

The

6^D

SHORT-WAVE MAGAZINE

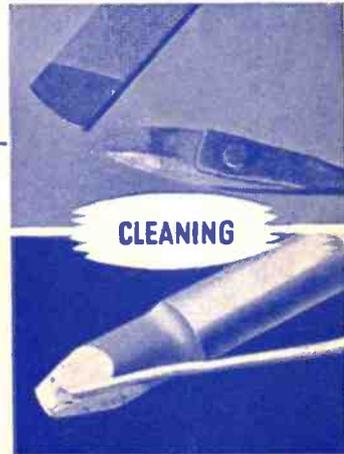
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Transmitting Amateur

SEPTEMBER
1939

—
Volume III
Number 7

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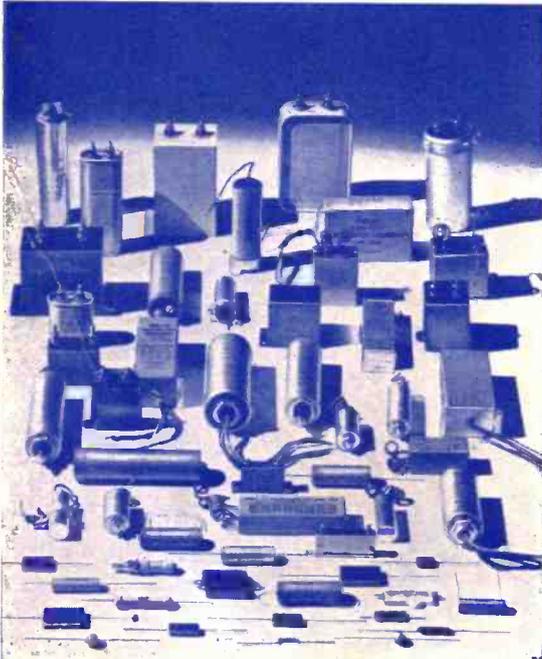
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We could go on for a long time in the same strain but space does not permit us to point out all the catches.

THE MORAL!!

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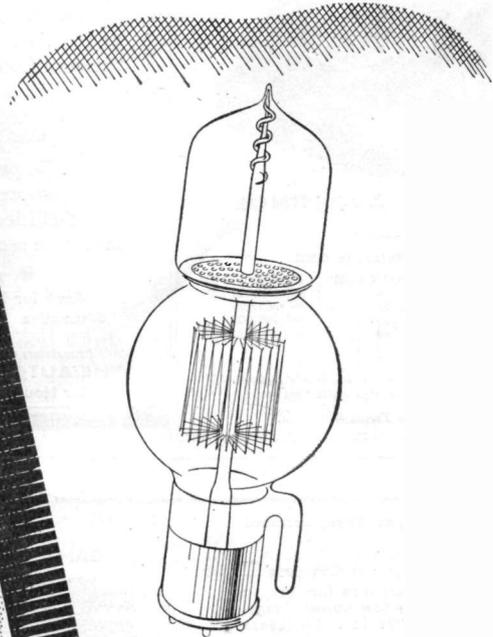
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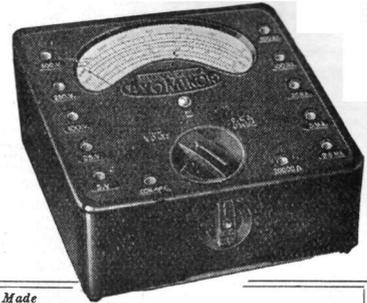
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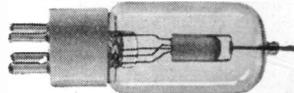
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The
Short-Wave Magazine

No. 7, Vol. III.

SEPTEMBER, 1939

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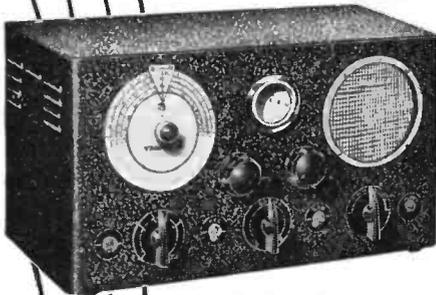
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Editorial

ONCE AGAIN, we have to make our comment for this page at a time when great events are shaping themselves for the future—at a time when it is difficult with any certainty to plan for the future.

We write while the Government waits for a reply from Germany, on which so much depends for so many of us. The chances of peace or war seem to be about even, but it is neither our business nor our intention to offer opinions on the situation, but to consider as far as may be possible how—if we should be at war when you read this—it is likely to affect us.

It is certain that all amateur stations will be closed down for the duration of hostilities under the clause in the licence which empowers the Postmaster-General so to act in the event of a national emergency. We are unable to say in what precise manner this close-down will be effected, as each case is an individual one. We are officially informed by the authorities that the local inspector will visit the station and take at his discretion what steps he may think fit to render the transmitting gear inoperative. In other words, there will not necessarily be any wholesale confiscation of apparatus, nor will receiving facilities be curtailed.

Since this time last year, many readers have made themselves liable for service by joining one or other of the reserves—this also applies to several members of our own staff—so that as in 1914, amateurs are once more ready to become professionals and apply their specialised knowledge to serious purpose.

So we await the turn of affairs. We cannot think but that we speak for every one of our readers when we say that though war will mean the temporary extinction of Amateur Radio, such a consideration is only a drop in the ocean of our country's preoccupations at this time. We are certain that those called upon to serve, in whatever capacity, will bring to their tasks those finer conceptions of duty, tenacity, endurance, comradeship and mutual co-operation with which they must have come in contact no matter how little their experience in what now seems the very small world of Amateur Radio.

*Austin Joseph
C.F.O.*

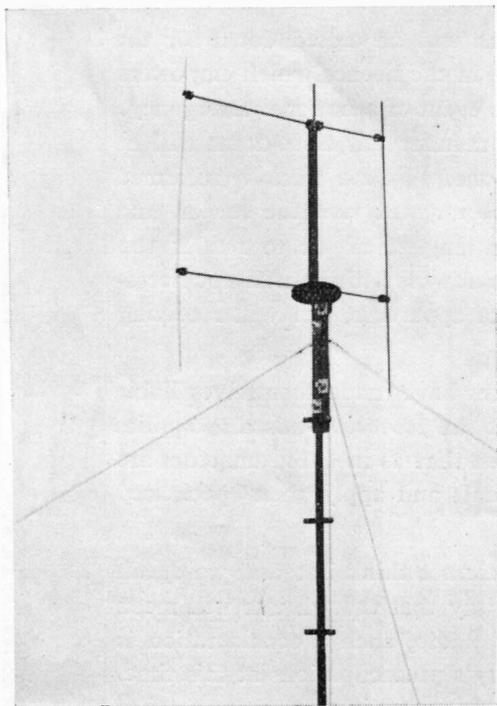
56 Mc Notes

By
A. J. Devon

G2OD - G8KD establish 190 mile inter - G Record — W9ZJB First to Work All American Districts—GW Contest Comment

AT THE RISK of intruding an unhappy note into this column, we must remark that it is being written during what may be the blackest hour before the storm, and your contributor is hourly expecting the summons which will put him into his war-paint to strike a blow for democracy.

As might be expected at this time, reports (22 in all) are fewer than usual, but we are very glad to be able to record that another milestone has been passed in inter-G working by the contact between



David Mitchell, GW6AA, has been experimenting with a rotatable vertical aerial of this type.

G2OD (Worthing) and G8KD (Sheffield), at 1255 on August 20. The distance is 190 miles, and G8KD's 'phone was 559 at G2OD, who was using CW and had a report of 579 in Sheffield.

It seems that between August 16-20 conditions were good, since G8KD was also able to work G2MV, G6LL, G6OH and G8OS, all in the south of England and at an average distance of 150 miles from Sheffield. This is very good going, and the operators concerned are to be congratulated on their success.

G8LY (nr. Winchester) is another who has been breaking away from the locals. Using 10 watts on 57480 kc and a simple rotatable beam aerial, she has contacted G6CW (Nottingham, 120 miles) and has made herself heard at 2AAH, Chichester. The latter is not so great an achievement in the sense of distance as for the fact that it is the result of about twelve months' trying. This applies in much the same way in regard to reception of G2BI at G8LY.

Denis Heightman, G6DH, remarks on the falling-off in activity during August, though his observations show that there were some very good days for European working—August 15, 17, and 21; the 17th being particularly noteworthy in that signals persisted steadily for two hours up to 60 Mc. On August 16 and 17 G8KD's 'phone (160 miles) was heard at R6 with QSB, and on July 29 the best DX to date was recorded at G6DH when G8JVP was worked at 170 miles.

● Other DX News

W9ZJB, Vince Dawson of Kansas City raised W7GBI in Great Falls, Montana, on August 18. This was the only district that he had not contacted this summer, so now he goes down in history as the first W to work all American districts on five metres.

Just recently, Dawson had offered a case of beer to the W7 who first worked a W9. We now suggest that he keeps half the case for himself!—From B. H. Conklin, W9BNX of RADIO, to whom we are obliged for this news, another heading in the 56 Mc story.

It will be remembered that in the August issue we reported that G6IH had heard a signal signing SU1R?, and that confirmation was awaited from SU1RD. The required information has now come through—SU1RD says that there were no SU or SV stations on at the time. So that's that. But SU1RD has been heard on 'phone by OZ2AJ.

On August 4, at 1729 BST, G6YL heard what she had to enter in the log as "W5?PB or W4?PB," as the signal came and went in a few seconds on her 1-v-1, QSB being R5-0. There is no reason why this should not be a genuine American transmission, but it will be very difficult to get it confirmed unless these remarks happen to meet the eye of the operator concerned or someone who knows that a W with a call that fits is active on 5 metres. August 17 was a good day with Miss Dunn—she received a whole shoal of European commercial harmonics, and once again the indications are clearly that amateur DX working would have been easy. Between 1805 and 1900 BST, the following were audible at strengths varying from S8 to S4: FYQ, FYR, IBE, SNB and the Rome BC station, the harmonic from which is frequently reported on 56 Mc and is an excellent barometer for conditions. G6YL adds that she has had reports on CS3VA's signals from all over this country, PA and HB. It is good to know that

there is so much more real interest in 56 Mc working and that so many stations are on watch.

From 2BIL, Hove, comes news of receiving another Italian—I1BBA—on August 6; he was R8 at 1333 BST on a frequency of about 55.8 Mc.

Also reporting hearing the Italians, but without specific details, G6GA of Leeds says that conditions in the Yorkshire district were quite good, with many stations active and regular contacts being made at distances of 30 or 40 miles. At G8NM, Barnsley, harmonics FYQ, HBO (a new one) and the Rome broadcaster were coming through well on August 17 and lasted till about 1930 BST. It is interesting to note how closely this confirms G6YL's log, both stations being up in the North. But R. J. Lee, 2HLF of Heathfield, Sussex, who was QRX over the period August 14 to 18, does not report any of these DX harmonics though he did receive a number of near-European signals during those five days.

From 2AAH, Chichester, we hear that the Egyptian schedules—as given last month—are being kept up and that activity throughout the Near East is on the increase. In a recent letter from VU2EU, six VU stations are quoted as being active on 56 Mc, though nothing in the way of a contact has yet been obtained—these VU's are some distance apart, which in one way should be a great help though in another it is a disadvantage not having anyone local with whom to test, at least in the initial stages.

● GW Contest

The appalling weather over the weekend of July 30 was perhaps one reason why the portable activity—this is essentially a field-day event—was not as high as expected, while it would also appear that conditions were bad, as no outstanding contacts are reported. Furthermore, the GW Contest, which is a privately organised effort, was not this year arranged to coincide with GW6AA's Snowdon Test, which has become an established feature of the year's 5-metre activity and obtains wide publicity, a large number of operators going portable mainly with the idea of working GW6AAP. Thus, those interested in both the Snowdon Test and the GW Contest had either to choose between them or go out for two week-ends in the same month, apart from the fact that July and August are the two chief holiday months, with activity at a low ebb.

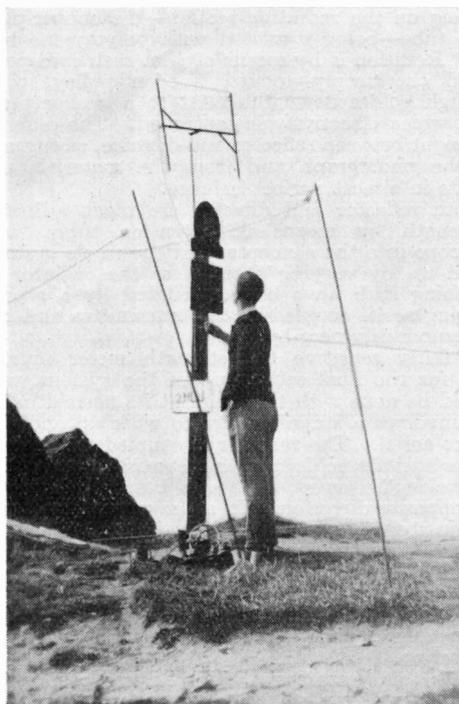
If we must have these 56 Mc field-days—which are usually interesting outings even if they do not contribute very much to the development of the band—it would surely be better to combine the two events at a week-end before July or after August, or at least hold them on dates well separated.

One or two field-day logs appeared in the last issue, and "56 Mc Calls Heard" herewith contains reception reports of a number of portable stations. Once again, we have a comprehensive selection which will be of great interest to those concerned, but we should still like to see more logs and activity reports from the North of England, Scotland, Northern Ireland and Eire. All the 5-metre interest cannot be entirely concentrated in South England and the Midlands, apart from the fact that we know of much useful work being done up in the North. But let us hear more about it.

For the GW Contest, G3BYP was located at Cown Edge, Glossop, Derbyshire, at an elevation of 1250-ft. a.s.l. The aerials used were (1) two half-waves in phase with tuned feeders, and (2) a vertical $\frac{1}{4}$ -wave wire, voltage fed. On the contacts

obtained, these showed no apparent difference in results. The receiver was 954-HL2K-Pen, and the transmitter CO 6J5-6V6 FD, with 9 watts to the output stage. Very few stations were heard or worked (see "Calls Heard") and all complained of the lack of signals and general inactivity.

Another team to have disappointing results outdoors—though this was during the August MAGAZINE Test Period—was located on Mow Cop, a hill 1000-ft. a.s.l. on the Staffs-Ches. boundary, with a clear view over miles of country in many directions. H. Owen, 2HLU, and his partner J. N. Thorpe carried the gear for about four miles, the last two of which are at a gradient of 1 in 3! They tried a 66-ft. end-on and a loop beam, hearing G6LC, Warrington, as the only amateur station, though several police calls signing GTL, GTL1, GTL2, X44 and M197 were logged. As 2HLU says, they did at least try for something more interesting, and for the effort had chosen what is known locally as a mountain. But their receiver was a two-valve "squisher," and we gather from 2HLU's comments



H. Owen, 2HLU, adjusting his rotary beam when portable near Newcastle, Staffs.

that they did not really expect to find very much on it, apart from the fact that certain "technical difficulties" were encountered.

Up at Preston, Lancs, G5AX came on for the GW Contest but also had a disappointing experience—he heard four stations only, G6DP, G6DPP, G8JVP and GW6AAP. For three days round about July 21 a brighter note was struck by CS3VA, who came through for varying periods and peaked to RS-56.

56 Mc NOTES AND CALLS HEARD

● Rotatable Beam

From David Mitchell, GW6AA, comes a description with several photographs (one herewith) of a rotatable beam on which he has recently been working. It is mounted on a 25-ft. oak mast of "2 by 2," and the radiator, which acts as a pivot for the director and reflector rotating round it, is an 8-ft. 1-in. length of $\frac{3}{4}$ -in. copper-plated steel tube. This is fed by means of a 550-ohm line into a shorted $\frac{1}{4}$ -wave stub; the latter is visible in the photograph.

The radiating element, which has to support the weight of both reflector and director, is carried on small Pyrex bowls, as ordinary s/o insulators will not take the load. The reflector (of $\frac{3}{4}$ -in. aluminium rod) is spaced 3-ft. 3-ins. from the radiator, with the directing element ($\frac{3}{4}$ -in. copper-plated steel) 1-ft. 10-ins. forward of the latter. The framework supporting the three parts of the aerial is made up of bamboo canes terminating in ebonite blocks, the bearing on the radiating section—the copper-plated steel tube—being insulated with polystyrene bushing. Rotation is by means of $\frac{1}{4}$ -in. sash cord passed round the deeply-grooved wooden pulley, thence through guides down the mast to a similar pulley, from which directivity is controlled. The difference in weight between reflector and director, as suggested by the photograph and from the materials used, results in almost perfect balance.

Both reflector and director are made adjustable in length by means of extension tubes which telescope into the elements, and the whole system is tuned up by varying these after the radiator and matching stub have been resonated by a separate exciting aerial coupled to the transmitter and hung up temporarily near-by.

A fairly sensitive field-strength meter must be used for the final setting up of the system, which should be done with the beam at its normal height; this involves a stayed ladder to walk up and down to the aerial. The radiator is coupled to the transmitter and the field-strength meter is located at least 5-wavelengths away, with the beam "looking" in the opposite direction. In other words, the system is adjusted for *minimum rear radiation*, which gives a much more sharply defined point than when trying to adjust for maximum forward radiation. The distance to which the field-strength meter can be taken naturally depends upon its sensitivity, but 80-ft. is the nearest it should be brought—the further away the better.

With this beam aerial, GW6AA has been obtaining a gain of about 7dB over an ordinary $\frac{1}{2}$ -wave vertical wire and its high degree of rejection in the rear direction enables unwanted signals almost to be cut out. The overall gain is also much greater than with the ordinary $\frac{1}{2}$ -wave-aerial-with-reflector spaced $\frac{1}{4}$ -wave, and the complete rotatable beam as shown in the accompanying photograph has been found excellent for normal ground-wave working, but David Mitchell remarks that for distances over 100 miles horizontally polarised systems give better results.

● September Test Period

In spite of the uncertainty at the moment of writing, we are proposing to be sufficiently optimistic to suggest September 14-18 inclusive for the next

Test Period. The times are as usual, and BST—nightly 2000-2230; Saturday 1400-1600; Sunday 1100-1300, 1430-1600 and 1830-1930.

Let us have your reports, even if little or no results are obtained, by September 22.

● General Notes

R. H. Holmes, Painswick, Glos., who is regularly hearing medium-DX from distances well over 50 miles, is now using an 18 $\frac{1}{2}$ -wave long wire, which he says gives better results than any other he has yet tried. On the other hand 2AAH finds that a 3 $\frac{1}{2}$ -wave aerial, impedance matched, suits him better than anything else, though it is rather dead off the ends. As he rightly remarks, beam systems certainly get the signal over with greater certainty but they make it very difficult to obtain comparative data as to conditions in different directions from time to time. 2AAH is a most consistent listener and is gradually collecting much useful information based on his temperature observations.

G3YY, Brighton, another keen 56 Mc operator, found conditions very poor with him throughout the month, though this is not entirely supported by other reports—see "Calls Heard." He is there every evening, looking for contacts with anyone who cares to show signs of activity. In this connection, 2HLF remarks that G5JZ of Heathfield, Sussex, will shortly be active on 59 Mc with a 42-6L6-809 transmitter and is very anxious to have reports, all of which will be acknowledged.

2BIL, Hove, turns in not only a very useful reception log—of thirty stations heard during the period of the GW Contest, only four were portables—but also a very complete frequency chart, showing the QRG's of no less than 161 stations known to be active on 56 Mc. Unfortunately, we cannot just at present find space to print such a comprehensive list, and we might remark here that some months ago, when it was suggested we should compile similar data, the Editor's view was that lists of this kind, while useful in some ways, are not of much practical value because of the difficulty of getting accurate information and keeping it up to date. Many operators use several frequencies, while nearly all quote them on QSL cards if they do not announce them during transmission. There is now sufficient activity on 56 Mc to make a frequency list almost unnecessary, and if a QRG is required for calibration purposes, one of known accuracy can easily be obtained from the station concerned. Furthermore, frequency lists give a misleading impression of band-occupancy in the sense of activity—what really would be useful would be a complete list of stations showing their *operating times*, though here again its value would be lessened by reason of the fact that very few people keep to regular schedules.

These remarks are not to detract from 2BIL's list—more complete than any we have yet seen—but rather to explain why we have not published a similar one before now. Incidentally, 2BIL is now using a "W8JK" two-section beam, which he finds rather better than the 16 $\frac{1}{2}$ -wave long-wire employed for portable work.

We cannot conclude without wishing everyone who may read these lines safe passage through the difficult times with which we may all be faced when this issue reaches your hands, but we hope it will be possible to take up the threads once more in October with the certainty of peace before us—73 fm A.J.D.

56 Mc Calls Heard and Worked

CW6AA, David S. Mitchell, The Flagstaff, Colwyn Bay, Wales. 1-v-2 (954-955-6J5-6C5). July 31 to August 20. (*-QSO; mileage in brackets). Only stations over 30 miles listed.

C2IF(32)*, OI(65), VG(68)*, 3BYP(72)*, DA(65), 6DPP(45)*, GO(130), 8JVP(75)*.

2AAH, W. F. Miller, 60, Spitalfield Lane, Chichester, Sussex. July 23 to August 17.

C2MC(56), MV(42), OD(40), OV(56), XC(14), ZV(10), 3OO(60), SU(12), YY(28), 5CM(24), IB(51), MA(37), OJ(25), UI(19), XY(9), 6DH(125), OH(53), VX(58), 8IX(34), LY(30), OS(20). X

Harmonics—1BE, 12RO8, SNB.

2HLF, R. J. Lee, 9, Theobalds Green, Heathfield, Sussex. July 1 to August 20. 0-v-1.

F8AA(60), **NW**. **ON4DJ**. **PA0PN**.

G2AO(12), **DPP**, **IT**(62), **MV**(30), **NHP**, **OD**(50), **QV**(8), **QYP**, **RDP**, **RJ**, **UJ**(14), **WS**(32), **WSP**, **XC**(60), **ZV**(34), **ZVP**(35), **3YU**, **OO**(35), **SU**(35), **RN**, **YY**(20), **YCP**, **5BY**(32), **CM**(34), **CMP**, **CD**(48), **IB**(45), **IU**(64), **MA**(35), **MAP**(34), **NC**(45), **NG**(50), **OJ**(35), **OX**(30), **RD**(56), **RO**(20), **TX**(70), **6CW**(152), **DH**(68), **GS**(48), **LK**(35), **LL**, **NA**(48), **OH**(35), **OT**(48), **OUI**(62), **VX**(30), **WL**(47), **XM**(48), **XMP**, **8DM**(80), **IX**, **JV**(152), **OS**(30).

Harmonics—4GW, HP, 5JZ, LU, PR, 8CC.

R. HOLMES, Camp Bungalow, Cheltenham Road, Painswick, Glos. During early August.

C2BI, GG, IT, NV, 3KA, YZ, 5BK, BM, WH, 6CW, IH, XM, 8ML, OS.

G3BYP, J. W. Cropper, 10, Manor Street, Audenshaw, Manchester. Heard and worked* on July 30, when located at Cown Edge, Glossop, Derbyshire. 1-v-1.

C2IF(43)*, OI, 3DA(18)* 6DPP(34)* 8NFP. **CW2NF**, 6AAP(70)* OK.

G6DH, D. W. Heightman, 234, Burrs Road, Clacton, Essex. Heard and worked*, July-August.

G2MV*, OD, UJ*, WS, XC*, ZV*, 5CM*, NC*, 6CW*, LL*, PG*, QZ*, VX*, 8JVP*, KD.

G4MR, K. Sly, 16, Buckland Avenue, Slough, Bucks. RX 0-v-1; aerial: Inv. L, 120-ft. long, 12.8.39 to 20.8.39.

Phone—**G2MC**(11), **MV**(23), **OD**(42), **OO**(50), **3NR**(16), **OO**(22), **5AA**(18), **KH**(15), **MAP**(19), **RD**(16), **8IX**(14).

CW—2BI(60), GG(28), IT(17), MC(11), OD(42), MV(23), WS(55), ZV(48), 3NR(16), 5MA(17), MAP(19), NF(22), 6OH(17), VX(31), XM(17), 8IX(14), OS(33).

G3YY, C. T. Fairchild, la Dover Road, Brighton, 6. During August.

G2OD, QV, ZV, XC, 3OO, 6LK.

Harmonics—2RU, 3JF, WR, 4HS, 6RM, 8AC.

2BIL, G. F. Keen, 51, Tisbury Road, Hove, Sussex. QRA: The Devil's Dyke, near Brighton, 700-ft. a.s.l. 0-v-pen. Aerials: (1) 16 1/2 waves capacity coupled N-S; (2) Vec beamed North; (3) Rotatable horizontal 2-section W8JK beam, fed with 75-ohm matching feeder.

1925 BST July 29—1900, July 30.

G2MV(30), **MR**(36), **NH**(37), **XC**(36), **ZVP**(16), **3RN**, **SU**(17), **YY**(3), **5AA**(30), **CM**(19), **GJ**, **MA**(30), **NAP**, **OJ**(22), **6CW**(157), **DH**(85), **GS**(29), **LK**(29), **OH**(53), **OU**(46), **QZ**(138), **VX**(40), **WL**(50), **XM**(38), **8IX**(33), **JVP**(185), **LYP**(46), **OS**(17), **SK**(53). **CTL1**(208).

1333-1850 BST, August 6

HBBA(?), **F8NW**(100). **G2MV**(30), **QV**(31), **3SU**(17), **5IB**(42), **6LL**(58), **OH**(53), **8OS**(17).

1419-1943 BST, August 13

G2MV(30), **OD**(9), **QV**(31), **5CM**(19), **RD**(63), **6OH**(53), **WL**(50), **8OS**(17).

1305-1952 BST, August 20

G2MV(30), **6OH**(53), **VX**(40).
Harmonics—G5HS(70), 6JF(23), 8II(28).

Getting up to Ten

By R. R. Haggard, 2BTF

THOSE LISTENERS possessing a five-metre receiver who wish to receive the ten-metre band, might find the following idea of some assistance.

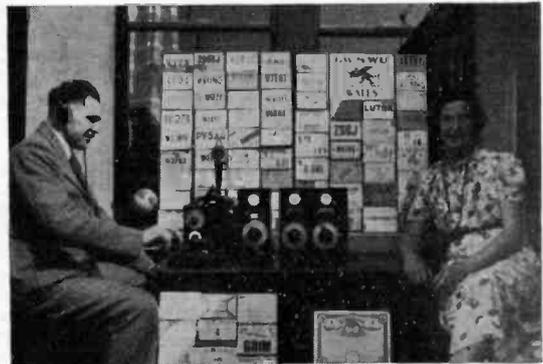
If a 50 mmF fixed condenser is connected by two crocodile clips in parallel with the five-metre grid circuit, the set will then tune to ten metres, with the existing variable capacity acting as a semi-bandspread tuning condenser. This was quite successful in a straight circuit in which a 40 mmF tuning condenser was used in conjunction with five turns of No. 14 tinned copper, internal diameter 5/8-in., and spaced to cover 9/16-in. The set originally covered from 4 1/2 to 8 metres, but with the fixed condenser clipped on, the ten-metre amateur band spreads over about 50 per cent. of the dial.

If one is handy, it would probably be better to use a 75 mmF variable trimmer instead of the fixed condenser, as this could be adjusted to compensate for any variations in coil size, and so ensure that the set covers the ten-metre band correctly.

This method of altering the waverange covered by a receiver does not result in high efficiency, but it is very useful in a rough hook-up or in a portable set. The crocodile clips should be soldered direct to the fixed condenser, in order to keep the connections as short as possible. The use of a switch is not advisable, due to the losses resulting when the set is used on five metres.

FLASH!

This month's "QST" announces a UHF Field Day for the week-end September 9-10. Though the event is to cover the 5-, 2 1/2- and 1 1/2-metre bands, we can confidently anticipate that there will be a high degree of American 56 Mc activity on Saturday and Sunday next.



E. H. Robins, **GW8WU**, 32 City Road, Cardiff, and Mrs. Robins. The station, licensed for all bands, is regularly active.

To get the utmost from Amateur Radio read "The Short-Wave Magazine" regularly

The Other Man's Station

G5ZT

ILLUSTRATED ABOVE is an exceptionally well laid out amateur station, equipped for operation on all bands and designed for quick changing to any one of them, the ultimate intention being to have a separate transmitter for each frequency.

The rack-and-panel assembly on the left houses the 14 Mc 'phone-CW rig, using ECO-CO 6L6/FD-BA 6L6-FD-BA T40/p-p T55's, arranged in the first and second tiers, with a 75-watt speech amplifier-modulator on the next one down; this comprises 75-75-2A3's into four 46's in parallel push-pull. Behind the next three panels are the power supplies for the whole transmitter, giving 400, 600, 750 and 1000 volts—all at 200 mA—and using 866's for rectification.

In the middle of the picture is the transmitter operated exclusively on 56 Mc 'phone and CW, the line-up being CO 42/FD RK.25/FD RK.25 RK.35 PA, with the filament and bias supplies underneath. On the third panel in this assembly are a DB.20 preselector and Meissner signal shifter, the output of the latter being applied to 7, 14 and 28 Mc or switched to any transmitter, as required. Below again is the operating desk, with the RME-69 receiver and the switching to control the various transmitters or to connect them to any of three radiating systems. The sixth rack carries the bias supplies for the 14 Mc transmitter on the left, already described.

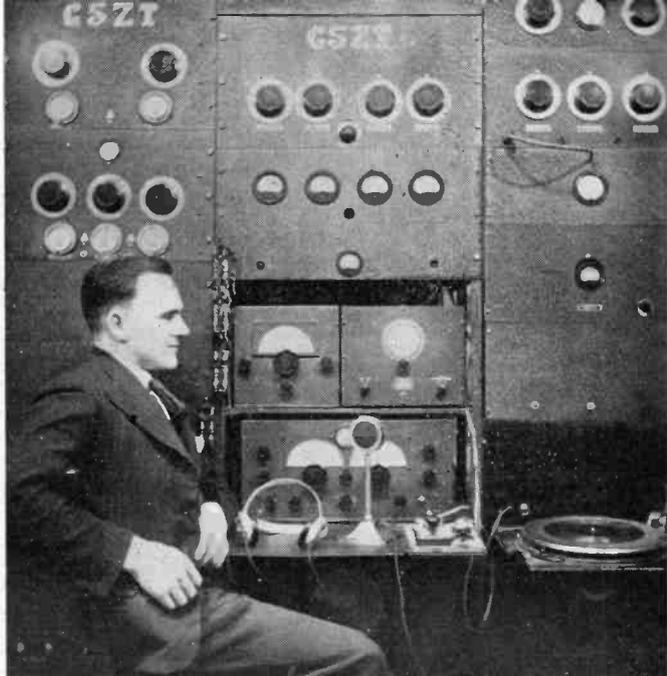
To the right is an all-band rig, consisting of ECO-CO 42/FD-BA 6L6/par.T20's PA, which has its own speech amplifier-modulator and 750-550 volt power supplies, all in the second, third and fourth racks. Above is the Collins coupler, which can be used on the five bands 1.7 to 28 Mc.

● Aerial System

This also is most comprehensive: A two-section arrangement, due N-S, with Zepp feeders; a 66-ft. end-fed wire sloping down from a 57-ft. mast; and on this mast a Johnson "Q" 56 Mc aerial, which can be operated either horizontally or in the vertical. The first of these aerials can be made to radiate effectively on all bands by strapping the feeders, thus converting it to a Marconi for 1.7 and 3.5 Mc.

With such excellent equipment, designed for efficient coverage both in terms of frequency and DX working, it is not at all surprising that G5ZT—H. Jones, 69 Ribbleton Avenue, Preston, Lancs.—shows equally impressive results. He has worked 114 countries (85 verified), is WAC and WBE, was winner of the first GW Trophy for 56 Mc and in 1937 was bracketed equal top in the 1.7 Mc Contest.

Whatever alterations, re-building or experimental work may be in progress, one transmitter—that in the right hand rack—is permanently ready for operation with either CW or 'phone on any band.



Thus the DX can be kept going and schedules maintained despite anything else that may be on hand in the station. Activity is about equally divided between 'phone and CW, depending upon conditions, and is not always on full power—the input to each transmitter is controllable from 10 to 50 watts by variation of the mains taps on the HT transformers.

We are also glad to add that G5ZT, the owner of one of the finest stations we have yet described in this series, is also a good amateur in another sense—readers are always welcome at his QRA.

THIS ISSUE

In view of the unsettled outlook when the September contents were being prepared, it was considered inadvisable to publish anything of a constructional nature. All being well, the October and succeeding issues will contain the usual constructional features, and in the event of war or an extreme state of preparedness being called for, the receiving side will have particular attention.

In reference to this month's Editorial comment, readers will also appreciate that it would be extremely helpful if, for the time being, correspondence to the Technical Query department could be kept to a minimum.

LETTERS TO THE EDITOR

Critical Comment

I do not by any means agree with the last paragraph of "Old Timer's" article in the August issue, as since January I have been a member of the "exclusive 'phone" class. Why shouldn't we use telephony on 14 Mc if we wish to, and in any case British amateurs are limited to a mere 100 kc for it as few work inside the W 'phone allocation but in a narrow band at its HF edge. Cut out 'phone on 7 Mc if you like, using 1.7 Mc for local working, but I contend that 14 Mc QRP DX 'phone is much more difficult than CW, and therefore more creditable than QRO CW DX. At the same time, I am not one of those who learnt Morse merely to get a licence, with the intention of never touching a key afterwards, and I can do my 15 w.p.m.

While I agree that a lot of nonsense is talked on 14 Mc 'phone, I do say that much useful work is done. In my own case, trying to raise DX with 8 watts has taught me a lot about propagation and has put me in a position to continue experimenting along lines which may give useful results.

I am very keen on propagation problems generally, and it may interest you to know that at my QRA the forecasts of bad periods given in your monthly "Survey of Conditions" have proved amazingly accurate. I have followed them carefully but have noticed that here conditions go off some 24 hours before the time forecast and remain bad up to 48 hours after; this may be due to my much more northerly location, nearer the magnetic pole.—J. CRITCHLEY GRAHAM, GM3TR, Willow Road, Kirkwall, Orkney Islands.

[We have asked "Old Timer" to reply to the first part of this letter and his remarks follow.—ED.]

From "Old Timer"

With reference to GM3TR's interesting letter and the point he raises about exclusive telephony working, we had in mind the idea that one cannot obtain the best from any band if only one method of communication is used.

To make ourselves clear on this point: All operators familiar with 14 Mc will know there are many hours during which conditions are so poor that little or no 'phone can be heard, though plenty of weak but workable CW comes through. The "exclusive 20-metre 'phone" amateur then complains that conditions are bad and that there is no DX to work, so he starts a series of contacts with all the local 'phones he can receive, thereby ruining perfectly good CW DX contacts. If only 'phone operators would listen for CW as well, and be equipped to call by either method, they would at all times be able to judge the condition of the band.

At his location, GM3TR may happily not be familiar with local 14 Mc telephony working—the curse of all large centres of amateur population—nor is his own telephony likely to interfere with CW contacts.

We do not condemn reasonably consistent telephony operation on 14 Mc when, for instance, a particular aerial is under test, but we do feel that all stations should be in a position to call on CW as a matter of experimental efficiency.

With reference to Mr. Graham's remarks on 7 Mc 'phone, we fully agree. No harm, but an enormous amount of good, would result to Amateur Radio if "40-metre 'phone" was abolished in Great Britain.—"OLD TIMER."

Suggestion

As a listener-reader of the MAGAZINE, I should like to see more articles dealing with receiving, both technical and constructional. I do not suggest that you curtail the transmitting angle, as I will undoubtedly find this useful at a later date, but I think a good purpose would be served by having periodical "listener numbers" dealing with ideas as well as actual receivers. Also, what about a battery superhet, communication type, for the SWL? This certainly has possibilities and would be of general interest.—WM. C. ENGLISH, 7 Granville Road, Gosforth, Newcastle-upon-Tyne, 3.

[The balance between receiver and transmitter material is adjusted to the indicated interest in these two sides of Amateur Radio. We are always glad to have readers' reaction to letters such as this and have many designs ready for the time when there may be a demand for them.—ED.]

Ham Spirit?

At various times I have seen comments on the so-called "ham spirit," so I would like to describe my experience.

Fifty yards from me lives another amateur, operating 7 Mc 'phone only. My receiver is an 0-v-1 on which he completely swamps all signals from 35-45 metres, to say nothing of harmonics on other bands. He is on from early morning till late evening—in fact, he's always there when conditions allow—thus making my station practically useless. I have spoken to him about it but he refuses to co-operate in any way. Whenever I try to work anything he immediately calls "Test" if not in actual QSO; moreover, he indulges in unpleasant personal remarks about me *over the air*, such as "Now G4HU has ceased his infernal racket . . .", "G4HU is calling 'Test' with a putrid note . . ." and so forth. My transmitter is a PP220 battery CO!

If this is the Ham Spirit, the sooner it dies the better. Or are your other correspondents seeing it from a different angle?—W. MORRIS, G4HU, 34, Birch Avenue, Romiley, Cheshire.

[An unfortunate state of affairs but we really think G4HU's experience is most unusual.—ED.]

When writing the Trade, identify yourself with this Magazine

HAVE YOU HEARD . . . ?

MY OUTBURST against the propagandists last month has not, I am afraid, improved matters or impressed the offenders; however it is gratifying to read in a contemporary a plea for someone to take up the cudgels, though it is unlikely that anything effective will or can be done. The delinquents are certainly no respecters of persons since even the BBC *Italian* news broadcasts are subjected to a severe, intentional jamming, and it is significant to note that *all Italian* broadcasts from Moscow are treated in similar manner no matter what frequency or frequencies the Russians employ in their effort to evade it. Possibly there will only be one outcome—the propagandists will realise that their efforts are futile, although it is likely that foreign broadcasts directed to the Empire may have a derogatory effect on British prestige. These nefarious broadcasters are indubitably the poison voices of the ether.

● The Freiheit Sender

I am informed by V. J. Nicholl (Pembroke) that several German-speaking friends of his heard this station as recently as last July when they denounced the order that compelled 200,000 Tyrolese Germans to leave their homes. Although I have listened for it recently I have not heard a trace of it; furthermore some time ago the Press announced that the station had been discovered and confiscated. Incidentally, errors crept into the paragraph dealing with this station last month, the most serious being the substitution of "anti-Nazi pirates" for "anti-Nazi tirades."

● Win a Pound of Coffee!

On the first and third Sundays of the month stations TGWA (9685 kc) and TGWB (6490 kc) broadcast a special DX programme in English between 0700 and 0930, offering a pound of coffee to those sending in the best reports from the greatest distances. Prize-winners are announced at about 0745, reception being excellent. On August 20 I listened to a very good programme of dance music and fascinating marimba (you should hear them play "The Lambeth Walk"!) until about 0800, when I went back to bed. At 0900 I switched on and tuned to the 19 m band where I found an amazingly strong signal carrying dance music, interspersed with Spanish and English announcements, the 15 minutes from 0915 to 0930 being devoted to a marimba band, while at 0930 came an announcement that I was tuned to TGWA! So what? Does TGWA broadcast simultaneously on 9685 kc and 15170 kc? Or is the frequency changed during the broadcast?

These broadcasts, though apparently primarily intended to boost "the finest coffee in the world," are really first-class; propaganda, perhaps, but how pleasant!

● More News from the New World

Argentine. LRA1, Buenos Aires, 30.96 m, 9690 kc, now operates weekdays 1630-1900, 2200-0300, Sat. and Sun, 1630-1900 and 0100-0300 (actually the following days). LRA2, 48.54 m, 6180 kc, weekdays 2330-0300, Sat. and Sun. 0100-0300 (the next day). LRA5, 16.82 m, 17330 kc, Fridays 2200-2230. The latter is invariably ruined by W2XE.

Bahamas. A verification from the Secretary of Broadcasting for the Director of Telecommunications, East St., Nassau, N.P., gives the following data:—Name of station ZNS, Nassau, on the Island of New Providence; power on 49.2 m, 6090 kc, 200 watts; schedule 1930-2000 and 0200-0300; identification signals: Opening signal St. Margaret's Chimes, London, relay of Big Ben and Westminster Chimes, when available, at 0200 and 0300, the signing off item being "God Save the King." Relays are frequently made from Daventry. Incidentally the above schedule is not always adhered to.

Colombia. HJ3CAF, Bogota, "La Voz de Bogota," heard on 9710 kc at 0520 calling a Cuban amateur and once broadcasting at 0511 until 0530. This is evidently the second harmonic of the 4855 kc fundamental. Apparently another change of Colombian calls is on the way (Heaven forbid!) judging by the report sent in by Roger Legge (U.S.A.):—HJ3CAD (4845 kc) is now HJCD; HJ3CAF (4855 kc)—HJCF; and HJ3CAH (4900 kc)—HJCH. When I first became acquainted with HJCF in 1931 it was HKF, later HJ3ABF, then HJ3CAF and now another change! Ugh!

Mexico. XEBT, "El Buen Tono," Mexico City, 50 m, 6000 kc, heard with news in Spanish at 0544, each item being interspersed by two cuckoo calls. Verification is by letter and QSL. XEXA, Mexico City, 48.58 m, 6175 kc, of the "Cadena Radiodifusora DAPP," heard Fridays 0530-0600 with the "Good Neighbour Hour" in English, the programme consisting of news talks, marimba music, etc. After 0600 further Spanish programmes are radiated, announcements being interspersed by chimes. An interesting booklet and letter-verification-questionnaire are sent in reply to accurate reports. The schedule is daily 1530-1730, 2130-2330 and 0200-0700, Sundays 0200-0700 only. XEWW, Mexico City, 31.58 m, 9503 kc, "La Voz de America Latina," is again well heard, often until 0730 on Sundays. Full identification details of these stations are to be found in the May and June 1938 issues of the MAGAZINE.

U.S.A. The recent changes in American calls are:—W3XAU to WCAI, W2XAD—WGEA, W2XAF—WGEO, W8XK—WPIT, W6XBE—KGEI and W1XK—WBOS. These calls have been allocated by the Federal Communications Commission as the stations are no longer experimental as denoted by their original calls. New QSLs are being prepared by the owners of WGEO-WGEA. David Owen French (Norwich) and L. A. White (Sale) also report these changes. W1XAL and W1XAR were heard during August despite the official announcement that they would be off the air. Speakers over these stations included Earl Baldwin, Ernest Bevin, Lord Stamp and M. Herriot. WOR tried to contact Mars on July 28 on 17310 kc, when the planet was at its nearest to the earth. The operators waited three minutes for replies, it being calculated that such a period would suffice, but nothing whatever happened and W2IXY remarks that if radio does not make one crazy, it certainly helps! It may interest readers to know that an amateur acquaintance of mine claims *he has made such contacts!*

● New Voices from the East

Manchukuo. MTCY, "The Voice of Manchukuo," Hsinking, gave us a very pleasant surprise by springing up on 25.48 m, 11775 kc, during August, with broadcasts for Europe from 2200 to 2250. Reception is frequently good, although sometimes blotted out by "Radio Luxembourg," testing on 25.46 m, the announcer has an American accent, news is radiated from 2200 until 2210 and followed by gramophone recordings of the Berlin State Opera Orchestra, Paul Whiteman, etc. According to David Owen French the usual opening announcement is "Hello Radio fans in Europe, this is station MTCY, The Voice of Manchukuo," followed by the frequency announcement, etc. At the close local time (6.50 a.m.) is given, followed by the National Anthem sung to pianoforte accompaniment and a long sequence of chimes.

Philippine Islands. A new station KZEH (9585 kc), located in Manila, can be heard testing near 1200 GMT daily. Reports are solicited and should be sent to P.O.Box 119, Manila, Philippine Islands (M. F. Williams, Newark, N.J.). KZRM, Manila, 31.35 m, heard around 2230 at good strength but generally swamped by DJA (David Owen French). This station is often heard best at this time (or from 2130) during the late summer and autumn. Mr. French asks whether there is a 31 m Borneo broadcasting station, but I have never heard of one. KZRH, "The Voice of the Philippines," heard from 1300 in New Zealand, according to NZ16W, but who fails to give wavelength. Is it

Hungary. HAAQ2, Budapest, verified with a nice QSL, according to Roger Legge, who adds the call has now been changed to HAD and from July 24 to August 11 was on 9625 kc 0000-0300, 11850 kc 2000-2400 and 21680 kc 1700-2000.

Luxembourg. A new Luxembourg transmitter has been heard testing on 31.48 m around 1640 by H. Fleetwood and L. A. White from 0800 to 0900. Also heard testing on 25.46 m, 11782 kc, from 2200-2300 with QRM from MTCY. Reports which should include (1) place of reception, (2) date and hour in GMT, (3) details of programme heard, (4) wavelength, (5) strength and quality, etc., may be addressed to "Radio Luxembourg, Luxembourg, Grand Duchy of Luxembourg." Letters insufficiently stamped (they must have 2½d. in stamps) are refused.

Portugal. CSW8, Lisbon, "Emisora Nacional," 41.32 m, broadcasts in English and French Tuesdays, Thursdays and Saturdays, and German and Italian Mondays, Wednesdays and Fridays 2200-2300.

Roumania. Bucharest, 32.5 m, broadcasts news in English at 2245 on Tuesdays, Thursdays and Saturdays, with a special English programme from 2230-2300 once a month (last heard on July 13). At 2230 mention is made of "Radio Romania," "Radio Bucaresti" and "Radio Bessarabia."

Spain. EAQ, Madrid, 30.4 m, may be heard at 0215 on Sundays having, presumably, reverted to its pre-war schedule. Seville is to have a new 45 kW short-wave transmitter, according to unofficial reports.

Causerie of Short-Wave Broadcast News for the Listener - - By F. A. Beane

9585 kc? The same reader reports KF6DHW (or KP6?) with new call KVZC, but does not state time of reception. Frequency 8100 kc, and believed to be in the Phoenix Islands. ZHJ, Penang, Malaya, 6085 kc, comes on the air at 1240 with orchestral recording and Big Ben striking 7 (NZ16W).

Turkey. The Turkish Broadcasting System sends full details of TAQ, TAP and TAR in acknowledgement of a report, as follows:—TAQ, 20 kW, 15,159 kc, 19.74 m, 1130-1300, and TAP, 20 kW, 9,465 kc, 31.7 m, 1730-2300, and TAR is on 182 kc with 120kW; opening call "This is Ankara calling, transmitting the Turkish National Programme"; closing "Dear friends and listeners we are now closing down," followed by the National anthem; languages Turkish, English, French and German; address for reports "Correspondence Department, Radio Ankara, Turkey"; times should be given in GMT and reply coupons are appreciated. Post Bag talks are given in English, etc, at 2100 on Saturdays. Reported by S. G. Burrage. Once heard on 19.74 m (TAQ) for 1730-2300 session.

● News from Europe

Germany. Broadcasts in Arabic are made by a Zeesen station operating near 32.1 m, concluding with announcements in Arabic only and the familiar Zeesen interval signal at 1930. DXB, 31.22 m, may be heard with Arabic at 1845 and news in English at 2015, causing bad interference to LLG. Other German channels likely to come into use include:—DXE, 13.81 m, DXF, 13.83 m, DXA, 48.7 m, DXD, 13.85 m, DXC, 16.83 m and DXG, 48.47 m.

Unknown. PAX, mentioned last month, is still heard testing near 48.4 m around 2330, although irregularly. Broadcasts are made each Sunday from 2130 to 2230, strength being great but quality poor, the programmes being comprised of news talks, records, and some very welcome propaganda—in the cause of peace. The title used appears to be "Peace Ambassador of the Ether," and, according to one reporter, originates in South America,* while another suggests that it is the new Andorra station recently advertised in the radio press.

● Station QRAs of the Moment

TGWA—c/o TGW, "Radio difusora Nacional," "La Voz de Guatemala," Guatemala City, Guatemala.

ZNS—The Isles of June Broadcasting Station, P.O.Box 48, Nassau, Bahamas.

LRA1—2, 5, "Radio del Estado," Palacio de Correos y Telegrafos, Buenos Aires, Argentine.

XEBT—"El Buen Tono," Apartado 7944, Mexico City, Mexico.

XEXA—"Radiodifusora XEXA," Departamento Autonomo de Prensa y Publicidad, Mexico City, Mexico.

XEWW—"Estacion XEWW, Apartado 2516, Ayuntamiento 54, Mexico, D.F., Mexico.

MTCY—Radio Station MTCY, "The Voice of Manchukuo," The Manchukuo Telegraph and Telephone Co., Hsinking, Manchukuo.

KZRM—"Radio Manila," Far Eastern Broadcasting Corp., Manila, Philippine Is.

* [See the note "Peace Pirate" on p. 26.—ED.]

DX

Commentary on Calls Heard, Worked and QSL'd

By The DX Scribe

AS WE SIT down to write this during the unexpected warm weather, we are reminded of those readers who have thanked us for going through their lengthy letters and reports. We feel, however, that it behoves us to thank all of you for your continued support during the holiday season, when listening loses much of its appeal. Judging by this summer's standard, we know we are in for a very busy time in the winter, but we shall welcome all you care to send—and your news is interesting.

● DX Forecast

You will note that we have recommenced giving the appropriate listening times for 7 and 28 Mc. September sees the beginning of the change from summer to winter conditions, and there is another factor to consider—that 7 Mc has produced DX more or less consistently during this summer as opposed to none, or very little, during the past three to four years at the same period. On the other hand, 28 Mc has not shown up so well during July and August as in recent years, all of which is indicative of the fact that we are again approaching the minimum in solar activity and that 7 Mc will begin to take the place of 14 Mc in the not too-distant future, i.e., 1940/41. We do not anticipate that 28 Mc will be too good this winter; in fact, there should be many days devoid of signals and many others when they will be weak and unreliable. 14 Mc should be good but with an earlier fade-out than last winter, probably as early as 1700 GMT in December and January, expanding to 2100 GMT on exceptional evenings. Watch 7 Mc this winter—if the local 'phones will let you!

● VR6AB—Solution

Many of you may have wondered what had become of VR6AY. A letter from Dorothy Hall, W2IXY, will explain. She writes, "Andrew Young's transmitter has been off the air since January. After repeated requests to captains of passing ships to allow their radio operators to come ashore to find out the trouble with the gear, he took our suggestion and sent the transmitter to NY2AE, the US Submarine Base amateur station at Panama. Just as soon as the rig is working, it will be shipped back to Pitcairn." Dorothy goes on to say there is no "VR6AB" and that she has her suspicions (very strong indeed) as to who was the offending

person. To confirm all this, we are glad to say we have a letter from Andrew Young himself in which he says, "My station call letters are VR6AY and there is no other station on Pitcairn except mine. I am sending you a QSL card which I hope you receive all right." Therefore, anyone who has a card from Andrew Young confirming a contact with, or reception of, "VR6AB" is under a misapprehension if he thinks that it represents a genuine contact. Andrew sent us a card on which he marked "verified," whereas we wrote to him only about the pirate station! *verb sap.* Incidentally, W2LXY has now worked 96 countries on two-way 'phone with 89 verified—all on 14 Mc.

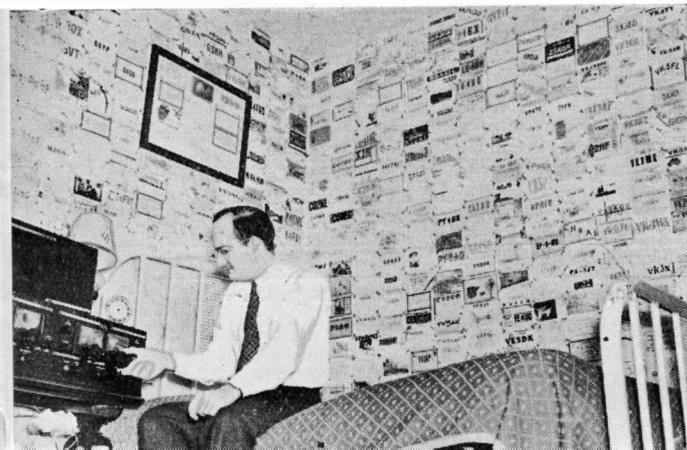
● Liechtenstein

From July 29 to August 8 two Swiss amateurs, HB9CE and 9AT, placed this Principality on the Amateur Radio map for this first time by operating HB1CE almost continually on 14410 kc. If you do not read Morse, you missed a country for which you may have to wait until next summer, although "HX2GK" is regularly active on 7 Mc CW claiming to be in Liechtenstein. But we have no proof. QSLs for reception or contact with HB1CE will be sent to everybody, which will undoubtedly mean writing out over 1,000 cards—not bad for 11 days' operation. We now await similar action by a transmitter who wishes to spend his holiday in Andorra, Monaco, San Marina or the Isle of Man!

● 100 in a Week

Ken Bunston, Gable Cottage, Broad Hinton, nr. Swindon, had a shot at hearing 100 countries in a week—a difficult feat at any time—and nearly succeeded with 99 on his first attempt, starting at 2305 BST July 19 and finishing on July 26 at the same hour. The following were logged: CE, CM, CN, CP, CR4, CR6, CR7, CT1, CT2, CX, D, EA, EI, EK, ES, F, FA, FB, FT, G, GI, GM, GW, HA, HB, HC, HH, HI, HK, HP, HR, I, J, K4, K5, K6, K7, KA, LA, LX, LY, LU, LZ, MX, OA, OK, OH, ON, OQ, OZ, PA, PK1, PK4, PY, SP, SM, SU, SV, TF, TG, TI, U2, U3, U5, U6, U9, VE, VK, VO, VP1, VP2, VP3, VP4, VP5, VP6, VP9, VQ2, VQ3, VQ4, VS1, VS2, VS6, VS7, VU, W, XE, XU, YL, YM, YN, YR, YT, YV, ZB1, ZB2, ZC6, ZE, ZL, ZS. On the following day he heard G3GS in Channel Is. If anyone can beat Ken's record we should be very glad to have details. A good knowledge of the code is absolutely necessary. Ken was not sure about MX1A heard working in and out of the HF end of 14 Mc, but he is genuine and can be QSL'd as follows:—Kyoshiro Ozawa, 42 Rikugun Kansha, Yama-bukicho, Shinkyo Tobubetsu, Manchukuo. We have no details of HS1XR, heard by several, but suggest that all cards should be sent via HS1BJ. We see no reason why this should not be a new Siamese call as HB1RJ was the first, followed

Roger Legge of Binghamton, New York, is a regular correspondent to the DX Commentary. Here he is with some of his cards.



shortly by HS1RJ, in turn replaced by HS1BJ who has not been active recently. ZMBN heard working amateurs in the 14 Mc band would be a NZ ship, but we cannot give any information. Ken noticed unusual conditions on July 20, as he logged VU2JG on 'phone at S8 at 0605 BST, whereas little could be heard from N. or S. America. He wants the frequency of VR4HR, if anyone knows it?

● Palestine

To supplement the news we gave in May regarding ZC6 activity, we hear from W. F. Jenkins, 24 Tudor Road, Canterbury, that Reuben Sokolovsky of Tel Aviv denies all knowledge of any of the calls mentioned, but he is now applying for a licence and a few weeks ago received the application form after waiting three years! It seems that Government only gave permits to members serving in H.M. Forces so this explains why Haifa, Tel Aviv and Acre figured in the list of pirates, as they are essentially Jewish towns. It looks as if all registered permanent residents of Palestine may now be granted licences irrespective of their nationality.

● Non-QSL Stations

We are repeatedly getting requests to publish lists of stations who do not QSL. Now, there are very few amateurs who never QSL at all, but many who do not respond to listener reports. Especially is this so with 'phone stations. We have our own strong opinions on the type of amateur who does not acknowledge a report when a coupon or stamp is enclosed for return postage; it really amounts to robbery if he accepts and opens the letter, apart from the obvious question of sportsmanship. We have frequently heard the moans and complaints of the much-oppressed 14 Mc 'phone station, who is proud to announce to the world at large that he is receiving literally *hundreds* of SWL reports and simply *can't* continue to reply to any of them. He is delighted to boast of the excellent way he is getting out but is not prepared to sacrifice a *little* time on the air for the benefit of his brother enthusiasts. It all seems to us very much like the man who passed by on the other side. However, we do not intend to publish any black lists as this would only add to the trouble, not alleviate it. The next paragraph shows some of those who are playing the game according to the finest traditions of Amateur Radio, which is a far more healthy way of looking at the problem.

● QSLs Received

D. N. Higginbottom, The Dorolds, Boundary Road, West Kirby, Ches., from CM7AI, CO6OM, FN1C, K6BNR, KA7EC, VK2AEO, VK4RC, VU2JG, VU7BR, VS6AG, W6PER, W7FHW, ZS1M, OK3DK, CX2CO, LU3HA; Paul W. Gifford, 21 Bengal Road, Winton, Bournemouth, from KA7EC, PK4FS, VP5PZ, KA1LB, PY2BH, VS2AK, W6MVD; Les M. Singletary, BSWL1200, 6 Verdun Road, Wisbech, Cambs., from ZE1JS, VK7CL, ZS3F, VE5DD, W6USA, 7QC, 7APD, 7FAQ, CT3AB; Roger Legge of New York (see photograph) from ZE1JS, VQ4ECJ, CN8MZ, SU1CR, SM7MU, LA1G, VK2NY (7 Mc 'phone), VK2AIL, 2ADE, 3QK, 3IG, 4MW, 7CL, CX2AU, PY9AB, NY4AB, ZL3KZ, CE4AC, LY1S for 14 Mc 'phone; Conrad Tilley of Bristol from VP5PZ, KA7HB, CE4AC, W6MVQ, HK3LDC, EK1AD (25 watts, QRA—Rue

DX FORECAST FOR SEPTEMBER, 1939

North America. (All times GMT)		7 Mc	14 Mc	28 Mc
Eastern States of U.S.A., VE1, 2, 3, VO, K4 and West Indies		0000-0600	1900-0900	1600-2100 (part)
Western States of U.S.A., VE4, 5, XE, K7		0500-0600	0500-0800	1700-1900
Central America		0000-0600	2200-0800	1600-2200
South America.		0000-0600	2000-0800	0900-1100
All				1500-2100
(Note.—S. America is frequently heard when U.S.A. signals are absent)				
Africa.				
ZS, CR7		2200-0000	1800-2000	0800-1100
				1400-1800
VQ2, 3, 4, OQ, ZE, ZD2, 4, FQ8, FB, etc.		2200-0100	1600-2000	0800-1200
				1300-1800
FA, FT, CN, SU, ST		2000-0800	All Day	0800-2000
Asia.				
J, XU, VS1, 2, 3, 6, 7, UO, FI, HS, etc.		2000-2100	1600-2000	0800-1000
J, XU		2000-2100	0800-0900	
YI, ZC6, VU (north), U8, 9... ..		2200-2400	1400-2100	0800-1100
Oceania.				
VK, VK9, VR2, 4, 6, K6		2100	0400-0900	0700-1000
			(VK only)	1800-2000
ZL		0600-0800	0600-1000	0900-1000
				1800-2000 (rare)
PK, KA, Guam,		2000-2100	1600-1900	1000-1200

Italie, 33, Tangier, Z.I.), VP1WB, VP5IS, PY2NO, CE3CO, G3GS (7 Mc); Norman Stevens, BSWL1039, 59 College Rd., Kensal Rise, London, N.W.10 from ZB2B, ZS5CK, ZE1JI, VQ4JRW, VK4SA, VS6AG; Leslie Morgan, 45 Parkwood Rd., Bournemouth, Hants, from CX1FA, 2CO, for 'phone and ZL2QA, VP5PZ, K6BNR, W5DYT for CW; Eddy Trowell, 2HKU, 27 Unity St., Sheerness, Kent, from VP6YB, XE2FC, W9WJJ (Col.); Bob Everard from XU7HV (now off the air owing to Chefoo power station having been bombed), XZ2BH (first G report), PY3EN, KA7HV, FN1C, ZS1CN. Lionel Le Breton from CR4MM and CR6AI for CW. L. J. Miller, Fern Cotte, Five Oaks, Billingshurst, Sussex, from LX1SI, CT2BP, XE2FC, VK4PF, W7CEO (Wyo.), W6USA. John Hawkins, BSWL1206, Farm Lodge, Eden Bridge, Kent, from CO2RH, LU5CK, SU1WM, VE5AHU, 9AS, VK2AGU, NS, 3BM, 4PF, VP3CO, VS7RA, W1BLO, DQ, 4BN, 7BVO, ZE1JH. J. Douglas Kay, 24a, Watcombe Rd., Bournemouth, from TG5JQ, YP1WB, ZB2B, VE5AHU (correction, Aug., PY2BH).

● 7 Mc

We have already remarked that 7 Mc has become a summer DX band again. This is what Ronald Begley, BSWL1076, of Croydon says, "Conditions have been much better compared with last year, August 9 being the best morning, when seven W5's, VE1-4, K5AY and CM5FL, with W1-9, were heard." Other calls logged on 7 Mc included HK1MV, 5ED, PY2DV, 4CF, NY1AA, W7AAF (Wyo.), 7JC (Mont.), XE1LX, 2A. C. D. Hammett, 37 Torrington Rd., Greenford, Mddx., sends a 7 Mc log, including DX and the rarer Europeans, to show what this band has to offer. He heard KC5P, while Ronald Begley got KC5F, and we are at a loss to know from what European country these strange signals are emanating, except that KC5P said he was a ship in the North Sea. KC5C claims to be in the Black Sea. Mr. Hammett will be pleased to stand by for 7 Mc tests from any

DX — Calls Heard, Worked and QSL'd

amateur. Lionel Le Breton, BSWL538, 95 Bridport Rd., Dorchester, Dorset, can be counted upon to hear most things that happen on "forty," especially as he has received some encouragement from readers of the MAGAZINE after our remarks in the June issue. The following were heard during July: PY5BF, 2MK, CM8MS, HK2BL and a hopeful signing "DYM4CO"; his prefix would indicate the state of his mind. Although this paragraph is about 7 Mc, we must tell you that Lionel's knowledge of CW has stood him in very good stead on 14 Mc, these calls being logged: PJ5EE, PJ3CO, XU8MI (in Shanghai on 14350 kc), SU1AS—who is a newcomer and can be QSL'd at Aboukir Society, Radio Section, St. Johns, R.A.F., Aboukir—HP1X, KB4FCS (US Virgin Is.) and OK3DK, whose card bears the name "Slovakia" which, as we have already mentioned, counts for Czecho-Slovakia. We shall be glad to have logs of all stations heard out-



This month the Scribe gives way to Bob Everard, who shows you one of the rarest cards in his collection—a Japanese 'phone verification.

side Europe, omitting W1, 2, 3, 4, 8, and near-east W9's, as we feel sure that if some of your confirmed 14 Mc SWLs will give your time to 7 Mc this winter you will have a new experience which will be interesting. And change is good for you.

● 1.7 Mc

Having dealt with the 7 Mc experts, it is only fair to come to our 1.7 Mc friends, whose work is equally valuable. Cecil Martin, Lynton, Pound Rd., Bursledon, Southampton, is already well known for the amazing results he pulls out of the summer QRN; we venture to suggest he will produce some good logs during the coming winter, as listeners last season heard FA, W1, 2, 3, 4, 5, 6, 8, 9, VE1 and K4 outside Europe and we feel sure that 1.7 Mc will be even better owing to the action of the solar cycle on the lower frequencies. Cecil Martin writes as follows, "It is evident that newly licensed stations are taking your advice and using the 'top band' as there are practically as many G4's in my list as others. I should like to see the success attained by your 1.7 Mc campaign go even further by the time the winter commences. Why not encourage Continentals to use the band by asking G's to arrange schedules when working them on other bands?" One must not forget that not all European countries permit 1.7 Mc operation, but there are quite a few—enough to make the band even

more interesting. We are sure that this winter is going to produce bumper activity—that is, if our knowledge of the common-sense of the average amateur counts for anything; we know that the 7 Mc adherent is fed up with fighting QRM for purely domestic contacts. G3HS of Swindon sends an excellent log including 51 CW G's and 12 'phones.

● Sweden

Lars Rooth, 40 IV Sibillegatan, Stockholm 5, says that the Swedish authorities have a funny way of issuing licences—they start off at the end of the alphabet and work backwards. He confirms that SM5KP exaggerates when announcing his QRA as being near the North Pole, but it is interesting to note that SM2WB, heard by Lionel Le Breton, was operating portable in Lapland inside the Arctic Circle.

Ian Bates, 85 Jeanfield Rd., Perth, Scotland, queries W10XDA, but this is the call of the schooner "Morrissey" which is being used to explore Greenland. Some years ago she used the call VOQH when anchored for the winter off Shannon I. to the east of Greenland, but she is now on the north-west coast. The frequency is approximately 14260 kc. Ian logged XU8ZM, VS6AF, CR4, OQ5AS, and two suspicious calls—IC2NE and TA3PX; yet another TA to swell the ranks of the Turkish ghosts! We are informed by Roger Legge that NY4AB is the new call of CO8YB at the U.S. Naval Station, Guantanamo Bay, Cuba, and that all U.S. Naval amateur stations in Cuba will in future carry the prefix NY4 in the same way as NY1/2 is used by U.S. Naval stations in Panama. Roger requires the QRAs of OH2QM and VQ6XT. The latter is bogus. Con Tilley requests the frequency of CR4MM—it is about 14420 and he does not use 'phone at all even though W3FJU was heard calling him on telephony! The full forwarding address for YVAB8 is also required by Conrad, but cards to the Venezuelan Bureau should get there.

● 28 Mc

Len Blanchard, Montcalm, 122 St. Andrews Rd., Coudsdon, Surrey, sends us another list of 28 Mc signals heard in July—LU5AN, PY3EN, CE3AG, SU1MW, EI9J, F8XT and CN8AJ, while Bob Everard received PY2MI, 3EN, LU8AB and ZS1AX. We learn from these logs that Southern Hemisphere signals do penetrate in the summer months, which has always proved so in the past.

● Ship Calls

Pat Whittle, 2AOW, 32 Burleigh Gdns., Southgate, London, N.14, has kindly offered to supply the name of any ship if readers will send him the ship call letters with a SAE for reply. He is lucky enough to possess the alphabetical list of call signs published by the International Telecommunication Union of Berne. He wants to know if CR4HT QSLs—yes, both he and 4MM do so, but 4HT is much slower in his replies. To clear up the question of ONC heard in the 14 Mc band, the Call Book shows ONC as being at Coquilhatville, Belgian Congo, whereas ONA is listed as being at Banana, Lower Congo, Belgian Congo. This is according to Ernest Field, BSWL1025, 36 Watford Heath, Watford, Herts. who has now heard 110 countries on 'phone—very good going!

Continuing with personal feats, we have a few here. R. H. Garland, Crowndale, Hainault Rd., Chigwell, Essex, has had 100 different VKs on

'phone, including VK6MW again. A total of 3593 different amateurs in 96 countries have been logged on 'phone, but he has now decided that the code is an absolute necessity. J. Harvey, 2CQJ, St. Margaret's, Oak Hill Park, Hampstead, N.W.3 is up to 120 countries—he also heard HS1XR. Martin Bourke, 2AOU of Jersey, has reached the wonderful total of 166 countries heard, the latest being HBICE, and during the month of July 105 countries were received, with a personal record of 50 on July 25 in 1 hour 11 minutes. In the eight weeks between July 18 and August 6, Martin logged the following weekly totals—74, 67, 60, 78, 60, 60, 69 and 54. His latest doubtfuls include YJ2BB, YS1ID and XI1AA. We have already said that the last one is an Italian portable, and the first sounds as if it might have something to do with YL2BB and the second with LZ1ID.

N. J. Rutter, 91 Southern By-Pass, Botley, Oxford has again sent in one of his very complete reports. He found the skip was generally shorter in the mornings and evenings compared with last year. His log of West Coast Americans between July 11 and August 10 is a great credit and he got HAC twice, once on July 14 between 2020-2032 GMT with VK4VD, VU2FA, PY2BH, IISM, VE3WI, CN8BA, and then on July 30 between 1805-1837 with VS7JB, PK4JD, VQ2CM, PY7AI, VE3AJS and OH2OI. This is all on 'phone, of course. W5BEK was heard requesting "no more SWL QSLs please." OQ5ZZ, the Gatti Expedition to Belgian Congo, at S5, while PK6XX was received again at 0709 GMT on June 28, at S4, when QSO W4DLH. L. N. Goldsbrough, 33 Meersbrook Park Rd., Sheffield 8, is at Oxford with N. J. Rutter, and they hunt together. He has been listening on 7 Mc and heard FET1 working a G5; this is presumably because the Spanish "Franco stations" have no propaganda to radiate these days. VP3LF was received on August 8, which is the new call of VP3AA, as you know. Mr. Goldsbrough comments on the accuracy of our DX Forecast (for which we thank him) and points out that the QRO W1's are sometimes heard as early as 1700 GMT. We quite agree, and go further by saying that the QRO W1's are liable to come up at any time of the day for a short period while the skip is undergoing changes.

Frank Jones, 6 Sutherland St, Fenton, Stoke-on-Trent, asks if I7AA is genuine. Yes, he is, and we are going to show his card next month. He is in Addis Ababa and was not anxious to QSL British amateurs until our Government had recognised the conquest of Ethiopia—more next month about him. ZB1AA was another suspicious call, and Frank also asks for the QRA of KA1SP, who is now so active on CW on the HF end of 14 Mc. We regret that we cannot give the QRAs of such stations as U6ST because the Russians do not publish lists of their amateurs; other Russians heard by Frank included U9AG, UK9AN, U9AW, and UK6AK, all of whom are undoubtedly genuine.

● Miscellaneous Points

Norman Stevens, BSWL1039, 59 College Rd., Kensal Rise, London, N.W.10, of the Willesden S.-W. Society, asks when the next Club Contest is to take place. We are not sure whether the rules we set for the first contest were popular; however, we shall be only too pleased to stage another five-band listening event, if club secretaries will send in their entries for some suitable date in October. Three members per club should be sufficient. Nor-

man heard a queer one—KIRA, as well as TA3PX, the latest Turkish delight. Harold Owen, 2HLU, 2 Campion Av., Basford Park, Newcastle, Staffs, reports HI6Q, KC5C, and XOPRV on 14 Mc CW and ZZ1F on 1.7 Mc CW; he claimed to be in the North Sea. Harold has now reached 101 with CE, CR4, VP3, VS6, XE, ZB2, and Liechtenstein. By the way, if you hear HBICE during the rest of this year, he will be portable in Switzerland. Both 3.5 and 7 Mc are reported as being full of W's at 0400 BST.

G6YL, Leslie Morgan, Bob Everard and others say that EA7BA's address is as follows—J. M. Cilla Guerra, Sagasta 33, Cadiz. Miss Dunn, G6YL, tells us that she had to wait two years for a card from U9ML and also has QSLs from 9AV and 9AW. Leslie Morgan's total has reached 106 with FM8AA and 45 States with W6FUO. He hopes to have his call by next month. Les Singleton of Wisbech asks for details of UX1CP, heard on 14400 kc CW. This is the call of a Russian Expedition to Franz Joseph Land and he is reputed to QSL. UK5HA is a club call in Kiev, Ukraine, and W6QAP in Arizona is still active on 14 Mc CW. Les sent logs for the 14 Mc SLP but we regret we have not been able to use them. Donald Higginbottom of West Kirby had the card returned marked *inconnu* when he sent one to FF3Q, purporting to be in Dakar, so you can cancel that address we gave you last month. However, XU8RS is genuine in Shanghai. All XU8 stations can be QSL'd c/o International Radio Assn. of China, Box 685, Shanghai. K6OCL is reported as being on 'phone in Guam.

● Set Listening Periods—September

SLP1	September 9	2230—2400 BST—1.7 Mc.
SLP2	September 16	0600—0730 BST—7 Mc.
SLP3	September 16	1800—2000 BST—28 Mc.
SLP4	September 23	2100—2300 BST—14 Mc.

It will be noted that we have resumed 7 and 28 Mc periods, and it will be extremely interesting to the serious SWL to know how these bands will react to our choice of times.

★

★

Transmitters' Section

G5LP reports that 14 Mc conditions have been more patchy during August than previous months, and he wants to know how we managed to obtain a card from CP1AA—well, he just sent us one! G5LP uses a W3EDP aerial which he finds radiates equally well (or nearly so) in all directions; this is a distinct disadvantage in some respects as it lowers general QRK at all points. Two aerials having marked broadside effects, at right angles to each other, would be much more effective, or two half-waves in and out of phase. Owing to the fact that the W3EDP aerial runs due N—S and is fed at the South end, G5LP finds he cannot radiate off the North end. Do other users of this type of radiator agree?

Another side of this U9 QSL business comes from U9ML, who says he does not get many cards sent to him from his bureau. This would seem to explain the Russian card difficulty. It was very easy to obtain cards years ago, but during the last four or five years they have been slowly drying up, especially from the more difficult countries, i.e., U6, 8 and 9. It would therefore appear that Asiatic Russians are not getting our cards, which again is

DX — Calls Heard, Worked and QSL'd

borne out by the fact that "U9M" stations in Sverdlovsk all give Box 48 as a QSL address, presumably to by-pass their Bureau.

Other contacts at G5LP included KA1SP, ZS4AA, W6QAP (Ariz.), LZ1AP (phoney) and UK6WA, who is genuine but an amazingly rude operator—he was heard to give 99 and a rapid SK to a G6 the other day, which as you may know means "get off the air." The G6 had only given him a report and requested QSL!

G4GQ of Berkhamsted, Herts. is one who worked the mystery LZ1C whom we have said is a pirate, but he was told that this was a new station in Sofia and that QSLs should be sent to Post Box 3, Sofia, a card being promised. We await with interest the fulfilment of the promise. M. F. Williams of Newark, N.J., USA, sends some details of a friend of his—VE4ZK, who had a most unusual experience. He had arranged a schedule with ZS6DW for Christmas Eve for someone who wished to speak with his father and mother in Johannesburg. A quarter of an hour before the schedule began he switched on the receiver but found two locals rag-chewing and *nothing else*. Right on the dot, however, ZS6DW was heard to call and a perfect 45-minute contact resulted, S8 both ways. After the QSO the two locals were still at it but no sign of any other DX station. Mr. Williams recently heard G8KP, G8OK and GM6CM on 7 Mc.

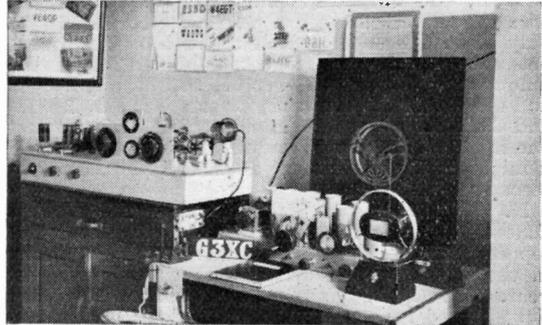
To his letter appearing elsewhere GM3TR adds that he is now WAC on QRP 14 Mc 'phone, using 8 or 9 watts to an 89 tritet-6A6 PA with 220 volts of DC mains on the plates. He has worked W1-5, 8-10, VE 1-4, XE, K4, PK1, HK and YV, getting Q5, R8 from HK3CK and YV4AE! He has two single-section W8JK beams, arranged appropriately, and is now going for WBE 'phone. An interesting station recently heard on 14 Mc telephony was VRIUX, Gilbert Islands, while on August 17, following an intense display of Aurora Borealis, only due-easterly DX was audible, at strengths much above normal.

In regard to the listing of the Orkneys, GM3TR says that they only count as a separate "country" with certain American listener clubs.

From Mrs. Myler, G3GH—after some months off the air with eye trouble now happily active again and using a $\frac{1}{2}$ -wave doublet on the VK's in the early mornings—we get the actual facts about G5CZ, I. of Man. From May to September the rig is in his yacht, "Glen Strathallen," which is laid up for the winter in Scottish waters. Then, G5CZ operates from his I.O.M. residence and a smaller vessel, "Manx Heather," radiates on commercial frequencies under call GFRS. Hence, cards from G5CZ obtained for QSOs between October and April count for the Isle of Man—for those who insist this is a separate "country"! We might add "All papers please copy," but that won't be necessary.

We show you the complete station of G3XC, who has been licensed since November 1938, before which he experimented under call 2CKL. Due to our remarks regarding home-made gear, he has constructed everything and is to be congratulated on the general neatness of the station. Starting from the left, a 6L6 tritet, ECO or CO is link coupled to another 6L6 buffer, thence through to a T20. The receiver is an 11-valve SH comprising two RF stages and 2 IF amplifiers with regeneration on one of

them. The modulator is on the rack at the right of the photograph and consists of a 6C6 RC-coupled to a 6C5 RC to a single 6L6, the output being quite sufficient to modulate 10 watts input into the plate circuit of the T20. A simple half-wave doublet fed by a 75-ohm line is used for 14 Mc 'phone and since April, 23 countries have been worked, including



VK3, VP6, SU, PY, VE1, W1, 2, 3, 4, 7, 8, 9, and only Asia is needed for WAC 'phone—good going for 10 watts.

● 1.7 Mc

We seem to have some news about "160" every month now. G3HS of Swindon wishes to underline our remarks about using this band to escape the nightmare QRM of 7 Mc. He agrees with G3LP that early morning operating is best in view of the fact that static and trawler interference are practically absent. Of very great interest is the fact that G3HS reports reception of one or two USA stations during the last few weeks, around 0500. Although he is only on the air at weekends, G3HS will willingly fix up schedules for 1.7 Mc. By the way, further to the Russian QSL problem, G3HS received two cards from U3QD *direct*—a most unusual and unprecedented happening.

We wish all our readers a happy and interesting new DX season. Your results make our news—write and tell us about them.



Notes and News from the East

INDIAN WEATHER has spoilt a number of days during July for radio, and a terrific storm that has been raging for the past 48 hours is still there as your correspondent writes these lines. However, despite the poor conditions VU2EU managed to work HB1CE in Liechtenstein for the first VU contact with that country. QSLs should be sent to HB9CE. Three very unusual stations heard early one morning were VO6J, VE2BE and K5ET; these countries are seldom receivable at VU2EU but unfortunately no contact could be obtained.

NZ16W in New Zealand sends some interesting information regarding the postage rate for QSLs. He had a couple of cards returned from ON4 marked "Refusal to pay tax" and on investigation it was learned that cards are not now allowed in open envelopes for second class postage. While on the subject of QSLs, VU2FO, VU2JG and VU2FQ will not confirm listeners' reports unless a reply coupon is enclosed. And during the past year the forward-

(Continued on page 22).

WEBB'S LONDON AND BIRMINGHAM

FOUR-PAGE SUPPLEMENT

HALLICRAFTERS FREQUENCY METER

An accurate instrument for checking Frequencies; for checking Receiver Calibration; for calibrating Receivers and Crystals, etc.; for Bandsetting Receivers; for Locating Signals for Skeds; for Setting ECO Frequency. This meter performs a very important function in amateur radio operations. For 110-250 volts A.C., £9.

C.W.R. TRANSMITTER

Special 10-15 watt crystal control transmitter, designed originally for use with the C.W.R. and R.N.W.A.R., it is capable of operation on all amateur frequencies, in addition to the special frequencies allotted to the above reserves. Price complete (but without crystal) £8, (Valpey Crystal 15/6 extra).

TRANSMITTERS

(See overleaf for Communication Receivers)

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Radiotelephone and telegraph 25-watt transmitter. Choice of any three bands by Selector Switch—changing all circuits from crystal to antennae. When changing bands it is only necessary to retune final amplifier plate. Oscillator tube works as straight oscillator on 20-40-80-160 metre bands using fundamental crystal. For 5 and 10-metre bands, 10 and 20-metre crystals are used, respectively. Many other important features. Transmitter complete with valves for bandswitching any three amateur bands (but less coils and crystals), £30. **SPECIAL MODEL FOR POLICE WORK, U.H.F.**



HALLICRAFTERS HT-1

The Model HT-1 transmitter is conservatively rated at 50 watts Phone Carrier output and 100 watts C.W., but in operation is equivalent to the performance of the 75 or 100 watts "input" kit constructed Phone Transmitter. Three Band Selector Switch for any three amateur ranges. No detail has been neglected to add to its dependability—generously oversized transformers and other components are used—the design was built round the latest, most advanced type Raytheon Tubes. Price complete, ready for operation on 3 Bands, less Microphone and Key, £73-0-0.

UHX-10

The new UHX-10 all-purpose transmitter, having an unlimited number of possible applications in the general communications field. Due to the wide frequency coverage obtainable, it is especially useful in Commercial, Amateur and Experimental Services for both fixed and portable-mobile work. Complete with Valves, Crystal, Microphone and Key, for Two-Band operation, £19-0-0. Power Pack for 230 volt input, with valves, £6-10-0. Genemotor, with remote control and Filter, £9-16-0.

UHX-25

Model as illustrated. The new UHX-25 has everything you could ask for in performance, price and appearance. From the chrome-trimmed cabinet to the rugged chassis it looks and is an outstanding value in the transmitting field. Transmitter complete with valves and coils for 2 adjacent wave bands (no crystal, microphone, or key), £29-0-0. Coils for any wave band from 5 to 160 metres, 30/- per set. Crystals, 15/6 and 35/-. Power Pack for 230-volt input £19-0-0.



'APEX' 3-BAND EXCITER

A very cleverly designed and economical three-Band Switched crystal and ECO Exciter unit, built on to a standard Eddystone 19-in. panel, with appropriate brackets and chassis. Price of the exciter, complete with all valves, coils and one crystal, £15 - 10 - 0. (Power Pack £6 - 10 - 0 extra.)

Very generous HIRE PURCHASE facilities are available on all complete Transmitters and Receivers sold by WEBB'S.

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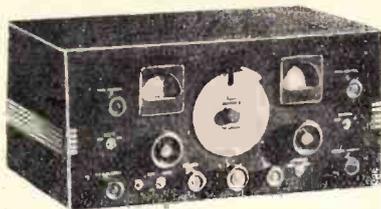


NEW SKYRIDER SX24

The Sky Rider SX24 offers performance that can be favourably compared to any receiver regardless of price. It has new features, like **Built-in Frequency Meter Tuning**, that are absolutely new. In addition, it has all the desirable features and qualities that are needed for outstanding amateur reception: **General Coverage—43.5 to .54 mc (6.8 to 555 m.); Frequency Meter Tuning; Built-in Noise Limiter; Variable Selectivity; Frequency Stability; Battery Operation; Break-in Relay Operation; Crystal Filter; Four Band Positions; 9 Valves; Electrical Band Spread.** Price for 110 to 250-volt A.C., including valves and crystal, £21. (Speaker, £4).

NEW SKYRIDER 23

Embodies all the features of the ideal receiver. New in conception, new in design, new in performance. **Eleven Valves; specially tested Bliley 455 kc Crystal; improved wide range variable selectivity circuit; remarkably high signal-to-noise ratio; 8 Bands—4 covering 10 to 540 metres, 4 for Band Spreading 10-20-40-80 Amateur Bands.** £33-10-0. (Speaker, £4).

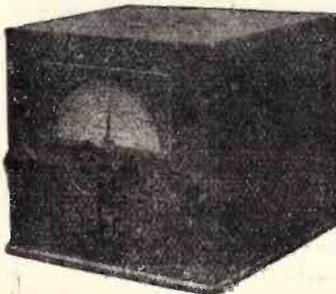


SKYRIDER SUPER SPECIAL SX17

Though now 12-months old, the SKYRIDER SUPER SPECIAL still stands supreme above all others. Custom-built throughout. Leading features: **Two R.F. Stages; Complete Coverage—4.5 to 550 metres; Built-in Noise Silencer; Electrical Band Spread; R Meter; Die Cast Aluminium Chassis; 13 Valves; and Variable B.F.O. Injection.** Price for 110 to 250-volt A.C., including valves and crystal, £39-10-0. (Speaker, £4).

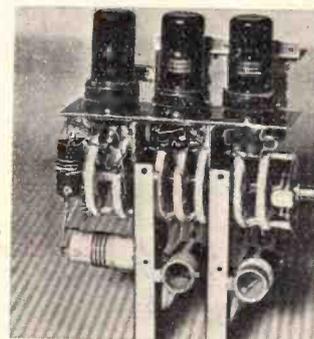
RME DB20 PRESELECTOR

The DB20 Preselector is a great asset to ANY COMMUNICATION OR ORDINARY SHORT WAVE SUPERHETERODYNE RECEIVER, and will give a great gain in output, particularly from weak signals. A two-stage radio frequency amplifier, employing two 6K7 valves, with its own built-in power pack, and covering continuously from 9 to 550 metres. Price, complete with valves, £12-10-0.



DM36 FREQUENCY EXPANDER

DM-36 by RME—Band Expander for 5 and 10 metres, to be used with your present receiver as a **double I.F.**



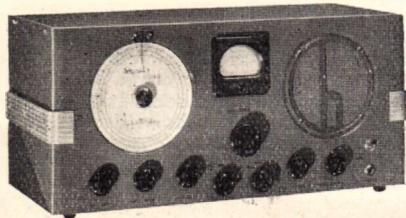
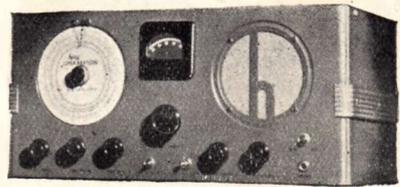
unit with the R.F. section set permanently at 10,000 kc. Radically improved in design and operation. **Real band spread on 5 and 10 metres is readily obtained.** Price complete in cabinet, £12-0-0.

COMMUNICATION RECEIVERS

HALLICRAFTERS

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THE SKY CHAMPION is an 8-valve Receiver with Pre-Selection and Built-in Speaker complete in every respect, offering the amateur a quality of performance never before available at this low price—Leading features: COMPLETE COVERAGE—6.8 to 550 METRES; FOUR BANDS; SEPARATE BAND SPREAD DIAL; INDIVIDUAL COILS FOR EACH BAND; INERTIA TUNING MECHANISM; BEAT FREQUENCY OSCILLATOR; AVC SWITCH; EXCELLENT SENSITIVITY AND SELECTIVITY; A.F. GAIN CONTROL; BAND-SWITCH; SENSITIVITY CONTROL. Price for 110 to 230-volt A.C., complete with Speaker, £15-15-0. **S.M. 'S' METER.** This signal strength indicator has been designed as an accessory to the **SKY CHAMPION.** All that is necessary to connect the meter is to plug it into its socket on the back of the receiver chassis. Price complete, 55/-.



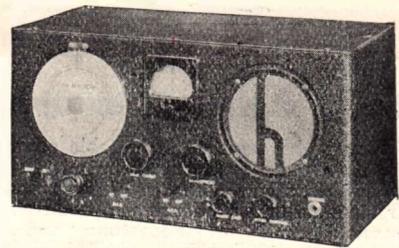
SKYRIDER 5-10 *The Finest UHF Receiver*

This receiver is designed for the amateur who needs and wants the exacting performance required for superior ultra high frequency reception. It covers the radio spectrum from 68 mc. to 27 mc. (4.4 to 11.1) in two bands with a degree of sensitivity and selectivity that offers unparalleled reception of the ultra high frequencies. For 110 to 250-volt A.C., including valves and speaker, £20. Carrier Level Meter, £2-15-0.

Special model available for POLICE WORK. Full details to officials only.

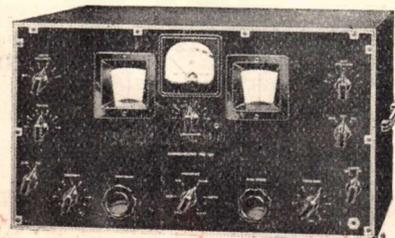
NEW SKY BUDDY

How can it be done? Here's a new **SKY BUDDY**, designed to include the 10-metre band and with the same Electrical Band Spread used in higher-priced Hallicrafter models, with better all-round performance than ever before—but still selling at an amazingly low price! This **NEW SKY BUDDY** has sensitivity, image ratio, signal-to-noise ratio and all-round performance that excels many receivers sold at twice its price. Leading features: 6 VALVES, WITH 8-VALVE PERFORMANCE; FOUR BANDS; COMPLETE COVERAGE—9.4 to 550 METRES; COVERS 10-METRE BAND; ELECTRICAL BAND SPREAD; SEPARATE BAND SPREAD DIAL; BUILT-IN SPEAKER; AVC SWITCH; BEAT FREQUENCY OSCILLATOR; PITCH CONTROL; SEND-RECEIVE SWITCH; PHONE JACK. Price for 110 to 250-volts A.C., £10.



NATIONAL HRO HIGH FREQUENCY

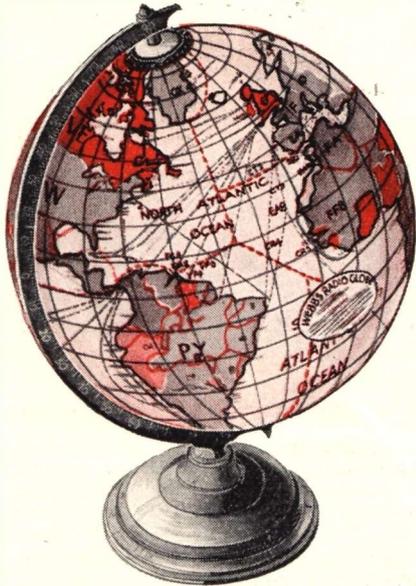
Two pre-selector stages give remarkable image frequency suppression, weak signal response and high Signal-to-Noise Ratio. The two high-gain I.F. stages employ Litz-wound coils and are tuned with air condensers. The usable sensitivity and selectivity are exceptional. Other circuit details are: automatic and manual volume control, a vacuum tube voltmeter calibrated in "S" units for carrier intensities, a phone jack, a Send-Receive switch and a Lamb Single-Signal crystal filter. This filter makes selectivity adjustable over a wide range and the circuits are so precisely balanced that heterodyning signals may be completely phased out. Standard model—23-volt A.C. or 6-volt battery—complete with valves (but without speaker), £49-15-0. Additional coils from 160 to 6,000 metres available from stock.



NEW HAMMARLUND HQ120

This new amateur communication receiver includes many outstanding features. 12 valves cover a range from 9 to 545 metres. New and revolutionary crystal filter circuit; special R.F. and detector circuits providing uniform gain throughout the amateur bands; entirely new design in tuning condensers providing extreme accuracy; CALIBRATED BAND-SPREAD DIAL as well as main tuning dial; new vacuum tube voltmeter circuit for accurate logging—meter is calibrated in "S" units up to "S-9" and also up to 40db. above "S-9." Antenna compensating control; noise limiter; phone reception. Possible by a flip of the switch to employ the crystal filter for the reception of voice or music. Price complete for 230 volts, £36-15-0.

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WEBB'S RADIO GLOBE Of real importance to the radio amateur—and even to the ordinary listener to S.W. stations. Absolutely accurate in every detail; a very handsome production, and a fitting co-operator with the finest communication receiver. The diameter of the actual globe is exactly twelve inches, while the overall height is approximately 14 inches. Full colour printing is employed. All International Prefixes clearly marked, **enabling any station heard to be instantly located.** Price (post paid) **27/5.**

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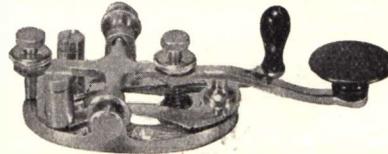


'VALPEY' CRYSTALS

Type VM2 Mounted Crystal to your specified frequency in 7 Mc band, **15/6**; 3.5 Mc band within 5 kc of your specified frequency, **15/6**; 1.7 Mc special cut, **15/6**; UNMOUNTED CRYSTALS, 7 Mc only, "X" cut, **10/6.** CALIBRATION CERTIFICATE TO G.P.O. REQUIREMENTS, 1/6 extra.

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Full range of radio telegraph apparatus designed and manufactured by T. R. McElroy, World Champion Telegraphist. Trans-

mitting Keys, Practice Sets; Audio Oscillators; Automatic Recorders. Absolutely first-class construction in every respect. See pages 60 and 61 of **Webb's Catalogue.**

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SEE OVERLEAF FOR COMMUNICATION RECEIVERS

CALLS HEARD SECTION

SET LISTENING PERIOD 1, 1.7 Mc

July 9, 2230-2330 BST.

JOHN A. CLARK, JR., 30, North Street, Forfar, Angus. SG-v-2, 2m 3/4w. doublet, used as "T."
 *Phone—C2KT, QV, 3TU, VG, 5CU, MM, 6OV(?), PY, 8KL, LZ, GM6SR. CW—G3MI, 4LA, 8PI.

C. T. H. MARTIN, "Lynton," Pound Road, Bursledon, Southampton. 1(regen)-v-1; 50-ft. end-on, N-S. CW—G2AT, HU, 3MI, TP, ZL, 4LA, 5HS, OB, 6MC, 8VP, OK.
 *Phone—C2KT, YY, 4CW, 5CU, 6AB, 8LZ.

H. OWEN, 2HLU, 2, Campion Ave., Basford Park, Newcastle, Staffs. "All World Two," 45-ft. end-on ENE-WSW.
 CW—G3FJ, MI, TP, 4LA, 5HB, RI, 6MC, 8JM, PI.
 *Phone—C2QV, 4CW, 6CU, MM, 8KL.

J. E. FRITH, 113, Worpole Road, S.W.20. 0-v-pen, 36-ft. semi-vertical, 10-ft. at NW and 30-ft. high at SE end.
 *Phone and CW—GM2MQ, G2KP, WA, 3BF, MI, 4CG, 5MM, 6MC, 8JM, PI.

SET LISTENING PERIOD 2, 1.4 Mc

July 16, 0600-0800 BST.

H. OWEN, as above, plus HF stage. CW—D3KDK, 4AFF, TAO, E58D. F8QV, FA8CC, DA, HA3H, 7T, NY2AE, ON4EJ, OZ9U, SM6WI, SP1MJ, SU1TM, U3BM, UK9AN, W3GGX, 4BPD, ELR, FZE, VT, 5EJT, QL, RR, 6MUO, NTR, NZ, PKZ, 7GPR, INW, MB, YM4CF, YU7LX, XU.
 *Phone—CN8BB, CO2WM, E55C, F3PS, 8II, TU, K4FKC, ON4US, KU, SV5BO, SV1CA, VE3AHN, OR, VT, 4YR, 5EF, VY1WB, 5IS, W2IXY, 4BMR, ECF, 5AYH, 6BUW, COF, DZX, KNI, MGZ, MPD, MDS, 7DX, 8CUO, RHP, XE1CO, Q.

R. H. GARLAND, "Crowndale," Hainault Road, Chigwell, Essex. Battery 0-v-2, *phones; 100-ft. end-fed.
 *Phone—CN8BB, E55C, F3KM, 8II, G2BY, PU, TR, 5DV, LU, 6AH, 8GP, SB, 1ISM, SU5BO, SV1CA, CO2LL, WM, HZ2CC, HR5C, K4FKC, OAA4W, VE2MC, 3HI, OR, 4YR, VP1WB, 5IS, XE1CO, Q, VK2AJ, 3TZ, XN, 4GW, 5PR, SW, 6MW, W2IXY, JWW, KDY, 3BEK, 4ANU, BMR, CYU, ECF, EMV, 5EQ, OC, 5AFW, ARH (Port. Ark.), CXQ, FIV, FWH, GCP, PP, 6BUW (Utah), CQI, IKQ, KNI, KR, MPS, SZ, 7ACD, 8CNA, CUO, DRM, EIN, GYJ, JNU, KML, LRP, OZP, PZV, RHP, 9GMS (Colorado).

G. GLEN DAVISON, 8, Windsor Terrace, Newcastle-on-Tyne, 2, 1935 AW8; 125-ft. N-S.
 *Phone—CN8BB, CO2WB, E55C, F3KM, OX, HH2B, HR5C, 1HMT, SM, K4FKC, VE3OR, 5EF, VP1WB, 5IS, W2IXY, 4CYU, ECF, HX, 5CXQ, YF, 6AH, COF, CQI, EUW, EWE, IKQ, KNI, KR, MEK, OSY, PDB, SZ, 7ACD (Idaho), DX, GXU, 8CUO, FEQ.

SET LISTENING PERIOD 3, 1.4 Mc

July 23, 2200-2400 BST.

ROGER LEGGE, 20, Beethoven Street, Binghamton, New York, U.S.A. RME-70 with DB-20, W8JK 2-section, E-W.

*Phone—CP1AA, LU2AW, HK1AE, YV1AQ, 5ABF, XE1Y, T14AC, NY4AB, VP2LC, HH2PD, SP1MR, CT2BP, FA8BE, ON4HE, F3OF, 8NT, XT, E1Z, 8J, H2B, GM6RG, WD, 8MN, CW3KY, 5PH, 8HI.

K. BUNSTON, Broad Hinton, Wilts. 0-v-1.

CW—CM2MZ, CT1DX, PC, CX1BG, 2AJ, D4HBT, F8GS, G3DZ, 6VX, GM6XI, 12KZ, KA1SP, 7EC, LU1EP, 2CW, D, 4AG, BH, 6JB, LZ1ID, MX1A, PY1DH, 2AC, 5BO, SM4KX, 5WV, UK6WA, VE1CU, 2BF, 5AIL, VK6LW, V56AF, W1DKD, BLF, BLN, EZ, HJI, ELK, KEZ, 2BMC, BXA, ISO, GTZ, FDT, GVZ, LZX, LRG, 3EPV, QT, COZ, GGI, EYT, BXD, OP, 4PIN, 8KTW, HEC, HXO, FAR, FNT, GWO, 9HKM, GVO, EEZ, TJ, FJH, POB (Nebr.).
 *Phone—CE3AG, AT, 4AC, CN8MB, CO2HC, WM, 8BC, CT2BP, G8HA, 5BJ, 2PU, GM3QR, 6WD, CW3KY, KA1FH, LU4CS, CZ, 5AM, 7BU, LY1S, NY4AB, OH2OI, PY1CK, 4BI, T14AC, TG9AA, VE1FG, W1ASA, DQ, NW, 3HGN, 8DST, 9OI, YV1AQ.

F. ROWLEY, 195, Hitchin Road, Luton, Beds. "All World Two"; inverted "L," 25-ft. high, 60-ft. long, N-W. CE3CA, CT2BP, G8MX, LU7BU, LY1S, OH2OI, PY1CK, VE1CK, EL, FG, W1AA, AJA, AKY, BNJ, CND, DQ, HY, HKK, IRC, JFG, KH, 2BRI, FPB, GIZ, HLF, 3HN, 8CNX, DST, GXHF, 9ZTA, YV1AO, 5ABF.

F. JONES, 6, Sutherland Street, Fenton, Stoke-on-Trent. Electron - coupled 0-v-1; 28-ft. high, 22-ft. long, WSW, 65° elevation.

CW—CX2AJ, G3UP, 8DU, ON, G16TK, GM6RV, KA1SP, LU1EP, 4AG, 8DJ, LZ1ID, PY2MI, U6ST, UK6AK, VE1FU, 5ZM, VK3PG, VY1JR, 5PZ, V56AF, W1DKD, EZ, HJI, TO, 2DZF, IYF, JJR, KZJ, LJE, LRX, 3EPV, HMM, QT, 4TJ, 8GUZ, IOT, JDB, KTW, SJP, 9CHI.
 *Phone—CE3AT, 4AC, CO2WM, 8JK, CT1QN, 2RP, GM6WD, LU7BU, SU1CP, T12LR, VE1FG, FL, HL, 2OD, 3WI, W1AXA, JHL, 2GIZ, KHK, 8DST, 9VPS, YV2AQ, 5ABF.

GENERAL LOGS

1.7 Mc

C. T. H. MARTIN (see SLP 1), 8.7.39 to 7.8.39.
 CW—PA0NC, HB9BG, GM3VJ, 5UT, 8CN, TT, GW2WO, 3AJ, 5TC, G2GC, RI, BI, HU, AT, OU, UJ, IZ, DM, XG, SO, DF, RA, YT, SU, 3UB, MI, TP, ZL, LP, OA, VB, ON, HS, NC, MV, BO, VC, KF, HA, NN, FN, YZ, YH, 4LV, CW, LA, KZ, GA, AK, ML, LO, AU, GJ, HZ, MO, JB, BI, CG, TR, KT, DF, 5DQ, RI, RP, LO, OB, HS, XB, UO, BW, NC, UM, GT, BX, AO, BM, ZW, OG, RY, KT, OY, 6IT, VD, MC, TC, OM, MU, CT, MK, YJ, OA, KR, WY, CM, LZ, NB, 8LZ, SC, GT, VP, OK, TL, SG, PI, PD, MW, JM, PX, PM, GG, TS.
 *Phone—GM8TT, CW2BG, 4FW, 8HI, G2ZT, WA, KT, YY, GG, IT, 3PF, TP, G.W, PH, FL, CH, LZ, JO, 4CW, AK, BZ, AU, CI, HZ, 1MO, 5CU, OR, MN, OI, GN, DN, ZO, OG, 6VI, SS, AR, TT, GO, HN, AS, 8FU, LZ, IU, JM, DM, IOP, KI, NL, RJ.

3.5 Mc

BOB EVERARD, "Belle Vue," Nelson Park, St. Margarets-at-Cliffe, near Dover, Kent, "Sky Chamipon," 6.8.39 to 12.8.39.
 *Phone—W1AW, DZL, DVP, RTC, AHR, 2INA, JMC, 3AWU, AVP, FVK, 4DCY, 8ROZ, RYA, KDX, NPI, CHU, LIM, AOC, VE1TW, LR, GR, CR, IP.

7 Mc

C. D. HAMMETT, 37, Torrington Road, Greenford, Middlesex. "Sky Buddy" v-1/2-wave centre-fed Hertz, E-W, 1.7.39 to 1.8.39.

CM2GU, CA, 5FK, UL, 6RH, 8JC, RO, EA1CB, FM8AG, HR4YV, HX2GK, K5AK, KC5P, LY1BU, 2KD, OK3UU, PY1CD, JC, UJ, 2DA, FF, DM, PK1BM, TF5M, U5BL, VE1NK, 2KX, LG, VO1T, XE1LX, YM4BD, YV4AX. Also 65 W's in W1, 2, 3, 4, 8.

14 Mc

J. C. HARVEY, 2CQJ, 6v. superhet: 1/2-wave doublet, N-S, 1.7.39 to 31.7.39.
 *Phone—CO2JV, WI, GY, RC, MA, RA, LY, MH, LA, 6OM, 7AS, 8JK, VZ, K4FKG, FAY, EPP, UG, EMG, GFE, PY1IM, 2BH, 3BC, EW, 4BK, CB, BI, 5QR, 7AI, OA3A, 4AI, AW, HR5C, YN1IP, HH2B, NY4AB, H15X, 8N, HK1AG, AC, AA, 2AE, 3CL, CC, CK, CO, T12AC, XE1CQ, GE, 2FC, 3AX, HC1FG, LU1BA, JC, LB, 2HF, 3HA, HC, HK, DS, 4AW, PB, 5CK, MD, 6AM, 7TH, BC, BU, BK, YV1AQ, AB, 4AE, 5AK, ACE, ABF, AE, 9AC, AE, AAG, CX2CO, AY, VQ2CM, TG9AA, BA, CE1AM, AS, AH, 2BR, 3AM, AT, AA, BK, AC, CG, CZ, GM, DW, 4AC, VP1WB, 2AT, CO, 4TI, 5TS, PZ, 6MR, FO, 7NS, 9C, VE4TM, ACS, VR, ADV, 5VP, AAG, RC, KC, EF, PK1VY, RI, SM, OR, HW, 4DI, VS2AK, FN1C, KA1HS, AF, VU2IC, FA, CO, V57RA, JR, RI, CT9BP, Z2APK, W6FWE, GRK, MFK, ITH, USA, ORE, CTS, FOZ, T.VY, OH, RTM, KR, SZ, MGD, NCM, RWG, MZD, PDG, HPD, LKO, AJO, AHP, JDN, FTO, CFI, DTC, FNI, MRD, AH, CNA, LRV, IDV, IGV, MGZ, DZX, IGV, OCH, FIC, CVM, PRR, NWR, ONZ, FOH, EKH, OUC, CBR, JRE, KR, MWK, PCW, WJLWH, APD, FKA, DX, EIL, MX, RVO, GXU, GAF, OC, FOI, FIS, VK2AO, OI, RI, AGH, NS, ADT, HS, AGR, AFS, MH, AKO, TO, YO, AGO, AGH, 3VG, TE, XN, AH, GG, IJ, KX, CZ, WA, FG, 4IP, PE, GI, KA, JO, 5RN, SW, BF, GU, 6MW, 7CD.

CW—CM2SM, OG, MZ, 7AI, K5AP, AE, AN, PY1FH, 2FF, BD, MI, BB, BN, NH, 4AP, 5AG, MI, MA, HR4CX, HH2MC, HP1X, HK3CI, 4EA, RH, T14AC, HC2CP, LU2EP, RL, BF, AG, DO, 5MS, 7AC, 9CK, VP2AD, VE5AA, PK1OG, K6PWC, WAU, MX1A, VU7BR, U3RX, 2NF, 6AR, 9AG, UK6HA, 9AN, 8R6AF, 4HT, MM, ZC6IA, ZE1JE, W61OX, RIN, EGH, DL, RVS, BAM, GGB, ONA, POI, DIW, KEV, PKI, 7GCT, GGR, MRG, MRF, EZX, ANW, MBW, KLR, VK2AZ, XS, AI, IF, XZ, CS, ZL, KJ, OW, AN, AH, VA, 4F, AM, FV, TG, PT, TQ, NO, IC, 3VP, VD, CT, XB, BS, JE, NI, US, IE, VI, DI, BD, RC, IG, 4JU, ZU, OR, WS, 5HC, WR, ND, ICH, LL, 6KW, SA, ZL2AD, 3DJ, 7C, 4CL, RB, FK, FB, GQ, VQ2HC, FM8AA.

BRITISH CALLS HEARD OVERSEAS

14 Mc

VU2EU, c/o Peshawar District Signals, Peshawar, N.W.F.P., India, 7.7.39 to 3.8.39. Figures in brackets indicate RST values.
 G2HF(349), IO(569), IX(449), YB(459), 3CB(449), MY(349), RO(559), SH(359), TK(449), VN(359), ZJ(459), 4AR(449), AJ(479), DN(569), 5BD(348), BY(449), MY(459), OZ(459), PO(339), PR(459), RB(559), SR(449), TO(369), UD(559), X5(339), 6CJ(559), GN(349), KS(558), LF(459), VN(459), 8DD(559), DL(358), II(458), RO(449), JR(449), TC(349), G15WD(559), 8TS(459), GM3QH(469).

ROGER LEGGE, heard during SLP3, see Column 1.

G2BB, IW, MF, PU, OC, 3AD, DO, JG, OK, GO, MW, TI, 4BH, HW, IH, 5PP, QN, BQ, ZG, XA, 6ZI, PC, BY, VX, UX, CL, BW, BC, ML, MB, DH, IA, 8SW, MX, HN, SM, TY, LU, LP, WS, UJ, LT.

The First-class Operators' Club

Explanatory Notes on Function and Membership

FORMED JUST over a year ago, the First Class Operators' Club came into existence with the avowed object of taking into membership any amateur transmitter who, by virtue of his ability as a telegraphist and his general attitude to Amateur Radio, appeared worthy to belong to an organisation the aims of which were to encourage good operating and the proper use of our bands.

In pursuance of these ideals, the F.O.C. has laid itself open both to abuse by uninstructed critics and opposition in those quarters from which support might reasonably have been expected in view of the implied official approval given to the Club's character and organisation. Furthermore, there were in the early days inevitable difficulties brought about by certain members who, by their behaviour on the air after election, discredited the Club's standards. This in turn led to some justifiable criticism of the F.O.C., while recently the position was further complicated by the publication of an article which, written by an F.O.C. member aspiring to give a lead in a new direction, had subsequently to be repudiated by the secretary of the Club as not being in accordance with its policy.

Through such tribulations and by such devious routes we arrive at the present, with the First Class Operators' Club starting its second year under the *aegis* and with the full Editorial support of this MAGAZINE, in which paper alone will appear all future F.O.C. notes, news and official Club announcements.

It is particularly to be hoped that henceforth F.O.C. members will make greater use of the bands 1.7, 3.5 and 7 Mc, so that their signals can be more

generally heard in this country and suitable new applicants encouraged to come forward.

● Membership

This at present totals 70, under the presidency of John Hunter, G2ZQ, with R. B. Webster, G5BW, as honorary secretary, and a Committee of four (G2QO, G2RO, G2XG and G8AX) with C. J. Peach, ex-ZB1P, as a co-opted member.

The main qualification for membership is good operating ability and technique, with a Morse speed around 25 w.p.m., sending and receiving. The Election Committee, consisting of those members named above, usually adjudicates on fitness over the air, individuals on the Committee being empowered to make recommendations where the circumstances warrant it, while candidates who apply for membership and whose ability is unknown are given a test by special arrangement.

The other important qualification required of potential members is an experimental interest in Amateur Radio, and on election they are expected to observe such points of behaviour as comprehensive and critical reporting, full technical co-operation with other stations and, of course, courtesy and friendliness. Members failing to conform, or whose operating shows deterioration, are liable to be removed from the roll, though this can only be done by a majority vote of the Committee.

The subscription to the F.O.C. is a purely nominal one, being 2s. 6d. on election and 1s. a year thereafter. This covers certificates, stationery and secretarial expenses. All correspondence and inquiries should be addressed direct to the Secretary, R. B. Webster, G5BW, Steeley Holme, Upper Willingdon, Eastbourne, Sussex.

DX — Calls Heard, Worked and QSL'd

(Continued from p. 20).

ing of SWL mail to VU stations has cost VU2EU about 30s. in excess postage on insufficiently stamped letters and cards, so in future all underpaid mail will be refused. The charge from England to India is 1½d. *per half-ounce*, and QSL cards are *not* accepted under the ½d. postage rate. VU2EU will continue to clear listeners' cards for VU's as long as they are fully stamped.

● Some QRP!

VU2FO has brought the Junior BERU cup to India once again; he mentions that he could not quite manage the Senior with only nine watts! The 1938 Junior VK-ZL Contest has been won by VU2EU for the VU prefix area, and he has received a parchment certificate.

An interesting QRP test was carried out by VU2EU in conjunction with G6LF. Contact was first established with an input of five watts and

G6LF reported RST559; the input was gradually reduced and even with two watts the QRK at G6LF was still 559, while with one watt the report was 449. A card from G3MY gave exactly the same figures, and he remarked that VU2EU should get out with just his heater on! The transmitter is simply a 6F6 CO with a Vibrapack HT supply and the input never exceeds five watts, the aerial being a half-wave wire, delta-fed and cut to 14344 kc. Reports of 579 have been received from W1-2 and 569 from PY. The location probably has something to do with all this as VU2EU is 5,000 feet a.s.l. and right in the clear.

ZL2JQ is on board a ship sailing between Europe and Calcutta and can be heard signing XX2JQ. J2MI is leaving for North China this summer and will try to get going in Mongolia with the prefix MZ.* VU2BX is in Karachi and using 6L6G's in a CO-PA rig running from from DC mains.

W. H. G. METCALFE, VU2EU.

* [We now understand this idea has fallen through.—ED.]

On the Amateur Bands

WE WERE GLAD to notice that a reader brought up the subject of honesty in reporting in the Correspondence page of the last issue. Too little has been written on this all-important topic, which is surprising, in view of the fact that we are *supposed* to be experimenters.

As far as G operators are concerned, the only official purpose in radiating a signal at all is to obtain accurate information on transmissions—not once, but every time we press a key or modulate the carrier. This may sound far-fetched to some, but we feel sure that the majority of amateurs would welcome a return to a completely honest basis of reporting. Years ago, reports were as complete as possible and every amateur expected candid comment on his signals.

After all, what is the essential thing that the beginner wants from a contact? What is it that constitutes the minimum proof of a QSO? And what is it that the “QSO factory” operator desires above all things? The exchange of reports. This being true, as well as the fact that there are many who are trying out new aerials or new transmitters or new bands, it must be obvious that accuracy in reporting is of paramount importance and from an experimenter’s point of view, the *only thing* that matters.

And yet how many of you know the “T” code or the “R” code, or any of the codes? You will say you have “some idea”—Yes, but is that enough? We suggest that nothing but a complete knowledge of the codes in every-day use is sufficient.*

● The T Code

We all know what T9x means, but how often does one hear T9x being given to a chirpy ECO note? Do we all know the *exact* meaning of T7? If we took bets, we’d bet that only 20 per cent. of you know. T7 means “near DC note—smooth ripple.” Again, we wouldn’t mind betting that you would have given T6 for that! Contrary to the belief of most people, the T code does not allow for reporting instability of any sort. Signal chirp, creep, or broadness must always be reported in plain language to the operator at the other end, and in the greatest detail, in order to give him an exact mental picture of his transmission. How often is this done? We ourselves have gone to great trouble on occasion to make such a report and have always earned the grateful thanks of the recipient, who has frequently remarked that he had been receiving consistent T9 reports all the evening! Several operators have said on their QSL cards that they had a “good look round” after our QSO and located the trouble. If we had not spent that extra amount of time, it is conceivable that these transmitters would unknowingly have been radiating an imperfect signal—thereby causing unnecessary QRM—for weeks. Of course, some of the edge-band DX people have not the slightest interest in the quality of their notes so long as the new country comes back to their call.

* [An article in our issue of November, 1938, gave all accepted codes and explained their applications.—ED.]

Honesty in Reporting - - OLD TIMER

It is useless to exhort such as these because they are outside the pale of decent Amateur Radio.

● Telephony Reporting

Judging by 7 and 14 Mc, carelessness is even more pronounced among the habitual ‘phones on these frequencies; in fact, it is not unusual to hear two stations establish contact and talk about everything but radio. To know what their signals are like does not appear to interest them in the least so long as their childish prattle gets over to the other end. Even if it does not, a report of “All OK OM” comes back every time. What a state of affairs!

In justice, we feel that this type of operator is disappearing—albeit slowly. The man we have in mind is just careless or lacking in courage. He feels that it is “a dirty trick” to give an honest report when it means damning the whole transmission. But one need not be blatant about it; one can point out exactly what is wrong without being offensive or up-stage, and if honest criticism is not well received the facts remain the same.

Next time you take part in a “common frequency party” on 7 Mc, listen for the defective transmissions of the others, then report them fairly and without bias and when you change over to the next in the chain, ask him to give his opinion on the reports you have made. In fact, ask all the other stations to criticise these reports and you will be pleasantly surprised to see how they all react to a little leadership in honesty. The result of such a QSO party will be useful to all who take part in it, and every operator will have learnt something about his transmission, instead of nothing at all, which is usually the case.

● The “S” Scale

Another code which has been abused since communication receivers came in is the “S” or old “R” scale. This is especially so among telephony operators. As long as a transmission is completely readable on the loud speaker it is given R9 without further thought, and yet careful checking against other signals will invariably show that it is less than this figure. Where an S meter is incorporated mistakes should not occur, but how often do we hear reports of “S9 carrier with speech rising to a maximum of S7 on the scale”? It seems that the report is always given on the carrier rather than the speech strength, though the latter is the important part of the report. We hope that all who read this will remember the suggestions frequently made by the DX Scribe on the type of report that should be sent by SWLs to earn a card. If amateurs only applied the same principles over the air they would justify their spot in the ether and obtain their cherished DX card without asking for it, because the contact would be a memorable one and the man at the other end would *want* to QSL.

Remember—every time you come on the air—be honest, be helpful and justify yourself in the eyes (and ears) of all who hear you.

Conditions

The Month's Survey and Some Notes on Interpretation

ON THE WHOLE, good short-wave conditions have prevailed this month, though there are signs of the approach of the Autumn equinox. Ionosphere disturbances occurred as follows, however, with a resultant deterioration in reception, particularly on the higher frequencies:—

July 20–21 inclusive.

July 26.

Aug. 10–14 inclusive.

The last of these disturbances was the most severe, and on Aug. 11 and 12 an intense magnetic storm also occurred, accompanied by displays of Aurora Borealis.

Probable periods for ionosphere disturbances during September are:—

September 6–9.

September 12–18—two disturbances indicated.

● Judging Conditions

The brief statement above must suffice to deal with conditions this month, as it is thought desirable to devote the rest of this space to some remarks intended to help in interpreting the material which generally appears in this column.

World wide short-wave conditions are obviously a very complex matter—bearing in mind the diurnal and seasonal changes, and the differences that occur over varying transmission paths—so what follows is in very general terms.

At the present time 14 Mc should be considered the highest of the amateur frequency bands normally suitable for DX working. Consequently it is the best of the amateur bands for this purpose. With normal conditions it should be workable over some transmission paths from sunrise to about midnight GMT, and often later. 7 Mc is a good DX frequency for night-time working, but is rather too low even then. Though DX work is carried out on 3.5 Mc, this and the 1.7 Mc amateur range ought really to be regarded as local or Continental bands. 28 Mc should give some good results during afternoon and evening, though these will be erratic, whilst DX work on 56 Mc must be regarded as erratic the year round.*

As we approach the equinox, 28 Mc should become quite a reliable band during the day, starting to fade out near sunset. 14 Mc will still be the main DX band until about 2200 GMT, while 7 Mc will give even better results at night than it does at present.

Towards midwinter 28 Mc will again be less reliable, 14 Mc will be good during the day, but will normally fade out around 1900 GMT, while 7 Mc and 3.5 Mc will be good DX night waves.

So much for normal yearly seasonal changes—no doubt some will disagree—but the above is a general definition of them at this phase of the sun-

spot cycle. Of course there will come a time when 7 Mc becomes the *main* DX band, but it is not likely to be before the end of 1940.

● Effect of Ionosphere Disturbances

Ionosphere disturbances occur most often about 36 hours after the CMP of an active sunspot group.*

The effect of an ionosphere disturbance is to reduce the "maximum usable frequency." Thus, at the present time 28 Mc would fade out completely at the onset of the disturbance, while more or less severe fading with high noise would set in on 14 Mc, depending on the severity of the storm. This frequency would die out much earlier in the evening than usual. There might be a short period before the storm started when these two high frequencies were exceptionally good.

It is important to take into account the direction of the transmission path. This point cannot be dealt with in detail, but, generally speaking, stations to the east are less affected than those to the west. The latter become particularly poor after dark in this country, especially if the Great Circle line joining them to us passes near the magnetic pole. Stations lying to the south and south-west may not be affected so badly; in fact, they may be coming in better than usual owing to the absence of QRM from more northerly stations. It all depends on how far south the disturbance spreads, it being centred on the N pole.

During the disturbance communication on the bands next below those which have faded out is likely to become more suitable for DX work than is normally the case. We might expect this to happen on 7 Mc and 3.5 Mc at present.

The above describes in general terms the effect of an ionosphere storm. Do not confuse this with a "short period fade out." The latter only occurs during daylight and covers the *lower* frequencies. Its effect *may* extend up to 14 Mc but it is over within an hour or so in any case.

*See "How Solar Activity Influences Short-Wave Propagation," August 1938 issue.

BEQUEST TO POSTERITY

The president of Oglethorpe University, Georgia, Dr. Thornwell Jacobs, has chosen among other publications the ARRL's "Radio Amateur's Handbook" for preservation in the institution's Crypt of Civilisation. The idea is to record by microphotography a representative selection of the works of our world, sealing them into a special vault to be opened in 8113—six thousand years hence. We seem to have heard of something similar in connection with the New York World's Fair, so that America's latest fashion is apparently "Bigger and Better Vaults for Posterity."

*See "Some Notes on UHF Propagation," August, 1939, issue.

CURRENT TRADE ITEMS

Avo. The new model 40 Universal "Avometer" is probably unique in the number of different AC/DC voltage and current ranges it gives; furthermore, it is provided with a protective cut-out instead of a fuse—as



on the old 36-range instrument which this model supersedes—and has three resistance ranges using internal batteries, with an additional high-reading one operated by an external AC or DC supply. A few examples will suffice to indicate the versatility of this instrument, remembering that the accuracy of calibration is within the B.S.S. limits prescribed for first grade movements. There are twelve DC voltage

ranges, the highest to 1200 volts and the lowest to 60 mV, giving a direct scale reading of 0.5 mV; the eight AC ranges give 0-6v. on the lowest and 0-1200v. on the highest. AC/DC current have eight ranges each, the lowest 0-6 mA and the highest 0-12 amps, while resistance can be read to 0.1 ohm at the low end of the 0-1000 ohms range. The other three are 0-10000, 0-100000 and 0-1 megohm.

The general appearance of this 40-range Universal "Avometer" is similar to previous multi-range Avo instruments, with the same selector-switch arrangement. The price is 14 guineas, a leather carrying case being 25s. extra if desired.

Illustrated herewith is the Avo Test Bridge, for operation from 220/240v. 50c. AC mains. It can be used, in three ranges, to measure capacity from 5 mmF to 50 mF and resistance from 5 ohms to 50 megohms. In addition, it gives power factor measurements on the high-capacity range, leakage indication on all capacities, and can also be adapted to measure or compare, with reasonable accuracy, inductances from 0.1 henry upwards. An amplifier valve voltmeter, integral with the instrument itself, is used to obtain the best possible accuracy and sensitivity, and an ingenious circuit arrangement prevents damage by reducing sensitivity at full unbalance. Hence, the needle cannot smack against the stop when making quick tests. The accuracy is better than 5 per cent, except at the extreme ends of the scale.

The price of the Avo Test Bridge complete is 8 guineas, and further information on both these instruments as well as details of other Avo products can be obtained from The Automatic Coil Winder & Electrical Equipment Co., Ltd., Winder House, Douglas Street, London, S.W.1.

Bacchus. Of particular interest to beginners is the offer of a kit of parts, quite suitable for building an effective receiver, at 12s. 6d. only. On such simple equipment many amateur transmitters made their start, either keeping this original receiver as a stand-by or using the parts towards another. Write A. L. Bacchus, 109 Hartington Road, London, S.W.8.

Dubilier. Their latest catalogue is worth having. It lists a very wide range of condensers and resistances of all types and for all purposes—such as the 951B (4 mF, 2000v. DC working) down to the ceramics, ideal for UHF apparatus, rated from 5 mmF to .001 mF. In between these is a large variety of paper condensers, electrolytics, mica and air trimmers, multiple blocks, metallised and wire-wound resistors in ratings from ¼-watt to 50 watts, volume, tone and fade-out controls, and the Dubilier Suppressor for motor engines. A useful resistance calculator appears on the last page of this catalogue, which is available free from The Dubilier Condenser Co., Ltd., Ducon Works, Victoria Road, Acton, W.3.

McClure. Apart from the Hamrad 140 communication receiver, now being handled by arrangement with Hamrad Wholesale, Ltd., McClure's manufacture ceramic valve holders, quartz crystals for frequency control and similar purposes, test gear, coils, transformers, chokes, microphones, meters; also all-wave and short-wave tuner units in complete chassis form. They have their own spraying plant for obtaining all kinds of finishes, producing steel cabinets and similar metal work for radio purposes. Inquiries for lists and further details to John McClure, Ltd., Erskine Road, London, N.W.3.

Mullard. The Mullard Technical Bulletin, No. 8, is of particular interest as it deals with the characteristics of frequency changer oscillator circuits and also contains some notes on the relative positioning of output and mains transformers to minimise hum. The third article is the first part of a paper on the rectification of single-sideband carriers. The Mullard Wireless Service Co., Ltd., Century House, Shaftesbury Avenue, London, W.C.2.

Webbs. A really accurate self-contained frequency standard has long been required by many amateurs, since it is not only a necessity in this country under the regulations, but has also numerous day-to-day applications such as setting ECO frequency, checking receiver calibration and maintaining the accuracy of heterodyne frequency meters. The Hallicrafters step into the breach with their model HT-7 Frequency Standard, using a 100 kc bar, adjustable over a narrow range, in conjunction with a multi-vibrator and harmonic amplifier. The result is that it is possible to get beats at 10 kc separation in any frequency range up to 30 Mc, a selector switch extending the separation to either 100 or 1000 kc, while the crystal-gap adjustment enables a zero-beat setting to be obtained on WWV, the American standard-frequency station which can be received in Europe. The price of the instrument complete is £9, and is in stock at Webbs Radio, 14 Soho Street, Oxford Street, London, W.1.

Wellworth. This firm makes a feature of mail order radio supplies for amateurs and is one of the oldest-established in the North. Large stocks, probably the most comprehensive outside London, are carried in all the popular products, such as Eddystone, Varley, Peto-Scott, Bulgin, Bryce, Heyberd, TCC, Hivac, Avo, Centralab, etc., etc. Write Wellworth Wireless Co., 8 Withy Grove, Manchester.

... HERE AND THERE ...

DON'T QSL—

And keep them out of gaol. In the August DX Commentary we printed YS2LR's card, with a note to the effect that he was fined and closed down—Amateur Radio not being allowed in San Salvador—because QSLs kept arriving for him. It now appears that YS1FM, their QSL manager, is under strict police supervision for the same reason; this may lead to someone being cast into prison, so for the present avoid sending cards to YS.

It reminds us of a well-known D operator of some years ago, when Amateur Radio in Germany was also under a ban. He was doing time for unlicensed transmission but managed to get a note into the Rag-Chewers' Club magazine. It was to this effect "I am in prison one month for having Tx so sorry cannot keep RCC schedules. But I will be on 3.5 Mc soon again with different call"!

N.P.L. PAPER

Of interest to many readers will be "An Experimental 200-watt Transmitter for wavelengths between 2 and 3 metres," by J. S. McPetrie, B.Sc., Ph.D., A.M.I.E.E., and C. G. Carter. This appeared in Vol. 16, No. 190, of the WIRELESS ENGINEER.

HARMONIC CONTENT

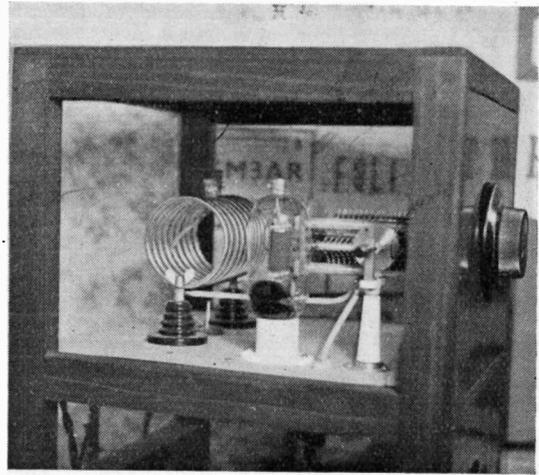
Sub-titled Overtone Rejection. It seems that not only are 7, 14 and 28 Mc harmonics heard on the 5-metre band in the neighbourhood of Sheffield, but also that strong signals from 56 Mc transmitters are received on the LF bands! These remarks are *apropos* a note in A. J. Devon's column last month and there are explanations for both phenomena. We would merely mention that the avoidance of harmonic radiation *and* the rejection of overtone signals can be more easily obtained at the LF operator's end.

PEACE PIRATE

It is reported in the daily Press that a radio station—described as an "amateur wireless transmitter"—has been broadcasting propaganda of a nature intended to dissuade listeners from offering themselves for National Service. The wavelength is 48.5 metres and according to the GPO—hot on the trail—the trouble comes from the Hendon district. As this is a particularly obnoxious offence to have associated with Amateur Radio, it is greatly to be hoped that a lasting example will be made of the operator when he is caught.

ARRL DATA

The American Radio Relay League gives some unexpected figures relating to amateur inputs and equipment over there. It seems that 60 per cent. of ARRL members use less than 125 watts and only 15 per cent. are on more than 300 watts—we can scarcely believe it! The average input power is only 175 watts and 96 per cent. of American amateur transmitters are home-built; on the other hand, 67 per cent. of the receivers come out of a factory, while the average age of League members is 29½ years.



Close-up of a 7 and 14 Mc 100-watt output stage. The valve is a T40 modulated by a bank of six parallel-push-pull 6L6's in Class-A. At the station of G18PA, Belfast.

NEW JUG

The G.E.C. of America have recently developed a 100-kw transmitting valve which embodies two interesting design features. The filament is replaceable and the vacuum is maintained, not by sealing off in the ordinary way, but by continuous pumping, and cooling is by the usual circulatory water system. But if we are to believe all we hear even this valve is only one size larger than the bottles used in some amateur stations.

OURSELVES

A few main figures will probably be of interest to readers. On the average for June, July and August, each month there were some 12,000 of you buying the SHORT-WAVE MAGAZINE at bookstalls or taking it on a yearly subscription basis. This explains why we have nearly 1,000 letters a month. There are five people in the Office devoting practically all their time to the MAGAZINE apart from the actual printing, which is done on the premises, and there are as many regular outside contributors. We work to the thud and rattle of machinery, the groans of compositors, the smell of printing ink and numerous cups of tea. All this is helped on by the advertisers whom, with our regular readers, we thank for that consistent support which is essential to any public journal.

QRP CLUB?

A correspondent suggests that we consider forming a QRP Operators' Club through the MAGAZINE, allowing a column or so of space each month for the discussion of ideas, activities and results. If twenty readers, genuinely interested in and using nothing but QRP—which for the moment we can define as being 10 watts or under—write and say they would like us to take the matter further, we shall be very pleased to do so.

Results—Magazine QRP Test

By
THE EDITOR
(from reports)

G8RL the High Scorer—Entrants contact 20 Prefixes—Experimental Value and Utility of QRP proven

FIRST ANNOUNCED in our June "DX Commentary" following suggestions from several readers, the MAGAZINE QRP Test was scheduled to take place over the period July 9-15, with the main stipulation that the sole source of HT supply had to be a standard 120v. dry battery. No restriction was placed on the actual input, it being left to entrants' skill and judgment to get the most out of that battery. It was not expected that more than half-a-dozen logs would be received, which it was intended should be dealt with in the DX feature the following month.

In the event, fifteen entries came in and prior to the Test many more readers indicated that they intended to take part. However, as so often happens in these cases, those who considered they had made a poor score failed to send a log, so that a great deal of useful information is—not exactly wasted—but not available for our record. This is a great pity, more especially as several other low scorers were sporting and enthusiastic enough to turn in reports.

One of the most gratifying aspects of this first MAGAZINE QRP Test as an event is the enjoyment and useful experience, reflected by the following *verbatim* remarks taken from their covering letters, that the entrants derived from it.

● **Comments**

"A further QRP Contest next year, please" (G3YH). . . "The rules were good and I hope you will repeat the Test next year" (G3WZ). . . "An enjoyable event, but oh! those 'phones. Would support a similar one next year and suggest a 5-watt contest with an HT voltage limit" (G6HA). . . "I found when frequency was clear a very favourable comparison between 1 watt QRP and my usual 25 watts" (G8RL). . . "I do not expect to be the winner but I do think the MAGAZINE should give a certificate to all who took part" (G3IN). . . "Thanks to you and the organisers for a most enjoyable and interesting Test" (G8DV). . . "Most QSOs were of the rag-chew type and not the usual 'hullo and good-bye' kind; I really had an FB time and look forward to the next" (GW3WY). . . "This is my *debut* on 7 Mc" (G5BH). . . "The little time I was able to put in has most certainly proved worth while" (G3KF). . . "In what little time I had for it, I enjoyed the Test very much; I hope you will

repeat it next year and perhaps someone will put up a small prize for the winner" (GM3CG). . . "Thank you for an enjoyable time" (G8KU). . . "Congratulations on the interest and success of the Test" (G3XT).

● **Results**

Details of the scoring are set out fully in Table 1, and some of those who took part will notice that the totals we show are different from those they

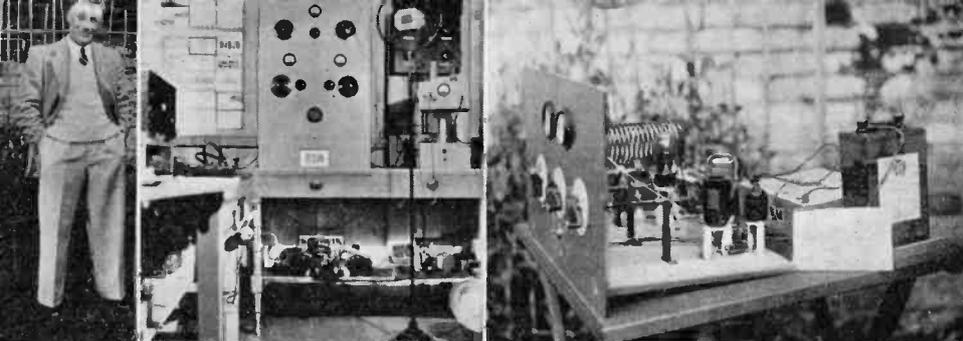
TABLE OF RESULTS, SHOWING POSITIONS AND SCORING

Place	Call and QRA	Contacts	Pnt's	Countries	Total	Best DX.
1	G8RL, Rugby	85	100	18	1800	OH5
2	G8DV, London, N.W.11	69	80	17	1360	OH2
3	G8BB, Scarborough ...	76	88	15	1320	LY
4	GM3TD, Selkirk	57	65	13	845	CT1
5	G3IN, Saxmundham...	44	56	15	840	OH3
6	G3YH, Bristol	39	56	13	728	OH5
7	G3XT, Saxmundham...	65	68	9	612	SM
8	G3WZ, Portsmouth ...	49	52	10	520	CT1
9	G8LO, Portsmouth ...	43	47	10	470	I
10	G8KU, Scarborough ...	40	43	7	301	SM
11	G6HA, Leeds	26	29	6	174	HA
12	{ GW3WY nr.Llandudno	25	26	5	130	D
	{ G5BH, London, S.W.17	26	26	5	130	PA
14	GM3CG, Burghead ...	9	9	4	36	EI
15	G3KF, Bradford	10	10	1	10	G

TABLE 1.

The outfit at G8RL, Rugby, top scorer in the Magazine 1939 QRP Test. He made 1800 points from 84 contacts in 18 countries. In the second panel up the rack is the CO he used, powered from a standard 120v. HT battery and incorporating crystal switching to four different 7 Mc frequencies. Normally, the line-up is 6L6-T20-T40, with 500v. on buffer and PA.

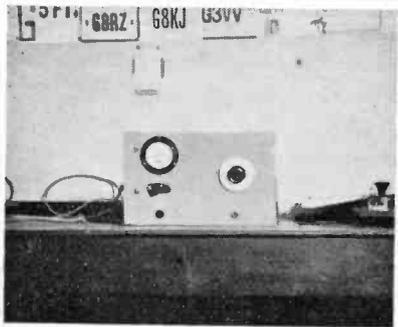




G3IN, Saxmundham; his station, his QRP Test transmitter and himself. He used a PM22c CO driving a PX230 PA, input 3 watts from a 4s. HT battery. The receiver is 0-V-2 and the station main transmitter is 59-6L6-T20.

claimed. This is because their logs needed adjustment, due in part to a slight ambiguity in the rules, as pointed out by several. It was intended that total points should be multiplied by the number of different countries or prefixes worked in order to arrive at the qualifying figure. By a slip, rule 10 was made to read "The number of contacts shall be multiplied by the number of countries worked," instead of "The number of *points obtained* shall be, etc." Where entrants had not done this—actually, most realised what was intended—we made the necessary correction.

Furthermore, in some cases the full value was not claimed for a long-distance contact, i.e., over 1,000 miles, and at least one entrant debited himself many points by calculating all wrong. Again on the debit side, we disallowed contacts with a station variously logged as "PX1A" and "PX1AA," as he gave two



The neat little QRP Test transmitter at G3YH, Bristol.

different QSL addresses—one *via* the R.E.F. and the other as Box 17, Vicila, Andorra—and there was altogether such an odour of doubt about the whole business that we deleted these QSOs, as a competitor concerned himself suggested we might do. Other contacts struck off were those with ships using fancy calls, as there is no evidence that they are licensed to operate in our bands.

A point to emphasise in connection with all this correcting of the logs is that while the totals altered from those claimed, it so happened that the final positions were unaffected.

● Conditions

Of the individual scores, by far the greater proportion was collected on 7 Mc, since most entrants found it difficult to get QSOs on 14 Mc with the QRP used. Conditions were quite good at first but went off during the last two days; several people remark on the easy way they made contacts on 7 Mc when that band was reasonably quiet, as in the early mornings. Nearly everyone tried 14 Mc at various times during the week, but experiencing either QRM or poor conditions, went back to 7 Mc where the scoring was faster.

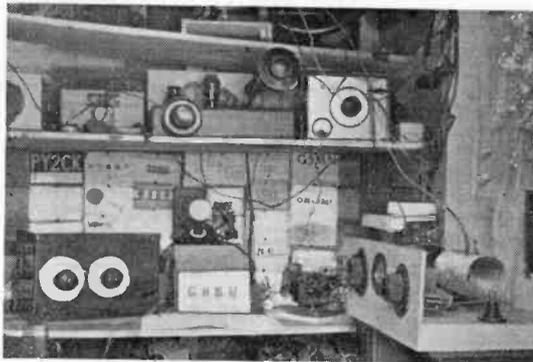
All the logs make most interesting reading and

show what can be done with real low power even in the present crowded state of our two main communication bands. In this connection, G8RL fully deserves both his position and his score. His log, with all relevant information clearly set out, indicates that he put in as much time as possible daily throughout the week of the Test—including early morning and noon-day periods as well as late afternoon and evening operating—and that he made full use of his four CO frequency changes, though only six of his 85 contacts were obtained on 14 Mc.

It is evident that with no ruling as to maximum allowable time, an entrant's score was largely measured by the operating hours he could put in. This is in no way a derogation of the efforts of the leaders—G8RL, G8DV and G8BB—all of whom worked hard for their points and necessarily had to possess sound equipment and operating ability in order to bring in totals of over 1,000, which we consider extremely good for a Test under the conditions specified.

But some of those lower down the list did almost equally well in proportion to the time they had on the air. G8LO, Portsmouth, is a case in point; though on throughout the Sunday, the first day, and scoring at a high rate, the time he spent during the whole of the rest of the week does not come to more than two hours. G3KF, Bradford, was on for short periods for three days only, while GM3CG, Burghhead, shows a total operating time of less than three hours.

Nearly all entrants turned in good logs from the point of view of detail, that of G3XT being outstanding in this respect. Running to eight pages, typed and bound, he gives a complete minute-by-minute keying record, analyses his reports by distance and for each day's working, and also shows



G8KU, Scarborough. He says it's untidy because the shack is only 4-ft. wide and he's always trying something. On the right is the 1.4 watt CO used for the Test, Zepp feeders clipped on, with the 1-V-1 battery receiver to the left of the same bench. The PA is on the shelf above, beside the field-strength meter.

EQUIPMENT USED. HT FROM STANDARD 120v. DRY BATTERY

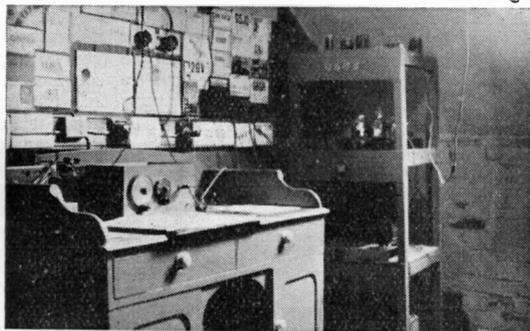
Station	Receiver	Transmitter	Watts Input	Aerial
G8RL	Sky Challenger	CO, 6L6	1.8	7 Mc Zepp
G8DV	1-V-1	CO-FD/PA, P220's	1.2-3.2	"W3EDP"
G8BB	Jones Super Gainer	CO-PA, APP4c-RK.23	3.5	84-ft. e-o
GM3TD	0-V-2	CO, LP2	1.2	66-ft. e-o
G3IN	0-V-2	CO-PA, PM22-PX230	—	Zepp
G3YH	—	CO, P/P E.235	—	66-ft. e-o 33-ft. d'lt
G3XT	0-V-2	CO-PA. PX230's	2	132-ft. e-o
G3WZ	0-V-1	TNT osc., SP220	1.5	66-ft. e-o
G8LO		no details given		
G9KU	1-V-1	CO. 6L6	1.5	66-ft. c-f
G6HA	0-V-1	CO. 6L6	1.5	66-ft. e-o
GW 3WY	7-valve superhet	ECO, 6L6	3	—
G5BH	0-V-1	CO. P220A	1.5	66-ft. e-o
GM3CG	Trophy 8	CO-PA, 6F6-6L6	2	66-ft. e-o
G3KF	1-V-1	CO-PA, 6L6	0.9	66-ft. e-o

Note: e-o, end on or end fed; d'lt, doublet; c-f, centre fed.

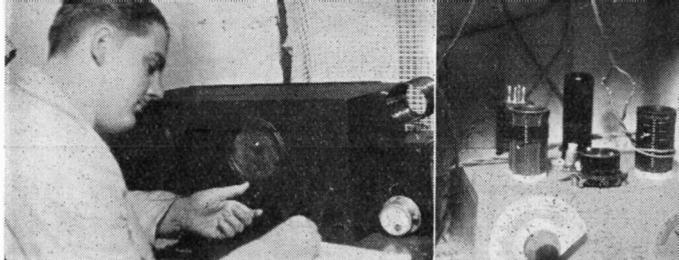
TABLE 2.

how his contacts came in relation to time spent on the air.

As to equipment used, it will be seen that a representative selection of standard amateur QRP gear figures in Table 2. Nearly all stations have home-built apparatus throughout, several are entirely battery operated, and most use simple receivers. The almost complete unanimity in the matter of aerials is interesting, and seems to us a direction



G8BB of Scarborough entered with this rig, all home-built. The receiver is a Jones Super Gainer and the transmitter APP4c-RK.23.



GW3WY in action, with his ECO 6L6 transmitter on the right.

in which some operators could experiment with advantage.

● **Conclusions**

The logs show that in the ordinary way the owner of a battery operated QRP station, having three spot frequencies for quick changing away from QRM, can expect—by the intelligent use of our DX bands and the exercise of patience—to cover at least the whole of Europe with inputs under three watts. Though no real DX was worked during the Test, it is well known that genuine QRP enthusiasts have obtained DX to three or four continents with a couple of watts from batteries—though this sort of thing is dependent not only on skilful operating and efficient apparatus but also on good conditions, and cannot in any way be relied upon.

So far as the present Test is concerned, we cannot think that full use was made of 14 Mc. Of the 663 contacts obtained by the fifteen competitors collectively, only 27 were on 14 Mc, G3YH, Bristol, with nine, being the highest individual scorer in this respect. Ten competitors show no 14 Mc score at all! Admittedly, conditions are seldom good on that band for low-power working, because when the communication paths are open it is full of QRM. But when things are bad for DX, Europe is workable fairly easily, and we are of opinion that more points—particularly the very useful multipliers—might have been picked up on 20 metres.

One thing of which we are certain is that we must have another of these QRP Contests. This one, put on mainly to judge the response and without any intention originally of featuring it, has provided us with valuable experience on which to base the rules of the next. The conditions laid down for the 1939 QRP Test were, we now think, not entirely satisfactory, and it is clear that for the next it would be better to adopt an operating time limit of so many hours per day or a total for the period of the Contest—alternatively, a "marathon" allowing, say, 60 hours in a month—in order to level up all competitors' chances in regard to the time they can reasonably put in. It would also be advisable to simplify the scoring by allowing extra points for *prefixes* worked outside the near-European zone. This would do away with distance calculations, which introduce too much complication. The question of prizes for the leaders, with certificates for each competitor—perhaps in the shape of a super QSL card from us showing details of the individual entry—are also matters which demand attention for the next MAGAZINE QRP Contest.

Finally, we must thank all the present entrants for their interest and support and for the way in which they interpreted the spirit of the rules. Every log carried the required undertaking that these had been observed in all particulars.

The Amateur, the Public and the Post Office

By
N. P. Spooner (G2NS)

Helpful Advice for those having
BCL trouble or likely to experience it

THE GREAT MAJORITY of those who enjoy broadcast programmes know little of the technicalities of wireless and, even in these enlightened days, are often cheated by dabblers who have just enough knowledge to bluff those who have none. Mistaken ideas even penetrate into official quarters and, some time ago, when the writer had just erected two forty-foot scaffold poles a neighbour, on the one hand, remarked that "He hoped he was not in for a roisy time as there must be a very strong loud-speaker with such an aerial," and an official, on the other hand, after seeing a certain G3's new "W8JK" two-section aerial go up between a couple of huge seventy-foot lattice masts, remarked "What's the idea of putting up a kilowatt aerial when you're only supposed to be using ten watts?"

The writer is still more convinced, therefore, that the main point in the interference problem lies in attempting to make *personal* contact with the complainants before they waste both time and temper writing to the BBC or the local Fire Brigade. A personal contact proves that, after all, one is human and provides an opportunity to explain simply the proposed cure for and reasons why one's telephony pierces the local armour of Fat Stock Prices in certain places. A little patience may be called for, although there is no need to go so far as presenting a picture of the paint-daubed native scampering to a hill-top to light his signal-fire, the naked bushman thumping out a CQ on his throbbing drum, or the modern amateur in his shack with the world at his finger-tips.

The slogan "Sociability without Technicality" may well be adopted here because it will be quickly found that Necessity may be the mother of Invention but Ignorance is undoubtedly the father of a stupid Question.

● Minority Position

There are unfortunately a number of amateurs who are "hanged if they'll knuckle under to any BCL's because in any case they're paying twenty shillings or more annually against the listener's mere ten." They feel that the difference at once elevates them to a position apart from the non-technical public. It is worth remembering that we amateurs are, in comparison, a mere handful and purely from motives of personal peace alone it is only neighbourly decency to allow the ten-shilling contributors to listen uninterruptedly to their dripping taps bubbling with uplift about the "Life of the Mangel-wurzel" or the "History of Printing Inks," if such subjects happen to prove absorbing to them. The next bogey is the Post Office and some amateurs have been known to behave almost like naughty little school-boys towards a master who they are certain spends all his time checking frequencies, amassing evidence against telephony drivel-hound

procedure or hiding in the neighbouring garden with a field-strength meter to register those nine-point-nine watts. Actually the average official is very human with a job to hold down like anyone else and has moreover to work in the unusual atmosphere of not only striving to satisfy his own immediate superiors but also acting as neutral go-between and mediator for listener and transmitter. The old tag "Ask a policeman" has now been modernised to "Write to the Post Office" and most engineers, falling into the category of "public servant," spend much of their working time under a suffocating shoal of complaints about trolleys, neon signs and electrical apparatus. Even faulty electrically-heated bedding can not only "blanket" its invalid-owner but half a square mile of reception as well, so here again we can greatly ease a life of harassed inquiry by making our own personal contact with the complainants that we alone have created.

● Quiet Hours

As mentioned in a previous article on this subject ("The Public and 160 metres," October 1937) the local engineers are authorised to ask one to keep "quiet hours" if the complaints are "very numerous." If these times have not since been revised they mean keeping off the air from 5 to 11 p.m. on weekdays and whenever the BBC is operating on Sundays.

The latter clause will be felt by all those who can only ravish the ether during a week-end with the Eternal Conundrum, QRZ? As it appears that many members of the British counterpart of the Bezbojnik, or Union of Militant Godless, are only able to spring to life at such a time they are strongly advised to clear up their own particular interference problems once and for all and thus be free to slip into the shack and put out a call at any odd interval during a week-day without having to wait for the BBC to go to bed. This Personal-contact-with-Complainant method not only brought prolonged peace to the writer at his old and recent QRA but also appreciations from the Engineer-in-Chief and the local Sectional Engineer's offices. Having just moved into a new QRA, the courtesy and co-operation shown by both has prompted the testing of a much bolder variation of the old procedure.

● Suggested Procedure

It is proposed, before starting up again, to make a personal call at all the houses within a likely interference-radius and thus effect a brief introduction to the householder and acquaint him with the following typed advice which will be left with him or her for future reference:—

"RADIO INTERFERENCE. There are ten experimental short-wave stations in the Borough which are fully licensed by the Postmaster-General

to radiate on the wavelengths allotted to British Amateurs between 5 and 160 metres. One of these has now moved into the neighbourhood and it may be found, with receivers that are not quite modern, that the 42-metre telephony transmissions from this station can be heard when the receiver is tuned to the BBC wavelengths. Should this occur, the operator, G2— of — Road, will be pleased to be informed of the fact as he has no wish to spoil any listener's enjoyment. If a personal call is not made, postage will be refunded and *providing the age of the receiver allows a cure* this will be effected promptly, the necessary apparatus being loaned and installed *absolutely free of any charge*.

"Should any listener find that the adoption of this neighbourly course is not quite convenient a Radio Interference Form can be obtained at any Post Office, the case being investigated by Post Office engineers. A cure will be demonstrated *providing the age of the receiver allows of its use* and an opportunity will then be afforded of either purchasing the materials used or for having similar material made up and installed.

"As this information relates solely to telephony transmissions during which the call-sign and wavelength or frequency is announced at intervals, it

does not offer an explanation of, or a cure for, the interference any receiver may experience from atmospherics, shipping, trolleys, car ignition, Neon signs, vacuum cleaners or other electrical apparatus. Please keep this notice for reference and mention it to your friends locally. . . ."

From this, listeners will appreciate that one is not a pirate and that one wishes to respect their right to trouble-free programmes. The "something for nothing" bait should effect the desired personal contact and it is certainly well worth the cost of a few cheap pre-set condensers and turns of wire to be able to get on the air at any desired hour. The "purchase of materials" clause is authorised by the Engineer-in-Chief and the closing remarks, of course, are to save one from being christened "Interference Fiend No. 1" of the neighbourhood.

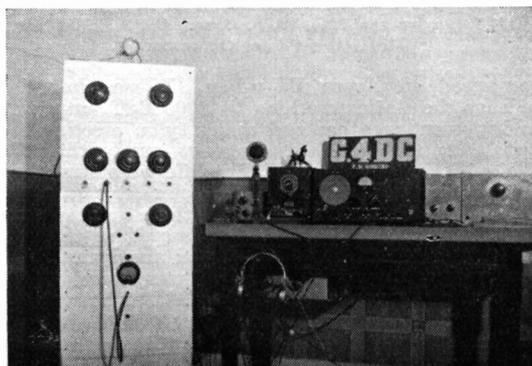
Don't wait for local unselective receivers to enforce "quiet hours" on you—go straight ahead now and beard those complainants in their own dens!! In three years the writer's old QRA produced six 40-metre telephony complaints, for which six traps were at once provided. Four of these were returned as selective receivers were purchased and only two remained to be picked up with the rest of the luggage when the recent removal day arrived.

NEW AMATEUR CALLS

Home and Overseas readers are invited to send in new Calls as issued for inclusion under this heading.

- CE3CZ—P.O. Box 104D, Santiago, Chile.
 G3VW—11, Bollo Lane, Chiswick Park, W.4 (change of address).
 G3WN—G. Neville, 23, Roundwood Way, Banstead, Surrey.
 G3YC—E. J. Charles, 104, St. Margarets Avenue, North Cheam, Surrey.
 GW3ZS—R. H. Higgins, 4, Holly Road, Cimla, Neath, South Wales.
 G4BY—R. Jennings, "Ours," Clare Road, Tankerton, Whitstable, Kent.
 G4FI—P. Seath, "Interiala," St. Swithins Road, near Whitstable, Kent.
 G4HU—W. Morris, 34, Birch Avenue, Romiley, Cheshire.
 G4NA—P. J. C. Provost, 15, Nottingham Road, S. Croydon, Surrey.
 G4NB—G. B. Moss, 74, Hinckley Road, Nuneaton, Wks.
 GM4NK—Wm. Gray, 43, India Drive, Inchinnan, Renfrewshire, Scotland.
 G4NU—L. Frank, 57, Woodlands Road, Aigburth, Liverpool, 17; 'phone Lark Lane 3249.
 G4NX—A. W. Ryley, 135, Hollywood Lane, Hollywood, Birmingham.
 G4OF—A. Roberts, 2, Asquith Street, Gainsborough, Lincs.
 G4OG—D. C. Gordon, "The Garden Cottage," Folkestone, Kent. (Ex 2FBT).
 G4OK—H. Beuley, 65, Burman Road, Wath-on-Deerne, near Rotherham, Yorks. (Ex 2CLM).
 G4OM—C. J. Fish, County Police Station, Washford, Som.
 G4OO—D. Hoult, 60, Gainsborough Road, Becontree, Essex.
 G4OP—C. R. Davis, 12, Maes Knoll Road, Knowle, Bristol, 4.
 C4OQ—G. C. Lidstone, 18, Chalton Drive, London, N.2.
 G4OU—F. G. Maynard, 160, Invicta Road, Sheerness, I. of Sheppey.
 G4PI—G. Taylor, 325, Windmill Lane, Sheffield, 5.
 G4PJ—W. L. Honeywill, Devon Stabulary, North Lew, Okehampton.
 G4PY—H. D. Ashworth, 5, Albion Avenue, Blackpool.
 G4PZ—B. Cowan, 49, Haig Avenue, Bransty, Whitehaven, Cumb.
 G4RX—P. E. Taylor, 134, High Street, Barnet, Herts.
 G4NG—V. Richardson, 25, Devonshire Way, Shirley, Croydon, Surrey. (Correction).

- GW8WU—E. H. Robins, 32, City Road, Cardiff (change of address).
 HK2BB—Carlos E. Mendoza, Apartado No. 14, Pamplona, Colombia.
 SM5KP—Wiktor Persson, Box 5, Sika Station, Sweden.
 SM6WE—Eivin Johansson, Brinken, Motala, Sweden.
 SU1CB—C. A. Blake, 4, Rue Wingate, Bulkeley.
 SU1CR—Cairo Amateur Radio Club, P.O. Box 1298, Cairo, Egypt.
 SU1DX—D. N. Xenakis, P.O. Box 350, Alexandria.
 SU1SA—A. Stavornaki, 27, Rue Prince Halim, Bacos.
 T12AC—Bob Egerton, Enta Airlines, San Jose, Costa Rica.
 VP6JR—Jas. Richardson, c/o Public Works Dept., Barbados, B.W.I.
 VU2JO—H. Bourne, c/o Imperial Airways, Karachi, India. (Ex SU1HB).
 XU6MK—John Tan, College of Science and Engineering, Kwangsi University, Tafu Hsiang, Kueilin, Kwangsi, China.
 ZB2B—R. Solly, Royal Corps of Signals, Post Box 201, Gib.



The two-stage tritron 6L6-RK-11 PA transmitter at the very neat station of G4DC, London, S.E.14. His receiver is a SkyBuddy with pre-selector and other equipment visible is a frequency meter and 'phone monitor.

The Month's Club News

By S. W. CLARK, 2AMW (Assistant Editor)

"IF IT'S NEWS to you—It's news to us." This means we cannot call on every Club for a story each month and rely entirely on what comes in—sometimes a short note actually too brief to be of interest, like the account which says "All are active, 2XYZ is expecting a full call, G9BF has a new aerial. Readers are welcome. Thanks for last month's FB notes, Yours truly, Publicity Manager." And there's little exaggeration in saying that we have received reports just like that. Therefore, when sending in your notes, make them as complete as possible, leaving us to do the pruning

● Ashton, and other Field Days

Just to show how it can be done, we give G3PM's story of the ASHTON-UNDER-LYNE Society's recent 5-metre outing, in his own words. "At a preliminary rehearsal an ideal location was discovered at Hartshead Pike (in the Pennines, 1000-ft. a.s.l.). The transmitter, built by G3BY, consisted of 6J5 CO and 6V6 FD, on a frequency of 59212 kc. Power was obtained from two 120-volt dry batteries and a 6-volt car accumulator. The main receiver



G3BYP, 1,000 ft. up in the Pennines. Left to right: 2HAP, G3BY (keying the TX), W. P. Green, G5PX, 2FOS and G3PM (this side of the camera!).

comprised an Acorn RF-v-Pen. It was intended to have the station working by 1000 BST but owing to inclement weather and difficulty in erecting the aerial the first call was not put out until 1225. While W. P. Green and F. Sutcliffe were struggling against the gale with bamboo poles for the aerial (2 half-waves in phase with three-quarter-wave matching stub) G3BY was busy assembling the gear in a tent loaned by G3NX and fixed up in a sheltered spot. At 1225 G5MQ was heard at Q5 R9 and was given a buzz. He did not answer our call however, but went back to G3UIP. After a further unanswered call to G3DA at 1230 an attempt was made to improve the aerial matching. This was successful, as G3DA replied shortly afterwards with a report of RST599, slightly chirpy. From then until 1647 the aerial was at an angle of approximately 45° from the top of the mast, with the lower end pointing SSE. From 1800 until closing time

(1909) the aerial was slung in the opposite direction, with the lower end pointing NNW. This gave a gain of one R point with GW6AA (90 miles) and 4 R points increase from G6TL (2 miles). The strong wind was against further attempts to experiment with the aerial. A listening party, comprising 2HAP, 2HJT, J. Chatterton, A. Renshaw and R. Abram, were at 'Pots and Pans,' Saddleworth, about 1600 ft. a.s.l. and returned an interesting log. Despite their great advantage in height however, they heard no more DX than the main station. A Windom was used, running NNE and SSW. Better signals were obtained from G5BY when the direction was changed to EW (practically end-on to the transmitter aerial). One definite conclusion arrived at is that an RF stage in the receiver is 'the goods'—although the aerial was swinging dangerously signals could be received rock steady." At the end of this account, "Thanks" is said to all who helped make the event so successful.

We were glad to be at both DEPTFORD's 7 (and 14 Mc!) outings to Westerham Hill. The latter band was tried when conditions had deteriorated on 7 Mc, the 40-metre doublet being hurriedly converted into a "T" aerial by shorting the feeder. The AA constructor of the transmitter was not too well satisfied with the result until some days later it was learned that a W had been answering G2UX's portable call! From 1000 until 1800 BST 7 Mc gave some good reports, the first call bringing back a GI with R9. The fine weather saw most of the members on the Hill; they thoroughly enjoyed themselves and, among other things, learnt what snappy QSO's mean when G3ZF gets hold of the microphone! Should anyone local to Deptford want to know about converter working, directive properties of aerials, the erection of 30-ft. portable masts, and all the other things that make or mar a field day (even run-down LT's are no set-back!) call at G2UX and meet a live club on their first winter session date—Sept. 26.

After three successful 1.7 Mc field days by the HODDESDON Society (G5HO) accumulated experience promises to make the September effort the best yet. Co-operation from portable stations is invited and of course individual visitors will be welcomed—details from the Secretary. A resumé of these events and that of the past year will probably be given at the annual general meeting on Sept. 13, which would be an appropriate time for readers to make themselves known. G4LV and 2DGW are new calls allotted to club members.

The ROMFORD Society have had a busy month, commencing with an exhibit at the local fête on Bank Holiday. A tent had to be erected and filled with members' gear, these duties being completed by 2 p.m., ready for inspection and the answering of many questions. Three new members were obtained, though the primary object was to help local institutions. The joint field day, also last month, drew a fine attendance.

Before the SLOUGH Club's field day members had some useful advice from G6PR, who spoke on "Building and Operating a Portable Station."

Besides reviewing the more obvious aspects, he enlarged upon such details as lighting equipment for comfortable operation at night, first-aid outfits and the provision of food. G6PR's experience gave a useful basis to the discussion on the Club's intended outing. A new QRA is required, and is causing the Secretary much thought.

● Seven More New Reports

G3FU, technical adviser to the BETHNAL GREEN Radio Club, asks us to make known this East London section of the Men's Institute. Meetings are held on Tuesdays and Thursdays at 8 p.m., commencing Sept. 26, when visitors will be welcome. The committee is working hard formulating a programme and it is hoped that before these notes appear a full call will have been granted.

G2GC is ready to give details of the meeting place and times of a new club for BISHOP AUCKLAND, these particulars being promised us for October Notes.

In BIRMINGHAM G3UJ, G4NX, 2APF, 2BIX and one other AA meet every Thursday at G4NX, recent meetings being given over to coaching the AAs in Morse. The only qualification for helping to fill Mr. Ryley's house is "A genuine interest in Amateur Radio," and up to the present no request has been made for subscriptions. Good luck, G4NX.

The GLOSSOP and District Radio Society has been in existence for nearly a year now, and we are pleased to include them in our Notes. Most of the members are AAs, meeting at new headquarters, 152 Station Road, Hadfield, Manchester. 2FLI conducts the regular Morse class, and a series of lectures have been arranged, the last being "Artificial Aerials," by 2FXW. Sorry, but the photograph you sent has to wait for the next Notes.

A late letter from G3UJ, HOLLYWOOD, Birmingham, gives the brief information that it is proposed to form a club (full licence and AA only) to be known as Hollywood Amateur Transmitting Society. We are in doubt as to whether the Birmingham paragraph above should now be cancelled.

A new Club in SUNDERLAND starts off with a membership figure of thirty, including G3IV, G6CV, G6HV, G6TR, 2BLO and 2DFD. Permanent rooms have been booked at Charles Street, and re-decoration is now proceeding.

An attempt is being made to form a club central to UXBRIDGE. Those interested should get in touch with Mr. G. Bayley, 61 High Street, Uxbridge, who convened a meeting for September 4.

● A Tall Story

2HJS of the ALDERSHOT Society has built a 57-ft. lattice mast at the cost of 10s. only, and now offers full particulars on request. In the goodness of their hearts, some amateurs go out of their way to invite trouble! 2HJC is off to VU this month with her 6L6/6L6 transmitter; the new QRA will be near VU2KK (ex-G4FR), who QSOs his 14 Mc contacts 100 per cent. 2FNQ has applied for the Morse test, having rebuilt meanwhile. He is now known locally as "London Regional."

● Visits

The BRISTOL Club seem to take advantage of all that is going in the way of outside visits. Early in July to a local cinema where the audio side was



G2UXP, Westerham Hill. The very compact TX. (6C5 CO-6L6 PA-6C5/6L6 mod.) is on the corner of the table, with G4DC at the microphone. The RX and F/S meter are to recent "Short-Wave Magazine" design.

explained, followed with entertainment by the management; the 30th found them at the Air Ministry's Bristol Station, marvelling at its compactness and the complete equipment used; August was a departure from the round of calls, with a talk by Mr. P. Denham on "Frequency-measuring Instruments"; last month the BBC Clevedon transmitter; another local cinema and the second field day completed the summer season outings. On Sept. 12 a selection of the latest communication receivers will be demonstrated at Old Market Street Hq.

Quite a different form of visit is part of the N. MANCHESTER Society's programme for Sept. 26 to Oct. 7. Much SW gear and amateur-constructed equipment will be displayed on a stand at the Manchester Radio Exhibition. The Society is endeavouring also to show photographs of such gear, listening corners and shacks, therefore anyone who has a good photograph of his station is asked to send it direct to the secretary as soon as possible. "The more the better—let the public see what we in the Amateur Radio world are doing." Although at the time of writing it is early to give definite news the Society hopes to be able to arrange two or more lectures on Amateur Radio in or near the Exhibition.

An appeal for visits this time. Members of the WEST HERTS Society have been sleuthing around newsagents and have found out that the MAGAZINE interests others outside their immediate circle—we are asked to invite them all to send a postcard to G3NR, who will endeavour to show what is being missed. The secretary is also busy in other directions, having turned Webbs Radio inside out to discover a valve for his 56 Mc PA and is now trying to make sure of its effective use by coupling to a new "W8JK" beam. G3PV is housing the Club on meeting nights.

● Force of Circumstances

During recent weeks the 1.7 Mc G3NN transmitter of the BRADFORD SW Club has been on CW, consequently some members have felt left out. To overcome this, those concerned are making a determined effort to follow activities by learning Morse every Monday and Friday at the club room. There is plenty of room for new members, and those who call in will be made very welcome. The annual

field day will take place on Baildon Moors this month.

The COXHOE and District Society are unfortunately without their Morse instructor, due to an official appointment. Attention has therefore been turned to receiver construction, and as a result several members have club-made jobs. 2DTA's Howard 460 has excited quite a lot of interest. It is anticipated that new Hq at Coxhoe will soon be complete.

The loss of G3PT (who is leaving the country) is keenly felt by the LIVERPOOL Club, for his staunch support has meant much to its success. 2FIO is G4NU and 2AZV is probably also a G4 by now; the latter has given much time to local set-listening periods run on the lines of those of the "DX Scribe," and some good logs have been produced in this way.



2DVL and his all-British station which, as mentioned last month, is open to members of the Enfield Radio Society. The American RX is "on test".

● Club Lectures

The title of a talk to be given shortly by G3KB to the N. BRADFORD Society is "Transmitter Design and Construction"; numbers are increasing here with new call holders G3VR and G4FU.

With "Members' Lecture Month" at EDGWARE and a larger attendance than was expected, the following talks were given: G6ZO, aerials; G6PM, oscilloscopes; G3HT, a re-built commercial receiver. One night was devoted to competition, the entries consisting of suggested designs for a 10-watt transmitter. A 5-metre DF contest is to be held this month. G3HT, treasurer, is now with Webbs Radio.

The PECKHAM SW Club are using their weekly meeting nights for a series of demonstrations by the more experienced members on the operation and adjustment of transmitters. G3ZF has given a talk on the cathode-ray tube and difficulties encountered in the construction of his television receiver.

Mr. K. Wilson, A.M.I.E.E., at a recent EASTBOURNE Society meeting lectured on and demonstrated AC motors. The four types—repulsion; induction; repulsion-induction; series or universal were each fully described. Perhaps the most interesting to members was the third, the explanation of how operation changes automatically after the machine has gained speed being particularly fascinating.

Lectures are being added to the GRAVESEND fixture list for the coming session, meeting at the Ragged School on Mondays at 8 o'clock. Some well-known amateurs go to these gatherings, and it is hoped to see some new faces as the season goes on.

● Other Activities

Of the fifty members of MEDWAY Amateur Transmitters' Society 21 hold full licences. This is a good record, and looks well for meetings at Chatham, for which a full programme has been drawn up. Portable 56 Mc and 1.7 DF field-days have been tried with success, but this is not to be taken as meaning the beginner is forgotten. Regular Morse practices and experimental lectures, together with technical guidance, have their place for the less experienced members.

Although activity at SHEFFIELD has been rather at low ebb during the summer, that Club is looking forward to a busy winter, with G3MK, G3VY, G4JW, G4KW, 2BLT, 2CBG, 2DNX and 2HMN well to the fore. The A.G.M. is to take place on August 23, followed on the 31st by a visit to Radiolympia.

A library has been installed at Hq by the SIDCUP Society. The members are looking forward to the coming season with optimism and anticipate increasing the present total of 17 members. Meeting on Wednesdays at Kolster Brandes Canteen, Foots-cray, at 8 p.m.

Any reader living within reach of West Norwood Brotherhood Hall will do well to call at one of the S. LONDON Transmitters' Society's meetings, held on the first Wednesday. The holding of a licence is not necessary. Many a keen debate has taken place here, when two transmitters have divergent views on some aspect of Amateur Radio. At the last meeting Mr. Nixon (G.E.Co.) showed a film illustrating some of the more intricate phases of valve construction. Following the film, he demonstrated the use of the cathode-ray oscilloscope for wave-form analysis and the control of street lighting by gas-filled relays.

September 13 (demonstration by Rothermel) and 27th are booked for WILLESDEN meetings. Membership is increasing monthly, which is a healthy sign. 2FTD now has a Sky Buddy S19 and is looking towards the day when his full call will be due.

Many clubs have planned autumn visits and similar activities. We sincerely hope that the international outlook, shaky at the time of writing up these Notes, will not frustrate them.

James Skillen, 8 Jeffery Street, Edinburgh 7, asks us for information of a club near his address. Can anyone else help?

Further information regarding any of these societies may be had from the officials concerned, whose addresses appear below.

ALDERSHOT—Miss G. Bird, 2HJC, or A. E. Redman, Dormans Cottage, Mavins Road, Farnham, Surrey.
 ASHTON-UNDER-LYNE—K. Gooding, G3PM, 7, Broadbent Avenue, Ashton-under-Lyne.
 BETHNAL GREEN—R. T. Bell, The Men's Institute, 229, Bethnal Green Road, London, E.2.
 BIRMINGHAM—A. W. Ryley, G4NX, 135, Hollywood Lane, Hollywood, Birmingham.
 BISHOP AUCKLAND—W. W. Field, G2GC, 5, Albert Hill, Bishop Auckland, Co. Durham.

BRADFORD—G. Walker, 2AWR, 33 Napier Road, Thornbury, Bradford.
 BRADFORD (NORTH)—R. H. Forward, G4AV, 8, Willow Road, Farsley, Leeds.
 BRISTOL—D. James, 2DCX, 40, Robertson Road, Eastville, Bristol, 5.
 COXHOE—D. F. Chatt, 2HKI, 23 North View, Sherburn Hill; or K. Bowes, 2DTA, 10, Blackgate, Coxhoe.
 DEPTFORD—G. Edwards, G2UX, 14a, Louisville Road, Upper Tooting, S.W.17.
 EASTBOURNE—T. G. R. Dowsett, 48 Grove Road, Eastbourne, Sussex.
 EDGWARE—F. Bell, G4JU, 118, Colin Crescent, Edgware, Middlesex.
 ENFIELD—N. H. Hyde, 2DVL, 20, Shaw Road, Enfield.
 GLOSSOP—K. C. Sidebottom, 152, Station Road, Hadfield, Manchester.
 GRAVESEND—R. S. Martin, G2IZ, 41 Mayfield Road, Gravesend.
 HODDESDON—T. Knight, Junr., 2FUU, Caxton House, High Street, Hoddesdon.
 HOLLYWOOD—I. H. Aulton, G3UJ, Jesmond-dene, Shawhurst Lane, Hollywood, Birmingham.
 LIVERPOOL—L. Frank, G4NU, 4, West Albert Park, Liverpool. Phone: Lark Lane 2874.
 N. MANCHESTER—R. Lawton, "Gratton House," Whalley Road, Whalley Range, Manchester, 16.
 MEDWAY—S. Howell, G5FN, "Veronique," Broadway, Gillingham.
 PECKHAM—L. J. Orange, 11 Grenards Road, Peckham, S.E.15.
 ROMFORD—R. Beardow, G3FT, 3, Geneva Gardens, Chadwell Heath. Phone Seven Kings 5393.
 SHEFFIELD—D. H. Tomlin, 32 Moorsyde Avenue, Walkley, Sheffield, 10.
 SIDCUP—G. V. Haylock, 2DHV, 28, Longlands Road, Sidcup.
 SLOUGH—K. A. Sly, G4MR, 16, Buckland Avenue, Slough.
 S. LONDON—E. Illot, G2JK, 36 Montana Rd., Upper Tooting.
 SUNDERLAND—T. B. Orr, G3IV, 31, Grange Park Avenue, Sunderland.
 UXBRIDGE—G. Bayley, 61, High Street, Uxbridge.
 WEST HERTS—A. W. Birt, G3NR, 6, Hempstead Road, Kings Langley, Herts.
 WILLESDEN—G. H. Talbot, 2FTD, 46, Snaresbrook Drive, Stanmore. Edgware 3746.



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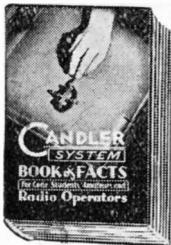
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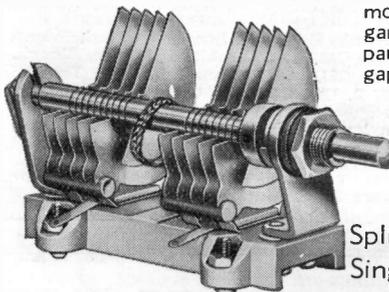
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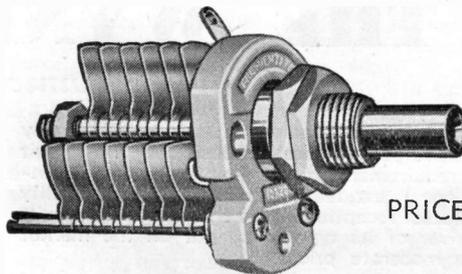


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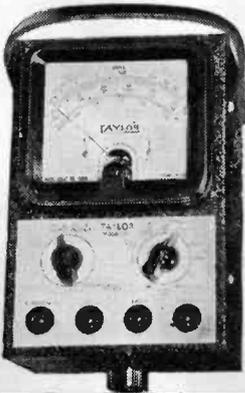
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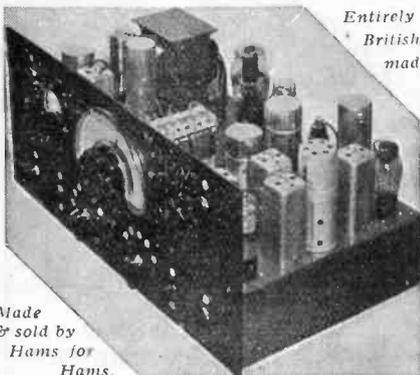
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19.67	15243	WSLR	Boston, 1900 tests for Europe		31.28	9580	Call-Sign, Location, Schedule.		
19.68	15243	TPA2	Paris-Mondial, 1100-1600		31.28	9580	Call-Sign, Location, Schedule.		
19.71	15220	PCJ2	Huizen, S, M, F, Sa 1310-1415, T, 0800-0930, 1310-1415, W 1310-1415, 1530-1730		31.28	9580	Call-Sign, Location, Schedule.		
19.72	15210	WDFE	Pittsburgh, 1400-2000		31.28	9580	Call-Sign, Location, Schedule.		
19.74	15200	DJB	Zeesen, 0605-1700, 2250-0450		31.28	9580	Call-Sign, Location, Schedule.		
19.74	15200	TAG	Aankara, 1300-1300		31.28	9580	Call-Sign, Location, Schedule.		
19.75	15190	OTL	Lathi, 0705-1000, 1500-2300		31.28	9580	Call-Sign, Location, Schedule.		
19.76	15180	GSO	Davenport, 2250-2550		31.28	9580	Call-Sign, Location, Schedule.		
19.76	15180	KGWA	Moscow		31.28	9580	Call-Sign, Location, Schedule.		
19.78	15170	LKV	Oslo, 1600-2400		31.28	9580	Call-Sign, Location, Schedule.		
19.79	15170	SM5SN	Stockholm, 1700-2300, S 1500-2300		31.28	9580	Call-Sign, Location, Schedule.		
19.79	15170	ZJK	Tokio, 2000-2300		31.28	9580	Call-Sign, Location, Schedule.		
19.80	15170	VUDJ3	Delli, 0300-0400, 0900-1000		31.28	9580	Call-Sign, Location, Schedule.		
19.80	15150	VDC	Bandoeing, w/days 0430-0800, 1030-1630 (Sa until 1730), 0000-0130, S 0130-0800, 1030-1630		31.28	9580	Call-Sign, Location, Schedule.		
19.82	15140	GSP	Davenport, 1145-1300, 2200-0000		31.28	9580	Call-Sign, Location, Schedule.		
19.82	15150	TLF3	Tokio, 1400-1530		31.28	9580	Call-Sign, Location, Schedule.		
19.83	15130	WSLR	Boston, irregularly		31.28	9580	Call-Sign, Location, Schedule.		
19.83	15130	SP19	Warsaw, 0000-0300		31.28	9580	Call-Sign, Location, Schedule.		
19.84	15120	HVJ	Vatican City, S 1900, w/days 1630-1645		31.28	9580	Call-Sign, Location, Schedule.		
19.85	15110	DJL	Zeesen, 0605-0900, 1400-1600, 1640-2225		31.28	9580	Call-Sign, Location, Schedule.		
19.87	15100	GSA	Lisbon, afternoons		31.28	9580	Call-Sign, Location, Schedule.		
19.89	15080	KWJ	Moscow, unknown		31.28	9580	Call-Sign, Location, Schedule.		
20.08	14935	RS3	Rio de Janeiro, W 2300-2400, 1st (excl. 1st of month) 2100-2340, Sa 2100-2130, 23rd of month 2200-2230		31.28	9580	Call-Sign, Location, Schedule.		
20.83	14895	14 Mc	AMATEUR BAND, with American amateur 'phone sub-band 14150-14250 KC.		31.28	9580	Call-Sign, Location, Schedule.		
21.08	12440	IC24H	Quito, ex. M 1300-1400, 0100-0430		31.28	9580	Call-Sign, Location, Schedule.		
24.52	12220	TEJ	Reykjavik, S 1940-2030		31.28	9580	Call-Sign, Location, Schedule.		
25.00	12000	RN3	Moscow		31.28	9580	Call-Sign, Location, Schedule.		
25.08	11962	CH180	Santiago, 0000-0400		31.28	9580	Call-Sign, Location, Schedule.		
25.08	11962	H2EX	Tijuca, W, Sa 0110-0310, S 1240-1440		31.28	9580	Call-Sign, Location, Schedule.		
25.17	11920	TELEXD	San Jose, 1300-1800, 2200-0400		31.28	9580	Call-Sign, Location, Schedule.		
25.21	11900	CDI190	Valdivia, 1000-1900, 2100-0000, 0100-0400		31.28	9580	Call-Sign, Location, Schedule.		
25.21	11900	XGQV	Chungking, 1130-1730, 2230-0420		31.28	9580	Call-Sign, Location, Schedule.		
25.21	11900	TEPH1	Rome, testing		31.28	9580	Call-Sign, Location, Schedule.		
25.21	11885	TPB11	Paris-Mondial, 0230-0500		31.28	9580	Call-Sign, Location, Schedule.		
25.24	11885	TPB12	Paris-Mondial, 0000-0215		31.28	9580	Call-Sign, Location, Schedule.		
25.25	11880	VLK3	Melbourne		31.28	9580	Call-Sign, Location, Schedule.		
25.27	11870	WPI1	Pittsburgh, 1900-0400		31.28	9580	Call-Sign, Location, Schedule.		
25.27	11870	W2XE	New York, 0200-0450		31.28	9580	Call-Sign, Location, Schedule.		
25.40	11810	ZKRO4	Rome, 1100-0300 at intervals		31.28	9580	Call-Sign, Location, Schedule.		
25.42	11800	DJF	Vienna, 2250-0450		31.28	9580	Call-Sign, Location, Schedule.		
25.42	11800	COZ	Malanzas, 0000-0600		31.28	9580	Call-Sign, Location, Schedule.		
25.42	11800	JZJ	Tokio, 1300-1330, 1400-1530		31.28	9580	Call-Sign, Location, Schedule.		
25.45	11790	WSLR	Boston, 2130-2300 (1918 M occasionally used instead)		31.28	9580	Call-Sign, Location, Schedule.		
25.46	11782	MTCV	Hsinking, 2200-2250		31.28	9580	Call-Sign, Location, Schedule.		

(31-42 m BC stations were given last month)

Osram Valves

MADE IN ENGLAND



British made valves for amateurs

TYPE KT8

A beam tetrode for R.F. amplifier,
oscillator or multiplier stage

Indirectly-heated Cathode	6.3 v. 1.27 amps.
Max. output at 20 Mc./sec.	35 watts Class C (telegraphy); 27 watts Class C (telephony)
Anode voltage	600 max. (475 max. for telephony)
Anode dissipation	25 watts max. (16.5 max. for telephony)

British 5-pin base **22/6** LIST PRICE

TYPE KT66

A beam tetrode for A.F. amplifier (mod.), multiplier,
or R.F. drive (up to 30 Mc./sec. max.)

Indirectly-heated Cathode	6.3 v. 1.27 amp.
Max. output Class A	7.5 watts single valve
Max. output Class AB ₁ , push-pull	32 watts per pair
Max. output triode connected push-pull	15 watts per pair
Anode voltage	400 max.
Anode dissipation	21 watts max.

"International" Octal Base **15/** LIST PRICE

FOR RECEIVERS-

Coming Shortly—

A new high gain H.F. Pentode for S.W. amplifiers. Low lead inductance, small interelectrode capacity, high mutual conductance, indirectly-heated cathode.

FOR XMITTERS-

Coming Shortly—

Double triodes for zero bias Class B (10 watts audio), and for R.F. 16 watts down to 1.25 metres.

Write for leaflets giving full technical and operating data on small and medium power valves to the Osram Valve Dept. of THE GENERAL ELECTRIC CO. LTD., Magnet House, Kingsway, London, W.C.2.