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AND AMATEUR TELEVISION

OCTOBER 1951
VOLUME 5 · NUMBER 10



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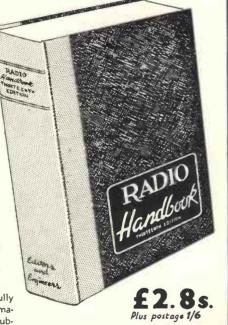
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THE SHORT WAVE LISTENER

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VOLUME 5

OCTOBER 1951

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EDITORIAL

Exhibitions

This is the season for them—and we do not mean the Festival of Britain. The large commercial undertakings like the Exhibition, the Motor Show and the Marine & Engineering Exhibition are of considerable interest to all those who—while not being professionally engaged in the industries concerned—yet wish to broaden their outlook and keep abreast of what is happening in this age of scientific progress, engineering achievement and technical development.

Unfortunately, the Festival of Britain (so far as the display in the Metropolis is concerned) has failed to make much impression on the intelligence of the technically-minded visitor, though it may have stimulated the curiosity of some of the less knowledgeable. The F. of B. was apparently planned to capture what is usually described as "the popular interest." In this it has probably succeeded, and for that reason the Festival of Britain, with all its nation-wide activities and ramifications, may be regarded as having achieved its objectiveeven though the South Bank has only just been able to exceed the total number of visitors drawn to the first "Great Exhibition" of 100 years ago!

All this leads to the point that Amateur Radio enthusiasts, whatever their age or their standing in the greatest of all scientific hobbies. should never let pass any opportunity to learn all they can about other branches of science and engineering. By so doing, they will find out a lot which will help them in radio, and, importantly, they will maintain a balanced outlook.

A COMPANION PUBLICATION TO "THE SHORT WAVE MAGAZINE"-THE JOURNAL FOR THE RADIO EXPERIMENTER AND TRANSMITTING AMATEUR

Building an AC Bridge

FOR MEASURING RESISTANCE AND CAPACITY

By T. COOPER (BSWL-3681)

(As our contributor remarks, it is extremely useful to be able accurately to measure resistor and condenser values, and to check the "goodness" of the latter. This is a useful practical design for a measuring instrument meeting the needs of the average amateur station.—

Editor.

I T is true to say that in the pursuit of any science the ability accurately to measure the values dealt with is one of the first requirements and this is no less true of radio than of other arts. This need, so far as the amateur is concerned, is often met by the purchase of volt and ammeters or a multi-meter which usually has a resistance range. It is seldom, however, that one sees in the amateur station anything capable of measuring capacity and the writer's experience of some makes of tubular paper condensers is not such that he would care to incorporate untested condensers in any new set.

The possibility of using an AC meter for this purpose was considered but the difficulty of calibration was such that after reading available literature upon the subject it was decided to make up an AC Bridge, especially as smaller values of capacity can be measured and a more accurate result achieved. In the writer's opinion, a visible indication is much to be preferred to an audible one so headphones were discarded and a "magic eye" employed to show when balance was obtained; the magic eye measures the out-of-balance voltage by a variation in the width of shadow.

The circuit is shown in Fig. 1 and consists of two valves V1 amplifying the off-balance voltage which is then applied to the magic eye indicator V2. A small power-pack can be incorporated to provide the necessary HT and LT, or this can be obtained from an external source. The only other power needed is a small alternating voltage at 50 cycles and an AC mains bell transformer is ideal for this purpose, using the 5 volt tapping Layout is relatively unimportant and the whole unit can conform to whatever chassis or cabinet is at hand.

Design

In the measuring of capacity stray AC fields have an effect on the calibration, very much like the hand-capacity which we used to experience with our early short-wave sets. It is therefore essential, in the interests of accuracy, fully to screen and earth the unit, or

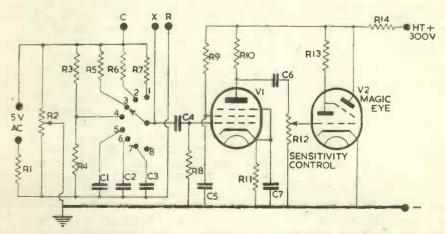


Fig. 1. Circuit complete of the instrument as described, giving condenser and resistor measurement.

at the very least, have an earthed from panel. A suggested front panel layout is that shown in Fig. 2. It is very little more trouble to include standard resistors so that resistance also can be measured, and, as a further help, a neon device for testing the leakage of condensers is a worth while addition.

The bridge operates by comparing an unknown condenser with another one, the capacity of which is accurately known; these form one half of a bridge. the other half being a potentiometer of say 10,000 ohms, the moving arm of which is connected to one side of the indicating device, the other side going to the junction of the two condensers. (see Fig. 3). It will be appreciated that when the two condensers are equal in value, and the moving arm of the potentiometer at its mid-position, a state of balance will be achieved and no current will flow through the indicating device, in our case a magic eye.

The scale to be used with the potentiometer is that shown at Fig. 4 and the object is to adjust the moving arm until there is the least shadow on the magic eye. The reading obtained when the moving arm is set to give minimum shadow angle, multiplied by the value of the known condenser (or resistor) gives the value of the condenser (or resistor) being measured. The sensitivity knob is of great help in controlling the shadow angle and the "liveliness" of the instrument

Table of Values

Fig. 1. Circuit of the instrument as described.

```
\begin{array}{ccccc} \text{C1} &=& .0001 \ \mu\text{F} \\ \text{C2}, \text{C4} &=& .01 \ \mu\text{F} \\ \text{C3} &=& 1.0 \ \mu\text{F} \\ \text{C5} &=& 0.1 \ \mu\text{F} \\ \text{C6} &=& .05 \ \mu\text{F} \\ \text{C6} &=& .05 \ \mu\text{F} \\ \text{C7} &=& 32 \ \mu\text{F} \\ \text{R1} &=& 1,000 \ \text{ohms} \\ \text{R2}, \text{R6} &=& 10,000 \ \text{ohms} \\ \text{R3}, \text{R4} &=& 50,000 \ \text{ohms} \\ \text{R5} &=& 100 \ \text{ohms} \\ \text{R7}, \text{R12}, \text{R13} &=& 1 \ \text{megohm} \\ \text{R8} &=& 500,000 \ \text{ohms} \\ \text{R9} &=& 800,000 \ \text{ohms} \\ \text{R10} &=& 200,000 \ \text{ohms} \\ \text{R11} &=& 1750 \ \text{ohms} \\ \text{R14} &=& 20,000 \ \text{ohms} \\ \text{V1} &=& \text{EF36} \\ \text{V2} &=& \text{Vf63} \\ \end{array}
```

Switch Positions

1 = 1 megohm range 2 = 10,000 ohm range 3 = 100 ohm range 4 = Calibration 5 = .0001 μF range 6 = .01 μF range 7 = 1.0 μF range 8 = Open bridge.

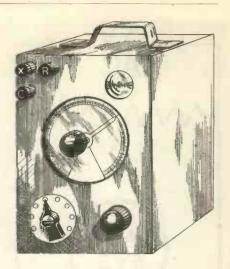


Fig. 2. A suggested constructional layout for the AC Bridge.

In fitting the moving arm on assembly, the rotating switch is placed in position 4 and the two resistors R3 and R4, which should be as near identical in value as possible, allow a balance to be obtained by rotating the moving contact. When the magic eye shows a minimum of shadow angle the moving arm is then fitted into the position of unity (i.e., at twelve o'clock) on the scale. All is then ready for use.

Making Measurements

Place the unknown condenser across the terminals C and X, keeping the

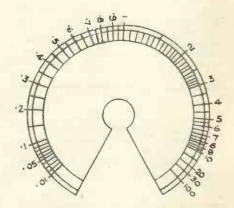


Fig. 4. Marking the dial for the instrument.

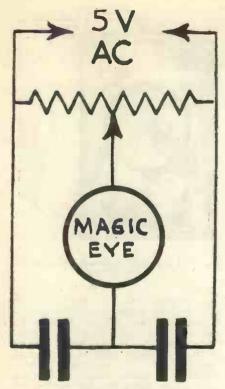


Fig. 3. The AC Bridge circuit.

leads short, and turn the rotating switch into a suitable position according to the probable value of the condenser to be measured. For resistors, terminals X and R are provided.

It is possible to use external standards, there being provision at position 8 for switching direct to the grid of the first valve. Put the known condensers across X and R and the unknown one across X and C, taking the

reading at balance. This factor multiplied by the known condenser gives the result.

The accuracy is determined by the closeness of tolerance of the standards used and resistors R5, R6, R7 and condensers C1, C2 and C3 should be precision components.

The unit has a certain amount of self-capacity of its own and with the switch in position 8 this can be read off. For small condensers always subtract this value from the scale reading obtained. For large condensers the capacity is so small as to be ignored.

For testing the leakage of condensers (except electrolytic ones) it is very handy to feed say 250 or 300 volts DC through a neon bulb and the condenser to be tested (see Fig. 5). If on the application of HT the neon flashes once and then remains out, the condenser is a good one. If open-circuited there is a good one. If open-circuited there is no flash. If leaky there is a steady glow. Such condensers should be discarded. Small condensers of less than about .05 μ F give very little flash, but if faulty can be readily found by the steady glow from the neon.

After very little practice the Bridge is very simple to use and will repay its cost many times.

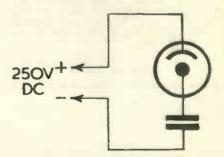


Fig. 5. The circuit arrangement for condenser testing—see text.

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one dozen or more. While it is in every way regrettable (and entirely unnecessary) that two such Call Books should be on offer at the present time, the fact remains that *The G Call Book* published by Gage & Pollard is the more comprehensive as regards what is offered—which is a list of British amateur stations.

Receiving on the Amateur Bands

PART III

HOW TO LISTEN

By THE OLD TIMER

(For more than 20 years SWL's and those who wish to become proficient in the art of logging DX have asked "How?" The quick answer is that only practice and application can make the DX expert, and it may take long to become one. This article is designed to help the beginner to take his first steps in learning how to log DXultimately practice will make for proficiency. Previous articles in this series appeared in our issues for August and September.—Editor.)

THE chief attraction of short-wave listening has something in common with that of the art of angling—it requires skill and patience. listeners in the same town, with identical receivers and identical aerials, might turn in two completely different lists of Calls Heard. One would merely include all the usual "catches"—the obvious signals, one might say-and the other would have a fair proportion of really nice and unusual stations.

This would merely mean that Listener "A" is the type who whizzes round his dial and logs all the signals that stand out and are dead easy to deal with; whereas Listener "B" would almost ignore these very signals in his quest for something worth having.

The ability to listen to weak signals is not something that you are born with, or something that just happens; it can (in fact it must) be cultivated. Get down into those cracks between the strong signals, freeze on to something that you can just hear, and concentrate! If your receiver is selective enough and sensitive enough (and you must, of course, have the proper "tools" for your job) you will find, after a while, that those dreadfully weak signals don't sound so weak after all.

This preamble is leading up to the fact that most DX stations of the more unusual type are usually weak signals; and that they are very often squashed between, or even submerged beneath, much stronger signals emanating, perhaps, from Europe. But some listeners manage to winkle them out very effectively, and there is no reason why you should not be one of them.

Phone or CW

If you are a CW listener, and assuming that your Morse is up to standard, you will find the copying of very weak signals much easier than the deciphering of a weak phone station with stronger ones jamming it. One's brain can separate two sets of Morse characters more easily than two different threads of conversation. For this reason CW communication has a fascination of its own, although many consider it outmoded, primitive, and all that. When a signal is strong, a Phone contact obviously has great advantages over a CW QSO; when it is very weak, it is doubtful whether a phone contact would come to anything at all, whereas CW might produce a 100 per cent. result.

The art of copying weak CW that is jammed is largely a matter of being able to "peak" one signal (the wanted one, of course) not only with the receiver but also with your mind. Many receivers have a most satisfactory audio peak, when the crystal and the BFO are set up just as they should be; when the weak signal sits right on this peak, however, it is often no louder than an unwanted strong signal which is just off it. So your power of concentration has to assist the receiver; you must be able to fix your mind on the signal you are supposed to be copying and hold the other one back.

It is no more difficult than forcing yourself not to look at dazzling headlights after dark! Just refuse to listen to the unwanted one and carry on trying your hardest to copy the other. It will come, in due course, but it naturally takes time to become fully proficient. Never ignore a signal because you think it is too weak; that will be the very one that would have given you a new Zone, or a new Country furthermore, the one that your deadly rival across the town will never get, because he can't copy 'em that weak!

Tricks of the Trade

All sorts of little dodges have to be learnt. When you hear G2... that noted DX man, working someone in the early morning, don't just swish by. Wait until he signs, see who he is working, and listen on or near his frequency for the DX chap to come back. You will have an easy means of spotting quickly, merely by listening for G2..'s call-sign coming from a fairly weak station—and that's the man you're after. Listen to all weak CQ calls; you never know what might crop up. Listen at any unusual time when you happen to have a few minutes to spare on the receiver; you may find some part of the world that has never come your way before.

Listen, too, on unusual wavebands; if you wake up at 7 a.m. one morning (or earlier!) don't just go on 20 metres as a matter of course. It might be an excellent chance for you to hear your first ZL on 80, or a W6 on 40. Never assume that one particular band will be uninteresting—have a look for yourself.

Always look out for a "dogfight," the signal for which is a whole gang of stations frantically calling the same DX man. The chances are that the quarry will be someone more than usually interesting. When new countries like FR7ZA and FG7XA first came on the 20-metre band it was quite impossible to miss them. The band broke out in a rash of people calling them! Once you hear that, it is only a matter of waiting for the callers to die down, and you can be pretty sure that the DX man will come back to one or other of them. If you can't hear him, then your receiver, your ears, or your power of concentration are at fault.

Mostly Phone

A lot of the foregoing remarks have been concerned chiefly with CW reception. Pass now to phone, and you will find that many of the same hints hold good. Particularly are you urged to listen to local or semi-local stations calling the DX, or, better still, working it. You will usually be able to identify the other end of the QSO sooner or later. Also hold to the "dogfight" idea; if you hear half the band calling an EAØ, for instance, you can be pretty sure that the EAØ is not only there, but pretty easily audible.

If your receiver has a crystal filter, don't assume that it has to be cut out for phone reception. On the other hand don't always try to use it at the full selectivity position. When the crystal

is switched in, it naturally cuts a lot of the high frequencies out of a phone transmission, but "boomy" phone with a blank space on either side of it is infinitely preferable to a nice "toppy" transmission with two other lots of sidebands carving it up.

I have always found that a good degree of band-spread, or, failing that, an extremely good slow-motion dial, is absolutely essential. If your receiver is one of the commercial types which are not too strong on band-spread, see whether you can't fit one of those little 5: I reduction gears to the main tuning knob. It makes all the difference, of course, both to phone and CW, but I have found that the optimum tuning point on a phone transmission is not quite so obvious as that on CW, where the mere pitch of the note will indicate whether you are on the peak or not.

Of course, some experienced and skilled listeners perform prodigies of DX on ordinary broadcast receivers without any band-spread at all. I often wonder how they do it, and am always lost in admiration over some of their performances. The reception of really weak amateur signals on such a receiver is no mean feat. Don't try it until vou feel that you're on the way to becoming really clever.

Picking the Time

Last month I gave a general idea of the times at which the various bands were "open." This time I want to take one or two and really lay them bare. Start with 20 metres. If you get up early in the morning (0600 onwards) you may, of course, strike a dud morning, or you may find that VK and ZL are coming in. If they are, hang around as long as you can, looking for weak ones—because you might be lucky enough to find a ZKI, ZM3, VKI, VR4. or one of those nice Pacific Islands.

On the other hand, you may find that W6 and 7, VE7 and 8, and possibly KH6 are about. This is a different sort of morning, and you might possibly hear an FO8, a KP6 or KM6; but of course it doesn't follow.

course it doesn't follow.

This type of DX tails off by 0900 or thereabouts; by midday there is often a burst of East Coast Americans, and then, by 1430 or afterwards, Asia begins to arrive. On a good day you stand a chance of hearing VSI, VS6, VU, XZ, PK4 and other countries in that area, practically at any time between 1430 and 1800. By the latter hour the

Africans are usually in the ascendency, with such countries as VQ2, 3 and 4, ZS, FF8, FQ8, CR6, CR7 and the like showing themselves.

Of course, all this assumes reasonable conditions. On a downright bad day you may hear nothing but Europeans at all these times. And all these suggested times hold good only for this part of the year, and this particular year!

Carrying on after 1800, you will find Africans and North Americans all mixed up, often giving way, by about 2100, to Central Americans, West Indies and South Americans. If you stay up really late you may hear South Americans right through the small hours; often they are there the next morning when the first VK's and ZL's break through (if they do).

Just a word, on similar lines, about 40 metres. Don't expect any real DX

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THE CIRCULATION MANAGER, SHORT WAVE MAGAZINE, LTD., 55 VICTORIA STREET, LONDON, S.W.1 there, at this time of year, except between the hours of, say, 2200 and 0600. In that period almost anything might crop up on the band. Even before 2200 you could be lucky enough to hear Asia and Africa on Forty, but that would be unusual before the winter comes.

During the night your main trouble will often be to separate out the DX; it can be pretty numerous on this band! But the W's are not allowed to use phone on the 40-metre band, so most of the DX phone you hear will definitely be of the Latin-American persuasion. For the CW listener, everything happens at once. I have frequently heard all continents just about simultaneously, and this may occur either late at night or early in the morning.

Forty is a more difficult band to cope with than 20, because of all the broadcast stations dotted around the dial, sundry commercials, and the very strong European amateurs. But is has a fascination of its own, and if your patience is up to the task, it will be well rewarded.

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Amateur Television Transmission

PROGRESS AND RESULTS

By M. BARLOW (G3CVO)

(The report this month contains some very interesting notes on the equipment now being used by several members of the British Amateur Television Club, the honorary secretary of which con-tributes this article. His address is: Cheyne Cottage, Dukes Wood Drive, Gerrards Cross, Bucks. The Club exists to further the interests of all those concerned with the transmission of amateur television, for which frequencies have been allotted in the VHF bands— Editor.)

FTER the excitement of the A Convention, members have set to with a will, and everyone seems to have made progress—G5ZT/TV, for instance, reports that he can now see his socks hanging on the line! As far as licences go, none have yet been issued except to G2DUS. This is probably only a temporary hold-up, and several members are ready to go on the air, including G3BLV/TV of Sunderland; he has not yet received his RCA-5527 Iconoscope, but is having further success with his telestill unit. He has now added a telecine scanner, in which the cine film is moved through the unit continuously at 25 frames per sec by a synchronous motor. It is scanned by a raster with a frame frequency of 25 per sec also, moving in the opposite direction to the film. This gives a flicker-free picture at 50 frames per sec, and results are said to be very good indeed.

G3AKJ, of Chadwell Heath, has been rebuilding his main equipment in order to get in on the TV schedules, but has found time to build up some 13 cm gear. He is all ready to photograph his first pictures when they arrive. Norman Rutherford of Carlton, Notts, has organised his friends, who are building

him the necessary 5527 units; he has also sold his 8mm cine equipment in order to "OSY" to 16mm telecine!

G5ZT, of Plymouth, rebuilt his camera

unit whilst awaiting his 5527, and reports that it is now working very well. His circuits are as per RCA "with modifications." One can imagine

Grant Dixon, of Ross-on-Wye, tried out his stock of scanning tubes, and was disgusted to find that they were all vellow persistence. He is trying threecolour closed circuit TV, and hopes to have it ready in time-for the next Convention!

Progress Reports

Also in the West country, Messrs. Watts and Bellamy are still held up waiting for their camera tube, and so have added 7 tubes to their equipmenttotal 98 now! This consists of Pulse Timing units, Shaping unit, Camera control and preamplifier, fully stabilised power pack, but no monitor yet! They are building a telecine unit just to fill in time, using a Cossor photographic blue tube. All their equipment is 405-line interlaced.

Another operator using the alternative 405-line interlaced standards as distinct from the simpler 200-line sequential scan is G3ETI/TV, of Wirral, Ches.; he also has his name down for a camera tube, and would like to contact SWL's in his area with a view to obtaining (a) Assistance, and (b) Reception reports on his 3cm TV signals.

New member G3AST, of Luton, has a different slant on things. His 931A scanner unit is designed for radio facsimile use, although in principle and design it is identical with an ordinary telestill camera; he is using a GEC 4104E4 1in. CRT for scanning, and with 300-line definition, is getting very stable results. The whole unit is a de-luxe effort, with grey crackle and chromium in profusion. Any SWL's interested in building facsimile receivers should contact G3AST.

G3CVO (Gerrards Cross) has been rebuilding his telestill unit. The EHT to the ARC2X scanner has now been put up to 3 kV with a considerable improvement in picture quality. The equipment is still as simple as possible at the moment, the scanning and monitor tubes being strapped in parallel. This does away with the need for a sync pulse generator. A 12in. monitor unit is now being built so that faults will show up more clearly! A simple

way of testing the video chain is to apply BBC TV to the scanner tube, and to adjust things until a reasonable reproduction appears an the monitor screen. G3GBO and G3CVO are collaborating to construct a live camera unit, but there is plenty of work to be done yet!

News from overseas is somewhat limited. SM5TT is building up a second camera, together with the necessary mixing gear. In the Netherlands, however, amateur TV is taking large strides. In addition to their regular two-hour transmission on Saturdays, a two-way

TV link with Amsterdam is being set up for an exhibition. This is a distance of about 95 miles, and compares with London to Birmingham 100 miles. The equipment runs 250 watts vertically polarised, in the 2 metre band. There is no public TV service in Holland yet, and this should give people something to think about.

The season for lectures and demonstrations is on its way, and most members are overhauling their equipment to be in good time. Reports for inclusion in this space should be in by October 20

at the latest.

BOOK REVIEW

THE RADIO HANDBOOK

Thirteenth Edition

This is undoubtedly the finest book of its kind—for the radio engineer, technician or radio amateur—yet offered by Editors & Engineers, Ltd., of America, who for years have been publishers of a wide range of excellent manuals and

handbooks on radio subjects.

The 13th is a large volume of more than 700 pages, covering in 28 chapters the Fundamental Principles; the Generation of RF Energy; Modulation, including FM and SSB; Transmitter Design, Construction and Adjustment; Aerials, in five separate chapters discussing Theory, Construction, Matching and Feeding, Directive Arrays of every type, and VHF and UHF designs; BCI and TVI, to which some 24 pages are devoted; Mobile Equipment and its installation, with practical designs for much suitable apparatus in this field; and seven chapters of 170 pages describing in detail the construction of a great many items of amateur band equipment, from Receivers, Exciters and QRP Transmitters, to High- and Low-Power RF Amplifiers, Modulators and Speech Units, and their associated Power Supplies; there is also a comprehensive chapter on Test and Measuring Equipment, and finally a useful section of 70

pages on Radio Mathematics and Calculation, including much Reference Data.

It can truly be said that the scope of this edition of the Radio Handbook is such as to make it an essential buy, and quite indispensable to the advanced amateur, to teaching establishments and to radio laboratories, since it is right up-to-date in design and practice.

The book is very well produced, in stiff covers, profusely illustrated with circuit diagrams and photographs, and adequately indexed. Though the highest-priced volume of its kind at present on the market, the new Radio Handbook represents excellent value because it does embody so much that otherwise can only be obtained by reference to a variety of manuals and handbooks.

Radio Handbook, 13th Edition, published by Editors & Engineers, Ltd., obtainable from the distributors for the U.K. and Europe, Gage & Pollard, Publishers' Agents, 55 Victoria Street, London, S.W.I, price £2 8s. od., postage is. 6d. Limited supplies are available for immediate delivery on receipt of order.

GERMAN VHF BROADCASTERS

During the proceedings of the recent DARC Convention, it emerged that the German broadcasting authorities are now operating some forty VHF FM stations in the band 87.7-95 mc, with aerial powers ranging from 100 watts

to 10 kW. Under suitable conditions, some of these stations should be receivable in this country on receivers like the S-27, which is fitted with an FM discriminator and tunes right up to 140 mc.

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 execution. section please make your reports as comprehensive as possible.

CO7AH Ave. Agramonte 88, Chambas, Camaguey, Cuba. 14 mc CW, 0900-1200 and 1500-1800 Cuba. CMT

CR6AJ Adelino des Santos, C.F.B., Nova Lisboa, Angola. 14 and 28 mc phone and CW, at 1700 and 2000 GMT.

DL3DC Hessenring 86, Bad Homburg, v.d.H., Germany. 3.5, 7, 14 and 28 mc phone and CW.

Germany. 3.5, 7, 14 and 28 mc phone and CW.

DLAWC N. B. Ostrye, 7499th Comp. Sqd., APO.633, clo P.M., N.Y.C., U.S.A. 14 mc phone and CW, 2000-0001 GMT. Critical reports.

FQ8AE Box 69, Fort Lamy, Fr. Equatorial Africa. 7, 14 and 28 mc, 14084 kc, CW and NB.FM phone, 0600-2100 GMT. Quality of tone.

G2BIH 32 Mayeroft Avenue, Grays, Essex: 1886 and 1926 kc phone, 1830 GMT onwards. Reports from North and West of QTH.

GW2DHV clo 63 Lewisham Hill, London, S.E.13. Reports on QRP 3.5 mc CW transmissions.

G2XS 13 Lichfield Avenue, Mansfield, Notts. 144.576 mc phone and CW, 1745-1900 and 2115-2230 GMT, Sundays 1030-1200 GMT.

GM3COB 37 Burnhead Street, Greenock, Renfrew-shire. VFO-controlled 14 mc phone and CW, 1700-0100 GMT, Sundays 1200-0100 GMT.

G3EXT 35 Carrick Road, Curzon Park, Chester, Ches. 3500-3600 kc CW, 1700-2259 GMT.
G3FDA 30 Sholebroke View, Leeds 7, Yorkshire. Reports on 7083 kc phone, most evenings.

G3HLM 29 Moorside Road, Heaton Moor, Stockport, Ches. 1.7, 3.5, 7 mc CW. Detailed reports.

IIARK Via Sermide 6, Roma, Italy. 7, 14, 28 mc phone and CW, 0600-0730 and 1500-1800 GMT.

phone and CW, 0600-0730 and 1500-1600 GM1.

IIGHA Via A. Rosmini 40, Domodossola, Italy. 14

mc phone, 1800-1930 GMT. Percentage and
quality of modulation.

JASAD K. H. Logan, 6135 A.B.Gp., APO.950, clo
P.M., San Francisco, Calif., U.S.A. 14.15-14.2

mc phone, 1200-1700 GMT.

KL7AHC G. Kerster, Hq. Co., 2nd Bn., 4th Inf.,
APO. 937, clo P.M., Seattle, Wash., U.S.A.
14105-14280 kc phone, 0400-0900 GMT. Stability
and modulation and modulation.

RP4FP A. Bickhart, Post Engr. Office, Ft. Brooke, San Juan, Puerto Rico. 14 and 28 mc phone, 2030-0300 GMT, weekends 1200-0300 GMT.

LA2O Lakmannsvei 35, Kjelsaas, Oslo, Norway. 3510-3580 kc CW, 1930 GMT and weekends.

LUIKG C. Casalegno, Ingenio "La Corona," Concepcion, Tucuman, Argentina. 14250-14300 kc phone, 2200-2359 GMT. LU3BU Hortiguera 345, Capital Federal, Argentina. 28 mc phone, 1600-1800 GMT. Modulation.

OH3NU Eroltajakatu 15, Hameenlinna, Finland.
7, 14 and 28 mc CW, 0600-0800, 1530-1800 and 2000-2300 GMT.
OH3OX Nokian Radioamatoorikerho ry. Nokia, Kerhola, Finland. 14250 kc phone, 2000 GMT.

OZISL c/o P.O. Box 79, Copenhagen, Denmark, 3.5 mc phone, 1400 GMT onwards.

PAORUD L. v. Meerdervoort 433, den Haag, Holland 3.5, 7 and 14 mc phone and CW, weekends. PYIFF R. Santa Luiza 301, Maracana, Rio de Janeiro, Brasil. 14274.2 kc CW, 2030-2330 GMT. PYSRC Rua Independencia 6, Sao Bento do Sul, Santa Catarina, Brazil. VFO-controlled 14250

PYSRC Rua Independencia 6, Sao Bento do Sui, Santa Catarina, Brazil. VPO-controlled 14250 kc phone, 2300-2359 GMT. PY6BN Rua Luiz Gama 34, Salvador, Bahia, Brazil. 14250-14350 kc phone and CW, 2100-0390 GMT. PY7LM Rua Dr. Joao Tavares 168, Campina Grande, Paraiba, Brazil. 14120-14160 kc phone, 0900-1100 and 2100-0100 GMT.

1100 and 2100-0100 GMT.

SM5.AFU Hornsgalan 51. III, Stockholm, Sweden.
7 and 14 mc CW. Comparative reports.
TI2CHV P.O. Box 584, San Jose, Costa Rica. 14
and 28 mc phone, at 1700 or 2200 GMT.
VEITN Dr. J. Bower, Provincial Hospital, Saint John,
N.B., Canada. 3.5, 14, 28 mc phone, 3.5, 7,
14 mc CW, 1600-1730 and 2100-2230 GMT.
Comparative reports especially from Larges Comparative reports, especially from Lancs.

VE2AND 314 Arago Street, Quebec, Que, Canada. 14150 and 14220 kc phone, 1030 and 1930 GMT. VK2VC W. Cahill, Edward Parade, Sylvania, N.S.W., Australia. 14 mc phone and CW, 0700-0900

GMT. VK3MY 17 Devon Street, Cheltenham, Vic., Australia. Reports on 7 and 14 mc phone.

VK30M 81 Neerim Road, Glenhuntly, Vic., Australia. 14125-14200 kc phone, 0900-1200 GMT, weekends 0500-0900 GMT. Modulation. VK5BS 5 Karong Avenue, South Edwardstown, South Australia. Reports on 3.5 and 14 mc CW.

VK6WW 27 Clive Street, West Perth, Western Australia. 7 and 14 mc CW, 0030-1600 GMT. Signal reports on various ant: full-wave, 2 half-waves and ground-plane on 14 mc, vertical

volume and ground-plane on 14 mc, vertical on 7 mc.

VQ2B P.O. Box 199, Livingstone, N. Rhodesia. 7, 14 and 28 mc phone and CW, 1400-2200 GMT.

VO3CF P.O. Box 5163, Nairobi, Kenya. Reports volume for the property of the pr

Tanganyika. and 28 mc phone, 1600-2000 GMT. Modulation.

WIBFK 514 Union Street, New Bedford, Mass., U.S.A. Reports on 14100 kc CW. WISMO 1 Hallet Avenue, Eastport, Maine, U.S.A. 7 and 14 mc CW and 28 mc phone, 0900-1030

and 2130 GMT onwards
W2CSX 223 Whalen Place, Bronx. 71, N.Y., U.S.A.
28.5-29 mc phone, 1100-2359 GMT.

W2DKS 331 East Commercial Street, East Rochester, N.Y., U.S.A. 7041, 7050, 7060, 14080 and 14100 kc CW, 0600-0800 and 2000-2300 GMT.

W4RIR 634 East 20th Street, Hialeah, Fla., U.S.A.
Reports on 7 and 14 mc CW.
W4RNP 1715 Maiden Lane S.W., Roanoke, Va.,
U.S.A. 14000-14190 kc CW, 1300-1700 and
1900-2100 GMT. Critical reports.
W5WI P.O. Box 11, Tulsa, Okla., U.S.A. 14 mc
CW and phone, 0200-0500 and 1100-1230 GMT.

W7AHX 1485 Park Avenue, Eugene, Oregon, U.S.A.
14, 27, 28 mc phone and CW, 0400-0800, 15002000 GMT. Modulation and comparative reports.

WØAIH Paul Bittner, Stewartville, Minn., U.S.A.
14 mc phone and CW, 1230-1400 and 2300-0430

GMT, and weekends.

WOPQS 725 11th Avenue N.E., Rochester, Minn.,
U.S.A. 14-14.1 mc CW, 0001-0600 GMT,
weekends 1900-0500 GMT.

YUIAFG Uzelac Milos, Post Box 47, Belgrade, F.P.R., Yugoslavia. 3.5 and 7 mc CW. ZC6GI G. Illegems, Consulat General de Belgique, Jerusalem, Israel. 14235 and 14300 kc phone, 0800-0930 and 1930 GMT onwards.

ZS6YI 110 Hunter Street, Bellvue, Johannesburg, ZS6YY S. Africa. Reports, especially from Leeds, Yorkshire, on 14 mc phone, 1500-2200 GMT.

4X4BN H. Sturm, P.O. Box 831, Haifa, Israel. 14 mc phone, 1600-2030 GMT. Modulation.

4X4DA P.O. Box 2820, Tel-Aviv, Israel. 14 mc CW, 1400-2000 GMT. Stability, keying, tone.

TV Questions and Answers

FLAT FACED CRT'S

Am contemplating using one of the "flat ended" GEC tubes (the 6501) in a televisor I am constructing, but I am told that I am liable to get pin cushion distortion of the raster if ordinary deflection coils are used. Is this true and if so what is the remedy?—

P. N. P. (Shepherds Bush, London, W.6.)

Theoretically, one requires special deflection coils for good raster geometry when using flat ended tubes. The reason is that the normal deflection yoke bends the beam current in an arc (to suit the face curvature), so that if the tube is flat faced the raster would tend to curve inwards from each corner.

However, we have seen a home-constructed receiver using this tube (with standard deflection coils) and curvature on the raster was so very minute that even viewed within a few inches of the tube face it was practically impossible to discern any distortion.

With the new 16-inch metal tubes, on the other hand, special coils are necessary. Although there are no yokes on the market at the time of writing we understand that several concerns are working on suitable designs and these will be made available to the public at an early date.

UNSTABLE SYNCHRONISING

I have a fault which completely baffles me. The raster jerks in a vertical direction, giving a general shimmering effect on the picture. When the focus control is adjusted so that the picture is out of focus the raster becomes perfectly steady; focus the picture and it starts shimmering again. It has driven me frantic!

J. H. (Acton, London, W.3.)

This is one of those faults which occur so seldom that the only way to find the solution is to resort to plain logic. Our suggestion is that the trouble is located in the sync separator stage, the reasoning being as follows:

When the raster is focussed, the coil is drawing a heavy current. When it is not focussed the current drain through

the coil is smaller. At the time when the raster is fully focussed, the HT along the line will drop slightly, due to the current drawn.

Your sync separator is probably the type which works on a "leaky grid" arrangement. If so, the drop in HT when the raster is focussed may be enough to alter the operating conditions in the separator stage so that it is working nearer to anode bend condition. This would, naturally, affect the synchronising and cause your frame instability

This trouble would not arise if the separator stage was working at full efficiency. Therefore you will no doubt find that the operating conditions have been altered, due to a component fault in that stage; a check on operating voltages and currents, and standard component tests, should reveal the cause.

POOR FOCUS

I cannot get the picture properly focussed. The set is a home constructor design of well-known name and focussing is by a PM ring system. The magnet is placed in the correct position (I think) because during adjustment a "peak" is reached and passed. Even so the scanning lines are always blurred, even with the brightness turned quite low.

C. R. J. (Southall, Mddx.)

If, as seems to be the case, you have the magnet in the correct position, then we can suggest three reasons for inability to focus. (1) The magnet has lost its strength. This is hardly likely if you are using a new ring. (2) You are using the wrong type of magnet; tetrode and triode tubes require different focusing fields. (3) The tube is gassy. In this case you should notice a blue tinge at the gun electrodes, mainly around the heater.

RUSSIAN OTH's

All who may have QSL cards from UA amateur stations are asked to send the callsign and town/city location as given on the card to: C. S. S. Lyon, G3EIZ, 15 Ullet Road, Liverpool, 17. QTH's of other USSR stations are also wanted. The co-operation of all readers is particularly requested in this matter. Note: The QSL cards themselves are NOT required—only the callsign and station location.

Have you heard

I is very nice indeed to be able to open one of these Commentaries by saying that conditions have improved slightly. The cynics will doubtless say "They couldn't have got any worse," but the fact remains that DX appears to be looking up a bit since last month's notes were written. The LF bands are attracting a little more attention—and rewarding it—and Twenty has been producing some quite good DX. Ten, of course, is still extremely shaky, but that is only to be expected.

We seem to have struck a completely dud period for the Ten-metre SLP on August 25—not one single list was received! The Top-Band period, next morning, however, was quite well patronised, although all the lists show G's and nothing else. This is to be regarded as a mild warming-up session for the Top-Band receivers, which will have some good things to cope with this coming autumn and winter.

Russian Puzzle

It has recently been announced that "Sixty thousand Russian amateurs have been forbidden to communicate with countries outside Russia." immediate result has been the complete disappearance of the Russians, except that they work one another calling "CQ U" or "WSEM." Until the ban is lifted, this shuts us off from Zones 16, 17, 18, 19 and probably 23. Nor do we yet know what the QSL position will be -only time can resolve these problems.

DX of the Month

Perusal of the whole bunch of Calls Heard reveals some quite interesting specimens. For instance, 80-metre CW has yielded VQ4, VE, W, ZL and KZ5, and 80-metre phone W's and VE's. Forty has been excellent; countries heard on phone include CM, HC, HK, HP, HR, LU, PY, TG, TI, VP5, YN, YV, ZL and 3A. The forty-metre CW enthusiasts have, between them, garnered AR8, CE, CE7, HC, HK, HR, KS4, KV4, KZ5, TI, VK, VP4 and 5. VQ3, XE, ZD2, ZL and ZS.

There are a few countries there that most of us would like to hear on that band. Twenty-metre countries heard have been too numerous to mention; DX has really been quite good. Finally, Ten-metre phone has given us AR8, CE, CR₄, 6 and 7, CX, EL, LU, OQ, PY, VQ₂ and 4, YV, ZD₁, ZE, ZS, ZS₅ and 3V.

From that brief summary of the news as a whole you will probably get some idea of the shape of DX conditions at present. If you've heard half of it on your own you're doing pretty well.

Twenty-Metre Results

As usual, we will deal with the busiest band first. There have been some unusual stations around at times. G. C. Allen (Thornton Heath) says: "One could single out KG6AAE and ZK1BC as outstanding phone performers, and, on the CW side, JA2KW, KR6DR, ZD3A and ZS7HC." Stations being called, but not heard by G.C.A., were FI8RO, VR2CD and ZD9WZ. A "queerie" was US8AA, describing himself as a German in the Russian zone; not heard since, and probably en route for the salt mines already.

H. M. Graham (Harefield) curses the short skip, but adds that on August 2 he heard a W₅ at S₈ in amongst the welter of DL₄'s. He thinks the 5th district is quite the rarest on this band. August 18 he found like old times, with hefty signals from W and VE and hardly any Europeans. VQ4ERR comes in for mention, but the consistency prize goes again to VP6SD. Another frequent visitor was HC1JW. H.M.G.

AMATEUR BAND COMMENTARY by the DX Scribe



On June 17 the Birmingham & District Short Wave Society, affiliated to the BSWL, put G2BON/P on the air and had a very successful day on the Top Band, with some 25-30 stations worked. Our photograph shows some of the members present, including G2BON and Messrs Shepard, Neal and Frearson. On this occasion, power supply was from rotary converters run from 6-volt batteries, and the aerial a 132-footer end fed.

asks whether the Calls Heard rules are suspended for the purpose of SLP's, as he finds Europeans and EKI's often appearing in the SLP lists. We have had no definite ruling on this subject, but, in general, the idea of an SLP list is to include your "25 Best" or thereabouts; if the best you can manage includes some Europeans, put them in. If we're short of space we will cut them out.

Botham (Walsall) heard VO4ERR and VS9MA in QSO, and understands that VSoAH will be operating from Kamaran Island, in the Red Sea, before long. Whether this will count as a new country, of course, I can't say-but keep a look out.

A. M. Munford (Cambridge) tells us that F7AR (who operated 7B4QF) has been in Andorra again, this time signing PXIAR. He also heard W2SKE saving (via the VOA programme) that he had been on the air as ET2SKE/AM for an hour or so-did anyone hear him? A.M.M. found conditions patchy, but heard HR1BG, ST2GL, TG9RV and ZK1BC for new ones. He also found HBIJJ/HE, who was quite active on the band for a while.

D. Burke (Hull) remarks that 0700o800 has been very good for VK's, and 1800-1900 equally good for ZS's; this late summer is running true to type. He remarks on the mysterious UP5A, who was heard telling a CT that he would OSL direct. All the "official" UP stations are 2's. Nice ones in D.B.'s list of phones are CPIAS, HEIJJ and YIIAA—the latter at 0812 on August

S. Smith (Kenilworth) thought conditions were terrible and only dug out UP5A and ZD4AC. A. W. G. Boulton (Norwich) boosts his total with six new ones - VKIYM, VP8AP, EAØAB, VKoGW, VP7NM and FI8RO, all on

CW in the evenings.

D. S. Kendall (Potters Bar) reports with PK4DA, UP5A, ZK1BC, EAØAC, PJ5HO, KG6AAE, HE9LAA, HBIJJ/ HE and YI3ECU—all phone. M. G. Whitaker (Halifax) added (Chagos) and VKIBS to his total (both CW). On phone he heard OA4AR, and other good (CW) signals were FQ8AG, PJ5FN and YI2AC. Stations being called, but not heard, were VR2CD,

VR2CG and VR6WW (CW) and VR5GA and ZM6AA (phone). M.G.W. finds the mornings improving for Oceania.

J. H. Lloyd (Enfield) had one of the nicest bags of the month, including FF8DA. KW6AI, PZ1A, VP5BF. VOIXO, YI3E], YKIAH and ZKIBEall phone. He heard a W saying that TT2KNL is a Russian station in Tannu Tuva, who QSL'S; and I have also been hearing a buzz about TTØKKA in the same country.

Tonga on Phone

E. J. Logan (Hertford), who is our top-scorer in the phone list, added yet another when he heard VR5GA at 0715 GMT. He says the early mornings have been good with such catches as ZM6AA, HC8GI, KG6AAE, KL7AFL, VS1EE and VS9MA. The aforementioned PX1AR was also heard several times. E.J.L.'s only criticism of the band concerns the European QRM and a very high noise level.

M. E. S. Birch (Beverley) has a rather inundiced outlook being just

rather jaundiced outlook, being just about due for two years off the air; he says: "Life on the band is at a very low ebb, but there are occasional bright patches." He asks for information on the Zone or Country of ZK5 and JY1. ZK5 is a new one on me; JY1XY is in Transjordan and has the

same status as the ZCr's.

B. L. Stedman (London, W.3) has been active with phone-chasing, and netted VP4LD, ZK1BC and ZP4BB, others of interest being MP4KAD, OQ5BG, SU1AS, VU2JU and MJWKK/ Airborne. He would like to know if UP5A is genuine. R. A. Hawley (Goostrey) says the band has not been so bad, and his two star items are ZKiBC and VR₅GA, other nice ones being KG6AA, 6AAE and 6ABC. The best Asian signals were VS₇PW and VU₂JP, both heard at S8-9 when no

DX OTH's

Namgyal Maharaj Kumar, Gangtok, via Calcutta, India.

c/o ECAFE, Paruskawan Palace, Bangkok, Tahailand. **HSIUN**

JA2KW c/o APO 500, F.E.A.R.L. MP4KAD Box 54, Kuwait, Persian Gulf.

AC3PT

OQ5AA World's Fair, Leopoldville, Belgian Congo.

E. C. Roberts, Government Aerodrome, Lae, New Guinea.F. O. Thomas, 5 Columbus, St. VK9QK VP4LD

Arima, Trinidad.

others from those parts were audible. XU6F was heard on CW, but regarded suspicion. R.A.H. understands (correctly) that the oS stations in Saarland are now counted as a country, but he queries IT (Sicily). That one does not count.

K. Parvin (Thornton Heath) thought ZK1BC the most interesting, but others were EP3SS, JY1XY, KV4AO and ZD2CD—all phone. Early in the month there was quite a Liechtenstein party, with three HE's on the air. DX that got away - sad thought - included AC3SQ, HS1UN, VK9KT.

YIIAA and ZM6AA.

H. J. Lamb (Southampton) suggests that B. L. Stedman's "MP4KD" might have been 4KAV, but we have several reports of 4KAD this month, so that's probably settled. H.J.L. was mighty pleased to receive a QSL from DUIAL.

The band seems to have been kind to I. S. Davies (London, N.13) if one judges by VK9KT, CP5EQ, TG9RV, HR1KS and XE1AC (all phone). He also logged a couple of VK7's after chasing them for years, and three CP's in one week, but would very much like the best times and frequencies for AC3SQ, 3PT and FN8AD. He also asks if any one has heard a KZ5 on 14 mc Phone during the last two years; surely there's no shortage of them, is there?

Good ones singled out by O. Black (Anstey) were VU2JP, KH6GS, ZD4AC and VS2BC; and on July 29 he says the W6's were coming in like locals.

H. J. Hill (Whitley Bay) is another lucky one who has his card from DU1AL (although he's a little puzzled because it was posted in Ilford!!). He has heard PX1A on phone several times, and still wonders. A. Jackson (Huddersfield) thinks the band has improved, and he found the DX always there, along with the mixed skip and high QRM-level. He, by the way, confirms MP4KAD, who said that all the VTr's changed over on July 16.

From Overseas

O. E. Schremer (Ramat-Gan, Israel) is a keen listener and BSWL member; he asks if British Somaliland (VQ6), Somalia (MD4) and Italian Somaliland (I5) count as three countries. No—only two. VQ6 counts as one, and MD4 or I5 as the other; the position is similar to other countries where the British Forces use one prefix and the nationals another.

D. C. Stace (New Zealand) sends in another nice list of Calls Heard, which speaks for itself. Doubtless you would like to hear some of those prefixes—but no more than he would like to hear, say, a 3A, a PX or even a ZB2!

R. J. Riding (Wednesfield) spent most of the last month with his o-V-I at Herne Bay, Kent. He didn't find much time for listening, but managed to rustle up 17Z and 53C for the period. Six new countries were among them—HRIKS, KR6GJ, OA4AI, TI2KW, VU2JU and YKIAH.

Some nice gleanings come from N. C. Smith (Petts Wood), who thought there were some very good periods on Twenty. The best phones were CPIAS, EAØAC, HRILH, JA2MB (SSSC) and ZKIBC, also VKIRF, although he was believed to have left Macquarie Is. CW listening produced CR9AF, FIBRO, FL7XB, HC9JW, EAØAB, JA7AR, KJ6AI, KW6AR, VP5BF, HC9JW was interesting and is believed to have been an expedition to the island of Juan Fernandez, but nothing definite is yet known.

C. R. Burchell (Walsall) found it a good month for phone, and logged HRIBG, HSIUN, PJ5FN and ZKIBC. He also thinks he heard XU6F on phone, but is not too sure. An outstanding signal during the month came from ZS6YM, and VS7PW is also highly commended. G. Hardwick (Knaresborough) collected VR5GA, HSIUN, KH6, KG6 and MP4 for new ones, and asks who PX7AR is, as a KG6 was heard calling him. Well, as we have already mentioned, F7AR operated as PX1AR, so probably there was a mix-up for some reason. G.H. wonders whether thunderstorms affect DX, as he found that during one on July 25 quite a lot of stuff came through that could not be heard either before or after.

T. Ward (Ilminster) also mentions PX1AR, and heard SU1AS on phone, giving his QTH as Cairo. E. Horton (West Bromwich) is a bit fogged by the Calls Heard instructions, and wants to know how to recognise East Coast USA stations. Well, E.H., all W1, 2, 3 and 4 stations are on the East Coast; likewise 8's and 9's hardly count as DX. That leaves W6, 7, Ø and possibly 5 as eligible for the lists. Regarding U.K. Counties: No, you can't deduce them from the call-sign; you have to get the identification from the station itself. Most of them give it at least once during

THE AUGUST CONTEST

(Zones and Countries Heard - All Bands)

Listener	Zones	Coun- tries
PHONE & CW:		
G. C. Allen (Thornton Heath) N. C. Smith (Petts Wood) D. A. Winters (Loughborough) R. A. Hawley (Goostrey) PHONE ONLY:	36 36 33 33	138 132 100 99
J. H. Lloyd (Enfield) D. S. Kendall (Potters Bar) A. H. Trigell (Lymington) K. Parvin (Thornton Heath) A. M. Munford (Cambridge) H. Warburton (BAOR) R. A. Hawley (Goostrey) G. C. Allen (Thornton Heath) H. M. Graham (Harefield) R. J. Riding (Wednesfield)	33 30 30 29 28 27 27 27 22 19	101 96 95 108 79 85 78 85 60

each transmission; if they don't, they should.

D. L. McLean (Yeovil) found the band very good until the ionospheric storm towards the end of August spoilt the conditions. Best times of day were o630 and 1700-1900, and the best DX heard (all phone) was CR4AD and 6AJ, JA2OM, KG6AAE, 6AAY and 6ABC, three KH6's, KV4AQ, MP4KAD, VQ5CB and ZD2CD. A. Wilson (Sheffield) is more generous and thinks the band has been good from 1600 until midnight. He queries TB2AC, who has been heard twice on phone.

H. Warburton (BAOR 8) sends an interesting letter. He finds Twenty stays open much longer than it used to at his previous QTH in Aberdeen; he has logged HSrUN and VS6HR for new Zones, but just lost a ZS7 by the skin of his teeth. He would very much like to know when to listen for Mexico, as he's been hunting Zone 6 for weeks without any luck. (I suggest a good look round in the early mornings when the South Americans are coming through.)

Forty Metres.

And so we pass to the most exasperating, but sometimes the most interesting band of the lot. Some remarkable logging has been done on Forty, and the band should be red-hot this winter. G. C. Allen has found it good during

the small hours, having bagged LU, CO, TI, CE7Z and XE. Later on, ZL and VK produce nice signals. On August 18 a kind of contest brought out all the choice Russian prefixes,

many districts being heard.

A. M. Munford heard some ZL's on phone, also plenty of Latin Americans! D. S. Kendall was thrilled with the ZL's, who gave him his HAC on forty-meter phone; the others, all on phone during the past year, were HZ1KE, MD2JH, ZB1AJX, CE3AX and HP1EP. The score on Forty only is now 14Z and 51C. K. Parvin logged ZL3JD on phone, 0530 GMT. I. S. Davies offers ZL4HE, 2LD, 4BN and 3JD, all between 0550 and 0710; other DX included CO, FA, YV (0100), HP, TI and YN

N. C. Smith logged a type calling himself AC4AD, about whom the less said the better! Genuine ones were 3A2AD, MF2RE, TA1AC and "hordes of ZL's." T. Ward bagged ZL4AC as late as 0830 GMT—good going! He was working L4DJJ, also audible at the time. A. Wilson found ZL1HY, 3GT, PY1SR and KS4AQ on the band. D. Morris (Oswestry) heard KZ5, XE, CM, EA9, CN8 and 3A2AC, together with

some new Europeans.

Some of my private spies have told me of all sorts of interesting people about to came on the band for the winter season. Most of them will be of the CW fraternity, but quite a few exotic phones will also be there. Maybe you don't like Forty—but if you ignore it you'll be missing quite a lot.

Eighty Metres

You will gather from the Calls Heard that this band has also been pretty interesting. KZ5AP, W's and VE's were logged by G. C. Allen; D. S. Kendall heard W5DNV (Missouri) on phone; and that's about all that is to be gleaned from the reports. In addition I know that some of the CW types have been working ZL's every morning, and that VQ4CM and 4HJP have been putting over colossal signals in the evening.

Ten Metres

Although the ten-metre band has been in its usual dicky state, a good many listeners have persevered with it—some still to the exclusion of all other bands. G. C. Allen found August 18 " just like old times" and August 4 " very reasonable." He pulled out one plum in the shape of ZSoF on phone.

"ZONES HEARD" LISTING (POST-WAR)

Listener	Zones	Coun- tries	Listener	Zones	Coun- tries
PHONE and CW			PHONE ONLY (cont'd)		
N. C. Smith (Petts Wood)	40	224	K. Parvin (Thornton Heath)	38	180
A. H. Edgar (Newcastle)		223	D. Kendall (Potters Bar)	38	178
R. S. Stott (Upminster)		222	M. G. Whitaker (Halifax)	38	156
E. Trebilcock (Australia)		218	K. M. Parry (Sandwich)	38	154
R. A. Hawley (Goostrey)		.205	N. Roberts (Launceston)		152
R. W. Thomas (London, E.5)		200	D. Vincent (Beckenham)		148
W. J. C. Pinnell (Sidcup)		198	D. L. McLean (Yeovil)	37	188
A. W. G. Boulton (Norwich)		196	J. P. Warren (West Croydon)		176
D. W. Waddell (Hitchin)	40	194	P. H. Strudwick (Ldn., N.W.11)	37	168
M. G. Whitaker (Halifax)		186	A. Levi (Belfast)		160
B. Davies (Beckenham)		177	A. M. Norden (Ldn., N.W.11)		156
N. S. Beckett (Lowestoft)		201	R. J. Line, (Reading)	37	156
W. Neal (Birmingham)		163	B. W. Sutton (Liverpool)	37	145
M. J. Marlow (Guildford)		157	D. G. Martin (Cheltenham)		154
F. A. Herridge (London, S.W.12)		157	C. S. Pollington (Chichester)		151
R. W. Finch (Hford)		134	D. C. Stace (New Zealand)		130
A. O. Frearson (Birmingham)	35	125	H. M. Graham (Harefield)	0.0	150
			A. L. Higgins (Aberkenfig)	0.5	138
PHONE ONLY			A. M. Munford (Cambridge)	25	136
C I V = 4 = - (N = - 4)	40	30.4	J. H. Lloyd (Enfield)		136
E. J. Logan (Hertford)		204	B. L. Stedman (London, W.3)	24	115 107
R. G. Poppi (Beckenham)		175 163	R. Lamble (Ardingly)		124
F. K. Earp (London, S.W.11)		191	H. Warburton (BAOR)		96
R. A. Hawley (Goostrey)	38	191	A. Jackson (Huddersfield)	31	90



At the Evesham Rotary Club Exhibition, G3DAM laid on an Amateur Radio Station, operating under call G3DAM/A; it attracted the constant attention of interested spectators.

H. M. Graham found little but MM's and Europeans; M. G. Whitaker collected two PY's, one MM and a few Europeans, and asks "Why do people persist?" R. A. Hawley did better than most, with ELIOA, HBIHY/HE, OQ5AO and 5BL, VQ4BU and 4SGC. K. Parvin offers HBIJJ/HE and adds the interesting information that August this year was apparently better than the same period last year. Between July 22 and August 22 his figures for stations outside Europe were: 1949—104 stations in 34 countries; 1950—24 stations in 13 countries; 1951—49 stations in 16 countries. Are we looking up after all?

I. S. Davies calls the band "dead and alive," with such stuff as EK, LU, PY and OQ5. D. L. McLean lists CR4AC, 6AC, 6CC and 7CE as his best. J. W. Cave (Parkstone) thinks the next peak will occur in 1957-58, although, as he says, the so-called eleven-year cycle lasts for anything between 9 and 13 years. He thinks that all the DX being heard on 14 mc indicates that we are not yet down the bottom of the trough. He also asks me to state that he can no longer reply to all readers who write to him and ask for details of circuitry, aerals, and so on; he has been getting lots of such letters and has very little time for dealing with them.

The August Contest

Quite a good little batch of entries was received for this, and the top-scorers have good reason to congratulate themselves on an excellent performance during a spell of poor conditions. G. C. Allen scooped the Phone and CW section, and J. H. Lloyd the Phone Only, but a special word of praise should go to K. Parvin for achieving the highest country total in the latter section.

entry from D. A. Winters (Loughborough) is a little ambiguous, as he gave separate totals for all four bands and then added the figures together (giving a reading of countries and 54 zones)! As I have no means of sorting out his overall total of countries and zones I have credited him with 30 and 100, which was his figure for the 14 mc band only. probably does him less than justice; but he was the only one to misunderstand the rules! Whatever his true figure, it would not have put him above the winners, so his third place is a fair

General Patter

H. M. Graham heartily seconds J. Butcher's remarks about G stations using Twenty for local contacts, to the detriment of SWL's eardrums when

they are nicely attuned to a weak DX station. T. E. Botham asks whether the individual islands in the Windwards count as separate countries? No, they don't. Likewise PJ5 (Dutch West Indies) comprises several islands, but the whole group count as only one country.

I have often thought that a complete method of scoring on the basis of islands only would be rather amusing, but one would need an excellent Atlas-cum-Gazetteer, and even then the arguments would be endless. The present Country List is fixed for us, and whatever we think of some of the "decisions," we have at least some set yardstick to go for.

M. G. Whitaker asks if MT1 and MD1 are separate? No, again; they count along with MD2. It is M.G.W.'s fifth anniversary as an SWL and a reader, and he asks whether I remember the time when month after month was consistently excellent and I simply didn't know where to begin with the news? I certainly do—look back at any 1947 issue and you'll see what he means.

K. Parvin replies to a few of last month's queries: He did hear 7B4QF on 14 mc phone; "FU2RJ" should almost certainly be SU2RJ; W/MM's on 14 mc seem to operate within U.S. Territorial waters only, with the exception of W2OXE/MM, which is an expedition. And now a summary of 3½ years of phone loggings by K.P.: 2462 W's, 509 VE's, 454 PY's, 346 LU's 328 VK's, 145 ZS's, 100 ZL's, 92 CO's and 87 KP4's. (Yes, that does represent quite a lot of listening!)

G. C. Allen heard VP6SD say that he will definitely be on 1.7 mc during December, January and February, and will be on phone only. He expects to work lots of W's, but will have a shot at some G contacts too.

N. C. Smith adds confirmation to the news that CT1BW has a card from TT2KNC. The interesting thing about this rare bird is, of course, that he is not only a new country for everybody, but is also in Zone 23! Queer ones mentioned by N.C.S. include I4ADF, FN8BB and KB6DQ, quite apart from the ubiquitous UP5A and the highly-doubtful AC4AD on 7 mc.

D. Garrard (Ipswich) is still "QRP," using a o-V-o with 2-volt valves and 45 volts HT; best DX so far is KG4AT.

D. L. McLean says that PX1A was operated by EA3FL and EA3HE, but is now QRT. This was quite a separate

expedition from the F7AR/PXIAR affair. (Incidentally, talking of expeditions, 3A2AD was on the air towards the end of August, operated by an HBq.)

D.L.M. continues to the effect that SV9RP (Crete) and VQ1IV have been on 14 mc CW. H. J. Hill (Whitley Bay) has had domestic trouble and a bit of a rebuild, so has not been very active. Even a proposed portable outing had to be called off. He reports, however, that the Top Band has been opening up nicely for the Southern counties and that it might well be a hot DX band again this winter.

Top Band Topics

Only one real Top-Band letter, and that is from R. Iball (Worksop). He is a bit disappointed by the ruling that U.K. stations should not appear in Calls Heard lists in future but says, rather ruefully, that he supposes it to be a good thing. He only needs Hunts. and Rutland for All English Counties, 1951! He has had 98 per cent. replies to his reports on this band and is, of course, looking forward to the Transatlantics and the DX season in general.

As some readers may already know, GW3ZV (Rhigos) is running a Top. Band schedule with ZLIAH, which commenced at 1900 BST on September 15, on about 1900 kc. GW3ZV has built a special aerial system for this most interesting test, and there is every chance of his signals being at least heard in ZL, even if QSO is not effected. It is a bad time for 1.7 mc DX reception at this end, as the QRM and noise levels are usually fairly high. On the other hand, the time and the season do give the maximum darkness path Antipodes.

The September Contest

As announced last month, this will be a band-warming party for 1.7 mc. See how many U.K. counties you can log on *Phone* (this time). Don't forget that "U.K." includes G. GC, GD, GI, GM and GW, but not EI. The period is August 22 to September 22.

The October Contest

To give the CW boys a look in, and to change the subject just a little. I propose that we should make this a two-band affair for CW only, the bands being 3.5 and 7 mc. See how many countries you can log on each band,

your total score being the sum of two lists—one for 3.5 and one for 7 mc. Everything counts—even G!

Set Listening Periods

September 23, 0700-0800 G.M.T.—14 mc CW and Phone

September 23, 2200-2300 G.M.T.— 7 mc CW and Phone

October 20, 1700-1800 GMT-14 mc CW

October 21, 0700-0800 GMT-14 mc

Deadline for the next issue is first post on September 26, and for the one after that, first post on October 24. All news, views, scores, reports, Calls Heard and the rest to DX Scribe, Short Wave Listener & Television Review, 55 Victoria Street, London, S.W.I. Until time, Good Hunting, 73 and next BCNU.

Faraday The Sport

By W. A. CLEMENSON (G6KQ)

ONSIDERING the grave expression of the average scientific practitioner, one would be forgiven for concluding that genius is in no way related to geniality.

No doubt a serious study of the arts brings to many a feeling of serenity and satisfaction, but among the more generous intelligences these types stand

out as "odd."

Yet, even among the genuises an odd" type often shows itself, and Michael Faraday is a good example of a queer mixture of rare talent and high spirits.

Faraday is best known in electrical engineering circles for his discovery of the spark that gave birth to electromagnetic induction, but his researches into chemistry are no less remarkable.

His discovery which pioneered the dynamo is said to have advanced civilisation by 100 years. This, unlike many modern inventions, was no accident, for he knew what he was seeking, and 120 years ago this August he observed with satisfaction "the tiny spark that lighted the world."

But Faraday led what might be called "a double life." The other side of him craved fun and games, and he was not slow to originate amusement. He was a frequent visitor to the races, and he had also a keen appetite for masked balls.

He was so full of the joys of life that on one occasion he simply could not resist the temptation to appear in public dressed in a night-gown and night-cap!

If Faraday were alive today he would undoubtedly be working on the problem of atomic power, but he would also find time to indulge in some of today's amusements.

He could, after the manner of Professor Andrade, excite the admiration and capture the attention of little boys and grown-ups with his lectures and demonstrations, and he encouraged those who wished to repeat his own tests up-stage.

Faraday once attended a seance and, as he put it, "turned the tables on the table-turners." By means of a simple device, he was able to prove whenever any of those present applied muscular force in moving the table. After this "exposure" the table failed to move again.

He showed no repugnance to the attractions of the opposite sex. When he fell violently in love with the sister of his friend, she made to escape him by seeking refuge in Ramsgate. faced this challenge by setting off in pursuit, and married her.

If we can give a thought today for the most natural of natural philosophers,

we might do so-with a grin.

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CALLS HEARD

SET LISTENING PERIODS

1.7 mc

Aug. 26, 1100-1200 GMT

F. A. Herridge, 95 Ramsden Road, Balham, London, S.W.12.

PHONE: G2LW, 3AEX, 3BFP, 3BVA, 3CNV, 3DVN, 3EAY, 3FBR, 3FKJ, 3FNZ, 3FRV, 3FSR, 3FVG, 3GBO, 3GOZ, 3HDW, 3TA, 4GA, 4NG, 5LC, 6GK, 8RC (SSSC).

CW: G2QX, 3AAU, 3DPW, 3GIO, 3GXG, 3GZJ, 3HQB, 6AB, 6QY. (Rx: Modified R1034)

E. Horton, 44 Grafton Road, West Bromwich, Staffs.

PHONE: G3AAQ, 3AVE, 3BMY, 3CPP, 3DFL, 8RY, 8SR. (Rx: Home-Built 1-V-1).

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

PHONE: G3DQQ, 3FGI, 3JT, 5AU, 5XM. CW: G2BTO/P, 3BRS/P, 3FMI, 3GXR, 3GYR, 4CJ, 8GG/P. (Rx: AR88 and 5.504).

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

PHONE: G2AYO, 3BKV, 3EEY, 3MT, 5TZ, 6HN, GW2BG, 2IP. (Rx: Vidor CN361).

J. H. Lloyd, 51 Larmans Road, Enfield, Middx.

PHONE: G3ARU, 3CNB, 3CNV, 3DBM, 3DCO, 3FKJ, 3HDW, 4FC 4GA, 6GK, 8RC. (Rx: R.103 Mk. II).

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

R. Iball, 48 School Road, Langold, Worksop, Notts.

CW: G2HW, 3BRS/P, 3DQQ, 3FMI, 3GXR. (Rx: 0-V-0).

W. Eyre, Orchard Field, Whaley Bridge, Derbyshire. PHONE: G2BH, 2FYX, 2VO, 3BHV, 3FGI, 3FQH, 3FLQ, 3FVK, 3JT, 3NT, 3VP/A, 4CJ, Please note these simple rules for sending in your lists of Calls Heard.

28 mc: No Europeans.

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

7 mc: No Europeans.

3.5 mc: No Europeans.

1.7 mc: No U.K. stations.

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

4PL, 5AU, 5VX, 5XF, 5XM, 6PL, 8CB.

CW: G2BTO, 2HW, 3BRS/P, 3EGN, 3FMI, 3GKQ, 3GYR, 3HGD, 4CJ, 8GG. (Rx: S.640).

R. A. E. Rolfe, 140 Normanshire Drive, Chingford, London, E.4.

don, E.4. PHONE: G3ARU, 3CNV, 3EAY, 3FJK, 3FSR, 3GOZ, 3HDW, 4GA. (Rx: Home-built Super).

GENERAL

3.5 mc

I. S. Davies, 127 Hazelwood Lane, Palmers Green, London, N.13. PHONE: W2KR, 2MVT, 3AMQ, 3FWB, 4GNF, 4RFX, 4RNK, 8HRV. (Rx: R1155/A and B36).

J. L. Hall, 2 Coombe Court, St. Peters Road, Croydon. CW: VO4HJP, ZL3GQ, 4IE.

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

CW: K8AIR, KZ5DE, VE3DCA, W1BZF, 2FA, 2QOS, 2ZEK, 4MG, 9ROM.
PHONE: VE1ADT, 1YV. (Rx: 5.750).

7 mc

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

PHONE: CM2BL, CO2FG, 8AN, FA8BE, 8CC, HP1AL, PY2AWG, 2AZ, 2BDV, 2CQ, T12CHV, YN1OC, YV5BW, ZL2LD, 3JD, 4BN, 4HE. (Rx: B36).

D. Morris, Priddbwll Mawr, Llangedwyn, Oswestry.

CW: AR8AB, FA8FT, 80A, 9GT, 9WA, CO7VS, HSINW, K25AT, W8QDA, XEIAXE. PHONE: CMIBF, CN8BA, EA9AT, FA8BE, 8DO, 8LE, TA1QRB, 3A2AC, 984AH.

A. M. Munford, 51 Woodlark Road, Cambridge.

PHONE: CO8JG, HC1FG, LU4DJJ, PY4LY, T12RC, YV6AO, ZL4HG.

R. Iball, 48 School Road, Langold, Worksop, Notts.

CW: AR8AB, CE7ZQ, CM2FC, 8RL, CO3BU, 8ML, HK5BH, LU4BH, MD2JB, PY2BFX, 4AJ, TF5P, VE1W, 2TA, 3XY, VP4CQ, VP5BF, W4AKC, 4AKJ, 4ET, W4FDL, 4NDX. (Rx: 0-V-0, using HL2, 2v LY 120v HT).

O. E. Schremer, 8 Talpioth St., Ramat-Gan, Israel.

CW: W5KZB, EA6AR.
PHONE: ZC4XP, EA6AR,
LU4DD, PY6AY. (Rx: Sparton
6 value).

J. L. Hall, 2 Coombe Court, St. Peters Road, Croydon.

PHONE: HK5EJ, HP3DA, HRIRE, LU4BH, 4D JJ, TG9AF, TI2MS, VP5BF (Caicos 1s.), VV1AP, 6AO, ZL1HY, 3JD, 4GA, 4HE. CW: AR8AB, CX1FY, HR1AR KS4AQ, VK2AHA, 2PA, 2PC' 2ZC, 3BD, 3PG, 3XU, 4AP, 7JB, 7KA, 7LJ, VP5BH (Cayman Is.), VQ3KIF, ZLIDI, IGY, IHY, 1PN, 2ADS, 2GH, 2GL, 2HP, 2MM, 2PX, 2TI, 2HI, 3JD, 3JQ, 3OX, 4FT, 4GA, 4HI, ZSILN.

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

CIV: AC4AD, CE3BM, HC1JW, 2ME, HK5CR, 5DH, KG4AP, KV4AI, 4AQ, KZ5CW, LU7UH, TA1AC, TI2AM, 2ES, VE7OC, VK2AD, 2PC, VP4CQ, 4LZ, 9AK, W5DF, 5DJA, 7PCB, ZD2HAH, ZL1AU, 2AC, 3A2AD. (Rx: S.750).

14 mc

A. W. G. Boulton, 7a Carrow Hill, Norwich.

CE4AD, CR4AH, CR4AJ, EAOAB, ØAC, F9QV/FC, F18RO, FN8AD, KG6AAE, KH6WU, GYL. PZ1AL, VK9GW, VP7NM, 9OO, 9VV, VQ2AB, 3SS, XZ2EM, Y12AG, 3HPG, YK1UN, ZL3GQ, 4FO, 4AV. (Rx: S20 with preselector).

O. E. Schremer, BSWL 4142, 8 Talpioth St., Ramat-Gan, Israel.

CW: CE2CC, HZIJC, KH6BA, KP4AZ, KZ5AA, MI3AB, OX3MC, 3BD, STZTC, UG6AB, WD, ZB1BS.
PH0NE: EA6AF, 6AR, CS3BB, CO2OZ, HC2NF, HK3HCC, 4DZ, HILA, HZ1TA, MD1VK, MP4KAC, MT1BA, VP5BL, 5FR, VP7NH, VT1AB, 1AD, 1AF, ZC4NF.

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

PHONE: CE3CZ, CR6AI, EP3SS, HB1JJ, HIEEC, HR1BG, HS1UN, HZ1AF, I5ZC, JY1XY, MP4KAD, OA4M, PJ5FN, PX1AR, T14JG, TG9RV, UP5A, VY3LF, VS7PW, 9MA, YK1AH, YN1RA, 4CB, YS2SA, ZD4AC, ZK1BC. (Rx: HMV. 1120).

N. Roberts, Aspen View, 29 Race Hill, Launceston, Cornwall

PHONE: HGIJW, HPILA, KG6AAE, MP4KAD, OQ5BG, 5CQ, 5DZ, PJ5FN, SU1AS, TI2KW, VP4LG, VQ2HM, 4ERR, 5CB, V\$2B\$, 7GW, YV5AB, ZD4AC, ZE2JE, 2JK, ZS1BV, 1KW, 3Q, 6OI, 6SG. (Rxs: SX-28A and S.750).

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

PHONE: EAØAC, EP3SS, JY1XY, 15ZC, KG6AAE, 6ABC, KH6AQ, 6EL, 6YL, KR6AF, 6FA, 6GJ, KV4AQ, MP4KAD, PJ5FN, VQ2HM, VU2JU, YS2SA, ZD1SW, 2CD, 4AC, ZK1BC, ZL2LW, 4CP, 4HV. (Rx: 504).

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

AR8BS. CM9AA, CS3AA, CX4CS, EA8BF, KG6AA, HCIFG. HI6EC KH6GS, KR6GJ, OO5BT. KP4OE, LU5XE MI3US, OX3GD. TA3AA, TESA V VESPJ, VO2MF, VP3LF, 6SD, VS1AX, 2BC, 7PW, VU2]P, W6PKK, YV5AB, ZB1H, 2A, ZC6G1, ZD4AC, ZP4BB, ZC6GI, ZD4AC, ZI ZS6FN. (Rx: Hambander).

J. C. Cunningham, 45 Marshall St., Larkhall, Lanarkshire, Scotland.

PHONE : EL2R, KP4FP, LU4BH, 4CN, MD2GC, OX3BD, TA3AA, VK5LT, VP5FR, 6SD, ZD4AC. (Rx: 1-V-2).

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

PHONE: CE1BN, CP1AS, 3CB, 5EQ, CR4AJ, HC2KB, HK3AS, HR1KS, KH6AEX, 6CD, 61J, 6YL, OA4EG, 4M, TG9RV, VK7AJ, 7SK, 9KT, VP3HAG, VS7WA, VU2WR, XE1AC, YN4CB, ZL4FO, 4GC, 4JJ. (Rx: R:208 and B36).

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

PHONE: AC3PT, CP5EK, CR6AN, EL2R, HC1FG, HK4AA, HS1UN, JA2AF, KG6AAE, KR6GJ, KZ5AF, OX3DG, T14RAF, VK2D, VP1AB, 3HAG, VS1AX, W6YX, XZ2KN, YK1AH, YS2AG, ZL4CP, ZP4BB, ZS6FZ. (Rz: 1-V-2).

G. Ayton, 76 St. Bernard Road, Stockton-on-Tees.

PHONE: AR8BS, CS3AB, HI6EC, HK2AS, 2JO, LU5CZ, OQ5CF, PY1OVC, VP4TH, T12RC, ZB1AJX. (Rx: S.640).

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

PHONE: HK4FV, KG4AB, 6AA, 6AAE, 6ABC, KH6DY, 6RR, 6YL, MS2AA, VK3DQ, 3WM, 5RN, VP3LF, 6SD, VS7PW, VU2JP, ZL2JB.

CW: CE7ZQ, EQ3B, VQ2GW, VU2BC, VS1CZ, XU6F, XZ2EM. (Rx: AR-88 and S.504).

S. Smith, 40 Stoneleigh Rd., Kenilworth, Warks.

PHONE: CS3AA, HE9LAA, HZ1AB, KG6AAE, KP4AZ, LUSAJ, 8FA, 8VR, MP4KAD, OQ5BG, TA3AA, VK5RN, VP4CK, 6YE, YV5AI, 5EX, ZD1SW, 2PO, 4AC, 6DW, 60I. (Rx: B.36).

R. J. Riding, Trewatha, Fibbersley, Wednesfield.

PHONE: AR8BC, CM9AA, CX2CO, HC1JW, 2KB, HR1KS,

HZ1AF, KP4MR, KR6GJ, LU1KG, MI3JV, OA4AI, T12KW, VP3LF, 4TH, 5BL, 9AR, VQ4RF, VS7PW, VU2ED, 2JU, YK1AH, YS1RR, YV2AM, ZC4XP, 6GI, 4X4HA. (Rx: Home-built Battery 0-V-1).

H. J. Lamb, 222 Honeysuckle Road, Southampton.

CW: C2AR, EQ3B, VS1CZ.
PHONE: AR8BS, CO2OZ,
CP5DZ, CS3AA, 3AB, HPIGL,
2ER, HRIKS, HZ1TA, KG6AAE,
6ABC, KP4AN, 4AZ, 4FFA, 4FP,
MP4KAV, OQ5BG, PJ5HH,
TF5SV, TI2OE, VK6YL,
VO1AH, VP5BL, 6MO, 7MU,
9AR, VQ4AA, VS2BS, 7PW.
(Rx: R.62).

A. R. McWalter, Wemyss Bay Hotel, Wemyss Bay.

PHONE: AR8BC, CEIAQ, IBN, 3AE, CO8MP, HISEC, 8WF, KG4AB, KP4AZ, 4HF, 4MU, 4NN, TA3AA, VP3LF, 6FO, 6PV, 6SD, 9D, 9HA. (Rx: Type 78 into R.12244).

H. M. Graham, 28 Park Lane, Harefield, Middx.

PHONE: AR8BS, CE3CZ, CM9AA, CO6CA, EA6AT, H12X, H16EC, HK1BG, HP1LB, KG4AT, KP4CP, MI3AB, OQ5DZ, OX3GD, PJ5FN, TA3AA, T14JG, VP3HAG, 4LG, 5AK, 6PV, 9XX, VO4ERR, VU2JU, YV8AD, ZD4AC. (Rx:1-V-1).

C. G. M. Kimber, Valletta, 12 Beatrice Ave., Canvey Island, Essex.

PHONE: AR8BB, 8BS, EA8AV, OQ5BJ, VQ4AA, ZB1AJ, 1AJX, 1BZ, 2A, ZD4AC, ZE2JK, ZS6ME, 4X4AT. (Rx: R.1155).

D. C. Stace, Box 30, Spring Creek, New Zealand.

PHONE: CN8EJ, 8EW, HC8GI, HRIKS, JA2HB, 5AA, ØJJ, KB6AO, KH6OR, KM6AV, KP4NN, KW6AU, KX6AC, KZ5AA, SVØWR, VKIBS, 2ABD, 2WI, 3UZ, 3WM, 9RC, VP5AK, 5FR, 7NH, VRIB, ZKIBC. (Rx: Mullard 957, 9-valve).

A. Jackson, 57 De Lacy Ave., Almondbury, Huddersfield.

PHONE: CE4AK, CO2CA, CP5EZ, CX2CO, HC1FG, HH2X, H16EC, HK1DZ, HP1LA, HR1KS, KV4AQ, OQ5BG, T12OE, VX3FE, VP4LL, 5AK, 6JC, 9VV, VQ4AA, 5AU, VS7PW, YN4CB, YS1GM, YV2AS, ZD1SS, ZP2AE. (Rx: 0-V-0).

A. M. Munford, 51 Woodlark Road, Cambridge.

CR6AI, HR1BG, KG6AAE, 6ABC, KH6AEX, 6AQ, 6DY, 6GS, 6IJ, 6OR, 6RR, 6YL, KL7AFR, MP4KAD, ST2GL, TG9RV, VP3HAG, VQ5AU, VS7PW, 7WA, VU2JU, YN4CB, ZD4AC, ZE2JK, ZK1BC, ZP2AA, 4BB. (Rx: 7-Tube Superhet).

J. Butcher, 27 Westfield Road, South Shore, Blackpool, Lancs.

PHONE: HK3AS, HP1LA, JA20M, KG6AAY, KR6GI, KZ5AA, MD4KD, MP4KAD, OQ5BG, OX3GD, PJ5FN, SU1AS, VK3JT, VP4TH, 5BL, 9VV, VQ4BU, 5CB, VS1AX, 7PW, 9MA, VU2JU, YN4CB, ZC6GI, ZP4BB. (Rx: 1·V-1).

G. Hardwick, 11, Carmires Ave., Knaresborough, Yorks. PHONE: HSIUN, KG6AAE.

PHONE: HSIUN, KG6AAE, KH6RR, MP4KAD, PIILC/MM, VR5GA, VS2BS, VU2JU, YS2SA. (Rx: Battery 0-V-2).

E. J. Logan, Linten Cottage, Fanshawe Street, Bengeo, Hertford.

PHONE: AR8BC, CE3CZ, HC1JW, 8GI, JA2CC, KG6AAE, KL7AFL, KV4AQ, OA4AI, SUIAS, TA3AA. VP3YG, 4TH, 5AK, 6PV, VR5GA, VSIEE, 7PW, 9MA, VU2US, ZC4DT, ZD4AC, ZM6AA, ZP2AE, ZS6FN. (Rx: BC 342-J).

A. Wilson, 14 Crossland Road, Hathersage, Nr. Sheffield.

PHONE: CX2CO, HCI JW, IFG, HK IFG, KP4MR, 4AU, 4FR, 4HY, 4KW, OQ5BG, PJ5FN, VP4LL, VP6FO, 6SD, 6WR, 6RA, VP9G, 90O, 9HH, VQ4RF, V57PW, VS9MA, VU2JU, YV5AB, 4X4AK. CW: CE7ZQ, CO2OR, CP5EK, EAØAB, EQ3B, FQ8AG, KG4AT, KV4AA, OA4MS, PJ5ZO, PZ2AL, ST2MN, VP41.Z, ZS2GR, 5KS, 4X4DE. (Rx: R11544).

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

PHONE: CR4AD, 6AJ, EL2R, HZITA, JA2OM, JY1XY, KG5AAE, 6AAY, 6ABC, KH6DY, 6RR, 6YL, KL7AFR, KV4AQ, MI3US, MP4KAD, OA4AE, OQ5AO, 5BG, 5CA, 5CQ, VEBMA, VP3LF, 4TH, 4TR, VQ5CB, ZC4DT, 6JM, ZD2CD, 4AC, AC, ZE2JK. (Rx: SX28 and AR88LF).

E. Horton, 44 Grafton Road, West Bromwich, Staffs.

PHONE: EK1AD, MD2FM, 2PJ, PJ5FN, VP6FO, 6SD, VQ4RF, ZB2A, ZD1SS. (Rx: Home-built Mains 1-V-1).

M. S. Noble, Sunnyside, Moorend Road, Mellor, Via Stockport, Cheshire.

PHONE: HCIJW, KH6DM, LU6AJ, 6UD, VP4LG, 5AK, VQ4RF, ZP1AD. (Rx: Hambander). J. P. Colwill, Hay Common, Launceston, Cornwall.

PHONE: AR8BC, CE3JJ, CO7AA, CX2CL, HG1JW, H18WS, HK1DZ, OQ5BG, 5CQ, 5DZ, 5LL, PJ5FN, VK2AHM, 2APA, 3AKA, 3AGX, VP4LG, 4LL, 5AK, 5FR, 9AR, VQ2HN, ZE1JE, Z14CU, ZS6O1. (Rx: Vidor CN361).

D. J. Macrae, 19 Hillsea Road, Swanage, Dorset.

PHONE: AR8BT, CE1AO, CM9AA, CO2OZ, EASBB, 7BB, KP4AZ, 4HF, 4HG, LU1DJU, 7FAR, 8DAF, 8DR, OX3GD, PK4DA, VK2OR, VP5AK, 5BL, 5PA, 6FO, 6ZB, 9BX, 9F, XZ2SY, YV5AB, ZD4AC. (Rx: BC348N).

G. E. Howell, Burnside, Mill Street, Necton, Swaffham, Norfolk.

PHONE: AR8BS, JA2AF, 20M, KG6AAY, 6ABC, KH6YL, KP4AZ, 0X3BD, TA3AA, VQ4RF, 5AU, VS1AS, 2BS, 7PW, VU2ED, 2JP, 2JU, YV5AB, ZC6JM, ZD4AC, ZS6DW, 4X4AT, 3V8BB. (Rx: R.1155A).

J. H. Lloyd, 51 Larmans Road, Enfield, Middx.

PHONE: CESCZ, CO2OZ, CP4DG, EAØAB, FF8CC, HP1GD, 11,B, HR1BG, JA2OM, JY1YY, KG6AAE, KH6AE, KL7AFR, KW6AI, MP4KAD, PZ1A, VP3YG, 5BF, VQ1XQ, VS6RX, 7BW, VU2JU, 2US, XE2KW, Y1SEI, YK1AH, YN1RA, 4CB, YS1ES, ZD1SS, ZE2QE, ZK1BC, ZM6AK, R11551.

R. M. Powell, The Cottage, Pontypool Road, Pontypool, Mon.

PHONE: EA6AR, 8AX, EK1RR, ISA, EP5B, IS1EHM, KP4KW, LU4AX, VQ4RR, YI3HPG, YQ2BG, ZB1BZ, 2A, ZO4AC. (Rx: 0-V-1).

M. G. Whitaker, Stile-House, Shelf, Nr. Halifax.

CW: CEIDE, 4AD, FO8AG, HCIFG, KH6ES, WU, KV4AC, KZ5DC, PJ5FN, US8AA, VE8AW, VK1BS, VP9OO, VQ2GW, 8CB, VS1EC, 2CQ, 6HR, VU2BC, W6TI, 6UI, 6ZU, YI2AC, YN4CB. (Rx: 0-V-1).

H. Warburton, Munster Lager, B.A.O.R. 8.

B.A.U.K. 8.

PHONE: CEIAM, 3CC, CPIAS, 5EQ, EP3SO, HK4FD, HP1LA, 1LB, HR1KS, JA2CC, KG6AAE, KH6ABX, KR6FA, KV4AQ, KZ5NM, MI3US, 3ZX, OA4BD, 4DW, VP5DX, 5FR, 9VV, VQ5AU, 5DES, ZE2JK. (Rxs: Sobell 4-valve and PCR2).

E. Pringle, 34 Woodbine Terrace, Birtley, Co. Durham.

PHONE; CEIHF, 3CZ, CM9AA.

CO8GZ, EL2R, HC1LT, HP1GD,

1LB, KG4AU, KG6AAE, 6ABC,

KH6AY, 61J, 6YL, KJ6AQ, KL7YZ, KP4OE, PZ1D, 1WK, VP3LF, VP5FR, VQ4RF, 5AU, VR5YA, VS7PW, VU2]C, YN4CB, YV5AC, ZC6GI, ZK1BC, ZM6AA, ZS6JS. (Rx: BC342N).

A. V. Sheckley, 48 Broad St., Carlisle, Cumberland.

PHONE: CE2CC, HC1FG, KP4WC, LU5CZ, VO1VI, VP4GH, 6SD, W5GSY, 9GUW, VV1BK. (Rx: "Aerodyne" 4-valve, 1935 Model).

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

CW: CE7ZN, CR9AF, EAØAB, EQ3B, FI8RO, FL7XB, FQ8AE, FY7YB, HC9JW, JA7AR, JY1AJ KG6GU, KH6GS, KJ6AI, KL7AFK, KR6AC, 6EI, KW6AR, PJ5RE, PZ1AL, VE5RI, VP5BF, VQ3SS, VS6HR, 7NG, 7XG, VU2GU, XU6F, XZ2EM, YN1OC, YS1FM, ZD2HAH, 4JK, ZE3JL. PHONE: CP1AS, EAØAC, ELZR, HC2OL, HK3FS, HP1AP, HR1LH, JA2MB, KG6AAE, KH6AQ, 6RR, OA4M, VE6GK, KH6AQ, 7SK, VP3HAG, 3LF, 5EQ, VQ4AI, VS7PW, XE1HM, 1VA, 2KW, ZD2CD, ZK1BC, ZL4AW, 4JA. (Rx: S.750).

28 mc

G. Ayton, 76 St. Bernard Road, Stockton-on-Tees.

CTISX, F3NF, HB9JK, I1BMP, LU3BR, 3BU, 4AAH, 5DC, 6VS, OQ5CQ, 5LL, PY1AGP, 2AHS, ZS6CT, 6OW, 6TE. (Rx: S640).

J. W. Cave, 12 Hilda Road, Parkstone, Dorset.

 PHONE
 AR8BB, CE3CZ, CX4CS, LU9CI, OQ5CL, PY4DH, VQ4SGC, YV5BZ

 3V8BB, 4X4CW.
 (Rx: 0-V-1)

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

PHONE: CR4AC, 6AC, 6CC, 7CE, CX2CO, 4CS, ELIOA, OQSAA, 5BI, 5BR, 5JA, 5LL, VQ4ASC, 4BU, 4CRM, 4RF, 4SGC, ZS1B, 1T. (Rx: SX28 and AR88LF).

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

PHONE: AR8AB, CE1AJ, 3AI, CR6AC, 6CC, CX2CN, 2CO, 4CS, EK1AD, EL1OA, OQ5AA, 5AO, 5CL, 5CX, VQ4ASC, 4CRM, ZDISW, ZE2KH, ZS1B, 1KW, 1T, 3O, 6MD, 6MV, 6TE, 9F. (Rx: 504).

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

PHONE: CX2CO, 4CS, EK1AO, LU1DCE, 3DH, 5DBN, 5DZ, 6AJ, 6DJD, 8GF, OQ5CL, PY1AGP, 2AC, 2RT, 3BXB, VQ2WP, 4RF, ZS1JD, ZS9F. (Rx: S.750).

THE VHF END

by A. A. MAWSE

Conditions and Activity—

Many New Stations Logged—

Individual Reports and Results—

The November Contest-

I hardly seemed necessary for the meteorologists to tell us that August 1951 had been the wettest for quite a number of years. The constant succession of depressions with their associated troughs, particularly during the second half of the month, certainly brought us more than our quota of rain, and as was to be expected produced a somewhat unexciting month on the VHF bands. However, on many evenings which looked to be most unpropitious, 150- to 200-mile DX was to be found on two metres if an intensive search was made; not S9 plus signals, of course, but readable CW. G54V, GD3DA/P, GW5MQ were all heard on the South Coast during bad weather periods.

All this adds support to what your conductor said last month about the unreliability of barometric pressure as a guide to two metres. Your A.A.M. always feels a greater sense of achievement when he has pulled in a DX signal during what are normally regarded as adverse weather conditions. When there is a nicely placed duct and ON's and DL's are coming through like locals is not the time to test the worthiness of a new aerial or converter. Rather, do we want the occasion when others are not hearing any DX. the good converter, the good aerial, the good location and last, but certainly not least, the good operator show their goodness by still bringing in the occa-sional DX. And the good operator will still be listening even although his barometer has reached lowest ever!

Useful Reports

Colleague G2XC, of Short Wave Magazine, has passed us a letter from G5UM, regarding SWL reports. G5UM comments that he has never yet received a useless report from a VHF listener. G2XC adds his support to this and says the main trouble is that listeners' reports are too few. The fact that many of the transmitters do value listeners' reports is also borne out by R. L. Bastin (Coventry), who mentions that he received a request from a London transmitter for a OSL! This was a direct result of the appearance of the station's call-sign in a Calls Heard list in these columns a month or two ago. All this, of course, is really not so surprising, as the listener who has the skill to get a converter working on Two Metres or Seventy Centimetres is almost certain to realise the points which make a report of use to the transmitter.

And GC2CNC of Jersey, C.I., says that he, too, will welcome SWL reports, which will all be QSL'd provided an S.A.E. is enclosed. His frequencies are 145.13 or 145.44 mc and operating periods are daily from about 2230 clock time onwards. It should be noted that GC2CNC is CW only, and that he is the furtherest South of all stations with a prefix in the G series.

G2BTO/P

Readers will, we are sure, be interested in details of portable station G2BTO/P located 1½ miles E.S.E. of Rivington Pike, near Bolton, since our regular correspondent E. A. Lomax has had much to do with it, and has supplied the receiving equipment. The station operates on 144.26 mc and is 1100 feet a.s.l. The transmitter, provided by G3BKS, has an 829 PA running at 25 watts, and is driven by a 6L6 followed by three RK34 stages. The E. A. Lomax converter uses the G2IQ circuit for 6J6's and feeds into an S640 on 10 mc. The aerial is a "City Slicker" constructed by G2HGR and is 35 feet above ground and beams S.E. and N.W. G2BTO supplied the accessory equipment and the call-sign. G6QT, who was also to have taken part, unfortunately had to go to hospital and

THE SHORT WAVE LISTENER TWO-METRE RECEIVING CONTEST

INFORMATION

This Contest is being run in conjunction with the Two-Metre Transmitting Contest organised by the Short Wave Magazine. Entrants in the transmitting contest are required to exchange RST, reference number and QTH. Each contestant allots himself a 3-figure reference number which remains unchanged during the period of the Contest. This reference number (say 342) is sent before the RST or RS report in the following manner: 342RST569, or 342RS56 in the case of a phone report.

RULES

SWL SECTION

- The period of the Contest will be Saturday, November 3, 1500 GMT to Sunday, November 4, 2359 GMT.
- (2) Points will be claimed for reception of either British or Continental stations using the 144-146 mc band.
- (3) Stations may be logged on either 'phone or CW.
- (4) (a) For full points, SWL's must log correctly callsign of station heard; and RST, reference number and QTH given by station for which points are being claimed. RST's given by the SWL receiving are not required.
 - (b) If this full information is received from both ends of one QSO, full points may be claimed on both stations. The full points for any station logged will be calculated by dividing the distance between the SWL location and the station by 20, and adding 1. Thus distances less than 20 miles will score 1 point; distances from 20 to 40 miles 2 points, and so on Fractions will not be counted.
- (5) Reduced points may be scored for the reception of stations more than 60 miles distant heard calling CQ or from whom the complete information required by Rule 4 is not received. These reduced points will in all cases be 3 less than full points.
- (6) Stations up to 100 miles may be logged once only for points. Stations at 100 miles or more, may be logged twice provided at least 6 hours separates the two times of reception. Scoring will be as provided by Rules 4 and 5.
- (7) Point-to-point distances will be taken from the Ordnance Survey, "Ten-Mile" Map of Great Britain or calculated from latitude and longitude in the case of Continental stations.
- (8) Results should reach A. A. Mawse, Short Wave Listener and Television Review, 55, Victoria Street, London, S.W.1 by November 12, 1951 latest, set out as follows:
 - (a) Log for period of Contest, showing only calls claimed to count, with time of reception, reference number, RST and QTH given by transmitting station, call of station being worked, distance and points claimed. (The distance and points claimed must be entered on the log by the contestant). The total score must be shown at the end of the log. The National Grid Reference of the SWL should be given if possible.
 - (b) A short description of the equipment used and general notes on impressions and experiences of the Contest.

Results of the SWL section of the Contest will be reported in the January 1952 issue of Short Wave Listener and Television Review, due out on December 20, 1951.

was therefore prevented from joining the party. Mains equipment is being used, and everything is housed in a large "hen cabin" kindly loaned by a farmer friend! The operators intend staying there until they have worked something worth while and certainly until the end of September. As E. A. Lomax says, this is a combined effort to use their best equipment under as nearly ideal conditions as possible. So far propagation conditions have been

against them, but even so they are working DX stations which are inaudible at lower levels. 70 cm equipment is also to be installed. Reports are desired on both 2-metre and 70 cm signals from G2BTO/P and all reports will be QSL'd.

During the week to September 9, G2BTO/P was successful in working G2OI, G3DA, G3ELT, G4LU and GW5MQ on 70 cm, with high signal

levels both ways.

Other News

The appearance of GD3DA/P on the band, as briefly mentioned in last month's "VHF End," provided a measure of excitement and an opportunity to many to score a new county and at the same time a new country. A full description of the activities of GD3DA/P has already appeared Short Wave Magazine, so we will not repeat it here except to mention that the station was 2035 feet up on Snaefell and was operated in very bad weather conditions. P. J. Towgood (Bournemouth) heard GD3DA/P at a steady S3 on July 29, the distance being 270 miles. No other signals were received from the North that evening, although EI2W was S7-8. GD3DA/P was also heard by R. L. Bastin (Coventry) on July 30 at S6.

F8MX on holiday at St. Valery on the Channel Coast provided a good signal on two metres in the London area, L. A. Whitmill reporting him at Sq. R. A. E. Rolfe (Chingford) also heard him at 128 miles peaking to So. Of still greater interest, however, is the fact that G2DD (Stanmore) heard him on 70 cm; G2FTS (Hailsham) acted as a 2-metre link between G2DD and F8MX (who could not work on that band) and was able to copy F8MX's 70 cm signals relayed on two metres by G2DD! This was all overheard by L. A. Whitmill, and the date was August 23.

A. H. Edgar (Newcastle-on-Tyne) has reached his tenth county and so now qualifies for the Counties Tables. G6NB (Buckinghamshire) provided the signal, and at 220 miles also represents A.H.E.'s best GDX. He has a new converter in use, and though reserving his final judgment, says that while on the old RF26 'phone from G2BCY is almost unreadable, on the new G2IQ, it is R4. Signals seem to jump out at one instead of lurking furtively in the noise; he hopes to improve the bandspread to make tuning easier. The only two good days since A.H.E. last wrote have been June 29 and July 21. On the later date he heard 28 stations, but had difficulty in logging them, due to instability in the RF26. He blames this on the EC52, and cured it by holding it 2 feet from the floor and letting go! A.H.E. is looking forward to the Contest in November, and remarks that if conditions are "ultra-super" he will

VHF CALLS HEARD Rx: 6J6/6J6/2x6C4 converter into

9mc xtal controlled converter, into 1.6mc IF/AF amp. Acrial 4-ele. c/s beam 22ft. high. All heard

R. L. Bastin, 152 Avon Street, Coventry, Warwicks.

COVERTY, WATMANS.

Phone and CW: All over 25
miles: G2AJ, 2BTO/P, 2HCG,
2HOP, 2MV, 2NH, 2RI, 2XV,
3AOO, 3ATZ, 3AVO/A, 3BA,
3BLP, 3CHY, 3DUP, 3DJQ,
3EHY, 3FEX, 3FMI, 3GHI,
3GUD, 3HAZ, 3WW, 4CI, 4HT,
5BY, 5DB, 5DF, 5LI, 5TP, 5WP,
6AG, 6NB, 6SN, 6VX, 6XM,
8AX GD3DA/P.

July 25-August 29).

6AG, 6NB, 6SI 8AX, GD3DA/P.

Leics.

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

Phone and CW: G2BCY, 2DKH, 2FO, 3ALY, 3CYY, 3DMK, 3DMU, 4JJ, 4LX, 4WB, 5BD, 6LI, 6NB, 8AO, 8AX, GM3EGW, June 27 to August 28, Mod. RF26 and 6J6, 6J6, 2 x 955, into S.640. 4-ele. v.w.s. beam in roof space).

G2DHV, London, S.E.13.
G2AHP, 2AJ, 2AYM, 2FKZ/P, 2FTS/P, 2HCG/P, 2MR, 2NH, 2WS, 2XV/P, 3AY, 3BLP, 3CJY/P, 3ELW/P, 3ELD/P, 3ENS/P, 3ERD/P, 3FD/P, 3FM, 3FD/P, 3FM, 4DC, 4HT, 4ZC, 5BC, 5LI, 6CB, 6LX/P, 6UH, 8LP, 8KZ/P, 8QY/P, 8SM/P, GW3ENY/P. (July 8),

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

Phone and CW: 100-150 miles: F8AA, 9RL, G2BVW, 2HCG, 2UQ, 2WJ, 3ABA, 3AGA, 3ANB, 3BA, 3DUP, 3DJQ, 3WW, 4MW, 4RK, 6YU, 8SY, GC2CNC. 150-200 miles: F8NW, 9DI, G3ATZ, 3BKS, 3GUD, 8AX, 8SB, GW2ADZ, 5MQ. 200-250 miles: G2CPT, 5BD, 5VV 250-300 miles: EI2W, G3BW, GD3DA/P, ON4BZ.

R. Beam in roof space, also folded dipole 50ft. Location 200ft. a.s.l. dipole 50ft. NGR 42/359803). W. C. Askew, 2 Burrough Rd., Somerby, Melton, Mowbray,

Rx : G2IQ-6J6-6J6-6J6-CVTR into BC455-8mc SWL 4-ele. v.w.s.

Phone and CW: G2ANL, 2BVW, Phone and CW: G2ANL, 2BVW, 2FQW, 2FQP, 2FZU, 2HCG, 2HOP, 2RI, 3BA, 3BK, 3BLP, 3CGQ, 3CHY, 3CXD, 3DUP, 3DVP, 3EHY, 3ENS, 3EMJ, 3FFC, 3FRE, 3FUW, 3GGJ, 3GUD, 3HAZ, 3WW, 4FO, 4HT, 5ML, 5RW, 5SK, 5TP, 5YV, 6AG, 6CW, 6NB, 6YO, 6YU, 8OU, 8SY, GW2ADZ. (Rx: G2IQ Converter into "Com-mander." 4-ele Yagi, 650ft. a.s.l. July 20 to August 20).

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

F8MX, G2AHP, 2AVR, 2AYM, 2BN, 2DD, 2DTO, 2DVD, 2FTS, 2FVD, 2HDZ, 2LW, 2MV, 2MH, 2PU, 2XC, 2XV, 3BA, 3BK, 3BVG, 3BVY, 3CDJ, 3GQ, 3CWW, 3DAH, 3DPD, 3DQC, 3DUP, 3DVQ, 3ECA, 3EEI, 3EEI 3CWW, 3DAH, 3DPD, 3DQC, 3DUP, 3DVQ, 3ECA, 3EEI, 3EJM, 3FAN, 3FD, 3FEX, 3FSD, 3FSG, 3FSR, 3FVD, 3FXS, 3GAV, 3GMZ, 3GSE, 3GTH, 3HIS, 3HAB, 3WW, 4CI, 4FB, 4HT, 4KD, 4RO, 5AS, 5BY, 5DF, 5HN, 5LI, 5SZ, 5TP, 5UM, 6JK, 6JP, 6KB, 6LL, 6LR, 6NR, 6QN, 6WU, 6XM, 6YP, 8AX, 8IL, 8KZ, 8OU, 8VR, 8WV, GW2ADZ, 3EJM. (Rx: 6J6 pre-amp into RF27 into

(Rx: 6J6 pre-amp into RF27 into S.640 5-ele. beam. July 24-August

. W. Blandford, 1 Biggin Avenue, Mitcham, Surrey.

Phone: F8MX, G2FTS, 2HCG, 2UQ, 2XC, 2XV, 3BA, 3BK, 3BNC, 3DUP, 3DUQ, 3EHY, 3FAN, 3FEX, 3GOP, 4SA, 5BM, 5UM, GW3EJM. (Rx: 6)6-EF54-EF54-955 into 1155 at 9.5mc. 4-ele C.S. beam).

TWO-METRE COUNTIES HEARD IN 1951 Starting Figure, 10 P. J. Towgood R. L. Bastin H. J. Balsam A. W. Blandford 32 30 E. A. Lomax L. A. Whitmill W. C. Askew I. R. Paul A. H. Edgar 29 28 22 Note: Only counties heard since January 1, 1951 may be claimed for this table. **ALL-TIME** Starting Figure, 10 (286)P. J. Towgood (Bournemouth) ... E. A. Lomax (Bolton R. L. Bastin (Coventry) A. W. Blandford (Mitcham) L. A. Whitmill (Harrow Weald) 19 (165)12.0 353 363 27 H. J. Balsam (Didcot) ... W. C. Askew (Melton Mowbray) J. R. Paul (Lymington) ... P. Finn (Iver) ... (120) 39 20 (67)90 A. H. Edgar (Newcastle-on-Tyne) 10 Note: Figures in brackets give total number of

different stations heard.

win by a very wide margin!

R. A. E. Rolfe (Chingford) writes in response to our request for reports. A calls-heard list to which he refers, however, seems to have gone astray, as it did not reach A.A.M. He has been on Two for a month or so, using a CV53 grounded grid, an EF54 RF amplifier and a crystal diode mixer. The oscillator is a 9002 working on half injection frequency. The aerial is a 6-element stack in the loft, firing N. and S. He uses the crystal mixer, as all he gets when he uses an EF50 is noise. (The EF50 hardly seems an ideal valve for 2-metre work.) R.A.E.R. wonders why others do not use crystal mixers. Another VHF converter enables him to listen to Wrotham, and Sutton Coldfield. He is now waiting for Holme

R. L. Bastin (Coventry) heard G5BY on July 27 for his first Devon station. A City-Slicker is being built for use at G5ML/P, which will be operated from a site about 300 feet a.s.l. with 12 watts input. A 4-over-4-over-4-over-4 is on the drawing board, but the feed system is not easy to design. It may become a 6-over-6. He reports many multi-element arrays going up at local transmitters.

P. J. Towgood (Bournemouth) has at long last heard G3AGA (Falmouth) to give him another county. He wishes there were more early evening activity,

as at 2130 he begins to feel tired. P.J.T. is planning to build a cascode converter after a visit from G2NH, who has one working successfully. He endorses our recent comments on activity and barometer readings, and says what a lot some people miss. A. W. Blandford (Mitcham) found August 13 and 14 best days, when F8MX was a good signal with him. A number of new converters have been tried, the best so far being a cascode using 6AK5 in the first stage—but none of these is as good as his original RF27 unit!

R. Turner (Portsmouth) lives midway between G2XC and G3GVC. As these two stations are themselves less than a mile apart, R.T. has no difficulty in hearing either of them, in spite of having no RF stage in his converter! Other locals up to 30 miles have been

logged.

In Conclusion

The rules for the November Contest appear this month. The scoring system is different from previous years, but we think it should be clear enough. However, if there are any obscure points, please let your conductor have them in time for clarification in this column next month. Latest date for reports is September 26. A.A.M. hopes to listen on Two during the European Contest on the September 29/30 week-end, so please let him have reports on time, thus enabling him to complete "VHF End" early in the week-end! The address is, of course, A. A. Mawse, Short Wave Listener & Television Review, 55 Victoria Street, London, S.W.I.

TWO-METRE DX

R. L. Bastin	OZ2FR	486 miles
(Coventry)		
W. C. Askew	OZ2FR	452 miles
(Melton Mowbray)		
A. L. Mynett	DL3NQ	410 miles
(Wembley)		
E. A. Lomax	PAØIK	340 miles
(Bolton)	man a	204 11
R. Hastie	F3DC	221 miles
(Hayes)		
L. A. Whitmill	G5BY	181 miles
(Harrow Weald)		
R. A. John	G3BLP	168 miles
(Swansea)		
L. B. Bailey	G3WW	160 miles
(Stockton)		
A. F. Hayton	G5BD	116 miles
(Palmers Green)		
BT - 4 - 4 11 - 4 1 - 6 - 4	Side a file or some	1

Note: All claims for this table must be accompanied by QSL card to verify, and must be for distances in excess of 100 miles.

WORLD WIDE RECEPTION OF SHORT WAVE PROGRAMMES

DX broadcast

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

J. W. SMITH, VE8RY (Whitehorse, Yukon), has sent us further information regarding the medium-wave station CFWH; the news is given in the Yukon's only radio monthly The Whitehorse Dial, which contains full programme schedules for this station on 1240 kc and is published under the direction of Col. H. W. Love, Commander, Northwest Highway System. CFWH normally operates from 1630 to

0915 daily.

The new home of the International Service of the Canadian Broadcasting Corporation in Montreal was officially opened in May this year. The 12-storey building is equipped with twenty-nine studios and facilities are provided for programme material to be fed from any part of the North-American continent. C. R. Johns (Bournemouth) listens to CKNC, 17820 kc, 1845-1900, for News and a feature about the Canadian Mounted Police. D. Christmas (Southsea, Hants) likes "Canadian Chronicle" at 1715, heard also over CKCS, 15320 kc; it includes such divergent features as wild life preservation and the mining of uranium.

B. Mercer (Hulme, Manchester) has just received a letter verification from Angmagssalik, East Greenland; they operate on 7570 kc, 12300 kc and 15403.5 kc, each running 500 watts. Programmes extend from 1400 to 1430 or later, and consist of News in Greenlandic and Danish, shipping information, weather reports and musical recordings. The letter says that owing to ice moving tightly southwards between November and June, verifications can only be sent during the other four months of the year. The operator's address is: Arne Kaldahl, c/o OIC Radio Station, Angmagssalik, Greenland, but reports during the winter should be sent to: Arne Kaldahl, Ellebakken 33, Hellerup, Denmark.

E. Kirby (Leeds 7) heard a speech by President Truman and an interview with Sarah Churchill, the actress, between 1900 and 1930 over WABC3, 17830 kc, and C. R. Johns listened to "Report from Washington" at 2010 over WABC5, 15130 kc. C.R.J. mentions that the Voice Of America is asking for listeners' comments on their programmes and is sending radio maps to those submitting good suggestions; they also verify 100%. J. R. Mathews (Rhymney, Mon.) listens to the United States AFRS broadcast at 2100 over WRCA6, 15210 kc.

Australasia

P. J. Arthurs (Dublin, Ireland) has had the satisfaction of hearing his own request item broadcast by Radio Australia over VLA9, 9580 kc at o602 on August 4; VLB11, 11760 kc, is also good, and P.J.A. enjoys the Wednesday musical quiz feature "Incognito" at 0740. Ron and Mrs. Abrahams (Houns-low Middleren) had a trempendous theil low, Middlesex) had a tremendous thrill when they heard their own request over VLA9 on the same day; they had chosen a selection from Tschaikovsky's Serenade For Strings and had been prepared for this great pleasure by Graham Hutchins in "DX'ers Calling" on July 8. R. T. Blackmore (Exeter) listened to the Australian Forces broadcast at 2150 over VLB15, 15160 kc; there was a News and a recording of "The Dream of Oliver." On July 21 we listened to the Rugby League contest between France and Australia; Bernard Kerr's commentary was heard over VLB21. 21540 kc, and after the full-time bell at o535 he said: "Now the Frenchmen hold the ashes; France wins the Rugby League Championship of the world."
R. Abrahams has logged VLM4, 4920
kc around 2030 with "Morning Melody" -musical recordings and frequent time checks; readability was generally poor.

TABULATED SCHEDULES

Syrian Republic, General Administration of Broadcasting, Victory Ι. Street, Damascus, Syria.

English Broadcasts:

2130-2230. 11915 kc. (20 kW). Rhombic Antenna, directed to Western Europe. 1445-1545. 17865 kc. (20 kW). Rhombic Antenna, directed to India and Pakistan. (Arabic and

English programme). 0930-1130 (Sundays only). 15395 kc. (7.5 kW). (English and French programme).

Reception reports and general comments on programmes welcomed.

Czechoslovakia Calling, Foreign Language Broadcasts, Czechoslovak TI Radio, Prague XII, Czechoslovakia.

Daily English Broadcasts:

1215-1245: 11875 kc and 9550 kc. 1900-1930: 11875 kc and 9550 kc. 2100-2130 : 11875 kc and 9550 kc.

Prague Radio welcomes reception reports and criticisms of its programmes. Questions are answered in the weekly "Answers to Listeners" Programme.

III. HCJB, The Voice of the Andes, Casilla 691, Quito, Ecuador.

English Broadcasts directed to Europe.

"Quito Calling": 1930-2030. 17890 kc and 15115 kc.

"Ecuadorean Echoes": 2200-2300. 17890 kc, 15115 kc, 12455 kc.

English Broadcasts directed to North America:

"Southern Cross Salute": 0200-0530, 15115 kc, 12455 kc, 9997 kc. (5995 kc after 0400).

English Broadcast directed to the Pacific Area:

" Morning In The Mountains": 1130-1230. 12455 ke and 9997 kc.

Graham Hutchins (Melbourne) sends us two interesting items. Radio Tahiti, 6135 kc, is on the air daily, 0430-0630; an English programme is heard on Thursdays at 0500, and includes shipping and weather news and air flight information; the closing announcement at 0525 is: "This is Radio Tahiti in the 48-metre band; time again next Wednesday evening at 7 p.m. for a further English programme."

Hollandia, Dutch New Guinea, 7147 kc (7160 kc announced), using 500 watts, is on the air Tuesday, Wednesday, Friday, Saturday, Sunday, from 0915 to 1130; the opening at 0915 is preceded by the ticking of their studio

clock.

Africa

R. Abrahams finds Nairobi, 4855 kc, sometimes quite good at 1810 with local and South African News, weather and shipping forecasts and reports on various roads in Kenya. Radio Tanganyika at Dar-es-Salaam on 3330 kc operates from 1500 to 1600 on Mondays, Wednesdays and Fridays with a programme in Swahili. R. Abrahams reports that Sao Tomé, 17677 kc, was a very good signal for the whole of its transmission between 1200 and 1300 on July 8; he writes:

"The continuity of the entire transmission was excellent; between each announcement they play a delightful recording of guitar music, even between the frequency announcements - the Portuguese National Anthem is given at the end of the transmission. interval signal consists of three gong notes of different tones, which precedes every station and frequency announce-ment."

We shall be interested to hear if anyone in this country has received Sao Tomé's verification card; such appear to be very few and far between!

R.A. has also been getting good reception from the Union of South Africa. Cape Town, 5892 kc, has been heard at 2058 with: "All of a Sudden My Heart Sings," English announcements and an Epilogue, and closing at 2108 with the two National Anthems. Johannesburg, 9870 kc, has been logged between 1800 and 1900; on one occasion R.A. listened to a talk entitled: "Art Note-Case," followed at 2015 by the second half of a symphony concert which included the Symphony in G minor by the Irish composer E. J. Moeran. A verification signed E.F., Pretorius, includes the following sentence: "Your report will, no doubt, be

very interesting to our Engineering Division, and we are, therefore, passing your letter on to them." Springbok Radio, Johannesburg, 4945 kc, was quite a good signal at 1830 on July 4 writes R. Abrahams; he heard: "Beyond The Blue Horizon" and "Mexican Hat" with sponsored announcements every few minutes.

CR7BU, Lourenco Marques, 4915 kc, has been noted at 2035, also with English language commercial programmes; at 2045 the time was given as "a quarter-to-eleven," the Good-Night Melody at 2058, and the Portuguese National Anthem finally at 2100. B. Mercer heard Mafeking, Bechuanaland, 8230 kc, with a continous programme of popular recordings between 1815 and 1930 (close-down).

E. Lund (Morecambe) has been listen-

ing to Radio Brazzaville's morning transmission at 1000 over 15595 kc; there is an English News with a female reader at 1015. P. J. Arthurs tells us that the English transmission from Radio Dakar is at 1900 daily over 11885 kc and 15346 kc; the address is: 93, Rue Felix Faure, Dakar. C. S. Shapiro (Belfast) supplies the information that Radio Africa, Tangier, is now back on 7100 kc, signing on at 1900 with directions in French, Spanish and English. He also reports Pan-American Broad-casting System, Tangier, on a new frequency of 7525 kc at 1700; pro-grammes consist of American dance music and directions are given in French, Spanish and English. The final transmission is from 1900 to 2200 and they announce that they will reply to ALL letters. R. Abrahams heard them on 7540 kc at 2100 announcing as: "This is the Pan-American Radio, Tangier, operating on the 40-metre

On July 20 we listened to Omdurman on 18070 kc at 1745, when Mohammed Ahmed Omar, Editor of the Sudan Herald, described his experiences during his visit to the Festival of Britain and the South Bank Exhibition in London, the aim of which, he said, has been to present the British way of life to the world. We have heard from M. A. Khangie, Broadcasting Officer, P.O. Box 522, Khartoum, that only during the Mohammedan month of Ramadan (5th June-4th July) was the Friday broadcast in English timed for 1700. The English broadcasts have now been resumed at 1730-1800 on Fridays on 5975 kc, 9740 kc and 18070 kc.

Asia

We welcome a letter from J. A. Russell (Pasadena, California), who has offered to assist us by sending regular reports of stations logged in his location. He reports that BED6, Taipeh, Formosa, 11734 kc, gives strong signals at 1000. Other Chinese stations are heard on 11732 kc at 0630, another on 11730 kc with a different programme, and a third on 11706 kc with martial music around 1500. J.A.R. hears HLKA, Korea, 7935 kc, at 1240 with Hallelujah Chorus and Ave Maria; it operates in parallel with 4778 kc, which he logged at 1220; the North Korean transmitter on 4277 kc received at 1210 operates intermittently. R. T. Blackmore heard Communist China on 15060 kc opening up at 2200 on July 8 with a Fanfare March and Identification: "You are listening to Radio Peking" News in English followed. The Japanese station JKM, 4940 kc, gives native music at 1025.

A number of readers report on Radio Indonesia. C. R. Johns has identified YDE, 11770 kc, with "Turntable Time" at 1915; E. Lund heard it just before the close at 2000, when it was stated that the next News in English would be at 1100 on the morrow; P. J. Arthurs listened to the feature: "Strictly Jazz," at 1930 on August 9, and gives the address as: The Voice of Indonesia, P.O. Box No. 7, Djakarta, Indonesia. R. T. Blackmore reports YDC, 15150 kc, at 1900 on July 27 with News in English, followed by a talk entitled: "Spotlight on Indonesia."

R. Abrahams logged DZH8, 15300 kc, at 1600, concluding a "Bringing Christ To The Nations," broadcast with the direction: "This is the Far East Broadcasting Company in Manila, the Philippine Republic—the Time is 12 o'clock midnight." R. P. Welch-Bartram (Aylesbury, Bucks) mentions their other frequencies—9730 kc, 6030 kc and 3320 kc. English programmes are given as follows: Weekdays: 2330-0130, 0400-0415, 0500-0600, 0800-1015, 1200-1400, 1500-1530; Sundays: 2300-0500, 0530-1030, 1130-1600.

J. A. Russell has received a tape recording by mail direct from B. H. Brunemeier, Electronics Department of this network, and who was formerly W6FHM. DZB2, 3320 kc, is operated for the purpose of reaching missionaries in the field who are equipped with small battery-operated receivers for use back in the jungle beyond the power lines.

DZH8 is their pride and joy, having drawn more listeners' letters than all the other transmitters combined! It has 2½ kW input into a three-element parasitic wide-spaced Yagi array; the elements are 1½in. brass tubes and the array is rotated by hand. They hope it is typhoon proof—it has survived one

already!

C. P. Turner (Crewe) has logged the Commercial Service of Radio Ceylon on 15120 kc at 0245 and on 11975 kc at 1645; their verification gives the daily schedule as: 0145-0730, 1130-1645, and the frequencies are: 15120 kc, 11975 kc and 7190 kc: the address is: Clifford R. Dodd, Director of Commercial Broadcasting, Torrington Square, Colombo, Ceylon. P. J. Arthurs gives the alternative address: G.P.O. Box 574. Colombo. J. R. Mathews has received an All-India Radio verification for VUD5, 15190 kc, and R. Abrahams logged Radio Pakistan, 11725 kc at 1710 with an English News at dictation speed (female reader)—the alternative frequency (quoted) was 7010 kc.

We are indebted to B. Mercer for telling us that Radio Kabul, Afghanistan is on the air daily 1645 to 1700 (1715 on Sundays) with an English broadcast on a frequency of 9975 kc; the first time we looked for this one we found it (Friday, August 24), but at 1645 on the day following it was inaudible; yet on August 26 it continued until 1724. However, as B.M. says: "Reception was not good owing to a heavy carrier." The broadcast opens with the Toreador song from Carmen, then follows a News in English and a final musical recording before the close. B.M. writes: "I heard the announcer say that News in English is given daily at 9,20 o'clock, which, with 4½ hours

ahead, is 1650 GMT."

C. Young (Coldingham, Berwickshire) reports reception of Radio Teheran, Persia, 15100 kc, with a News in German at 1830; J. Lippold (Cricklewood, N.W.2) hears their English broadcast at 2000-2015, and he has lately received a programme schedule from the Syrian Broadcasting Station in Damascus for a report on the 11915 kc frequency used for their European broadcast in English at 2130 nightly.

R. Abrahams has heard them on 15395 kc with English at 1100, and he also offers Beirut, 8036 kc, heard with its third daily French langnage programme opening up at 1900 with a march and the words: "Ici Beyrouth,

station de radiodiffusion de la République Libanaise." He mentions that some of their musical programmes are first class—on August 7 at 1915 he heard the Beethoven Eroica Symphony as part of the Listeners' Request Concert. R.A. also logged Djeddah, 11950 kc, at 1815, heralding a reading in Arabic from the Koran with a military march; it closed down at 1831.

military march; it closed down at 1831.

In Turkey, TAQ, 15195 kc, gave
World News in English at 2000 and
followed with a talk on Turkish cooking
(C. R. Johns): TAT, 9515 kc, is heard
from 2315 to 2400 with an English
transmission directed to North America

(E. Lund).

Latin America

M. Milne (South Woodford, E.18) has had an interesting experience. Last year he obtained a verification from Radio Jornal do Commercio, Recife, Brazil; on August 8 this year, to his great surprise, he received a personal visit from Mr. Alan Wootton, who is associated with Mrs. Janet Slater Swanton-announcer of the English programme: "Brazil Calling"—and her husband. Mr. Wootton, who is on vacation in this country, intends calling on other short wave listeners to Radio Jornal do Commercio who may live in the Manchester area. C. S. Shapiro reports ZYY3, Sao Paulo, 4755 kc, heard with moderate signals from 2200; this station formerly operated on 2460 kc. The Agencia Nacional programme: "A Voz do Brasil," is given from 2230 to 2300, followed by four chimes and the identification: "Aqui Radio Brasil, the identification: Adul Radio Brasil, Sao Paulo." ZYY3 signs off at 0300 and the address is: P.O. Box 625 Campinas, Sao Paulo, Brazil. ZYS8, Radio Amazonas, Manaos, 4805 kc, is orten a good signal around midnight; the call-sign of Radio Tamandare, Recife, 3265 kc, is ZYK21. It is reported that a new standard time service is shortly to operate from Rio de Janeiro over ZYZ21, 4905 kc, with a power of I kW; it will transmit correct time often a good signal around midnight; correct time every minute around the clock. The address for reports will be: Avenida Presidente Vargas 417A, 22 Andar, Rio de Janeiro.

B. Mercer offers ZPAI, Radio Nacional, Asuncion, Paraguay, 6275 kc, heard 2350-0025 with songs and marches; at 2330 he also logged CE1190, Radio Cooperatia Vitalicia, Valparaiso, Chile, which, according to J. A. Russell, is now on 11938 kc. J.A.R. heard

YVKF. Ondas Populares. Caracas. Venezuela, 4878 kc, signing off at 0353 after a brief anthem, and A. E. Nichols (North Shields) logged HJEX, Cali, Colombia, 6055 kc, on August 5 at 0400 with this closing direction: "Radio Pacifico, Cali " and a march. We noted HC2RL, Guavaquil, Ecuador, 6635 kc, with a particularly good signal at 0440 on July 18; there was a lengthy English announcement of call-letters, frequency and address for reports, which is: Radio Station HC2RL, Quinta Piedad, P.O. Box 759, Guayaquil, Ecuador. C. R. Johns has heard HCJB, 17890 kc, with an English transmission closing at 2130. R. P. Welch-Bartram says that the Government of Ecuador has appointed HCIB to give the correct time for the country-hence the half-hourly time signals: the station chronometer is checked twice daily with the transmitters at Arlington, U.S.A. R. P. W-B mentions that HCJB's journal, Call of the Andes, reports a new missionary radio station about to be built in Liberia, West Africa; they hope to broadcast on long and short wave channels in ten languages, including English and French.

E. Kirby fogged LRA, 9455 kc, at 0535 on July 3 with the talk: "The Argentine Police Force." J. Lippold hears LRA5, 17720 kc, with excellent signals for the English session from 1800 to 2030. C. S. Shapiro noted LRA, 9455 kc, at 2330 with direction: "LR3, Radio Belgrano de Buenos Aires, Argentina"; LRX, 6120 kc, with identification: "Radio El Mundo" at 0130; and LRS, 9315 kc, at 2300 with a single chime and the call: "Radio Splendid de Buenos Aires, Republica de Argentiná."

A. E. Nichols spotted HP5K, Colon, 6005 kc, at 0430 on August 4 with a programme of assorted inusic and the slogan: "Radio Programmas Continental, Panama"; also TGNA, Guatemala City, 5955 kc, at 0310 with a religious service in English. The latter closes at 0330 with the words: "We wish you all a pleasant good-night" and the playing of the hymn: "From Greenland's Icy Mountains." We noted HRA, Honduras, 5940 kc, at 0355 on August 11 with the clearly pronounced slogan: "La Voz de Lempira." In Mexico, XEWW, 9500 kc, has been heard around 0500 with a Spanish newscast and Latin-American rhythm; four descending chimes precede either of the

two directions: "La Voz de la America Latina desde Mexico" and "XEW y XEWW, Cuidad de Mexico" (C. S. Shapiro); XEHH, Sal de Uvas Picot, 11880 kc, with a programme of pasadobles has been logged at good strength around 0430 (B. Mercer). R. P. Welch-Bartram mentions the 4VEH, Cap Haitien broadcasts in English on Sundays, 2330-0015, and Mondays, 0130-0200 over 9756 kc; he says that they now verify with a fine photographic card.. Your commentator heard Radio Jamaica, 3360 kc, with dance music at 0350 on July 20; at 0400 the closing words were: "We shall return to the air tomorrow morning at 6.30 a.m. Meanwhile, we bid you a very pleasant Goodnight."

Europe

R. A. Savill (Sevenoaks, Kent) mentions that Nordwestdeutscher Rundfunk has opened up on 11795 kc in addition to 7290 kc; he also heard from Radio Renascenca, Emissora Catolica, 6154; their schedule is 1930-2400 and the address: Rua Capelo 5, Lisbon. B. Mercer gives Radio Rias, Germany (American Sector), 6005 kc, with schedule: 0300-0115 (on at 0400 on Sundays and off at 0200 on Saturdays). Radio Free Europe, Germany, 6130 kc, gives talks in Slav languages around 1900; the identification is: "Vosne Radio Volna, Europa." C. P. Turner has received Bulgaria's verification card—a map of S.W. Europe with Sofia indicated prominently on it. R. Hallett (Sydney, N.S.W.) hears Poland's broadcast to North America on 11815 kc, signing off at 0600, and the Copenhagen 15180 kc. broadcast in English, 0930-1030 on Tuesday, Thursday and Saturdays. R. Abrahams heard them asking for reception reports, wrote in and received their card and folder about Denmark within five days!

Reports on the Greek AFN station should be sent to: The Central Broad-casting Station of the Greek Armed Forces. No. 3 Zalocosta Street, Athens, Greece. Its signals were not heard by us on August 27!

We, too, shall be pleased to receive your comments on any short wave broadcasting station heard during the month; kindly send to: R. H. Greenland, Short Wave Listener & Television Review, 55 Victoria Street, London, S.W.I. The closing date is October 15.

SHORT WAVE BROADCAST STATIONS

Revision 19.55-25.26 Metres

Giving Frequency, Wavelength, Callsign and Location

These lists appear each month, covering the 11-128 metre section of the wave band within which all short wave broadcasting services of the world operate. For economy of space, this band is dealt with in eight sections, a list of active stations in one of these being given in full every month. Such 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.

	Fre-	Wave-	c		Fre-	Wave-	G 19 1.	v .
	quency	Length	Callsign	Location	quency	Length	Callsign	Location
	15347	19 -55		Dakar, Seuegal	15160	19 .79	VLB15	Shepparton
	15345	19 -55	WRULI	Boston, Mass.			TAU	Ankaça, Turkey
			KCBR1	Los Angeles	15155	19 ·80	SBT	Stockholm, Sweden
				Athens, Greece	15150	19 .80	CE1515	Santiago, Chile
			D1114.00	Tangier			WRCA6	New York
	15340 15335	19 · 56 19 · 58	APD1	Moscow Doggo Pokiston	15147	19 -81	YDC CSA34	Djakarta, Indonesia
	15330	19 - 57	WGEO1	Dacca, Pakistan Schenectady	15147	19.81	ZYK2	Lisbon Pernambuco, Brazil
	13000	13 32	WLW06	Cincinnati	15140	19 -82	GSF	London
				Honolulu, Hawaii	10110		PRB23	Sao Paulo, Brazil
				Honolulu, Hawaii Manila, P.I.	15130	19 -83	WABC5	New York
	15320	19 -58	CKCS	Sackville, Canada			WLW07	Cincinnati
			VLC15	Shepparton			KRCA2	San Francisco
			RW97	Moscow				Tangier
	15315	19 -59	WCDD	Rome, Italy	15120	19 -84		Colombo, Ceylon
	15310	19 -60	KCBR1	Los Angeles Moscow	15115	19 -85	HCIB	Rome, Italy
	15305	19 -60	HER6	Berne	15110	19 -85	GWG	Quito, Ecuador London
	15300	19 -61	GWR	London	10110	15 00	3110	Moscow
	10000		Q 21	Singapore	15105	19 -86	KRCAI	San Francisco
			DZH8	Manila, P.I.			KGEII	San Francisco
	15290	19 -62	WRUL5	Boston, Mass.	15100	19 -87	EPB	Teheran, Persia
			VUD3	Delhi, İndia.				Paris
			VUD9	Delhi	15095	19 .87	HVJ	Vatican City
			LRU	Buenos Aires	15090	19 -88	CKLX	Sackville, Canada
	15280	19 -63	ZL4 RW98	Wellington, N.Z.	15070	19 -91	CBLX GWC	Montreal London
			K W 90	Moscow Tangier	15070 15060	19 .93	GWC	Peking, China
				Munich	15050	19 -93		Tangier
	15270	19 -65	WABC2	New York	15000	20.00	WWV	Washington, D.C.
	10210	.0	KCBR2	Los Angeles	12875	23 .30	CSB51	Parede, Portugal
			RW96	Moscow	12460	24 .08	HCIB	Quito, Ecuador
				Karachi, Pakistan	12175	24 .64	TFJ	Reykjavik, Iceland
4	15260	19 -66	GSI	London	12120	24 .75		Forest Side, Mauritius
	15250	19 -67	WLW05	Cincinnati	12095	24 .80	GRF	London
				Manila, P.1.	12080	24 .83	FZP8	Papeete, Tahiti
				Tangier	12040	24 .92	GRV	London
	15240	19 -69	VLG15	Lyndhurst	12003	24 -99	CE1180	Santiago, Chile
			KRCA3	San Francisco Paris	11975 11970	25 ·05 25 ·06	FZI	Colombo, Ceylon
				Tangier	11965	25 .07	TIHH	San Jose, Costa Rica
	15235	19 -69	IBD4	Kawachi, Japan	11960	25 .08	******	Djeddah, Saudi-Arabia
	.0200	.0 00	BED3	Taipeh, Formosa				Moscow
	15230	19 .70	GWD	London	11950	25 - 10	ZPA5	Encarnacion, Paraguay
			VLC15	Shepparton				Moscow
			VLH15	Melbourne	11930	25 · 15	GVX	London
			YDDA	Moscow	11927	25 -15	CDCDD	Johannesburg, S.A.
	15225	19 .70	JBD3	Kawachi, Japan	11925	25 · 16 25 · 17	CR6RD	Nova Lisboa, Angola
	15220	19 .71	PCJ	Hilversum	11920 11915	25 -18	LRA	Moscow Buenos Aires
	15210	19 .72	VUD11	Delhi	21010	20 10	211/1	Damascus, Syria
	~		WRCA6	New York	11910	25 - 19		Budapest
			VLG15	Lyndhurst	11905	25 .20		Rome, Italy
				Tangier			CVAIO	
	*****	10 71	VECC	Moscow	11900	25 .21	CXA10	Montevideo, Uruguay
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