G2ALB 82 Fernside Road, Poole, Dorset. Operating VFO-controlled 1-7, 3-5, 7 and 14 mc 'phone, at 0530, 1500, 1745 and 2130 GMT.
- G2AMV 26 Coombe Road, Irby, Heswall, Cheshire. 1-8 mc 'phone and CW, VFO. No local reports, please.
- G2AVK 99 Dale Street, Ossett, Yorks. VFO-controlled 7 mc CW, 1800-2200 GMT weekdays, 1000-1300 and 1600-2200 GMT Sundays.
- G2CMK Byways, Helgham Grove, Norwich, Norfolk. Operating 144 mc 'phone and CW, evenings.
- GM3ATN 4 Braid Road, Edinburgh, Scotland. QSL's all reports on 7 and 14 mc operation, VFO.
- G3AWQ 81 Rye Hill Park, London, S.E.15. QSL's all reports on CW operation on 1848, 3534, 7008, 7030 and 7070 kc.
- G3BNW 13 Heywood Road, Alderley Edge, Cheshire. QSL's genuine reports on 7028 and 14056 kc CW; also VFO-control in 3-5 and 7 mc bands.
- G3EBN 4 Crompton Avenue, Blackpool, Lancs. 7, 14, 28 mc CW; 1900-2100 GMT and weekends.
- G3ECK 71 Micheldever Road, Lee, London, S.E.12. Reports over 1,000 miles from sector 90°-180° from Lee, on 7 mc CW, evenings and weekends.
- G3EEI 19 Broom Water, Teddington, Middlesex. 7010 and 14020 kc CW, also VFO, at 1030 GMT.
- G3EFP 10 Cecil Park, Pinney, Middlesex. VFO-controlled 1-7, 3-5 and 7 mc CW.
- G3EGS 47 Lindsworth Road, Kings Norton, Birmingham, 30, 14068 kc CW, 1800-2200 GMT.
- G3EHK 19 Princess Street, Knutsford, Cheshire. 1-7, 3-5, 7 and 14 mc CW, operation, at 0600-0800, 1615-1800 and 2000-2359 GMT.
- G3ESP Holmcroft, Durkar, Wakefield, Yorks. Accurate, critical reports on 7007, 7025, 7050, 14014, 14050 and 14100 kc CW, weekends.
- G3ESY Devonia, Central Avenue, Hereford. QSL's all reports on 3575 kc CW operation; at 1900-2300 GMT, weekends 1400-2300 GMT.
- G14RU 541 Andersonstown Road, Belfast, N. Ireland. 7 and 14 mc 'phone and CW, 2000-2300 GMT.
- GM6RV/A Rusken, Seannill, W. Kilbride, Ayrshire, Scotland. Details of OSB of VFO-controlled 7, 14 and 28 mc 'phone, 1900-2200 GMT.
- HK3AS } c/o American Embassy, Bogota, Colombia.
HK3CU } Phone on approx. 14300 and 28400 kc, weekends.
- I1AKH Via Liberta 30, Baveno, Novara, Italy. Operating 7 mc 'phone, at 1130 and 1700 GMT.
- I1IRM Villa Isotta, Fino Mornasco, Como, Italy. Operating 7, 14 and 28 mc 'phone; 2000-2200 GMT, Sundays 0900-1400 GMT.
- LA1MB Hladratt 18, Flekkefjord, Norway. 3-5, 7 and 14 mc 'phone and CW, afternoon onwards.
- OK1XY 8 Doudova, Praha XV, Czechoslovakia. Operating 3509, 3525 and 7018 kc CW at 0400-0530 GMT. Give details of condx; also RST of OK1XU's contacts, if heard.
- OZ4AH Torvegade 3, Aaklrøbe, Denmark. Operating 3510 and 3525 kc CW, 1800-2300 GMT.
- OZ7HP Skotlandsgade 10, Copenhagen, S, Denmark. Operating 14 mc 'phone, 2100 GMT onwards.
- PA0CFM Kat. Lagedijk 320c, Rotterdam Z, Netherlands. Operating 3-5 mc 'phone and CW daily at 2230 GMT. Details of modulation.
- PY1BG Box 5327, Rio de Janeiro, Brazil. VFO-controlled 7, 14 and 28 mc 'phone and CW, operating 0900-1200 and 1900-2359 GMT.
- PY1KZ P.O. Box 125, Rio de Janeiro, Brazil. 14395 and 28750 kc 'phone, 2000-2200 GMT.
- PY2JJ Pe. Jose Nunes Dias, Monte Aprazivel, Sao Paulo, Brazil. Operating 7158, 14354 and 28306 kc 'phone, at 1200-1800 GMT.
- PY7DO Castorino Rodrigues, Praia da Conceicao, s/n Paulista, Pernambuco, Brazil. Operating VFO-controlled 14 mc 'phone.
- SM4ASI Korsnaesvaegen 18, Falun, Sweden. QSL's all reports on 3-5 and 7 mc CW, operating 0600-0800 GMT Tuesdays and Fridays.
- SM5NT Osthannarskatan 78.4.tr, Stockholm, Sweden. 3-5, 7, 14 and 28 mc 'phone and CW.
- SM5OL Solgatan 21.B, Spanga, Sweden. 7 and 14 mc 'phone and CW, 0630-0730 and 1630-1800 GMT.
- VE1NU 701 Albert Street, Fredericton, New Brunswick, Canada. 14175, 14202 and 14254 kc 'phone, 1300-1445 and 1700-1900 GMT.
- VE1US P.O. Box 403, Liverpool, Nova Scotia, Canada. Operating 3-5, 7, 14 and 28 mc 'phone and CW. Report modulation and quality.
- VE3BBN 54 5th Street, New Toronto, Ontario, Canada. Operating 28485 kc, also 5 watts on 28495 kc, at weekends. QSL's all reports.
- VK3OZ 5 Howitt Street, Glen Iris, S.E.6, Victoria, Australia. 3-5, 7, 14 and 28 mc 'phone and CW.
- VS2QP.O. Box 150, Kuala Lumpur, Malaya. Operating 14060 kc CW, at 1100-1800 GMT.
- W1B0R Box 267, Rangeley, Maine, U.S.A. Quality of CW operation, 7000-7100 kc, 2200-0400 GMT.
- W2AJI 66-164 Avenue, Howard Beach, L.I., N.Y., U.S.A. 14 and 28 mc 'phone and CW, weekends.
- W2CKN F. Dean, Mountainside Avenue, Brookside, N. Jersey, U.S.A. Operating CW on approx. 14050 kc, 'phone on approx. 14225 kc; 2300-0300 GMT.
- W2HYV 108 N. 17 Street, East Orange, New Jersey, U.S.A. Comparative reports with stations using beam antennae, on VFO-controlled 7 mc CW and 14 mc 'phone and CW, 1300-2200 GMT.
- W2IKZ 136-05 Sanford Avenue, Flushing, New York, U.S.A. FM of 28800 kc 'phone, 1400-2200 GMT.
- W2ODO 740 E.243rd Street, Bronx 66, New York City, U.S.A. 14210-14290 kc VFO 'phone; 0415-0600 GMT, Saturdays 0415-0800 and 1300-2200 GMT.
- W2QB 531 Shirley Avenue, Buffalo 15, New York, U.S.A. 14090 and 14146 kc CW; 2000-2300 GMT Wednesdays, 2000-0230 GMT Sundays.
- W2VUM 213 Seaspray Road, Ocean City, New Jersey, U.S.A. 7 mc CW, 28 mc 'phone; 0500-0700 GMT.
- W3AQN 715 South Pine Street, York, Pa., U.S.A. 28560, 28770 and 28900 kc 'phone, weekends.
- W3EVT-1 Clement Moltz, Perkins 65, Harvard University, Cambridge 38, Mass., U.S.A. 7, 14 and 28 mc 'phone and CW, 1100-1700 GMT.
- W3JMO Box 108, Ocean View, Delaware, U.S.A. Comparative reports and modulation of VFO-controlled 14 mc 'phone, 2200-0300 GMT.
- W3OP E. J. Knoll, RFD.1, Slattington, Pennsylvania, U.S.A. Comparative reports on 7 and 14 mc CW, operating 1100-1300 and 2000-2200 GMT.
- W5MND 1432 Osage Avenue, Bartlesville, Oklahoma, U.S.A. 14128 kc 'phone, VFO, 0001-0600 GMT.
- W7MGA 1248 Yale Avenue, Salt Lake City, Utah, U.S.A. 28710 kc VFO 'phone 1500-0100 GMT.
- W8DAW 5813 Balfour Road, Detroit, Michigan, U.S.A. Operating 'phone and CW, all bands.



SWL STATIONS

No. 19

THE owner of this station is another SWL well known to all our readers—R. A. Hawley, Torview, Brookfield Crescent, Goostrey, Cheshire. He regularly figures in the DX Scribe's pages and is one of our most experienced SWL's.

The receivers are Eddystone 504 and 640, to which is hoped shortly to add a preselector and a VHF converter. The present aerial system consists of a 40-ft. inverted-L in the roof space, which is giving very satisfactory results on all bands.

Having been a short wave listener since 1935, R. A. H. has a fine collection of

QSL's, in the gathering of which he has always taken particular interest; as at mid-January his album contained cards from 93 countries in 36 zones.

Activity at this station is mainly upon 1.7, 14 and 28 mc, both CW and Phone. Though R. A. H. reads the code, he remarks that he must be one of the very few SWL's who have no present intention of obtaining a transmitting licence—he is content to specialise on the receiving side. And there is much to be said for such an approach to Amateur Radio, which needs its listener exponents just as much as the experts on the transmitting side.

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LOOSE 83579

The VHF End

Increasing Activity—Individual Reports—Two-Metre Calls Heard

by A. A. MAWSE

THE most pleasing feature of the past month has been the increasing number of signals to be heard on the two-metre band. Conditions may have been slightly above average, but certainly not as good as those prevailing last November during the Contest period and the fortnight following; we are confident that those of you who have been pulling in local signals during the past few weeks will be hearing things from much greater distances when the fine and warmer weather comes along.

At present there seems to be a number of concentrations of 145 mc activity. Naturally, London is one of these, and there is little doubt that the listener who builds a two-metre receiver in the London area has a much easier task in getting it going and in finding the band. But from all accounts there are some provincial districts where there is quite a lot to be heard. One of these is the area on the South Coast centred on Portsmouth. In addition to our colleague G2XC, nightly habitués of the band include G2NM (Bosham), G3DEP (Ryde), G3LV (Southsea), G4QL and G6DT (both at Horndean). In addition, G3EJL (Southampton), G4RD (Bosham), G5MR (Bognor Regis), and G5PB (New Milton) make frequent appearances.

Other provincial centres of activity, where stations are on regularly, include Bristol (G3EHY, G3YH and G6JG); Cheltenham (G5BM and G6ZQ); Oswestry (G2ADZ and G4LU); Northampton (G2HCG); and Sheffield (G2IQ and G2MA). There is also notable activity in the Thames Valley area generally. Most of these stations are still operating in the HF half of the band, only occasional signals being heard in the 144-145 mc range, which was released on January 1.

Higher Still

Activity on the 420-460 mc (70 cm.) band is also on the increase. Once again it is the London area where there is the best chance of hearing something. G2FKZ, G2WS, G3AHB, G3CU and G5PY are among those regularly opera-

ting on 70 cm. It is certain that reports from listeners would be valued, so we suggest to readers in or near South London that they consider the possibility of equipping themselves for reception on this band. Even at this frequency we feel that the super-regen receiver is a thing to be discouraged, as it can cause severe interference on other receivers; although there *may* be no other 420 mc Rx within miles of you, you can never be sure. A superhet with wide-band IF is the best bet, we imagine. All the 420-mc transmissions mentioned above are being made with vertical aerials, so receiving aerials should be similarly polarised. This polarity is the reverse of that in vogue on two metres, where almost everyone uses horizontal aerials.

Finding Two Metres

Several readers took advantage of the 145 mc absorption wavemeter calibration offer which we made some months ago and although these meters were calibrated accurately and with much care (and packed securely), transit during the Christmas rush appears to have shifted the calibration a megacycle or two in some cases. This has unfortunately been the cause of some of you listening outside the band and consequently failing to hear any signals. Since the frequency shift will not have been very great it is probable that you are within *plus* or *minus* a few megacycles of 145 mc; all that is needed, therefore, is a marker finally to locate the exact position of the band on your Rx. One simple way of doing this, which has already been tried successfully by one reader, is to build an oscillator which will put a harmonic into the band. A suitable frequency for the oscillator is 29 mc, when the fifth harmonic (5×29) will be on 145 mc exactly. The oscillator should not be at all high-power (or the GPO may mistake it for a Tx!) and need not be anything elaborate. Just a simple Hartley or Colpitts will do nicely. Tune it to 29 mc exactly with the aid of your normal ten-metre receiver and then search for the 145 mc harmonic on the two-metre receiver. Alternative frequencies for the oscillator are 24 mc (6th harmonic on 144 mc), 21 mc (7th harmonic on 147 mc), and 18 mc (8th harmonic on 144 mc). Several of these may be used to obtain check points and so ensure that the correct harmonic has been tuned in. Do not forget that your main Rx, if you are using a converter, can also produce harmonics from its own oscillator, so check the source of any signal you tune in.

Individual Reports

First, congratulations to M. Taylor (Tooting) and L. A. Whitmill (Harrow Weald) for their first lists of two-metre calls heard. M.T. located the band towards the end of January and heard signals using the G2XC Converter. He is trying a 9003 in the RF stage instead of the specified 6AK5, and cannot make the stage peak up. He suspects it may be the 9003 that is at fault. But having correctly located the frequency he has now modified a Type 27 RF unit and has obtained some good results. The RF and mixer stages are broad-band, only the oscillator being tuned; no slugs are used in the RF and mixer coils. A 4-ele. beam is ready to go up, but as M.T. may be shifting QTH soon he is awaiting events. Meanwhile, his 14 mc Windom is in use. The 5-metre beam, tried on 2 metres, was little better than no aerial at all! M.T. kindly offers to provide details of the RF27 conversion to any reader who is interested. (We suggest a stamped addressed envelope be sent with all such enquiries.) It is interesting to note that L.A.W. also is using a RF27 unit. He tells us he has now modified these units for 2, 5, 10 and 20 metres, and they work well on all bands.

Not so lucky is M. Harvey (Sittingbourne) who has a BC639A tuning from 99 to 168 mc but has so far failed to receive any amateur signals, although aircraft have been heard. He has tried several sky-wires including a vertical coaxial aerial, a 300-ohm ribbon folded dipole and a 4-ele. beam. He has checked his frequencies and it would appear that either he has an exceptionally poor location or that the receiver is not as efficient as it might be. It must always be remembered that Service requirements and amateur requirements are rather different and much ex-Service equipment which satisfied its original purpose admirably fails to work well on weak DX amateur signals.

J. E. James (Cinderford) would like to contact a fellow VHF enthusiast in his neighbourhood. He is using an RF26 in

conjunction with an R1155. J. A. Newton (Bristol), another RF27 owner, reports for the first time.

J. B. Buckell (Hayes) has been listening in the 100 to 127 mc range with an R1132A, and finds so much of interest there that he does not want to convert it to 144 mc! His DX is an aircraft over Cherbourg.

L. C. Blanchard (Coulson, Surrey) who was one of the SWL representatives at the *Magazine* VHF dinner on January 29, reports that at last he is in action on 144 mc with a converter which has found his local, G2MV. This Rx uses EC91-6J6 into an HRO at an IF of 24-26 mc, working with an indoor 4-ele. beam, with 0.15 wavelength spacing between elements. Now that he is there, L.C.B. hopes to let us have reports of something better for next month.

Another to return to the fold is R. Rew (Birmingham), who has had his attention deflected from VHF work by the lure of a hotted-up AR88 on the other bands! However, some recent listening on 144 mc has produced a useful Calls Heard list; R.R. is using a 7-element beam for two-metre working, connected through 70-ohm coax, with which the GGT input stage on the Rx can be peaked with a 15 $\mu\mu\text{F}$ condenser. He finds this beam so sharp for directivity that when searching it has to be "inched round" while going up and down the band on the receiver; as R.R. says, the set-up now calls for a continuously rotating search on the aerial side and a panoramic receiver sweeping 144-146 mc! Work in hand includes a 420-mc beam to be mounted above the 144-mc array, and the necessary modifications to an ASB8 for 70 cm. reception—so we are expecting great things from Birmingham!

VHF Listeners' Club

Last month's notes on the VHF Listeners' Club have brought in a number of applications for membership from readers who apparently possess no VHF receiving equipment! Although these

VHF CALLS HEARD TWO METRES

M. Taylor, 159 Coteford Street, Tooting, London, S.W.17.

*PHONE and CW: G2AJ, 2CIW, 2DPD, 2FVD, 2MR, 2NH, 4CG, 4DC, 4IG, 4ZU, 5DT, 5KH, 5MA, 5MI, 5TP, 6CB, 6NB, 6UH, 6VA, 6VK, 8KZ, 8SM. (Rx: RFU27 Aerial, "Long Wire". Period January 23-30.)

R. Rew, 14 Shrublands Avenue, Quinton, Birmingham, 32.

*PHONE and CW: G2ADZ, 2AOK/A, 3BMY, 3DJQ, 4LU, 5BM, 5JU, 5LJ, 5MA, 5MI, 6NB, 6VA, 8QX, 8QY. (Rx: CV66 6AK5-6C4 Converter into comm. Rx at 7.5 mc. January 1-February 3.)

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

*PHONE: G2AJ, 2DPD, 2JU, 2MC, 2MR, 2MV, 2WJ, 3ADT, 4IG, 4ZU, 5AA, 5DP, 5KH, 5MA, 5MI, 5OQ, 5RD, 5TP, 6AT, 6DU, 6NF, 6VA, 6VK, 6YP, 8GX, 8KZ. (Rx: RF27 Unit into Marconi 5-valve, $\frac{1}{2}$ -wave dipole.)

applications were accompanied by the necessary statement of interest in VHF, we feel that it is not too much to ask for proof of that interest by requiring all members of the VHF Listeners' Club to be equipped to operate on VHF; or to put it in other words, to possess a VHF receiver! Hence, we have felt justified in postponing the issue of membership certificates to these applicants until such time as they can assure us they have the necessary apparatus. Future applications for membership should include a description of the applicant's VHF equipment and activities. We might add here that there are several members of the Club from whom we have had no report since the day they joined!

In Conclusion

There are plenty of signs that VHF activity is once more on the upgrade and we hope to have many more "Calls Heard" lists next month. Let us have your Counties Heard claims for two metres as well as five, but keep them separate. And who is going to be first to show a 70-cm. Calls Heard list?

Send reports for the next issue to A. A. Mawse, *Short Wave Listener*, 49 Victoria Street, London, S.W.1, by March 4 latest. We shall be with you again on March 17.

LICENCE FIGURES

The latest GPO return shows that there were over eleven million BCL licences in force at the end of December last, of which some 92,000 were for television—itsself an increase of more than 10,000 over the November figure.

During December, 658 prosecutions were instituted against persons operating sets without having gone through the formality of obtaining the necessary permit—a number of these were against motorists with car-radio fitted, which must be separately licensed.

"THE PRINCIPLES OF SHORT WAVE RECEPTION"

We still have a few copies left of our well-known *Principles of Short Wave Reception*, of which many thousands have been sold since it first appeared. The *Principles* serve as a very useful practical introduction to the design and construction of various types of short wave receiver, and much information is given of practical value to every SWL. Of 32 pages with colour cover, this booklet costs but 1s. 8d., post free, of the Circulation Manager, *Short Wave Magazine*, Ltd., 49 Victoria Street, London, S.W.1.

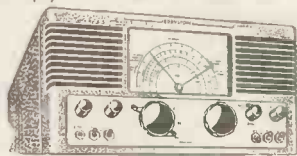
ROYAL OBSERVATORY—GMT

How many readers know of the standard frequency transmissions now being radiated by the Royal Observatory, Greenwich? The full schedule is: Week-days only, 1000-1015, carrier frequency 2 mc nominal: 1015-1025, carrier modulated by nominal 1 kc tone: 1027, voice announcement giving estimated corrections to these RF and audio frequencies.

Times are GMT—curiously enough, so is the call-sign—and reception is very good over a wide area.

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R.A.F. Test Set Type 46. New Battery-operated Frequency Meter, 2 to 23.5 Mcs. Made by Marconi Instruments. Can be made all-wave by inclusion of MW and LW coils. 40/- each.

Type 2 Valve Tester. Contains 5", 0 to 100 Micro-Ammeter—a genuine bargain, £3/15/-, about half the price of the meter. Made by Turner Instruments.

Type 3002 UHF Units containing 10 valves—Resistors, Condensers, etc. Price 20/-.

Type BC453 A or B. If you own one of these excellent receivers, we can offer you a medium-waveband coil pack which is easily mounted, complete with circuit diagrams, for 17/6. You will be delighted with the results.

2-Metre Oscillator-Receiver or Signal Generator, using an EC53. Requires only LT 6-3 and HT 120v supply to work immediately, no conversion. Complete with circuit. 16/6 each.

Monthly Comment by R. H. GREENLAND, B.Sc.

DX broadcast

We have to thank all our correspondents for the largest mail-bag ever; may we remind everyone that the real success of this feature depends almost entirely on your efforts, so please remember to keep up the good work!

AUSTRALASIA

Radio New Zealand still advertises its daily broadcast as from 0700 to 0900, and W. Czartoryski (Montana, Switzerland) has successfully logged one of the additional transmissions heard here in the evenings. At 1800, he heard ZL3, 11780 kc, with News from London, followed at 1815 by Breakfast Music and intermittent time announcements. Another BBC News came at 1900, followed by a report from the Weather Office, Wellington at 1915, after which Radio New Zealand's music gradually faded away. R. Iball (Langold Notts.) logged ZL3 (S6) with the New Zealand News at 0830, and heard the broadcast end half-an-hour later with a choir singing: "Now Is The Hour." Cleve Costello (Wellington, N.Z.), mentioning the relaying of the National programme by ZL3 and ZL4 from 2000 to 0400, says these broadcasts are experimental and not on the air regularly. He explains that the opening signal for all broadcasts is a recording of the tui and *not* the kiwi.

J. Coulman (Leith, Edinburgh) has heard VLG3, 11710 kc, with the News in the Radio Australia Pacific service at 0901, and VLA6,

WORLD WIDE RECEPTION OF SHORT WAVE PROGRAMMES

15200 kc, at 0945 came in with a terrific signal for a talk on mica. W. Czartoryski tells us that Radio Australia gives a daily broadcast in German for Displaced Persons and other prospective immigrants. It is on the air 1700-1815 over VLA8, 11760 kc; VLB2, 9650 kc; and VLC9, 17840 kc. We would remind readers that as from February 1, Radio Australia's winter schedule came into operation, so that different frequencies are to be expected and possibly some revised timings. R. V. Aldridge (Amersham, Bucks.) logged VLR2, Lyndhurst, 6150 kc, at 1950 with the ABC National programme; quite an unusual hour for this channel!

ASIA

Radio Indonesia has come into the picture this month and there are schedules from G. T. Milton (Southampton), J. C. Catch (South Shields) and C. Costello (Wellington, N.Z.) The first-named includes the letter sent to him by Charles Stuart from Batavia; it reads: "We beg to acknowledge receipt of your report and apologise for the delay in answering. Owing to the shortage of staff, it has been impossible to answer the numerous reports and letters in detail... As from November 1, 1948, all listeners' reports and letters will be promptly replied to, and we cordially

invite you to send us your detailed reports."

The address is: Radio Indonesia, Hoofdkantoor, Batavia-Centrum, Koningsplein Zuid 17. Details of the broadcasts are given elsewhere.

Incidentally, R. G. York (West Croydon) logged PLF2, 19350 kc, on January 1, with an S9 signal from 1430 to 1500, and Dr. T. B. Williamson (Harpندن) heard YFA9, Radio Makassar, Celebes, 9552 kc to 1330 with dance music and Dutch announcements; he says that OLR3A, Prague, often obliterates YFA9 after 1400. C. J. Fern (Lihue, Hawaii) says the call-sign of this one is YFA4, but the official list gives YDO.

At Menado, also in the island of Celebes, there is a new transmitter on 9720 kc (officially 9800 kc), broadcasting 1000-1200 daily. On 9028 kc and 11915 kc, too, you may hear yet another Indonesian which is on the air 0900-1530. At 1500 on January 9, the writer listened to a clock striking—this on the 9028 kc channel—followed by: "Ici Batavia, programme Indonesienne." This French broadcast continued until 1600, when the transmission

All times given in this article are GMT except where stated

faded out with a native air closing signal.

Great activity prevails in the Philippine Islands; all the call-signs have been changed, and this has just been confirmed by C. Costello in a stop-press letter; he says the Philippine authorities have adopted the DUA-DZZ series, and amateur prefixes are also changed.

On January 16, at 1600, the writer heard "The Voice of the Philippines," Manila, with the direction: "DZRH, 650 kc (medium-wave) and DZH2 (Dee-Zee-Aitch-Two), 9640kc:—this was formerly KZRH. Other changes are: (1) KZFM, The People's Station, becomes DZFM, 710 kc; DUH2, 6170 kc; DUH4, 9615 kc; and DUH5, 11840 kc: (2) KZMB, The Voice of Manila, becomes DZMB, 760 kc; and DZH4, 6000 kc: (3) KZPI, Radio Philippines, becomes DZPI, 800 kc; and DZH3, 9500 kc: (4) KZOK, The Station of the Skies, becomes DZAB (medium-wave) and DZH5, 9690 kc. These stations are all in Manila; in Cebu City, KZCR, The Voice of Cebu, becomes DYRC, 600 kc; and DYH2, 6140 kc: and KZBU, The Philippine Broadcasting Corporation, becomes DYBU, 1250 kc; and DYH3, 6100 kc. On January 4, R. Iball heard Manila on 11890 kc at 1130 with the direction: "This is Manila relaying the Voice of America on 326 metres and 11.89 mc in the 25-metre band." C. Costello says there is no allocated call-sign, the power is 50 kW and is fed into rhombics beamed on the target areas; reports should be sent to: International Broadcasting Division, c/o U.S. Embassy, Manila.

Turning to the Far East, R. G. York reports ZGOY at 1550 on 6146 kc with a much clearer signal than that formerly put out on 11913 kc.

The writer logged another Chinese station on 5970 kc

from 1430 to 1530 on January 22; it closed at 1530 with five ascending vibraphone notes. Dr. Williamson has not heard the Nationalist higher frequency transmitters since December 4, but on 11718 kc, from 2330 to 2355, he listened to English talks on the Allied Council for Japan, and the Japanese Police Force. He thinks this may be JLW3, Tokio. He also logged ZBW3 with a very consistent signal between 1430 and 1515, and signing at the latter time with the direction: "You have been listening to Radio Hong Kong. We are now closing down until tomorrow, Good-night." T.B.W. heard Radio Malaya, Singapore, 4825 kc, at good strength at 1530 with the call: "This is the Blue Network of Radio Malaya," and he logged the same programme simultaneously on 4785 kc.

C. J. Fern has logged Vladivostok on 9479 kc and gives its schedule: 2030-2315. Referring to the Indian sub-continent, he thinks VUV2, Hyderabad, on 3335 kc and 6170 kc, has closed down; Swedish Radio gives Hyderabad on 6110 kc, 1615-1645. C.J.F. heard Karachi, Pakistan, on 6075 kc with News at 1515 and closing down at 1730.

Another he logged was: "Azad Kashmir Radio" on 6229 kc with News in English at 1510 and closing around 1625. He asks if Kashmir can be counted as a new country. We (personally) do not think so.

Also in India, the Portuguese colony of Goa gives a daily broadcast 1400-1500, using 9610 kc and a power of 500 watts: C. Costello says Nova Goa is on the air on a frequency of 7225 kc. VUC2, 4840 kc, was very clearly heard here up to 1630 on January 22, with a dance-music session. At this time came the direction: "This is All India Radio, Calcutta." Thirty minutes later came

studio clock chimes and a lady announcer gave the closing direction in Hindustani.

Dr. Williamson has heard Rangoon several times around 1430-1500, identifying it at 1500 by the direction: "This is the Burma Broadcasting Service radiating from Rangoon," which is followed by the English News. He, like the writer, has experienced intermittent QRM from military phone stations at this time on this frequency, 6035 kc; these appear to emanate from a University town, possibly Cambridge. Can anyone else identify this interloper?

Coming west, the Arabic network, broadcasting from Damascus, Syria on 6000 kc, 7500 kc and 12000 kc, is now supposed to have an English session from 1230 to 1330. C. Costello mentions a station causing a few headaches in New Zealand. This one on approximately 6750 kc has been heard 0530-0700 and again after 1830. As we write these notes, a powerful signal can be heard on 6740 kc, with selections from Schubert. Announcements (which are in Arabic) are difficult to follow, but we believe it to be ZNR, Aden, officially on 6765 kc.

G. T. Milton sends us Radio Ankara's programme schedule, but judging by the announcements given in the English Mail-Bag broadcast at 2130 on January 16, some alterations appear to have been made more recently.

The English transmissions to the British Isles are now all given over TAP, 9465 kc, as follows: Daily: News, 1745-1800; Mondays and Thursdays: Talks, 2130-2145; Sundays: Mail Bag and Music, 2130-2200. R. Patrick (Finsbury Park, W.4) also supplies notes on TAP, and R. G. York tells us that despite side-band interference he logged the Cyprus Test transmission on 7220 kc at 2355 on January 8.

TABULATED SCHEDULES

I. RADIO INDONESIA

Hoofdkantoor, Batavia-Centrum, Koningsplein Zuid 17.

Station	Location	Frequency kc	Day	Times
YCN3	Pontianak	8090	Daily	1130-1330
YDA	Bandoeng	3040	Weekdays	0430-0645 : 0930-1500 : 2230-0000
			Sundays	2300-0645 : 0930-1500
YDA2	Bandoeng	6170	Weekdays	2300-0030 : 0400-0500 : 0930-1430
			Sundays	2300-0545 : 0930-1430
YDA3	Bandoeng	4945	Weekdays	2300-0030 : 0400-0500 : 0930-1430
			Sundays	2300-0545 : 0930-1430
YDB	Batavia	2240	Weekdays	2200-0000 : 0400-0630 : 0830-1500
			Sundays	2300-0630 : 0830-1500
YDB2	Batavia	4910	Weekdays	2200-0000 : 0400-0630 : 0830-1500
			Sundays	2300-0630 : 0830-1500
YDB3	Batavia	7270	Weekdays	2200-0000 : 0400-1600
			Sundays	2300-1600
YDC	Batavia	15150	Weekdays	2200-0000 : 0400-1700
			Sundays	2300-1700
YDD	Batavia	2600	Weekdays	2200-0000 : 0400-0645 : 0900-1500
			Sundays	2300-0645 : 0900-1500
YDD2	Batavia	4865	Weekdays	2200-0000 : 0400-0645 : 0900-1500
			Sundays	2300-0645 : 0900-1500
YDE	Batavia	11770	Weekdays	2200-0000 : 0400-0800 : 0830-1600
			Sundays	2300-0800 : 0830-1600
YDH	Semarang	2510	Daily	0200-0500 : 0900-1500
YDH2	Semarang	11030	Daily	0200-0500 : 0900-1500
YDI	Soerabaja	3240	Weekdays	2230-0000 : 0400-0645 : 0900-1500
			Sundays	2300-0645 : 0900-1500
YDI2	Soerabaja	4370	Weekdays	2230-0000 : 0400-0600 : 0900-1430
			Sundays	2330-0600 : 0900-1430
YDI3	Soerabaja	7295	Weekdays	2230-0000 : 0400-0600 : 0900-1430
			Sundays	2330-0600 : 0900-1430
YDI4	Soerabaja	4840	Weekdays	2230-0000 : 0400-0645 : 0900-1500
			Sundays	2300-0645 : 0900-1500 : 1630-1700
YDK	Palembang	4855	Weekdays	0930-1400
			Sundays	0930-1400
YDL	Padang	3270	Weekdays	0400-0600 : 0800-1400
			Sundays	0400-0600 : 0800-1400 : 2345-0230
YDO	Makassar	9550	Weekdays	2200-0000 : 0300-0630 : 0900-1500
			Sundays	2300-0630 : 0900-1500
YDP2	Medan	7210	Weekdays	2230-0000 : 0330-0600 : 0830-1430
			Sundays	2330-0230 : 0330-0600 : 0830-1430
YDR	Ambon	3380	Daily	1100-1300
YFA	Makassar	5030	Weekdays	2200-0000 : 0300-0630 : 0900-1500
			Sundays	2300-0630 : 0900-1500
PLB4	Batavia	10365	Weekdays	2200-2345 : 0800-1500
			Sundays	2300-0645 : 0800-1500
PLD6	Batavia	17630	Daily	1600-1800
PLF2	Batavia	19345	Daily	1200-1300 : 1600-1800 (Sat. Only)
—	Garoet	2810	Daily	0930-1400 : 0130-0400 (Sun. Only)
—	Menado	9800	Weekdays	1000-1200
			Sundays	1000-1400
—	Makassar	11084	Daily	1000-1200

AFRICA

Dr. Williamson has excelled with Africans of late. In Angola he has found CR6RH, Sa de Bandeira, 9225 kc, closing down at 1900; CR6RF Benguela, 8090 kc, appearing to relay "Radio Club do Angola, Luanda" programmes 1830-1930; CR6RB, Benguela, 9165 kc, giving classical music at 1845 and closing at 1855 with call: "Radio Club do Benguela—Emissora CR6RB—Muy bono noite," and the anthem: "A Portuguesa." One Sunday he heard "Radio Club do Bie" at Silva Porto on 7580 kc at 1940, and he finds CR6RG, Dondo, 8242 kc, quite consistent around 1900, when the slogan "Radio Diamantes" is given. He writes: "CR6RG is intended solely for the entertainment of the workers at the diamond mines there." T.B.W. sometimes hears a station on 5903 kc, usually when Cape Town on 5885 kc is prominent. The former broadcasts dance records around 1735 and goes off at 1930; this is almost certainly ZNB, Mafeking, Bechuana-land, which we used to log and from whom we received a verification before the war. His other notable catch is ZQP, Lusaka, Northern Rhodesia, 9715 kc, logged 1655-1700 with weather forecast and "God Save The King." It can be logged here only if Moscow on 9710 kc closes down early!

We logged CR7BU, Lourenco Marques, 4932 kc, at 1945 on January 7, with Gilbert and Sullivan excerpts coupled with a "liquid paraffin" advertisement! A time-signal was given at 2000. C. J. Fern logged CR7AB, 3493 kc, recently at S8. C.J.F., quoting VQG1 as the current call of the Cable and Wireless broadcasting station in Nairobi, says this one seems to be wandering around the 62-metre band. He measured it on 4851 kc, though it is listed officially on 4855 kc.

N.B.—YDA2/3 and YDB/YDB2 close 1 hr. later Saturday. YDI, ½ hr. later. English broadcasts over YDB3 and YDC: 1100-1200 Daily.

R. V. Aldridge has received a card from Bissau, Portuguese Guinea, giving their new frequency as 6998 kc. Dr. Williamson has received a similar reply; however, R.V.A. has not yet been able to locate CQM4 on this new channel. J. C. Catch has received a letter verification from SUX, Cairo, but it contains no schedules. The address is: Marconi Radio Telegraph Company of Egypt S.A.E., Post Office Box 795, Cairo, Egypt. Another of his verifications comes from Ponta Delgada, Azores and which contains the schedule: 11080 kc, 2000-2100; 4845 kc, 220-2400. J.C.C. logged Tangier with its latest slogan: "Radio Africa" on several occasions on a frequency of 14280 kc (S7); and the writer heard Radio Omdurman, 13320 kc at 1750 on January 7, with recordings made at the recent Sudan Agricultural Show (S7).

☉SOUTH AMERICA

Colombia and Venezuela have been revisited by Dr. T. B. Williamson. He reports hearing the following: HJKD, 9520 kc, at 2245 with the call: "Emissora Nueva Mundo"; HJGB, Radio Santander, Bucaramanga, 4778 kc; HJAB, La Voz de Barranquilla, 4786 kc; and HJBB, La Voz de Cucuta, 4815 kc, all heard 2315-2345. In Venezuela he logged: YV5RJ, Radio Contiente, Caracas, 4725 kc; YV4RO, 4782 kc, heard at 0030 with call, preceded by chimes: "En la ciudad de Valencia, YV4RO, La Voz de Carabobo"; YV6RU, Ecos del Orinoco, Bolivar, 4790 kc; YV1RX, Ondas del Lago, Maracaibo, 4800 kc; YV1RL, Radio Popular, Maracaibo, 4810 kc; YV9RA, 4820 kc, heard at 0015 with three high-pitch chimes and call: "Transmite La Voz de Apure"; YV5RU, Ondas Populares, Caracas,

4880 kc; YV5RN, Radio Caracas, 4918 kc; YV3RN, Radio Barquisimeto, 4940 kc; YV5RM, Radiodifusora Venezuela, Caracas, 4890 kc; YV5RD, Radio Cultura, Caracas, 5060 kc; YV1RY, 4970 kc, with slogan: "Esta es Radio Coro"; and YV2RN, La Voz de Tachira, San Cristobal, 4828 kc.

J. C. Catch logged nine Venezuelans between 3310 kc and 3515 kc including: (1) YV8RB, Radio Monagas, Maturin, 3480 kc, closing at 0300 with a Spanish marching song: (2) YV6RH, Emissoras Unidias, Barcelona, 3450 kc, with call, frequency announcement and a closing march at 131; (3) YV5RX, La Voz de la Patria, Caracas, 3500 kc, the only Venezuelan heard on this band after 0300. As a postscript, it has just been reported by YV5RJ, 4725 kc, that as from January 15, they have, by order of the Minister of Communications, been allocated to 5030 kc with the new call-letters YVKM.

E. Good (Worksop) sends us his rare verification card for Station OAX6B, Radio Landa, Arequipa, Peru. The Director, M. Landa, states that OAX6B, on a frequency of 6038 kc, at present uses only 300 watts power, but that as they are increasing this shortly, they hope to obtain greater world coverage in consequence. The reverse of the card presents a fine photograph of the city of Arequipa backed by the 18,000 ft. snow-capped El Misti mountain. C. J. Fern reports OAX6D, 9500 kc, being replaced by OAX6E, Radio Continental, Arequipa, 6333 kc, with the daily schedule 2300-0500. In the Republic of Bolivia, CP38, Radio Nacional, La Paz, has moved to 6110 kc, with the call CP2, from 2000 to 0600. C.J.F. also gives HCBJ; Quito, with a move from 5970 kc to 5993 kc. Signals from Argentina have been noted by J. C. Catch as follows: LRY1,

9455 kc, at 2245; LRS, 9315 kc, at 2315; and LRA1, 9690 kc, at 2300 with call: "Elly-Erray-Ah y Elly-Erray-Ah-OOno, Radio del Estado, Buenos Aires."

Brazil stations have provided strong signals. J. C. Catch sends a verification leaflet from ZYK3, Recife (Pernambuco), which is operated by Radio Jornal do Commercio. It claims to be the only station in South and Central America using eight frequency channels, of which the following are short-wave: ZYK2—15145 kc and 6085 kc and ZYK3—9565 kc and 11825 kc; in addition, there are FM stations on 80 mc and 85 mc. PRL6 on 780 kc is the medium-wave transmitter.

NORTH AMERICA

R. Iball and R. Patrick have both received verifications from CHNX, Halifax, Nova Scotia for their 6130 kc logs. The station was only put on the air again in October, 1948, the equipment having been required for other purposes during the war period. A special Mailbag programme is given every Saturday at 2330, when all reception reports are acknowledged. CHNX uses 500 watts, and they also manipulate CHNS, 960 kc (5,000 watts) and a mobile unit, VD20, 2080 kc (100 watts). Transmission times are: Weekdays, 1100-0415; Sundays, 1300-0415, and the address: CHNX, Maritime Broadcasting Co., P.O. Box 400, Halifax, N.S. The writer heard CJCX, Sydney, N.S. 6010 kc at good strength at 2300 on January 21, and with the call: "CJCB and CJCX, Sydney."

The latest day for receiving correspondence for next month's "DX Broadcast" is March 15, at this office—so will you kindly sort out your points of interest and send them to: R. H. Greenland, *Short Wave Listener*, 49 Victoria Street, London, S.W.1.

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22" x 10" x 2 1/2"	13/6

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SHORT WAVE BROADCAST STATIONS

Revision 19'68-25'58 Metres

Giving Frequency, Wavelength, Callsign and Location

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

Frequency	Wave-length	Callsign	Location
15240	19-68	CR7BD	Lourenco Marques, Paris.
15235	19-69	JVW3	Tokio.
15230	19-70	VLH5 OLR5A	Melbourne. Prague. Moscow.
15225	19-70	JVW	Tokio.
15220	19-71	WRUA PCJ	Boston. Hilversum.
15210	19-72	WBOS KGBI VLG11	Boston. San Francisco. Lyndhurst.
15200	19-74	WRUA VLA6 VLC	Boston. Shepparton. Shepparton.
15195	19-74	TAQ	Ankara.
15190	19-75	ODX4 CKCX VUD5	Bjornborg. Sackville. Delhi.
15180	19-76	GSO	Daventry.
15175	19-77	XGOY	Chungking.
15170	19-78	LKV TGWA	Frederikstad. Guatemala City. Moscow.
15165	19-78	ZYN7	Fortaleza.
15160	19-79	OZH VUD7 VLB11	Copenhagen. Delhi. Shepparton.
15155	19-80	SBT	Motala.
15150	19-80	WRCA KCBA YDC	New York. Los Angeles. Batavia.
15145	19-81	ZYK2	Pernambuco.
15143	19-81	JLW6	Tokio.
15140	19-82	GSF	Daventry.
15130	19-83	WOOC KNBI KCBR	New York. San Francisco. Los Angeles. Delhi. Rome.
15125	19-83		Rome.
15120	19-84	HVJ HED7	Vatican City. Berne. Colombo, Ceylon.
15115	19-85	HCJB	Quito.
15110	19-85	GWG CS2MR	Daventry. Lisbon.
15105	19-86	DRFC	Munich.
15100	19-87	EPB CS2MQ	Teheran, Iran. Lisbon. Paris. Vatican City.
15095	19-87	HVJ	Vatican City.
15090	19-88	CBLX	Montreal.
15074	19-90	ETA	Addis Ababa.
15070	19-91	GWG	Daventry.
14850	20-20	LPS	Ushuaia.
14690	20-33	PSF	Rio de Janeiro.
13320	22-52		Omdurman, Sudan.
12875	23-30	GS2WI	Parade.
12749	23-53	CS2MP	Lisbon.
12455	24-08	HCJB	Quito.
12175	24-64	TFJ	Reykjavik.
12095	24-80	GRF	Daventry.
12040	24-92	GRV	Daventry.
12000	25-00	CEI180	Santiago, Chile. Damascus. Brazzaville. Tabriz, Iran.
11970	25-06	FZI	Tabriz, Iran.
11950	25-10		Encarnacion.
11945	25-12	ZPA5	Encarnacion.
11930	25-15	GVX	Daventry.
11915	25-17	LRA	Buenos Aires. Batavia.
11913	25-18	ZGOY	Chungking.

Frequency	Wave-length	Callsign	Location
11900	25-21	CXA10 CEI190 KWID	Montevideo. Valdivia. San Francisco. Bucharest. Moscow.
11898	25-21		Dakar, Senegal.
11890	25-23	WNRX	New York. Manila. Moscow.
11880	25-25	VLH4 LRR XEHH	Melbourne. Rosario. Mexico City. Singapore. Moscow. Algiers.
11872	25-26	ZPA3	Asuncion.
11870	25-27		Munich.
11865	25-28	HER5	Berne.
11860	25-30	GSE	Daventry.
11850	25-32	KWIX LLK VUD4 CEI185	San Francisco. Frederikstad. Delhi. Santiago, Chile. Paris.
11845	25-33		Paris.
11840	25-34	OLR4A CS2MM LR52 VLG4 DUH5	Prague. Lisbon. Buenos Aires. Lyndhurst. Manila.
11835	25-35	XGOA CXA19	Nanking. Montevideo.
11830	25-36	WCDA VLW3	New York. Perth, W.A.
11825	25-37	ZYK3	Pernambuco.
11820	25-38	GSN	Daventry.
11815	25-39	HEUS	Berne.
11810	25-40	VLC7 WGEA	Shepparton. Schenectady. Rome.
11800	25-42	GWH	Daventry. Moscow.
11790	25-45	WRUI WRUS KNBX	Boston. Boston. San Francisco. Vienna.
11785	25-46		Mexico City.
11782	25-46	XENN	Wellington, N.Z.
11780	25-47	ZL3 ODX3 HP5G	Lahti. Panama City. Salgon.
11770	25-49	GVU YDE WNRA KNBI	Daventry. Batavia. New York. San Francisco. Colombo, Ceylon.
11765	25-50	ZYB8	Sao Paulo.
11760	25-51	VUD11 VLA8 VLB3 VLC3 VLG10 OLR4B	Delhi. Shepparton. Shepparton. Shepparton. Lyndhurst. Prague.
11750	25-53	GSD	Daventry.
11740	25-55	HVJ WRUX VLB10 CEI174 COCY	Vatican City. Boston. Shepparton. Santiago, Chile. Havana, Cuba. Moscow.
11735	25-56	LKO	Frederikstad.
11730	25-58	CEI173 PHI	Santiago, Chile. Hilversum.

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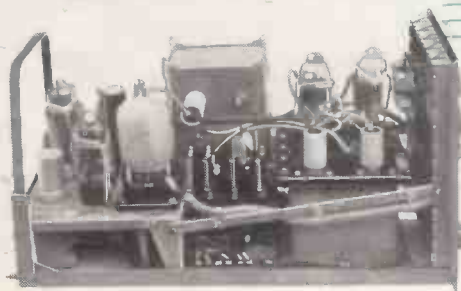
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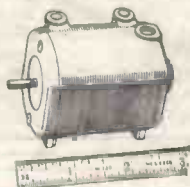
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