

# Short Wave News



Vol. 4 No. 4  
April, 1949

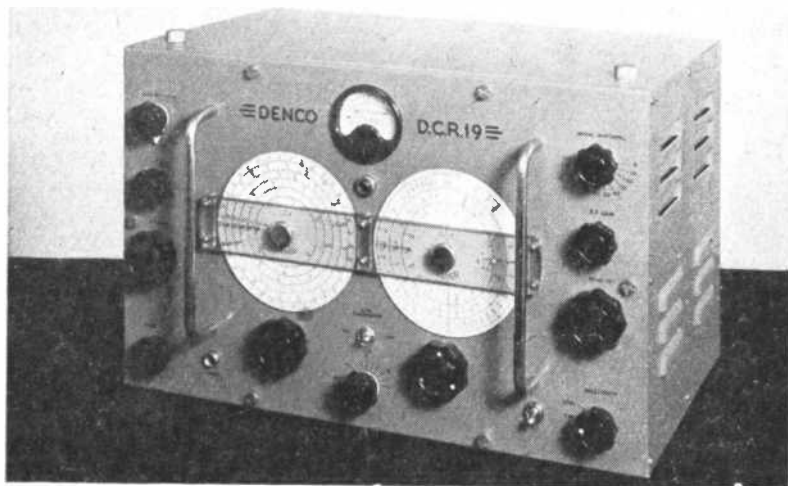
## For Transmitter and Listener



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# International Short Wave League

MONTHLY NOTES  
BY G3AKA

ANNUAL SUBSCRIPTION 1/-

## NEWS FROM THE CHAPTERS

**South London :** (Sec. : W. A. Martin, 21 Brixton Hill, London, S.W.2.)

The winner of the club's week-end listening contest was 18-year-old Mike Wallace who came home with 2,736 points (76 countries and 36 zones). The runner-up was D. W. Bruce who logged 71 C and 29 Z (2059 points). This was the first of the series of contests to determine the 1949 Club Champion. Now that the Chapter is well and truly contest minded we hope to see two teams in the field for the Inter-Chapter event.

Recent lectures have included "Propagation" by Secretary Bill Martin and "Detection" by J. Theobald, G3EQM.

Though the club is well attended it extends a warm welcome to any SWL's or hams at the New Cross clubroom.

**Birmingham :** (Sec. : G. Pennington, 114 Birmingham Road, Rowley Regis.)

We hear that attendances are falling off somewhat and would like to take this opportunity of reminding members in the Birmingham area that they are assured of a cordial welcome at the Chapter. Morse, talks, demonstrations, visits, discussions, junk sales, listening contests are some of the things offered. And, above all, a friendly atmosphere where one can meet fellow members. So, how about it, those of you in Birmingham? Get out your pen and drop a line to the Secretary, NOW for full details of future meetings!

**Bristol :** (Sec. : N. G. Foord, 71 Brynland Avenue, Bristol, 7.)

The Chapter has just completed a listening contest in two sections—amateur and broadcast. New methods of scoring have been used, with power being one of the factors taken into consideration. Books have been given as prizes.

G2BAR visited the Chapter recently and took along an R1355, an RF25 Unit and a PA stage. His talk was well received and it included a discussion on a 6N7 transmitter suitable for the beginner. He also displayed a selection of QSL cards.

The visit to the BBC establishment in Bristol went off admirably and in the Continuity Room the Chapter was honoured by having Bow Bells played specially for them! The club membership has now passed the 50 mark—congrats.

**East London :** (Sec. : A. F. Baldwin, 28 Wallwood Road, Leytonstone, E.11.)

The fortnightly meetings of the Amateur Division continue to be well attended. A Zones and Countries Heard Roll is being undertaken to ascertain just how much DX can be heard in the course of a year. Results of each month's listening by active members are collected and forwarded to 2BQC. We hear that the lads are limbering up for the Inter-Chapter contest and they hope to repeat their success of last year. We wait and see!

The Broadcast Division is also prospering. Band Surveys are still being run. The results of these surveys are forwarded to "Monitor" and are checked against the official ISWL Station Card Index System on which work proceeds apace. This is constantly under review and every scrap of information from all over the world is checked and used accordingly. Congrats to this Chapter for their fine work and constructive activities.

**Manchester :** (M. I. Wilks, 57 Longley Lane, Northenden, Manchester.)

At last the Chapter has a transmitter on the air and a suitable aerial has been erected. Maurice Pyle, G2BLA, has loaned the club a B2 and this is being used with the call-sign G2BLA/P. Plans are now going forward to construct its own station and it is hoped that a phone transmitter will soon be in operation.

Recent activities have included another of those popular events—a Junk Sale. They have visited the Manchester Fire Station, where ten vehicles are fitted for radio control—with six others soon following. The main transmitter has an input of 100 watts.

Plans for the summer include a small exhibition evening when member's families and friends will be invited.

Like Bristol the membership is very satisfactory and is now almost fifty.

**Southwick :** (Sec. : A. Slater, 72 Underdown Road, Southwick.)

Work has begun on a club transmitter (6V6-807) for use on 7, 14 and 28 Mcs. and a club receiver (an EF50 TRF). Permission has been obtained to erect a 66 ft. aerial at HQ and this will probably take the form of two 14 Mcs. half-waves in phase. Whilst the transmitter will be CW only for a few weeks, a modulator will soon be installed.

Morse classes continue and many interesting talks have been given, including "Cathode Ray Tubes," "Multi-Range Testmeters," and "Crystals and Their Uses." The Chapter is co-operating with the Brighton & District Radio Club and the Steyning Club and exchange visits will probably be arranged.

Local gossip: G3BEX has now worked 24 miles on 420 Mcs., G5ZQ is still tied up with TV and the SWL activities are at a rather low ebb at present. The Chapter's secret police will most likely take strong action to ensure that the club puts in a good team for the Inter-Chapter contest.

**Margate :** (Sec. : T. G. Heffernon, 63 Arlington Gardens, Margate.)

Glad tidings from Terry Heffernon states that a local Chapter has been formed at Margate. Until a permanent clubroom can be obtained, the various members are holding meetings on a rota system at each other's homes. Despite this humble beginning, the meetings appear to be very successful with talks, demonstrations and good honest rag-chewing. Meetings at present are held on the first Saturday of each month and prospective members are cordially invited to drop a line to Terry for full details of future activities—he will be more than pleased to hear from you.

**Liverpool :** (Sec. : M. I. McNiell, 20 Victoria Road, Great Crosby, Liverpool, 23.)

The new Chapter had been christened "The Merseyside Short Wave Listeners Club" and seems to be progressing favourably. We would like to remind local members that meetings are held at 65a Mount Pleasant, Liverpool, 3 (a few minutes from the Adelphi Hotel) every Tuesday commencing at 8 p.m. Your support would be greatly appreciated. Thanks!

**Stamford :** (Sec. : F. K. Parker, 122 Empingham Road, Stamford.)

The secretary popped in at HQ during a recent visit to London and told us that he will shortly be going into the Army. Apart from this, apparently other club members are swatting for exams and so forth and attendances are falling slightly. Since the club is a new one the members are really keen to build up strength, so if anyone reading these notes is within reasonable travelling distance from Stamford will they please do their very best to support the Chapter? Meetings are held on the second Monday of each month at the Albert, Hall, Stamford.

**West London :** (Sec. : J. Hedges, 6 Littlejohn Road, Hanwell, W.7.)

During the past few months the Chapter's membership has been sadly decapitated! John Hebborn, of course, is now in the Army, two

others are in the R.A.F., G3UQ has moved out of the district, two others have done likewise, two are swotting for exams, and three have gone QRT. That makes at least eleven casualties! Add to this the fact that the new clubroom is too far distant for four other members who attended the Ealing meetings and the observer will see that the Chapter needs plenty of support from new members. We have quite a few members in the Southall, Ealing, Brentford and Greenford areas so how about coming along to the next meeting and lend a hand in building up the rather depleted membership? The club meets every other Friday at Hanwell Public Library, Cherrington Road, W.7., commencing at 8 p.m. (i.e. April 8, 22, etc.).

**Enfield :** (Sec. : D. H. Tilley, 97 Swan Way, Enfield.)

This Chapter was first announced in our January Notes. Since then the membership of the club has stood at around twelve. The "regulars" attend the meetings as keenly as ever but the club as a whole are rather disappointed that no new blood has been forthcoming. This is quite a natural reaction since the membership of the Chapter represents only a handful of the total League membership in the area.

Therefore, may we urge local members to join in? The club is a new one and as such must have more general support. So, if you are within easy travelling distance of Enfield, send a postcard to the secretary for full details of future activities. You will not regret it!

### QRP RECEIVER SECTION

(Secretary : Alec Jotcham, 119 Exeter Road, Dawlish, Devon.)

Support for the section is growing, which is a healthy sign, but we need still more. Up to the present, membership to the section has been open to those operating simple one and two valve receivers. I have, however, received many letters asking if operators of 0-v-2 and 1-v-1 receivers are eligible. This of course is somewhat of a problem but I am inclined to the opinion that this type of receiver should be admitted providing that it is battery operated. In other words, can a four valve mains receiver (less rectifier) be classed as "QRP"? We will leave things as they are for the present and it would be appreciated if members would drop me a line or two giving their points of view on this topic.

In the meantime here are a couple of logs that are very illustrative of the DX possible on simple gear. First of all the log of J. B. Clapp of Birmingham. He uses an 0-v-1:—MF2AA, OX3BD, MF2AC, ZB2E, ZS6AJ, MT2E, OA1DA, VK2AW, VP6IS, VO6AN, C08WM, FF8MM, PY7QT, VK3LA, VK3HW, VP3MC, ZC1AZ, JA2BL, ZP6FY, ZS6QP, VK4VD, etc. This is the pick of DX from eight days.

# HERE'S SOMETHING NEW!

## ANNOUNCING THE FIRST ISWL DX CERTIFICATE

### THE ISWL "COUNTRIES HEARD" DIPLOMA

**T**HIS will be good news indeed to League members who indulge in the noble art of collecting QSL cards. Here is an opportunity for DX-ers to receive official recognition for their abilities as listeners and reporters. Although it is an achievement to hear good DX and plenty of countries, it is even greater to be able to obtain cards from many of these countries. Good reporting is essential in many cases, where only a comprehensive and useful report will elicit a reply from stations overwhelmed with worthless so-called "reports."

It was decided some time ago to issue proficiency certificates as an added incentive to the QSL collector and for a start we are proud to announce the "Countries Heard" Diploma. Its name is self-explanatory—it is available to members who have verified reception from a certain number of countries, in various graduations commencing at Grade One (for ten countries) each following grade is for ten extra countries, such as Grade 2 (20 countries), Grade 3 (30 countries), etc.

We are pleased to add that our old friend Les Coupland, G2BQC, our Ham Bands scribe, will be responsible for the organisation of these diplomas. The conditions governing the issue of the Countries Heard Diploma are as follows:—

#### Conditions of issue

- (1) The Diploma will be available only to fully paid-up members of the I.S.W.L.
- (2) The Diploma shall be available in three distinct sections, i.e. Telegraphy, Telephony and Mixed.
- (3) Grading will be determined according to the number of countries verified, on a decade scale, i.e. Grade 1—10 countries, Grade 2—20 countries, etc.
- (4) Proof of reception for the countries claimed, in the form of QSL cards and/or letters of verification, must be submitted to the Certificates Secretary on application, together with a list of the countries claimed.
- (5) Where rule (4) is deemed unsatisfactory to the applicant, he may submit a signed statement by his CR, TR (or other League official) to the effect that the QSL's concerned have been examined and found to be genuine. This will be accepted by the Certificates Secretary, who shall, however,

reserve the right to request that certain QSL's claimed be submitted to him for personal inspection should this, for any given reason, be considered necessary.

- (6) A nominal fee of 1/- (one shilling) shall be made for each Diploma to cover cost of printing, postage, etc.
- (7) Members may apply for a Diploma of higher grading when sufficient additional QSL's are obtained. When applying for a new Diploma, it shall not be necessary to list QSL's for countries already claimed.
- (8) A list of Diploma holders, under the three separate sections, will be published regularly in *Short Wave News*.
- (9) No responsibility can be accepted for QSL's lost in the mail. The use of registered packages is advised.
- (10) All correspondence must be addressed to L. Coupland, G2BQC, I.S.W.L. Certificates Secretary, 133 Carlton Road, Boston, Lincolnshire.



### LINCOLNSHIRE HAMFEST

Another Hamfest is to be held at Spilsby, Lincs. Those who attended last year's occasion will need no reminding of the enjoyable time which was then had by several score of Lincolnshire and district amateurs. This year's Hamfest is on Sunday, May 1st. Assembling 1300-1400 hrs. at the George Hotel, the programme includes a super junk sale, so please bring along your surplus gear! Tea is being provided, and the all-in charge is 5/6 each. Lunch can also be provided at 5/- for the early comers. Accommodation is limited, and reservations, accompanied by remittances, are requested by April 23rd to the organiser, Norman Hodgson, G2ABK, 3 Council House, Hundleby, Spilsby, Yorks.



### TELEVISION TESTS FROM SUTTON COLDFIELD.

It has been officially learnt that tests will be carried out on the Sutton Coldfield frequencies commencing on July 1st 1949. These will be made at first from a small transmitter in the centre of Birmingham, and later they will come from this mobile transmitter on the actual site.

A monoscope picture (still) will be transmitted on the vision frequency using double side-band transmission, instead of the single side-band method that will be used by the actual Sutton Coldfield transmitters.

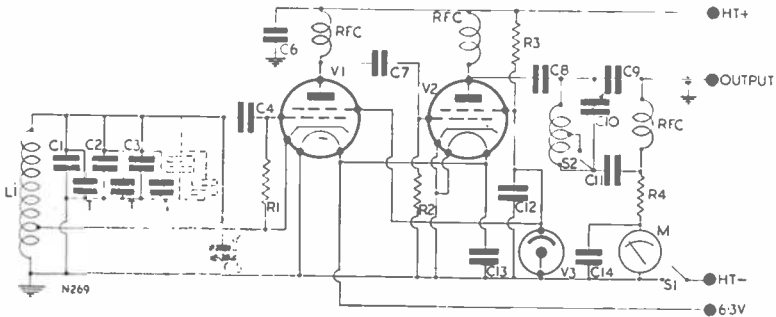
A sound test will also be carried out at the same time as the vision transmission. At the time of writing no transmission times are available.



Above is a reduced illustration of the new, handsome "Countries Heard" Diploma. Size 9 ins. by 6 ins., and printed in 3 colours on stiff art card, this will grace any SWL's den. Full details are given on the facing page

# Notes on TU5B VFO Conversion

By "CENTRE-TAP"



In the March issue, the circuit of the TU5B VFO in the article by "Centre-Tap," was incorrectly given. Our apologies to all readers who were thereby inconvenienced, and the correct circuit herewith. The component values are in no way altered

**RADIO MELANGE**—(Continued from page 98).

VHF mobile radio telephone equipment for the Netherlands Government.

The firm concerned is Pye Telecommunications, of Cambridge, who have done much of the pioneer work in this country on the type of radio telephone apparatus now so widely used by police, ambulance and fire services, as well as many industrial organisations.

Already a considerable part of the contract has been fulfilled and the familiar whip aerial such as is seen on police and other vehicles equipped with mobile 2-way VHF radio telephones is to be observed in the streets of Amsterdam, where, in the two cities, some sixty vehicles are already using their British radio telephone sets. These are in communication with a number of official fixed base stations.

Reports from the Netherlands already indicate the success of these first radio phone installations, and it is stated that they are giving extremely satisfactory service. What adds particular interest to the contract, however, is that it was obtained by the British company in face of keen competition both from the Dutch home market and from the United States of America.



**DX PREDICTION**—(Continued from page 80)

As stated in our report for May, there should be some medium-distance contacts made on UHF and VHF, through "Sporadic-E" and people in the country areas (i.e. outside the "Television-Service Area") should try and use the months of May and June to experiment with their equipment. It is believed that reception on the sound and vision frequencies should be good most days over distances up to 100 to 125 miles.

June is usually a more stable month with respect to disturbed periods, and apart from a short spell during the beginning and end of the month there should be no great stormy periods.

During the period covered by this report it should be noticed that the best frequency for reliable communication over all circuits is the 14 Mcs. The 7 Mcs. band, will of course return to its "summer condition" and become a medium-distance band for reliable communication.

Very few contacts will be made on the 28 Mcs. band during this period, and the few that are made will be in a south-south-west direction.

The 3.5 Mcs. band will return to a local (European) band and no medium-distance contacts should be made.

**BOOK REVIEW**

**Radio, Television and Electrical Repairs.** Published by Odhams Press Ltd., London. Edited by Roy C. Norris. 448 pp. demy 8vo. 10/6

We have seen many books dealing with this subject, but have no hesitation in saying that this is the most practical and most comprehensive which has so far come to our notice. The reason for this probably lies in the fact that it is edited by Roy C. Norris, Technical Editor of the radio trade publication *Electrical and Radio Trading*.

In our opinion this is an ideal reference book for the service engineer, particularly for the "small man" who has to tackle everything that comes his way in the matter of radio and electrical repairs. This book will also appeal to those of our readers who have the reputation of being "handy around the house."

The 27 chapters, with the aid of over 400 very detailed line illustrations, commence with a description of basic principles and components, the theory being enlivened by practical examples. This is followed by a description of basic radio circuits and preliminary tests. Test gear, fault location, alignment, components, speakers, pick-ups, and gramophone motors are covered by the remainder of the chapters devoted to radio receivers. The next section describes television circuits, test gear, faults, symptoms and cures, and this is followed by a chapter on aerials and extension speakers.

Chapter 17 leaves radio for domestic electric wiring and its maintenance, and further chapters deal with small appliances, fires, vacuum cleaners, motor rewinds, cookers, hot-plates, washing machines and refrigerators and motors for them, and electric water heating. The concluding chapter deals with battery charging. C.O.



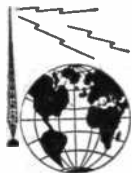
**GECALLOY RADIO CORES**

Salford Electrical Instruments Limited, a subsidiary company of the General Electrical Co. Ltd., of England, has just issued a new leaflet on Gecalloy Radio Cores. Very compact and comprehensive, this six page folder gives a list of all the types manufactured by this company, with their dimensions in mm. and inches. In the case of Pot Cores, reference is made to those with which Bobbins are supplied. Requests for this leaflet, List RC9402, should be made to Peel Works, Silk Street, Salford 3, Lancs.



**THE HAMBANDER**

Messrs. Radiovision (Leicester) Ltd., inform us that they have been compelled to withdraw temporarily the Hambander Receiver from their range. This has been occasioned by the fact that the whole of their works has been turned over to the production of the Commander Receiver in order to meet the very large demand for this model.



# Short Wave News

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April, 1949

ARTHUR C. GEE, G2UK  
Technical Editor:  
LIONEL E. HOWES, G3AYA

Editors:  
W. NORMAN STEVENS, G3AKA  
Advertisement & Business Manager  
C. W. C. OVERLAND, G2ATV

**I** SUPPOSE most of us have been guilty of this action at some time or another in our lives; some more than others! It is not, however, for those who shift responsibility in domestic and business affairs that this Editorial is directed. The "buck-passer" of amateur radio is our target, though in a somewhat different form than the accepted one. To come to the point, it is the passers-on of DX that we are concerned with—a different matter altogether.

How many of us have been infuriated when, waiting patiently for a rare DX station (who is working a G) to sign off, we hear from the G station something like this "I say, OM, my pal G5—would like to work you as he needs you for his DXCC. Please listen for him, when I sign, on my frequency." As likely as not, when the G5—has finished he will have one of his pals waiting to muscle in.

Yes, this sort of thing is going on all the time. And it is usually associated with well-defined cliques. These groups of DX "experts" pass the juicy ones from one to t'other until the "gang" have all had their contacts. When they have finished the small fry can fight it out between them.

We heard a well-known station only the other day indulging in this stunt. He took 20 minutes drilling the DX station on where and how to pick out his pal.

Who are the offenders? There is no hard and fast rule, but it is somewhat disquieting to note that a lot of them are so-called Old Timers. No wonder they have such impressive DX scores—they get someone else to do their work for them!

What sense of achievement is gained in making a contact under such conditions? None! Most of us "get out," but often we are swamped in QRM or else happen not to be exactly where the DX station is listening. Often we are heard but passed over in preference to some other station. A DX station asked to listen for "a friend" will normally do so out of common courtesy. Any station almost, QRP included, could make a contact with such prearrangements—providing he was "one of the boys."

## Editorial PASSING THE BUCK

The craze for DX certificates, rolls, etc., is of course the prime mover. A case of trying to "keep up with the Joneses." The attaining of DX laurels should be due to the efficiency of the transmitter, the design of the aerial and operating technique. It is in most cases, but the DX parasites use other means—excessive power and doubtful means of operating.

How much better it would be if the DX, on receiving such a request, would reply "Sorry, OM, no favours. Give everyone a fair chance!"

W.N.S.

THE EDITORS invite original contributions on short wave radio subjects. All material used will be paid for. Articles should be clearly written, preferably typewritten, and photographs should be clear and sharp. Diagrams need not be large or perfectly drawn, as our draughtsman will redraw in most cases, but relevant information should be included. All MSS must be accompanied by a stamped addressed envelope for reply or return. Each item must bear the sender's name and address.

COMPONENT REVIEW. Manufacturers, publishers, etc., are invited to submit samples or information of new products for review in this section.

CHEQUES and Postal Orders to be made payable to "Amalgamated Short Wave Press Ltd."

ALL CORRESPONDENCE should be addressed to "Short Wave News," 57 Maida Vale, Paddington, London, W.9. Telephone CUN. 6579.

Our monthly publication "RADIO CONSTRUCTOR" is devoted to the practical side of radio.  
For viewers we publish "TELEVISION NEWS" monthly.



# QUARTERLY DX PROPAGATION PREDICTIONS

APRIL, MAY AND JUNE, 1949

(Issued by Leicester Telecommunications Laboratory Monitoring Dept. near Leicester, England.)

For the purpose of these reports it should be noted that four major communication circuits are predicted: They are (a) North America: (b) South America: (c) South Africa and (d) Australia: By referring to the great circle map (centred on London) it will be noticed that "short-path"

transmissions to Australia will also cover Japan and Asia:

It should be understood that to forecast these communication circuits for a period of three months, the data is liable to slight errors, especially with relation to the "disturbed periods."

## The preceding period:

IT was during the first quarter of the year that the usual decrease of the daytime maximum usable frequencies were recorded, and the night-time MUF showed the increase which is always noted at this time of the year.

It was during this quarter that most predictions were badly out as the MUF's were very low, and it is reported that this was due to an unexpected spell of Ionospheric Storms.

In the early part of the quarter the night-time MUF's were very low, and records show that on the 3.5 Mcs. amateur band several good contacts were made over the Australian circuit. These contacts were not spasmodic as a large number of low powered stations were heard in regular contact over the circuit (d) nightly until the middle of February: In the VHF spectrum American F.M. stations around 40 Mcs. were heard nightly during the first month of the year.

Up to the time of writing this report (mid-March) the only reliable circuits are those using the 14 Mcs. band, and the fade-outs have been very severe during the first week.

## Predictions for April:

During this month the MUF's for daytime working should start to decrease whilst the night-time MUF's should be on the increase. This will not have a very great effect on the use of the higher frequencies for communication during the day because of the increase of the hours of daylight, and therefore the 28 Mcs. band should be still usable over the circuits (a) and (c): The 14 Mcs. band will prove very useful between the hours of 06.00 and midnight on all circuits and Australian contacts should be workable with a small amount of fading around the period commencing at 20.30 GMT.

There might be the commencement of "Sporadic-E" transmissions towards the end of the month and it is probable that some of the American commercial FM stations will be heard again, around 40 Mcs. The disturbed periods will occur around the first and third weeks of the month, the worst period being at the end of the month.

## Predictions for May:

There will be a rapid decrease in the daytime MUF's during this month and even though there will be an increase in the daylight hours the 28 Mcs. band should not be used for reliable communication on any circuit. It might be possible at odd times to have contacts with the circuit (a) and (c) stations during the late afternoon periods.

The night-time MUF's will show a little increase and this means that there will not be a very great difference during the month of May between the day and night MUF's. It will be seen therefore that the best frequency to use for long distance communication will be the 14 Mcs. band and all circuits should remain open throughout the day and night, with the exception of a slight period from midnight until about 03.00 on circuit (a):

It is during May that "Sporadic-E" is noticed and it is one of the best months for carrying out tests on the UHF and VHF frequencies. Some contacts on these frequencies may be recorded over distances of about 1,000 miles due to "Sporadic-E." Records show that May is not one of the stormy months and there should only be very slight disturbed periods, each one very short in duration; these will occur about the middle of the month.

## Predictions for June:

The daytime MUF's should now reach their lowest value, and by the end of June they will be at a minimum value for the year. The night-time MUF's on the other hand will be reaching their maximum, and this will mean that there will not be many 28 Mcs. transmissions, but the 14 Mcs. band will remain open during the whole 24 hrs. on all circuits. It can be seen therefore that it should be possible to maintain communication with all parts of the world without any great difficulty by using the 14 Mcs. frequency. There might be a few contacts made on 28 Mcs. using the circuits (c) and (d) during the late afternoon period, but it is highly improbable that any contacts will be made on the other circuits.

(Continued on page 104)

# DIRECTION- FINDING

for the

# RADIO AMATEUR

*The first of two  
articles by*

S. T. SMITH  
Grad. Brit. I. R. E  
G3BSI



*D/F Contests are now a regular feature of many Club's Summer activities. So far very little information has been published on this aspect of amateur radio. We have therefore asked Mr. S. T. Smith, Grad. Brit. I.R.E., G3BSI, who did so well last summer in the D/F Contests organised*

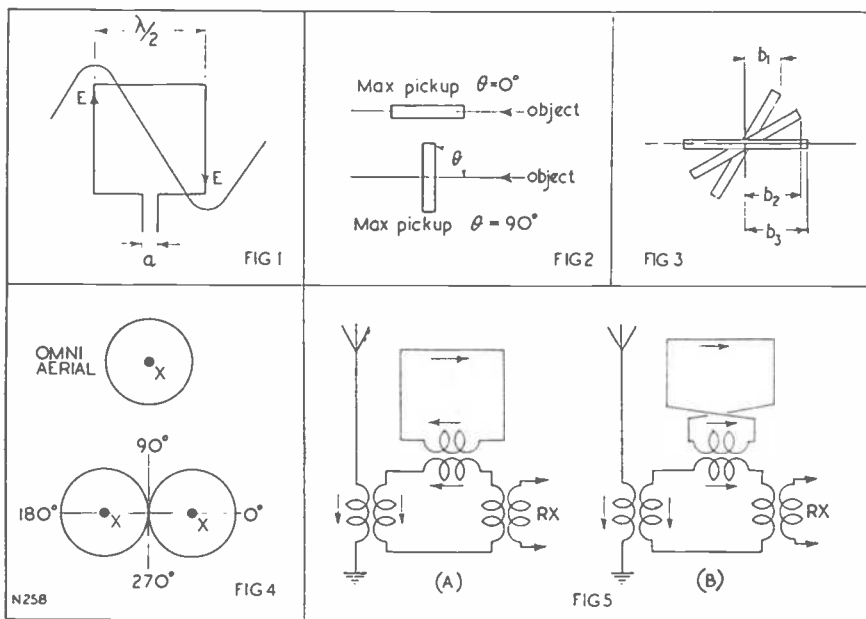
*by the Southend-on-Sea Radio Society, to contribute two articles for us on this subject. The first, which appears below, outlines briefly the theoretical aspects. Next month our contributor will describe the construction of an accurate D/F receiver using surplus radio gear.—Editor.*

**R**ADIO direction finding today plays a major part in the safety of those who travel, whether for pleasure or purpose, and the art of radio D/F has become complicated and highly technical.

In the beginning, direction finding was done by the human ear—later, assisted by a horn, ending finally, as we knew it during the war, with the anti-aircraft detector horns. The principles of these methods were much the same as is used in radio D/F, i.e., to reduce the possible position of the object to a limited field and, if there was more than one D/F station, to pin-point the object by cross bearings.

The aural method has obvious limitations, i.e., if the object does not make sufficient noise, or no noise at all. Similarly with radio D/F. However, if the object does not radiate radio waves, it is possible to equip it with apparatus to produce radio waves. Having established a necessity for radio D/F, let us now see how it works.

The type of aerial used in radio D/F is the frame, or loop aerial; let us discuss that first. We can see from Fig. 1, that the nearer the distance between the two sides is to half a wave length ( $\lambda/2$ ), the greater the resultant pick-up at "a"; also—the greater the length of the



vertical side, the greater the pick-up. Both these factors are limited by mechanical considerations and, with present-day high gain receivers, a loop aerial of some 2 ft. square (or diameter) is quite sufficient for good bearings to be obtained, and if the field strength is not too small much smaller loop aerials serve the purpose.

Fig. 2 shows that maximum EMF (pick-up) is obtained when the loop is in line with the object and conversely when at right angles. In fact, the EMF varies from max. to min. when the angle ( $\theta$ ) between the plane of the loop and the line to the object varies from 0 deg. to 90 degs. This can be proved from observations we made earlier, viz., the further apart the vertical sides of the loop, the greater the EMF. When we are rotating the loop from 0 deg. to 90 degs., we are altering the effective distance between the vertical sides ( $b$ ), Fig. 3. Hence we can say that the EMF ( $E$ ) varies as  $b$  from 0 deg. to 90 degs. It is more convenient if we can relate  $b$  to  $\theta$  for we can then put a scale on the loop base marked in degrees. The relation is that  $E$  varies as the cosine of  $\theta$  or  $E \propto \text{Cos. } \theta$ .

The cosine of an angle is a mathematical ratio of the length of the side adjacent to the angle to the length of the side opposite the right-angle (called the Hypotenuse) in a right-angled triangle. Incidentally, when we take a bearing, we always swing the loop for min. pick-up; since the difference between the cosines of small angles

is greater than the difference between the cosines of angles near 90 degs., e.g. :-

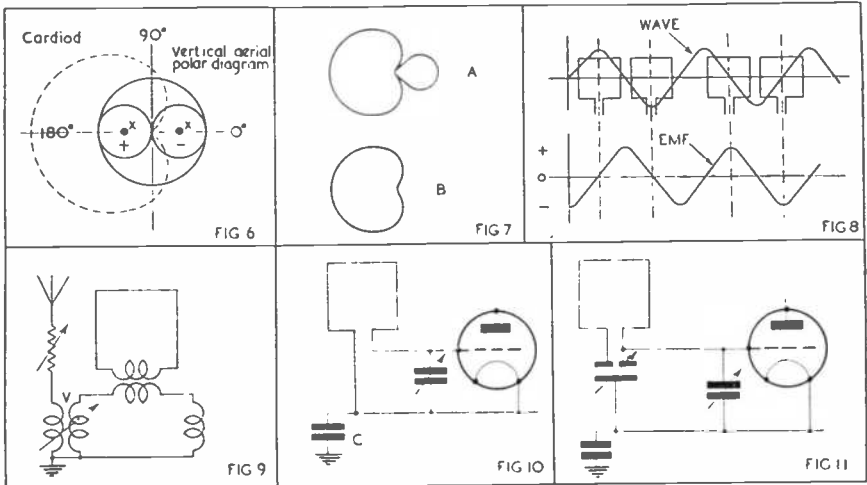
$\theta$	Cos. $\theta$
0	1.0000
$\frac{1}{2}$	1.0000
1	0.9998
2	0.9994
90	0.0000
$89\frac{1}{2}$	0.0087
89	0.0175
88	0.0349

which shows that for rotation of only  $\frac{1}{2}$  deg. from  $89\frac{1}{2}$  degs. to 89 degs. the signal strength is doubled, and yet again for a further 1 deg.; whilst rotation about 0 deg. produces little change in signal strength. Also the human ear is much more sensitive to changes in "weak" sound.

We know that the polar diagram of a single vertical aerial is omni-directional, i.e., it is equally sensitive to signals in all directions (in the plane at right angles to the aerial).

Let X be the end on view of a vertical aerial, then its polar diagram is a circle of centre X (Fig. 4).

With two spaced aerials or a loop we get a figure of 8 pattern and it can be seen there



are then two positions of zero signal—at 90 degs. and 270 degs. This is a serious disadvantage in D/F as it gives an ambiguous result, i.e., the object may lay, say, either to the East or West of us. In order to overcome this ambiguity the need of a "sense" aerial arises; this aerial, when suitably added to the input gives the sense or direction of the object. Fig. 5 shows the directions of signal pick-up (EMFs) at any moment in a typical D/F circuit with a sense aerial added. The difference between Fig. 5 (a) and (b) is that the loop is rotated through 180 degs. The polar diagram of the loop with sense aerial can now be drawn thus:—With ref. to Fig. 5—when the loop is in direction (a), let the EMFs be +ve and aiding the vertical aerial EMF, and when rotated through 180 degs. Fig. 5 (b) let the EMF be opposing the vertical aerial EMF or —ve.

If the polar diagram of the vertical aerial is adjusted to be equal to that of the loop and they are added, the result is as shown dotted in Fig. 6. It is clear that there is now only one minimum and that it is displaced 90 degs. from the figure of 8 minimum. This new polar diagram is called a *cardioid* or heart shape. If the EMFs of the two aerials are not equal, distortion of the cardioid occurs, e.g., Fig. 7. This works out very well on paper, but actually there is a 90 degs. phase difference in the loop aerial. In an open aerial, the EMF induced is in phase with the wave producing it, but in a loop aerial the EMF lags 90 degs. on the wave, as is shown in Fig. 8. We can bring the EMFs of the loop and vertical aerial almost in phase by using the following fact. In an oscillatory circuit.

$$\tan \theta = \frac{\text{Reactance}}{\text{Resistance}}$$

where  $\theta$  is the phase angle. Hence if we wish to keep  $\theta$  small, then we must keep  $\tan \theta$  small (because for small angles, the Tangent of the angle is also small) or the ratio  $\frac{\text{Reactance}}{\text{Resistance}}$  must be kept small.

$$\text{Now: } \tan \theta = \frac{\text{Reactance}}{\text{Resistance}} = \frac{wL}{R} \text{ or } \frac{wC}{R}$$

so if we make R large compared with  $wL$  or  $wC$ , we have achieved our object i.e.,  $\tan \theta$  will be small, so will the phase angle ( $\theta$ ).

R is introduced into the vertical aerial as a non-inductive (solid carbon type) resistor, 1 to 10K ohms, this being called a 'phasing resistor.' At Fig. 7 it was shown that the vertical aerial EMF had to be adjusted for best results. This is conveniently done by making the phasing resistor variable. This is by no means the best method, but is very convenient; a better method is to vary the coupling (V Fig. 9). Numerous errors creep into radio D/F, but the one which effects bearings most is known as the *Vertical Effect*.

In order to get a perfect minima (Fig. 8), the EMFs in both sides of the loop must be equal and hence cancel out; but since there is always some EMF 'in the loop' there is a possibility of some getting to the receiver unless precautions are taken. The only way in which an EMF can get to (or appear at) the receiver is for there to be an unbalance at the loop; the loop then acting partly as a vertical aerial, causing displaced and/or blurred minima.

One way in which the loop can become unbalanced is that there may be a different impedance from one side of the loop to earth than the other, e.g., Fig. 10. Other ways are poor

layout of loop leads and proximity of 'earthy' objects to one side of the loop, etc.

**Methods of Overcoming the Vertical Effect**

**1 Differential capacitor. (Fig. 11)**

The capacitor is balanced for sharp minima.

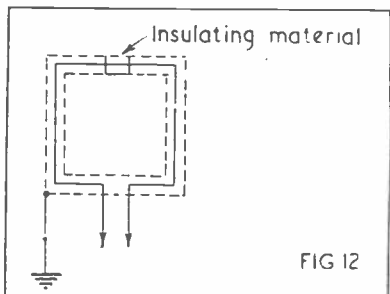


FIG 12

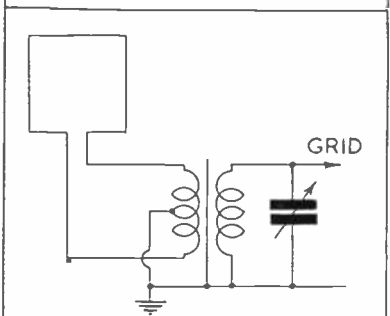


FIG 13

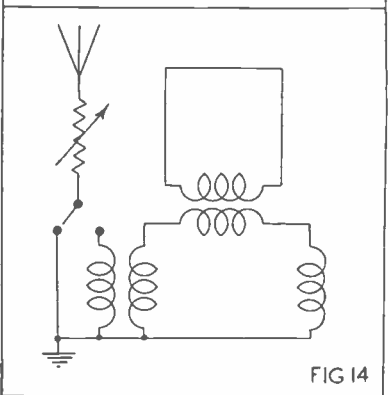


FIG 14

N285

**2 Screened loop. (Fig. 12)**

The loop is entirely enclosed in a metal tube which is earthed.

The capacity to earth all round is large compared with any stray capacity, hence the stray capacity may be ignored. *NOTE*, the

shield is insulated at the top in order not to form a short circuit round the loop, thereby absorbing considerable energy.

**4 Earthed centre point of loop.** The centre point of the loop may be earthed or the centre point of the coupling coil, as shown in Fig. 13.

**5 Screened and balanced transformer.**

A copper screen (which does not affect the transformer action, but prevents any capacity between windings) is inserted between primary and secondary of the input transformer, the primary of which is centre tapped and earthed. The author uses this method most successfully.

When not in use, the vertical aerial is earthed. Fig. 14 shows the switching as used in the authors equipment.

**Procedure for taking a bearing**

Tune in wanted signal and with the audio gain at maximum, reduce volume to a comfortable level by the R.F. gain control or variable input coupling. With aerial switch at figure of 8 position, swing loop for minimum—note bearing.

Switch aerial to cardioid position (for sense bearing), rotate loop 90° either way, adjusting vertical aerial input for good minima, e.g., suppose the transmitter is at 100° (usually referred to as 100° E of N, but not necessary in this example) then the first bearing will give 100° or 280° (100° + 180°). When the sense aerial is switched in, the minima is displaced 90° (Fig. 6), hence if we now rotate the loop 90° either way we will expect to get either an increase or a decrease in signal strength; rotate loop 90° to give decrease in volume, then adjust vertical aerial input to give sharper minima. The result will be 10°, and to this must be added the sense aerial displacement—90°, giving our bearing as 100°.

The loop aerial must first be marked, showing in which direction 90° must be added or subtracted; this is done by taking a bearing on a known transmitter.

**THE WORLD RADIO HANDBOOK**

We can still supply copies of this most useful publication. Beautifully produced, this handbook gives extensive information of interest to broadcasting station listeners. It includes details of all the chief stations in the world, such as frequencies, call-signs, times of transmission, type of programme, the postal address, hints on identification and the attitude of the stations to listener reports. The price is 6s. 6d., plus 3d. postage, and orders should be sent to "World Radio Handbook," 57 Maida Vale, Paddington, London, W.9. A four-page descriptive leaflet is available on receipt of a S.A.E.

# V.H.F. NEWS

## General

**T**HE depression, with which we sat down to write these notes last month, has given way to a more optimistic mood this time, as we have received a number of reports indicating that 145 Mcs. activity is at least on the increase. Now that 60 Mcs. has gone for good, those who held back for a possible reprieve are getting their gear rebuilt for the higher frequency. Activity is still far from what we came to expect on 60 Mcs. but no doubt as time passes more and more stations will appear on the band.

A feature of our letters this month is an almost universal request for SWL Reports! This should cheer the hearts of those who assert that the transmitting fraternity are in the habit of giving the SWL a raw deal.

**H. W. Parker, G2ADZ**, of Oswestry, writes: ". . . in general activity is poor and at the moment it is rather a question of plugging away until the 'other fellow' gets going and better conditions arise . . ." then I think the 2-metre band will be first rate." 2ADZ gives the following advice to SWL's:—

1. A first-class beam well in the clear should be used. A 3 or 4 element wide-spaced beam is just about right, and not too sharp. The cable used to connect the beam to the RX should be the best possible. (He uses Telecothene AS20M-coax with air spaced central conductor).

2. With regard to receivers, various accounts of some fellows' receivers seem frightening, and need a deep purse, but two RX's I have used most successfully are (a) a straight RX using a 6J6—it oscillated very easily—and (b) a single 6J6 converter. 2ADZ continues: "If any readers saw the straight RX, they would have a fright! I used a 6 v. accumulator for the filament and connect it to a 2-valve 2 v. amplifier. I worked G6VX (170 miles) and G5BM (83 miles) on it! The single 6J6 converter works very well, and my best DX on it has been ON4FG at about 350-360 miles. No RF stage is used. Just a single mixer/oscillator circuit. But the beam comes before the RX—no good building the other way round!"

**W. J. Crawley, G2IQ**, Sheffield, with regard to receivers, says: "I have tried almost every possible valve combination, and I am firmly of the opinion that superior results may be obtained by using triodes in preference to multi-electrode valves. My present converter which has three 6J6's in push-pull (neutralised RF stage) is 5dB better than any converter I have made using 6AK5's in sig/noise ratio. I suggest therefore that readers be encouraged to use triodes in their receivers." In this connection, the article entitled "A Low Noise VHF Converter" in the

March "CQ" is of interest, where much the same conclusion is reached.

## 420 Mcs. Activity Reports

As we pointed out last month, activity on 420 Mcs. is surprisingly high. We have more reports in this month showing the rapidly increasing interest in this band, and it is satisfactory to be able to report that quite good work is being done, using very simple gear. We are particularly interested in this band, so please write in and let us know what you are doing, no matter how simple your gear.

**F. G. Maynard, G4OU**, Sheerness, Kent, writes: "I am operating on 420-440 Mcs., working in co-operation with G2VA and G2HKU, both in Sheerness. My rig (one of many 'experimental' ones) is to date a hollow line oscillator, using a pair of CV63's in push-pull with an input of 8 watts modulated by 6C5-6C5-6L6. Stability is exceptionally good. I am feeding this into a 3-element rotary beam via 300 ohm line quite successfully. My 'experimental' RX at the moment is a small super regen using acorns. At the moment, the RX is the problem of course, as a 'squish' box is not exactly nice. However, this problem will be solved no doubt, and we have great hopes of having a 420 Mcs. link across the Isle of Sheppey. G2VA uses an oscillator—CV6 2.2 watts and a similar RX, but can also use a Type 644 oscillator (on sale ex-Govt. surplus at £1). This uses RL18's modulated by a 6C5 and is a good buy for low power 420-440 Mcs. work."

**G2HKU** at present is only listening. He says: "To date we have not contacted, but our experiments and observations continue and we anticipate a contact any day now. The beaming of aerials on this band is of course, the thing, but we hope to get around to that because we know we are radiating quite OK. Ninety-nine per cent. of my time and energies are devoted to 420 Mcs. and if successful we want to go higher still. Whereas expensive equipment can be purchased for that band, we want to do it with simple and easily constructed equipment within reach of any ham. Our operating schedules for 420 Mcs. are as follows: Monday to Friday, each evening 7 p.m.-7.30 p.m. We would all appreciate reports, ideas, etc. etc., and any amateur, be he transmitting or SWL, is welcome to pass us any constructive gen."

From Scotland we hear further news of 420 Mcs. activity.

**W. B. Miller, GM5VG**, Glasgow, S.3. writes: "Most of the regulars are very interested in 420 Mcs. Several nights a week there are signals on the band, and any reports, no matter how close, would be most welcome."

## 145 Mcs. Activity Reports

We are very pleased to be able to report quite a number of individual reports this month. Thanks for sending them along, and please keep up the good work.

Denis Heightman, G6DH, Clacton-on-Sea, reports that tropo-conditions were fairly OK during the mild weather of February, when several contacts with G's up to 120 miles were made. ON4FG (155 miles) and PAØPN (110) were also QSO'd. March, however, was a different story: with the cold spell, conditions went to bits. ON4FG was heard again at 0820 GMT on the 12th, when milder WX returned. 6DH has been having some interesting tests with G8AO, who is on a coal-boat coasting up and down the East Coast. The latter has been receiving 6DH's hourly auto transmissions quite regularly. With bad tropo-conditions, the range is about 50-60 miles with aerials 45 ft. high, and 4 or 5 element beams. With better conditions 6DH's signals were heard up to 89 miles. Regarding VHF ionospheric propagation, 6DH reports that mid-February saw quite high F2 MUF's, though they did not touch 50 Mcs. Signals from both NE (Moscow), South (Africa) and SW were heard up to about 47/48 Mcs. and up to 45 Mcs. for W. This was for what is normally a peak period. ZS1P reports the reception of actual television pictures from London on several occasions during the latter half of February.

Arthur Simons, G5BD, Mablethorpe, Lincs, has been having his signals checked by G8AO, with similar results to that of G6DH. 5BD's signals are audible to 8AO from about the North of the Norfolk Coast to the Humber. 5BD has been having skeds with 2IQ in Sheffield, and he comments how the signal strength varies with conditions, 2IQ being at times almost inaudible.

H. W. Parker, G2ADZ, has worked or heard the following during the past month: G2AOK/A, 2HDY (170 miles), 2OI, 2XC (170 miles), G3AHX, 3ASC, 3BLP (170) 3BY, 3DA, G4AU (170), 4LU, 4OS, G5BM, 5MA (170), 5MI (170), 5RP (170) 5US (160), G6NB (165), 6VA (165), 6VX (170), 6YP (170), G8DM (140), 8QY and 8UB.

W. J. Crawley, G2IQ, Sheffield, using a 4-element indoor, wide spaced beam has worked 23 countries and 4 countries since the band opened, including a contact with Paris at 370 miles. As he says, this should induce some of our readers to give the band a try.

L. A. Yaxley, G2FLC, Cheveley, Nr. Newmarket, is having some difficulty in getting contacts, as he is the only one around that locality active on 2 metres. He is on nightly, 2000-2100 hrs. and would like reports. All will be answered. He is using a 522 TX (13 watts) and 522 RX as well as a modified Type 27 converter ahead of a 10 tube superhet. Aerial is a dipole at present, the beam having been lost in the gale! He is on cw and fone.

W. B. Miller, GM5VG, Glasgow S.3, is using EL32 (CO)—KT8 (trebler)—KT8 (trebler)—2×TY1/50 (PP doubler) 2×TY1/50 (push-pull PA). The RX is at the moment an ex-RAF "Responder," which will be replaced by a

converter very shortly. The aerial is a 4 element beam. He runs skeds nightly 2100-2300 hrs. The locals, viz: GM5VG, 2D1, 3EDQ, 3BDA, 6KH, 3NK, and 8AH are all to be found on the band about that time, as they are on quite regularly.

F. H. Lane, G3GW, of Minster-on-Sea, Kent, is operating most evenings between 2200-2215 hrs. on telephony. His TX is crystal controlled on 145080 kcs. The line-up is: 6V6 CO/doubler, 6V6 trebler, 832 trebler, and 832 PA running at 19 watts. The RX at present is a 27 unit, but an EF50, RF, EF50 mixer, EF50 oscillator with 6 Mcs. IF output converter is on the way. A temporary dipole 35 ft. high, fed with 50 ft. 70 ohm coax, enabled him to work G3BTL, in Essex, and his signals have been heard by G6DH, G3BWS of Rochester, and SWL's in Sittingbourne, Chatham, Eastbourne, and Sheerness.

And finally, some news from Germany sent us by Reg. Vincent (ISWL G748), Enfield, which he has received from DL4XS.

DL4XS & DL4DZ are both listening on 144 Mcs. for any possible British signals which may break through. They are both listening every evening after 17.00 GMT.

They are both awaiting the first signs of temperature inversion and when they think the time is right for them to try to work England, they will be on (i.e. most probably in early April).

DL4XS will be running 130 watts into a pair of HK24's, he will be pushing this into an antenna which consists of 16 half-waves, in phase, with their appropriate 16 reflectors. The antenna will be horizontally polarised. His exact frequency is 144000 kcs, and his QTH is Wiesbaden Germany. The RX he is using is a VHF 152 preselector into an AR88.

DL4DZ will be running 40 watts into an 815 and his antenna is also horizontally polarised. His QTH is the same and his exact frequency will be 144450 kcs. and the RX is a BC639. They are both situated on top of a hill and have got a clear shot into England.

Well, chaps, that is a nice lot of gen. for this month. Surely enough to encourage those who are hesitating, to really make that final effort and get on the band. Any reports to the Editor SWN by 20th month, please.

#### VHF TRANSMITTING VALVES

A lecture on the manufacture of VHF transmitting valves was recently given to the City and Guild College Radio Society by Mr. E. Morgan of the General Electric Company's Valve Department.

The lecture was illustrated by a 16mm. coloured film to which Mr. Morgan gave a running commentary and amongst the valves shown were types that will be used in the radio television link between London and Birmingham.

# On the Ham Bands

Conducted by LES COUPLAND  
G2BQC

## GENERAL

**T**HE most interesting news this month is no doubt the fact that the W's are on 1.7 Mcs. with a max. input of 25 watts. Who will be first to report one?

Reg. Baldwin says KA1AI is returning to W. He requires the QRA of W4AXC/C6 and W7LZJ/C6 in Simkiang Province (Zone 23). By all accounts Polish amateurs will soon be on the air again, to "transmit telegraphic sign, talk and music!" They will be licensed for one year, examination by the Short Wave Union. Let's hope they maintain good quality signals.

Les Waine has a QSL from W4PI. and several photos, and one of the best "ham to SWL" letters I have had the pleasure to read. Nice work, Les. He also has a QSL from VQ4FCA, using 3 watts. Les then says his mention in the Feb. SWN should be *counties*, not countries, hmm!

G2ABK, Spilsby, Lincs, has been doing well on ten with 35 watts, getting reports of up to 40dB over nine on his long wire. Nice work Norman. Incidentally, G3ANM and G2FJR use under 25 watts on ten, and do real well with a 3-element beam.

D. L. McLean reports hearing W6VBT portable on Galapagos Islands, which is a new one.

How many of you chaps heard VQ8AD on CW during BERU? And who heard a leading DX CW operator keep AC4RF rag-chewing until Bob had to QRT due to his accumulators running low? Poor types on the air these days. AC4RF is on approximately 14020 kcs. and VQ8AD 14005 kcs. T8. VK2DA, VS6AP, ZB1Q, VQ8AD, were worked by 2BQC in under 20 mins., during BERU, just wanted a VE for a quick WBE, but XYL said tea was ready, hi. Other DX worked was W0MCF/C3 Formosa, and U0A0KFO in Zone 19. The ARRL contest should have given a few new States. Our Editor G3AKA feels that the support for the Monitor sessions does not warrant the space used. I am inclined to agree, so what shall we use the space for? How about the surprise we have in store for the gang Norman?—you know . . . yes that's it! We will need space to put the lucky fellows names down you know.\* So until next month, cheerio.

## READERS' REPORTS

### 1.7 Mcs.

D. L. McLean (Yeovil): G2ALB, 2BSU, 2CRG, 2DGB, 2HX, 2IK, 2MM, 2SC, 3BSX, 3BYV, 3CRK, 3DHH, 4GJ, 6GN, 6GU, 6HN, 8VJ, GD5CZ, GW2BG, 3BUT, 4FW, 8SU.

\* (Details on page 102—G3AKA.)

Leytonstone ISWL Chapter. GM6SR, GW2BG, 2CHN, 3ALV, 8NP. CW: GM3awf, 5kf, 6ri, 8mj, GW3ehh.

Don Robertson (Wick): G12hml, GC8ok, GWhh, 8wj, 2-3-49 to 6-3-49.

Arthur Levi (Belfast), G2ABB, AOA, BK, BOR, CLG, FTT, KO/A, HQMM, SC, ZG, YY, G3ABB, AMF, BCU, BQB, BQU, BYV, CPP, CPT, OB, TM, G4GA, GJ, MI, G5AC, AU, GL, QG, SK, XB, XM, G6QB, FC, MP, LD, UJ, G8AB, GC8OK, G12HML, GM6SR, 23 counties since Jan. 1st.

### 3.5 Mcs.

Leytonstone ISWL Chapter, CW: FA8bg, W4nn, ZB1an.

As reports seem to be short on 3.5 Mcs. I must quote from a letter received from James W. Welch, Halifax, who by his job is an early riser. Jim says if you fellows like to go on 3.5 around 0400-0500 you will hear some good DX, and bemoans the fact that we publish such locals as OK, HB, etc. He has heard VP's 1 to 4, all states W, CX, CO, LU, PY, and VO on this band, but why not drop the reports along Jim? Pre-war I heard VE's on 1.7 Mcs. Of course, the DX is there if you are about at the right time. My present task is to work DX which is different to hearing it. Tnx for letter, Jim, and let's hear from you again.

### 7 Mcs.

Tom Jones (Birmingham): LU5ia, UA9cl, VK2ld, W5go, 5pin, 0nuc, ZC4ac, 6unj.

Leytonstone ISWL Chapter. FP8an, LU8ae, OX3j, VE2je, 3ij, W91vb.

Don Robertson. CM6ah, FM8ad, KH6ij, KH6vp/VR4, KL7dw, W1raf/KL7, KZ5en, OX3j, VE6xb, VE7rr/V4, VE8co, 8mg, VK5je, 7lz, 5cr, W5ppin, 6puz, 7mic, 0edk, ZC4ac, 6unt, ZL1lz, 2mm. Also CO8WM on phone. Good going Don.

Bob Ainge (Nr. Crewe) turns up again with CO8fh, HP1br, KP4bu, PY2afs, 7ws, UD6ah, UO5AD, UC2af, UR2ac, UF6ac, VE7ac, al,vc, hc, 8hd, px, VK7ld, W7lqp, (Utah), 7jva, 7ckf, 7kgj (Mont.) W0asw, 0vwj (Sth. Dakota), 0tkq (Iowa) 0ccn, (Nebra). All between 0515-0700 GMT. Tnx Bob, nice to hear from you again.

### 14 Mcs.

J. B. Clapp, Birmingham (any relation to the Clapp of "oscillator" fame?). Uses an o-v-1, but is investing in a 640 in the near future. CO8MP, EK1AD, EA8AM, 9AI, FB8AB, FF8AA, FM8AB, FQ8SZ, HH2X, M13SB, M1B, MF2AA, MT2E, OX3BD, PZ1M, VE7ZM, 8MI, VO1AF,





The fine QSL card sent by ON4BO. The Tx is a VFO-807 doubler-803 PA on 14 Mcs., with a rotary beam antenna. The Rx used is a BC 342

VO6AL, LU6AU, PY1FY, W5HL, 7HMX, VP9F, 3AC, 6IS, ZB2E, 1AH, ZD2A, ZS6AJ, VQ5CC, ZD1SW, HK1DZ, and YV1AZ, which for a first effort is excellent. Congrats!

C. Richards (Wadebridge) 27th Jan. to 18th Feb., CO7AA, CX8MU, EK1CG, FA3AV, HA1KK HC1FG, 3B1, W1RAF/KL7/P, MF2AA, TI2RC, VP2KM, 3MCB, 9F.

John Vaux (Hornsey, N.8.) lists EK1DI, CX2CO, 2CL, FT4AP, CO8MP, OQ5CF, P11L (Dutch weather ship), VP6TR, YV1AZ, ZS6DY, and ZS6HS.

Don Robertson heard KH6CT, KR6AM, 6AS, 6AV, (1200-1400), VE7ZM, VK2GR, 2AMA, 3AWN, VS1CH, VP6IS, YV1AU, 5AB, ZD2G, ZL2BE, RX: 1-v-2 Ant: 200 ft. long wire.

D. Welch, G1615 (Hersham), uses a "Ham-bander" and lists W5CUU, VK4VD, VK3AWN, KL7LL, PY7NN, HK1DZ, TI2RC, VE8BC, VP3MCB, VO1F, KP4AC, YS1GM, and YV1AZ.

Alan Noble (Broadstairs), G1814, has a "640" EK1DI, HA1KK, LF2B (experimental station in LA), LU4EC, OQ5AB, 5CF, TI2OA, UB5KAG, VK2GR, 3AWN, 3HJA, 3MGD, 3NW, YV4BH, ZBiE, ZC6UN, ZD1PW, and ZD2G were logged.

Walter Mills, G261 (Chelmsford) now has a "HRO" but little listening time. He has heard VO6AL, VP4TH, 9G, DL41M/Airborne, EA9AI, ZS6CZ.

#### 14 Mcs.

Fred Pilkington, G1717 (Littleport) on his Marconi 5-valve RX heard CX2CL, EK1DI, MO1A (Benghazi), OX3BD, PY6AG, SV1WE, VP9WW, ZS6LF, YQ5B, 4X4CZ.

J. Booker, G2693 (Surbiton) has turned to DX'ing again, after a long spell of non-activity. An R208 and Hallicrafters R20 are used. CT1OR, EA4HK, JA2BL, VE7LL, 5OC, VK3LZ, W5MPO, 5ZS, 7ERO, 7FLO, 9RBI, YS1AT, ZE2JK, ZS2CS, ZB2A.

Tom Jones (Birmingham), has been having a field day on CW with CE3ez, CR6ai, 7bb, CT2ab, EA6az, EL2a, FE8ab, FF8gp, HP1pl, KP4cu, KZ5ak, MP4bpe, OQ5ra, PZ1z, SU1er, UA9cl, qkfd, UD6ak, UF6ab, UI8kaa, VE5aj, 6ao, 7he, 8ra, VK1vu (1715), 2di, 4rc, 5fl, 6pw, 7lz, VP4tz, 6is, VQ2he, 4cur, VS2ch, 7bj, VU2lz, W1naf/KL7, YK1ab, ZC1cl, 6ci, 8mp, ZD4am, 9aa, ZK2aa (0700), ZK2ab (1930). Also numerous ZL and ZS.

**Reg Vincent, G748 (Enfield)**, comes in again with CE1AR, CM9AA, CO2RQ, CX3AA, EK1DI, HClJW, JA2BL, KH6IJ, KP4AZ, M13LQ, MO1A, OQ5CR, SV5UN, TA3GVU, TG9RV, VO6AL, VP9S, YN1LB, YV5AY, ZC6RO, ZL4AA . . . but wait until you reach his 28 Mes. log!

**Albert Chappell, G2857 (Stretford)** also uses a 640, usual listening times 2030-2230, 0700-0730. UAøKFD is in zone 19 OB. I QSO'd him, and asked him. CW: CN8bf, CO6aj, EA7au, 7ca, FF8gp, KH6gs, KL7kv, KZ5ax, 5ip, LU7eo, OX3mg, TF3ar, 3ea, UAøkfd, (zone 19), UF6ab, UP2aa, UR2kaa, UQ2ad, VE7zm, 8ca, 8mb, 8mj, 8ny, 8og, 8ok, VK5js, 5ko, W6zby, 7iya, ZL1bg, 4aw, and ZS2fj. Phone: CX2CL, EA7PL, 8CO, M13SI, OX3BF, VE8MI, VP3MCB, YK5B (Phoney?). Good show, OB, the old 640 is raking them in, and CW would appear to pay good dividends.

**C. J. Goddard, G2227 (Coventry)**, CX2CO, F13DD (1830), KR6AX (1800-1422 kcs.), VE4GG, 4GW, VK2WP, 3HW, 6AP, VQ4CJG, VP3CW (2130-14125 kcs.), YK1AC, YV1AQ, and ZS3S. RX Decca AC5.

**Leytonstone ISWL Chapter, CW:** EA6az, HK3ct, KL7jb, OX3mg, ST2ae, UO5ac, VK6ga, 7nc, VS7ph, VU3ra (where?), ZC8pm, ZD2ghk, ZK2aa, and ZS9d. You boys certainly hear the DX. Fone: CR6AG, FF8MN, FQ8SN, NY4PA, TI2RC, VK2AHJ, VP6MO, 9F, XE1CQ, ZD4AB, ZL2DE.

**W. C. J. Pinnell (Sidcup)**, HH2CP, YK1AC, ZD2G, C3HF, KH6ES, KL7GT, SM8ALF.

**R. G. Poppi, G1806 (Beckenham)**, 3/2-28/2/49, 0200-0800, 1700-1900. EA9CO, ET3AE, HH1BD, HP1LL, JA2BL, DU1AK, KH6IJ, NY4BA, O4AM, PJ5KO, TG9RV, VP2KM, VP5AK, 6CDI, YK1AB, YSIAG, ZP5AA.

**D. L. McLean (Yeovil):** AR8MR, CR6AI, EA8CO, 9AI, EL5A, FQ8SN, HK3IR, HZ1AB, JA2BT, MT2E, OQ5CA, SV5UN, UQ2AB, VE4SR, 8AW, VK2GR, 4FH, 5NP, VP3AA, 3MCB, 9F, 9WW, VQ4ERR, XE1AC, YS1ES, ZE2JR, ZS1GG, 3F.

**D. J. Thoresby, G2515 (London)**, uses an Ecko, and logged PY7JP, EA4FC, YQ5B (No QRA here) CN8AJ, and sundry 1 stations.

**B. J. Harrison (Boston)**, RX640: VK2MA, HZ1AB, YV5AB, PY2CK, LU4BH, CO7UP, HC1FG.

**Les Waine (Yeovil):** CO2om, 2fr, KP4hx, MD2gv (QRA wanted), OQ5ra, VO6al, VK6dd, 7az, W7gui, ørex, YV1au, ZL4ck, 4rr, ZS1hu, 1co, 2ci, 5gd and 6rd.

28 Mes.

**D. L. McLean, AP2J, AR8AB, C7TY, CE2CC, CO2GY, CP4DG (1726, 28200 kcs.), 5FB, EQ1RX, ET3AF, FQ8SN, HH7HB (mobile in car), JA2AB, 7AA, 8AB, HZ1AB, KG6ES, KP4AJ, KR6AD,**

**6BA, 6NE, M13LZ, MT2D, NY4DD, OA1A, 4AB, OQ5AB, PY1FM, 6CN, PZ1M, 1RM, ST2AM, 2KR, SV5UN, TA3FAS, TG9RV, T12EV, VE4DN, 5JV, 6CR, 7AZ, VK2AHA, 3AQL, 5AE, 5RN, 6JW, VP2KM, 3TR, 4TAY, 5AF, 6HR, 9DD, 9G, VQ2HW, 4RF, 5PBD, VS9AH, W5DAD (N. Mex.), 7FST (Utah), 7LZJ/C6, XE2AB, YN1AJS, YS1AC, YV4AM, ZD4AX.**

**R. G. Poppi, CR9AG, EQ1RX, JA3AA, 8AB, KG6BP, KR6AD, NY4BA, PK4DA, VS7PS, GAH, W5OCN/MM, (South China Sea) W6AWF/KW6, ZE1JO, 2JK.**

**W. C. J. Pinnell, CR7AH, CX4CS, EQ1RX, JA2AB, KG6IC/Iwo, KR6BL, M13SC, SV5UN, VK6NN, 6HL, VP3MCB, VS9AH, W6PWW/KG6, YN1RO, EL3A, KR6AC.**

**D. A. Ford (Morden), RX: 640, and 10m folded dipole:—CE2CC, 3AE, CO7RQ, CX4CS, 3AA, HC1FG, HH7HB, KP4AJ, KR6AF, PZ1M, VE5JO, 6JO, VK2ASN, VP4TZ, 6CDI, VQ2DH, YS1AC, ZD4AX, ZE1JO, ZS1AX, 6LF.**

**Don Robertson** has also heard some good stuff on ten. C7TY, W4ACC/C6, 7LEZ/C6, ET3AF, JA3AA, 8AB, KR6BA, KV4AL, PY6CN, VK3-AQL, 3GG, 3NP, 9GW, VQ4RF, VS9AH, 9AJ, W3CHH/KG6, XZ2KVV, YN1HB, ZL4DC.

**Leytonstone ISWL Chapter, AP2J, HZ1AB, KG6AB, KP4CU, PZ1RM, ST2AM, SV5UN, VP4TZ, VS9AH, ZE2JK, 2JV, ZD4AX.**

**Ernie Field (Watford)**, sends in a short one this month. TA3CVU, TF3EA, VP3MCB.

**Ray Nelson (Bolsover)**, uses a modified type 27 into an 8 valve super. He lists KP4AZ, KZ5CD, PY2JO, PZ1M, ST2KR, SVøWB, TA3FAS, UA1AA, VO2CF, VP6CDI, 3TR, YV4AM, YR5A, ZB1AH, ZD4AH, and ZS3C.

**A. Chappell, heard AR8AB, CR9AG, ET3AH, HR1MB, JA2AB, KP4BY, MT2D, ST2AM, YN1HB, ZC6UN, ZL1OF, 2BE, 2FY, 4HP, ZS5U, 6DW, and 6DV.**

**Reg Vincent, AR1LB, CE1AB, CO2BX, CR9AG, CX4CS, EL3A, EQ1I, ET3AF, HL1BJ, JA2AN, MT2E, NY4DD, OH4AB, VK9GW, SV5UN, VP4TAI, 6YB, VQ2NW, 4SC, VS6AM, VU2FH, W4AXC/C6, YN1HB, ZD2KC, and ZS3D, which is a fine effort.**

**A. O. Frearson (Birmingham)**, heard AP2F, CR9AG, PZ1RM, ZD4AX, AR8AB, ST2AM, PK5KM, KP4AZ. 6-2-48, 1130-1300, also heard M13LZ, MT2D, 3FU, OQ5AB, 5BH, TA3FAS, VE5CD, VQ2HW, ZS5DD, ZS1DH, YU4AM.

**DX QSL's Received.**

**Reg Baldwin, VP3TR, J2RLK, KG6DF, W7KMV/Iwo, VE7ZM.**

**Les Waine, W4PL, YV1AI, ZS1ER, ZD4AH, VQ4FCA, VE8CA.**

**D. L. McLean, C1BC, CO7RQ, HP1LB, HL1AR, K2UN, OQ5CF, UBSKAG, VE5RO,**

7ADJ, 7ZM, VK4ZB, VS7PS, W2ZGE/MM, 7ILE/KX6, 7KMV/Iwo, 7KYU, ØIAX/MM, ZL1ON, ZS6BV, ZD4AH.

M. Dransfield. CN8BA, D4AUR, FA3GZ, HH3DL, KP4BI, LU2BS, 3EB, PY2AOK, 2ADJ, 2AJK, 4LZ, VE1AM, 1HI, 7MQ, VK3AWN, VP9WW.

Don Robertson. W5OK, W71YA, SM2VP, HZ1JE, W7MKQ (Nev), OX3XE, IS1AFM, VP2GE, LA7N (1.5W) LA50A (½W) LU2OB, CR6AI, KqUN, VK6BK.

C. J. Goddard. CT1EA, 1PW, GC3GS/P, SM4ALB, VQ4ERR, ZS6DY.

Bob Ainge. WIKUN, VE7AL, W1FTH, 2DBA, 2OHF, 3DCR, 3JYS, 3JEW, 3EYX, 4NNM, 4IRL, 4MSO, 4DTA 6RM, W7LQP, W8ASQ, W8BNN, W9KFO, 9ZNN, 9TGT, 9DNZ, Ø1QC, ØTKQ, PY2AFS, KL7PB, all 40m CW W1EKN, 2KYH, 2GNY, 4JUJ, 4CQW, 9UA.

W. C. J. Pinnell, FA9IO, VE7ZM, WØXNJ, W5LCZ.

TOPICAL DX QRA's

CIBC: Frank P. C. Wen, 519-10 Sikang Road, Shanghai.  
 CP5FB: William Beasley, P.O. Box 519, Cochabamba, Bolivia.  
 EQ1RX: c/o 24 Wendover Road, Yonkers 5, N.Y., U.S.A.  
 HP1LB: Gouldbourne Bowen, P.O. Box 1616, Panama City.  
 KR6AZ: A.P.O. 239, c/o PM, San Francisco.  
 KJ6AB: A.P.O. 105, c/o PM, San Francisco.  
 KX6BC: M.A.T.S., Navy 824, c/o FPO, San Francisco.  
 JA8AB: c/o A.P.O. 919, c/o PM, San Francisco.  
 ST2GH: c/o International Aeradio Ltd., Juba, Sudan.  
 VP2GB: G. Evans, Box 16, St Georges, Granada.  
 VP2KM: P.O. Box 152, St. Kitts, Leeward Isles.  
 W6CWW/KG6: A.P.O. 184, P.O. Box 262, c/o PM, San Francisco.  
 W4XC/C6: via 3961 Illinois Street, San Diego, California.  
 W6WVJ/KW6: c/o C.A.A., Wake Island.  
 W7LZJ/C6: via 8134 23rd Avenue N.E., Seattle, Washington.  
 W6TWX/KL7: via A.P.O. 944, c/o PM, Seattle, Washington.  
 ZB2D: 24 Cannon Lane, Gibraltar.  
 ZD4AX: Elmina Castle, Gold Coast.  
 ZS9D: Ivan Quarmby, Box 14, Francistown, Bechuanaland.

SWN QSL LADDER

Apart from a slight flurry which caused Messrs. McLean and Tilly to swap positions, nothing much has changed this month. Ted Hardwick, however, pushed home his advantage with two extra countries and he looks like staying up on top for a while. Especially since many of the countries he has not got cards from are comparatively "common" ones and they are bound to turn up sooner or later. Arthur Levi put on a spurt with no less than six new countries and Ernie Cafley added 3C, 1S and 1Z this month. C. J. Goddard went up two more rungs.

We welcome S. Pritchard-Hughes to the fold but lose J. J. Carr. We were amazed to get a letter from Chris Carr asking us to delete his 12C, 4S, 15Z score as he "hasn't got the cards!"

Well, OM, you submitted this score yourself! Was it a mirage?

I asked for details of the difficult States and Zones. D. L. McLean says he wants cards from Z's 17, 18, 19, 23 and 32. Ernie Cafley wants 17, 18, 19, 21, 23, 35 and 39. Les Waive wants for 2, 6, 12, 17, 18, 19, 26, 27, 28, 31 and 39. Ted Hardwick would like QSL's from 1, 17, 18, 19 and 23. He has heard 1 and 23. Reg Masters is after 1, 2, 23, 17, 18, 19, 38, 40 and others. Do you notice that all want 17, 18, 19 and 23? Several want 39 and 21. Regarding the first four Zones, the obvious answer seems to be—learn CW! 17 and 23 have been heard on phone but they are really rare. So how about swatting up that code and knocking off the remaining Zones?

In the matter of States everyone seems to want different ones, so there does not seem to be much use in listing the "wants." On balance, however, it would appear that Arizona, Utah, Colorado and Nevada are the most sought after. Apart from these very little of use can be gained from the lists, which give collectively, 38 of the 48 States!

SWN QSL LADDER

Rung	Name	Countries	States	Zones
1	E. A. A. Hardwick (Misterton) ...	136	39	35
2	M. Preston (London) ...	130	48	38
3	W. Head (Torquay) ...	127	48	37
4	D. L. McLean (Yeovil) ...	126	48	35
5	C. G. Tilly (Bristol) ...	125	44	36
6	A. J. Slater (Southwick) ...	97	45	33
7	D. Robertson (Wick) ...	95	45	33
8	A. H. Onslow (Hove) ...	94	47	?
9	E. W. J. Field (Watford) ...	92	42	43
10	E. Cafley (Yarmouth) ...	82	45	33
11	A. Levi (Belfast) ...	81	12	29
12	D. E. F. Burney (Tring) ...	77	48	31
13	C. J. Goddard ...	68	16	22
14	R. Masters (Portsmouth) ...	65	43	30
15	L. H. Waive (Yeovil) ...	59	44	29
16	W. Winchester (Eastbourne) ...	48	?	20
17	D. C. Garrard (Ipswich) ...	45	22	13
18	P. Bysh (London) ...	42	14	18
19	D. Shallcross (Borowash) ...	42	16	14
20	W. J. C. Pinnell (Sidcup) ...	40	10	19
21	S. Pritchard-Hughes ...	34	8	16
22	J. Edwards (Birmingham) ...	32	26	16
23	P. Godfrey (London) ...	28	2	16
24	M. Dransfield (Parley) ...	19	1	14
25	W. Hamilton ...	16	8	10



MODESTY!

Heard on Forty Metres:—

"Of course, I've got more than one microphone here. Three in fact. They are all very good ones. I've a recorder too: two in fact. They're not working at the moment. I've an AR88 and an AR77 and three HRO's. I don't use them all at once, of course; am taking you on the CR 100 at present."

# QRP CLUB NOTES

BY  
MAL GEDDES  
G2SO

# FROM OUR MAILBAG

THE writer has recently had the opportunity of a personal visit to G2AJU at Sutton, near Ipswich, and spent a very enjoyable weekend at his QRA, which is situated on a farm. The results obtained on 160 metre telephony and CW are really incredible, and show what can be done with 1.5 watts on that band. In the recent Top Band Contest, G2AJU had 36 contacts with this power, including most regions in England, and also RST559 from DL2GC, plus RST469 from DL2IY. His final score was 138 points! The transmitter consists of a Hartley circuit, built into a type TUSB, and is modulated with a type A1134, with a low resistance earpiece mike (cost 1/3). The quality of his telephony signals is very good, considering the mode of modulation. The aerial is slung between his chimney stack, and a pole about 40 ft. high. Jack Cowles can be heard on top band most evenings, but be prepared for a late night, as he finds that for real DX, late nights and early mornings are best. He has contacted GC, GW, GM, DL, and GD on 160 metres.

G3BEC is still very active on 3.5 Mcs. with CO/PA, and an input of 3 watts. Nothing outstanding has yet been obtained with this QRP rig, but, as G3BEC says, a great amount of fun can be obtained by contacting European stations with his input. He has recently obtained QSO's with OZ2KA (559), SM6AZB (559), DK8XS (369-Russian Zone of Germany), and HB9HT (569). Although he has heard plenty of W's and VE's, a contact has not yet been had across the pond.

G6ZN has been pretty active on 1.7, 3.5, 7 and 14 Mcs. with his famous 3-watt Hartley recently. Contacts have been made in the past few weeks with W8CCN (339), W1CPT (469), W2VJF (569), W5OKJ, of Texas (579 at 0820 GMT), VO2AN (589), VO6EP (448). All these stations on 14 Mcs. On 7 Mcs. Tom says conditions and results not so good, but the following have been raised amongst other stations: UA4KEA (Penza 579), 11YAT (Trieste 569) and UC2AD (Minsk). On 80 metres he has gone very QRP with 2 watts, and S7 and S8 reports are consistently being received, both from G's and Continental stations. G6ZN says he has been unable to spend much time on the air recently, but the above results seem to me to be pretty good. His contact with W5OKT lasted for a solid 30 minutes, and was 100 per cent. each way.

Another 2 watt station heard on 3.5 Mcs., is G5QI of Henley-on-Thames. What about a report, O.M.?

## READERS' BRIGHT IDEAS

The Editor,  
*Short Wave News.*

Dear Sir,

I wonder if the following idea which I have put into practice in my "Shack" would be of any use to you for a paragraph in the *S.W. News*. So far as I know it will probably be an original one.

**Keep your QSL Cards Clean and Tidy!**

In order to keep all QSL cards which I have received clean and tidy in my "Shack" (which is a corner of one of the rooms in regular use in the house) and also to pass the critical eye of the XYL, I have used a fairly large picture frame of the narrow oak type, removed the picture and fitted in behind the glass dark brown crepe paper. The QSL cards are gripped firmly without having to fix them in any way between the glass and paper backing. The result is very pleasing to the eye, and as the wooden back piece is just fixed with four catches it is a very easy matter to insert the new cards as received, and they certainly look 100 per cent. better than just being fixed loosely on a board or on the wall.

If you think the idea a good one perhaps you would care to publish it in one of the issues of the *Short Wave News*.

Yours faithfully,  
Wm. Jackson,  
G-2603.

Kirkby Stephen, Westmorland.

☆ ☆ ☆

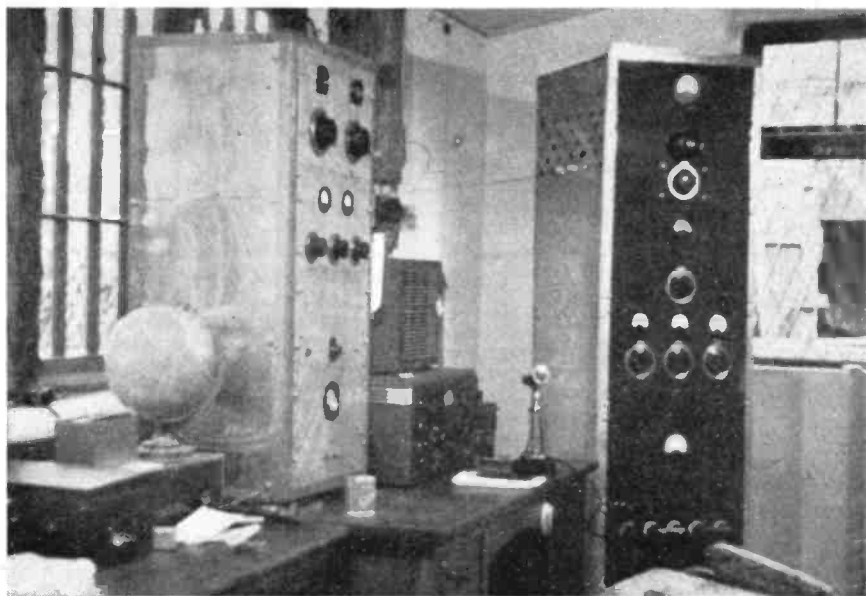
Dear Editor,

I had rather a good idea that I thought might interest some other members of the Club. I had in my possession an old light green tie and I thought that it would be a good idea to brighten it up a bit, so I asked my mother if, when she had some spare time, she would embroider something on the tie. I wondered what she could put on and eventually I thought that the letters "ISWL" would be a good thing to put on the tie, so my mother bought some gold-coloured embroidery silk, and on to the tie went "ISWL" complete with the flash through it, just like the club badge except that the colours are the wrong way round. It brightened up the tie a good deal and, incidentally, I should imagine that it is the only ISWL tie in existence.

Yours v'y 73,  
J. D. Harris, G.680,  
Godalming, Surrey.

# AROUND THE SHACKS VQ4ERR

No. 27



E. R. ROBSON, Nairobi, Kenya



**I** SUPPOSE most of us have wished at one time or another that we could find ourselves in some distant part of the world, with a real DX call and plenty of gear and aerial space to put it to good use. Not many of us are ever likely to find such a wish fulfilled, but we can derive great pleasure from reading about the stations of those who do find themselves so placed. It is, therefore, with particular pleasure that we are able to describe the station of Mr. E. R. Robson, VQ4ERR, Nairobi, Kenya, to whom we are much indebted for the details and photos from which the article has been prepared.

As can be seen from the photos, VQ4ERR's station is, to say the least of it, well-nigh an amateur's paradise. Not only does the gear look good, but there is plenty of it, and when fed to those beams, the signals certainly do go places, as we shall see.

All the transmitters are home built, and the following are to be found in the shack. First there is a small portable rig consisting of a 6V6 CO 6L6 doubler and 815 PA modulated

by another 815. Power supply is either from an AC pack or a vibrator pack. Going up in size the next one consists of a TZ40 modulated by two 6L6s. This PA is for 5, 6, 10, and 20 metres, and uses plug-in coils. Next we have two similar transmitters—in each case a pair of 35Ts modulated by push-pull TZ40s. One of these is for 10, 20, and 40 metres, and is completely switched. The other is for 10, 15 and 20, and uses plug-in coils. All this gear is home built.

There is also a home built NBFM transmitter, consisting of an HT18 ECO unit coupled to an 813 PA, operating on 10, 15 or 20 metres, and to complete the transmitting side, there is a TA12 transmitter converted for local 40 metre work. 40 metres is quite a popular local band in East Africa.

On the receiving side two receivers are available, viz., an SX42 and a Marconi CR100. A wire recorder has recently been installed, and a BC221 wavemeter looks after frequency checks.

Good transmitting gear is not much use without equally good aerials and these have had just as

much care and attention bestowed upon them as has the station as a whole. One of our photos shows the old six-element 10 metre rotary. This has now been discarded in favour of a three-element wide-spaced rotary, which is complete with A.C. motor drive controlled from the shack and position indicators. The other large beam seen in our illustration is a three-element close-spaced 20 metre beam. A 15 metre rotary beam is already completed, and is ready to be erected just as soon as the word is given! Two other rotary beams are included in the station equipment, both two-element affairs, one being for 5 metres and the other for 6 metres. For the 40 metre local work a half-wave dipole is used.

One very interesting piece of station equipment, which adds greatly to the ease with which the station can be operated, is the aerial coupling unit. The feeders from all transmitters, aeri-als, and the receivers are taken to this unit, which enables, semi-automatically, any transmitter to be connected to any aerial. A relay controls the switch of aeri-als from transmitter to receiver on changing over from "transmit" to "receive." VQ4ERR says that this is the most useful gadget in the shack.

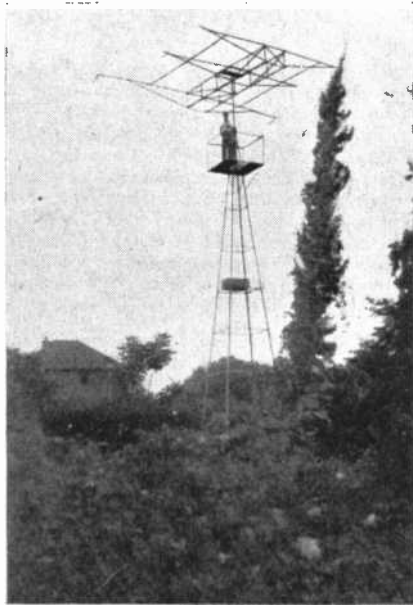
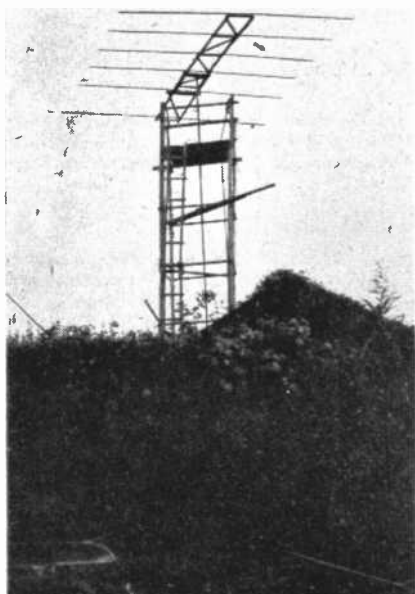
As to the results, VQ4ERR holds a post-war DX century club certificate—No. 10 to be exact. He made W.A.S. in 1947. He has furnished the necessary cards for W.B.E., W.A.C., and DX

Century Empire Certificates, and at the time of writing was awaiting their arrival. He has been the winning East African station in two ARRL CQ DX contests, and says he was the first Kenya amateur to put up rotary beams for 10 and 20 metres.

A few personal details? Well, VQ4ERR says he is a phone man. He much prefers phone to CW, and he confesses that he is in need of some CW lessons! Further confessions are that he is in the mid-forties, has six children, is the champion rose grower in Kenya Colony, was the swimming championship winner for the years 1931-1947. He is also a municipal councillor. Strange how one finds that the busiest people always seem to find time for just a little bit more.

Of his great friend VQ4RAW, Mr. Robson writes: "George is a great lad in 100 Mcs., upwards, and is a real gen. man. Six feet tall, lean and hungry-looking, and is always thirsty! Fortunately the local supply is good!! He teaches at the Army Signal School at Nanyuki and comes to Nairobi two or three times a year to see me and the boys."

We know all readers will join us in wishing all the boys out there the very best of luck and freedom from the "DX squatters," and in thanking Mr. Robson particularly for sending us such interesting details of his fine station.



# Around the Broadcast Bands

## A Monthly Survey by "MONITOR"

All times are given in G.M.T.

(For EST subtract five hours; for AEST add ten hours)

**R**EPORTS, lists of QSL's received, QRA's and any news in regard to this column are always appreciated by your Scribe and should be addressed to: "Monitor," c/o SWN to reach us by the 1st of the month latest. Your attention is drawn to our "Honour List" where you are asked to submit a list of QSL's you have received . . . over 50s only please.

### ● Asia.

**Turkey.** TAP, Ankara (9465 kcs.), now gives news at 1945 in English. Special talks in English are given at 2130 still on Mon. and Thurs., with Mail Bag at 2130 Suns. (Pearce, Berkhaunsted).

**French Indo-China.** Radio Saigon, Hanoi (11780 kcs.), heard with R7 signals at 2330 with news in English followed at 2345 with announcement that next news in English would be at 0030. After announcement and call in French, lady gives news in Chinese. (Pearce.)

**Cyprus.** Near East Arab Broadcasting Station, Limassol, 9650 kcs. Roy Patrick reporting from Accrington says he has been hearing this station with Arab music from around 1700 onwards. Interval signal is Arab music played on a stringed instrument.

**Israel.** Ray Aldridge of Amersham reports a new station "to his ears" operating on 6828 kcs., giving English news around 2010-2015 with R8 signals . . . (Surely this is "Radio Kol-Yisrael" on 6817 kcs. OM.) From Littleport (Cambs.) Fred Pilkington, one of our Junior Reporters, states that he has heard the above station giving English daily from 2000-2015. Signals vary from QSA2-5, R2-6. (Sorry we can't use the MW gen. you enclose Fred, for as you know we are purely a Short Wave Journal). QRA: P.O. Box 661, Tel-Aviv (J. Fairs).

**China.** XGOA Nanking. The Central Broadcasting Station sends letter veri to Sidney Pearce for reception of their 11880 kcs. and 15105 kcs. Schedule is given as:—

0200-0340, 15105 kcs. Transmission beamed to N. America.

1000-1050, 9730 kcs. Transmission beamed to Australia.

1050-1230, 9730 kcs. Transmission beamed to Mongolia/Japan.

1300-1500, 9730/5985 kcs. Transmission beamed to India/Europe, South Africa.

(1400-1415, News in English).

Arthur Cushen in Invercargill N.Z. sends in this schedule also and mentions an additional frequency used for the latter transmission, being 9605 kcs. XGOY Chungking now again on 6140 kcs., giving news in English at 1400 (Gillett).

**Philippine Islands.** J. Fairs of Redcar (Yorks), sends in data copied from a Radio Australia DX Session on the new call signs of Philippine Stations:

KZFM now DZFM (known as "The People's Stn.")	7100 kcs.
DUH2	6170 ..
DUH4	9615 ..
DUH5	11840 ..

KZMB (The Voice of Manila)	
now DZMB	7600 kcs.
DZH4	6000 ..

KZPI (Radio Philippines)	
now DZPI	8000 ..
DZH3	9500 ..

KZRH (The Voice of the Philippines)	
now DZRH	6500 ..
DZH2	9640 ..

KZRC (The Voice of Cebu)	
now DYRC	6000 ..
DYH2	6140 ..

KZBU (Cebu)	
now DYBU	12500 ..
...	DYH3 6100 ..

KZOK Manila has been heard in the clear at 1045 at good strength on 9690 kcs. Blotted out by Singapore at 1100. No new call-sign as yet (Cushen).

### Portugese India.

**Goa.** Arthur Cushen sends in schedule "Emissora Goa" which he has received with a Registered Airmail Veri (in 18 days): Power 500 watts with aerial directed NE/SW (di-pole). From Jan. 15th operates on 9610 kcs. having moved from 7230 kcs.

Schedule: 1230-1430 daily. Portugese sessions are 1230-1330 Mondays; 1330-1430 Tues; 1230-1330 Wed.; 1330-1430 Thurs.; 1230-1330 Fri.; 1330-1430 Sats./Suns. Other BC's are in Marathi, Urdu and Concanin. Uses American Federal Telephone and Radio Corp. transmitter according to Rex Gillett of Prospect, Southern Australia.

**China (Stop Press).** Pearce says Airmail letter veri from XGOY states that call signs have been altered to BEF6, BEF7, BEF8 instead of XGOY.

**Thailand.** Bangkok HS8PD has made a slight freq. adjustment and now seems nearer 6010 kcs. News is still given in English at 1115 (Rex Gillett).

**India.** Your scribe has received a letter veri. for VUM 4920 kcs., Madras from the Station Director, G. T. Sastri, 15 Marshall Road, Egmore, Madras. As they have run out of QSL cards a letter veri was sent. Following is current operating schedule :

0130-0330 ... ..	7260/9590 kcs.
(to 0400 Suns.)	
0700-0930 weekdays	9590 kcs.
0730-0930 Sats.	
0730-1130 Suns. ... ..	7260 kcs.
1030-1130 ... ..	7260/9590 kcs.
1200-1700 ... ..	7260/4920 kcs.

J. Fairs lists VUD7 Delhi on 15160 kcs. VUD5 9590 kcs. and a new (?) TX on 9565 kcs. and all heard with same prog. News in English at 1430. VUD7 was QSA5, R8-9. Roy Patrick reports that an Experimental transmission is being BC by A.I.R. 1500-1545 daily except Sundays on the following freqs. : 6010, 9570, 15160, 17820 kcs. Heard on 9570 kcs. with QSA5 R5-6 signals. (Have heard special BC directed to Europe and British Is. from 1900-2000 in the 7 Mcs. band, putting over a terrific signal). Roy says reception reports and comments are requested and should be sent to :—All India Radio, External Services, Broadcasting House, New Delhi, India.

● **Africa.**

**Portugese East Africa.** Mozambique Latest call-signs and frequencies of "Radio Clube de Mozambique" Lourenco Marques transmitters are as follows :

CR7AA 6130 kcs.	CR7BP 6030 kcs.
CR7AB 3490 ..	CR7BQ 21700 ..
CR7BD 15240 ..	CR7BU 4920 ..
CR7BE 9710 ..	CR7BV 4830 ..
CR7BF 11830 ..	CR7BW 2330 ..
CR7BG 15280 ..	CR7BX 2430 ..
CR7BH 11710 ..	CR7BY 2490 ..
CR7BI 17910 ..	CR7BZ 3320 ..
CR7BJ 9640 ..	CR7CA 3400 ..
CR7BM 3440 ..	CR7CB 16160 ..

("Radio Leopoldville" DX Session per J. Fairs, Redcar). Arthur Cushen says that CR7BI has been heard testing daily at 0500-0700 and also at 1500-1600. Requests reports . . . Box 594 Lourenco Marques.

**Sudan :** Radio Omdurman sends letter veri to Sidney Pearce giving freqs. as 9650 and 13320 kcs. but Pearce still receives Arab Programme on 9750 kcs. ! A new Transmitter with a power of 6.5 kW. is operating in the 31 metre band but this will shortly be varied between 19 and 40 metres letter also states.

**Belgian Congo.**

**Leopoldville.** OTM2 "Radio Congo Belge"

9380 kcs. heard often around 1900 QAS4, R5-6 with QRM from Madrid (Fairs).

**French West Africa.**

**Dakar.** "Radio Dakar" 11898 kcs. heard from sign-on at 1815 to sign-off. Mons.-Fri., at 2200 after Headline news in French. Sats and Sun to 2300 after "Night Club" prog of Dance music and Songs. News in French at 2015 (Pearce).

**Portugese West Africa.**

**Angola.** CR6RN "Radio Clube de Angola" 7040 kcs. has been heard at 1830-2100 with R4 signals (Ray Aldridge, Amersham).

**Spanish Morocco.**

**Tetuan.** EA9AH has been logged at 2145 with R5 signals on 6067 kcs. (Aldridge).

**International Zone, Tangiers.** Tangiers "Radio Africa" 7060 kcs. R6 at 2100 (Aldridge).

● **Honour List.**

Holders of QSLs from 50 or more countries :

1. Sidney Pearce (Eng.) ... 113
2. A. Cushen (N.Z.) ... 100
3. Rex Gillett (Australia) ... 100
4. T. B. Williamson (Eng.) ... 75
5. Ray Aldridge (Eng.) ... 63
6. E. Field (Eng.) ... 58

● **Australasia.**

**Australia.** Sidney Pearce reports the new schedules of "Radio Australia" Melbourne coming into effect as from Feb. 1st as follows :— 1st BC. to British Isles : 0700-0745 over VLC10 21680 kcs. (not heard at present time) : 0700-0815 VLA8, 11760 kcs., VLB9, 9580 kcs. (R7-8) : 2nd. BC to British Isles : 1400-1445 over VLC11, 15210 kcs. VLB3, 17600 kcs., 1400-1500 VLA6, 15200 kcs. VLG3, 11710 kcs. (all heard OK except for VLG3). 3rd BC for British Isles : 2000-2130 over VLA8, 11760 kcs., VLB2, 9650 kcs. (R7-8), 2000-2155, VLG9, 17840 kcs. (poor at this time) 2210-2310, VLG3, 11710 kcs. (not heard) joining VLG9 (R6 from around 2210), and VLB6, 15200 kcs. (R6). VLA5, 15230 kcs. (R5-6), until close at 2315. VLG9, some QRM from WCBX on 17830 kcs. until latter signs-off at 2230. VLB6, sometimes QRM from WBOS, 15210 kcs.

The ABC Programmes have been logged over VLG6, 15230 kcs. but at 2136 is spoilt by tuning note from VLA5. Radio Australia on 15230 kcs. also preparatory to sign on at 2143 and at 2145 you have news from Radio Australia and news from the ABC on same freq. ! On Feb. 25th. VLA5 signed on at 2200 evidently to avoid this. VLI2, Sidney heard on 9500 kcs. at 0700 R3. Schedule 2300-0815 (VLI3 OM). VLR2, Melbourne 6150 kcs. R6 at 1950. Both carrying ABC progs. (Aldridge).



Arthur Cushen says VLI stations use 2kW. power and reports should be sent to: Australian Broadcasting Commission 264, Pitt Street, Sydney N.S.W. Transmitters are located at Liverpool, N.S.W. Progs. beamed to N.S.W. backblocks. Commenced operating on Dec. 22, 1948. Schedules are: VLI2, 6090 kcs., 2000-2245, VLI3, 9500 kcs., 2300-0815, VLI2, 0830-1330. Mons.-Sats. (On Sats. last trans. 0830-1400). Suns. VLI2, 2045-2230/2245-0815/0830-1330.

J. Fairs reports VLH3, of the ABC on 9580 kcs. and heard from 1345 to close at 1400 (midnight AEST). Signals were QSA4, R6-7. Prog. of music interrupted for Election results. Lady announcer at 1400 mentioned, "ABC. Interstate Programme," Station identification ABC TXs.

**New Zealand.** Your Scribe has received a QSL card for ZL3 with leaflet giving high-lights of "Radio New Zealand's" transmissions, including:

"New Zealand News." A short bulletin of New Zealand news (daily 0830 except Suns).

"New Zealand Artists." New Zealand musicians will be heard regularly in the programmes. On Tues. at 0715 and on Sats. at 0840 we feature New Zealand artists in light musical entertainment.

"Song and Story of the Maori." Suns. at 0740. The attractive music and folk lore of the Maori people.

"Listeners Digest." Sats. 0800. A weekly radio magazine with a womans page, a page of music and other items of interest.

"New Zealand-Pacific Playground." Suns. at 0730. Session of travel information for the visitor to New Zealand.

"Mail Box." Thurs. at 0730. Answers to letters and reply to questions.

Short Stories. Tues. 0800. Stories by overseas and New Zealand writers.

Plays. Fri. at 0730. Recorded in the Production Studios of the New Zealand Broadcasting Service.

Talks. "Background to New Zealand" at 0800 Mons. "Farm Topics" 0730 Tues. "Leisure Hours in New Zealand" 0800 Weds. "Through New Zealand" 0800, Thurs. Sporting Commentary at 0730 Mons. "Pars from the Sporting Page" 0730 Wed.

Your reports are requested to: The Director, Radio New Zealand, P.O. Box 3045, Wellington, New Zealand. ZL2, ZL3, ZL4.

Daily transmissions are given from 0700-0900. Freqs. 9540, 11780, 15280 kcs.

Pearce logged ZL3 (11 Mcs.) R6-7 at 1800. News from BBC. Calls as ZL3, ZL4, (15 Mcs.)

● Spanish Broadcasting Stations.

We are indebted to K.M. Dobeson, BM/EABC, London, W.C.I. for the foll. information on Spanish stations in Spain and Colonies of Spain. Reports should be sent to the above address and IRCs. are appreciated if you require a QSL card.

**Spain.** Radio Nacional de Espana, Madrid, 9368 kcs., Power 40 kW.

European and African Service:

1700 Roumanian, 1730 Polish, 1800 French, 1830 German, 1845 Italian, 1900 Portugese, 1920 Russian (jammed), 2000 English, 2030 Arabic, 2045 Spanish (National Relay), 2100 Arabic, 2115 Close down.

15630 kcs. . . . 1330-1350 Spanish (National Relay).

American Service (in Spanish). Beamed: 2345-0300 (news at 2350/0200. Sats. 2130-0300 (news at 2300/2350/0200.

Radio Falange de Alicante, 7940 kcs. 1200 watts 1200-1430, 1900-0000.

La Voz de la Falange, Madrid, 7380 kcs., 200 watts (to be increased to 10 kW). 1900-2030, 2200-2330, 1830-1900 (French).

Radio SEU, Madrid, EDV10, 7117 kcs. 1 kW. 1230-1600/1800-1930/2030-2330.

Radio Mediterraneo de Valencia, 7035 kcs. 100 watts. 1200-1500/1900-2300.

Radio Nacional de Espana en Malaga. EAJ9, 7025 kcs., 200 watts. 1700-0000.

Radio Falange de Valladolid, FET1, 7006 kcs. 1 kW. 1230-1430/2000-2230.

Canary Islands. Radio Club Tenerife, EA8AB, 7267 kcs., 500 watts. 2200-2300.

Spanish Morocco. Radio Tetuan, 6067 kcs. 1.5 kW. 0730-0800/1330-1500/1800-2300, except Suns.: 1330-1500/1930-2300. Weekdays: Arabic at 1800-1930 or 2000.

Spanish Guinea.

**Fernando Po:** "La Sociedad de Radiodifusion Intercontinental" has started to construct a 200 kW. SW transmitter which will be the most powerful commercial broadcasting station in the world.

Radio Atlantica will possess an initial record library numbering 55000 and its programmes will be in six languages: English, Spanish, French, Portugese, German and Italian.

Probable Schedules: 1100-1300 for Europe, 1400-1700 for Africa, 1700-1800 for N. America, 1800-1900 for S. America, 1900-0000 for Europe, 0000-0300 for N. America, 0300-0600 for S. America.

Inauguration date: Not known, but reliable sources say early 1949.

Frequencies : 17600, 11600, 8800 kcs.

(Your Scribe made mention of this latter station in Jan. 47 issue of SW'N.)

**Notes.** Radio Nacional de Espana en Cuenca 7100 kcs. is closed temporarily, Various 100 kW. transmitters are under construction in Spain.

● **QSL Section.**

Verifications received by readers over the past month :

Sidney Pearce (winner with 1st place in the '48 Honour List): VUC, SBO, SBU, Radio Algerie, YV5RU, YV5RN, HOLA, LRU, CJCX, CHNX, Valencia XGOA (11880/15105 kcs.), OZF, XGOY (6140 kcs.). Arthur Cushen (2nd place H.L.): Goa (17220 kcs.) Cyprus (6135/6170/9650 kcs.). Athens (7295 kcs.), PLB7, PLB4, PMW, LLK, Djojakarta (5020 kcs.), Hamburg (7290 kcs.), HC2ET, HC2AK, LLM, LLG, VLI2, VLI3, Singapore (11850 kcs.), XGOA (15105/17765 kcs.), TGLA, VLA8 (11900 kcs.), XLRA, Capetown (5880 kcs.), PLB8, YDB3, Rome (15120 kcs.) Alicante Saigon (6190 kcs.), WNRA (11770 kcs.). Nice work Arthur), Ray Aldridge: ZL3, JJOY, ZYN7, ZAA, SDB2, QOM4, Sofia. Ron Montague: SUX, JJOY, PLD6, XEBT, CS2MS (hope to be able to put you in the "List" soon OM). Ernie Field: ZL3, CKRZ, ZYN7. Fred Pilkington: VLA6, VLA8, VLB3, VLC11, VLG3, VUD7, VUD9, Luxembourg, Paris, KGEI, BFN, Warsaw 3, KZCA, AFN, HEI3, HER5, TAQ, OTC2, FZ1.

Rex Gillett: VONH, JJOY, (1st report from Southern Australia), Goa (1st report from Australia), ZPA5, TGLA, WLKS, HER6, ZL4, ZL3, HCJB (9560), JYW3, JYW4, VUM2 (9590), ZBW3, XGOA (5985), (15105), VLI2, VLI3, KRHO (15330), PRL7, PRL8, Copenhagen (15165/9520). Tangier LLK, LLG, Johannesburg (4800), OIX4, VLB2, YDB3. (Nice going Rex and congrats. on obtaining your 100 Countries verified).

● **Six QRA's**

Compiled for your interest by Sidney Pearce monthly: ZFY, British Guiana Broadcasting Co. Ltd., 30-32 New North Road, Bourda, Georgetown British Guiana.

VONH. The Broadcasting Corporation of Newfoundland, P.O. Box, E5372, St. Johns, Newfoundland.

HJGB. Radio Santander Apartado, 37 Bucaramanga, Colombia, S. America.

HC2AN. Radiodifusora Cenet. (Cenet), Casilla, 171 Guayaquil, Ecuador, S. America.

CE1174. Radio Nuevo Mundo, Sociedad, Radiodifusora, Nuevo Mundo Ltd., Santiago de Chile Chile, S. America.

## Broadcast Station List Modification

**New Stations and Channels**

- 4170 kcs.: TGOA, Guatemala City, Guatemala.
- 4845 kcs.: CSX2, Ponta Delgada, Azores.
- 4903 kcs.: HJAG, Barranquilla, Colombia.
- 4915 kcs.: ZOY, Accra, Gold Coast.
- 4955 kcs.: HJQC, Bogota, Colombia.
- 4955 kcs.: ZYFH, "Radio-difusoria de Manaos," Manaos, Brazil.
- 4965 kcs.: HJAE, Cartagena, Colombia.
- 5010 kcs.: PJC2, Wilhelmstad, Curacao.
- 5030 kcs.: YVKM, Caracas, Venezuela.
- 5970 kcs.: HI4T, Ciudad Trujillo, Dom. Rep.
- 5985 kcs.: XGOA, Nanking, China.
- 6010 kcs.: VUD11, Delhi, India.
- 6090 kcs.: CKOB, Montreal, Canada.
- 6130 kcs.: LKJ, Tromso, Norway.
- 6188 kcs.: TGX1, Guatemala City, Guatemala.
- 6230 kcs.: TGJA, " " " "
- 6325 kcs.: TGNA, " " " "
- 6498 kcs.: TGOA, " " " "
- 6670 kcs.: TGCB, Mazatenango, Guatemala.
- 7240 kcs.: — Oslo, Norway.
- 7462 kcs.: TGDA, Quezaltenango, Guatemala.
- 7980 kcs.: — Biak, New Guinea.
- 8090 kcs.: CR6RF, Benguala, Angola.
- 8100 kcs.: — Jerusalem, Palestine.
- 8125 kcs.: — Freetown, Sierra Leone.
- 8125 kcs.: YNWW, Managua, Nicaragua.
- 8150 kcs.: YNXW, " " " "
- 8242 kcs.: CR6RG, Dondo, Angola.
- 8348 kcs.: XUPB, Amoy, China.
- 8433 kcs.: XGIO, Shanghai, China.
- 9026 kcs.: COBZ, Havana, Cuba.
- 9080 kcs.: — Kota Raja, Sumatra.
- 9210 kcs.: FK8AA, Noumea, New Caledonia.
- 9220 kcs.: PYZ2, Rio de Janeiro, Brazil.
- 9230 kcs.: CR6RH, Sa de Bandeira, Angola.
- 9250 kcs.: — San Salvador, El Salvador.
- 9265 kcs.: — Havana, Cuba.
- 9605 kcs.: XGSH, Nanking, China.
- 9650 kcs.: — Omdurman, Sudan.
- 11740 kcs.: WRUX, Boston, U.S.A.
- 11890 kcs.: — "Radio Pakistan" Pakistan.
- 15105 kcs.: XGSO, Nanking, China.
- 15115 kcs.: HCJB, "Voice of the Andes," Quito, Ecuador
- 21520 kcs.: HERB, Berne, Switzerland.

**Frequency Changes**

- TGWB: 6540 to 6440 kcs.
- TGQA: 6400 to 6405 kcs.
- Omdurman: 13330 to 13320 kcs.
- CR6RF: 7055 to 7041 kcs.
- QOM4: 7947 to 6998 kcs.
- TGTA: 6325 to 6335 kcs.
- VLC11: 15200 to 15220 kcs.

**Call Changes**

- 4724: YV5RY, now YVKL4.

**Testing**

- 9565: VUD, Delhi, India.
- 15430: ZOY, Accra, Gold Coast.

**BROADCAST BANDS—(Continued)**

HP5B. Radio Miramar Apartado, 910 Panama City, Panama Central, America.

● **Acknowledgements.**

The Editors and "Monitor" wish to thank all readers who have kindly sent along news compiled in this article.

Until next month, good listening and lots of DX. 73, "Monitor."

# Radio Melange

A pot-pourri of current topics

## RADIO COMPONENTS ON SHOW

### Britain's 40% Increase in Exports

Britain's skill in the design and manufacture of components for the radio and electrical industries, which led to a 40 per cent. increase in exports last year, was demonstrated at a private exhibition held by the Radio Component Manufacturers' Federation in the Great Hall, Grosvenor House, Park Lane, W.1, from Tuesday, March 1, to Thursday, March 3.

"Almost every advance in radio, radar, television and electronics generally, depends on the ability of the component manufacturer to meet some new exacting requirement," an industry spokesman said. "The Exhibition will show what has been done to bring about smaller radio sets, brighter television pictures, more reliable navigational aids for ships and aircraft, and communications and broadcasting equipment for use in every climate from the tropics to the Arctic."

The Exhibition included test gear and, for the first time, valves, including new miniatures for television and frequency modulation. There were 106 exhibitors.

## MULLARD WORLD REVIEW

Mullard Electronic Products Ltd. have just produced their first issue of their new export journal *Mullard World Review*.

The magazine, which is well illustrated, has sixteen pages and is printed on good quality art paper. It is the first export journal ever to be produced by the Mullard Organisation, and its object is to form a link between headquarters in England and all representatives abroad.

"We wish you to understand that it is YOUR paper," writes Editor, Mr. D. Calland, in his first editorial. "It is your link with headquarters in England, and with your opposite numbers in the many other parts of the world where Mullard business is conducted. We hope to give you a varied and interesting cross-section of events affecting Mullard people everywhere."

The issue includes articles by Mr. W. Benink, Central Export Manager, and Mr. D. F. Egan, who is in charge of technical services for the Valve Export Department.

## RADIOLYMPIA ORGANISER APPOINTED

The Exhibition Organising Committee of the Radio Industry Council has appointed Mr. Dudley Stretton as organiser of the National Radio Exhibition ("Radiolympia") which is to be held from September 28 to October 8, 1949.

Mr. Stretton, who succeeds the late Mr. Alex Moody, was a professional soldier, passing through Sandhurst and holding a commission in the South

Staffordshire Regiment, before taking up exhibition work. He has been organiser and manager of a number of exhibitions both before and since the war at home and abroad and, after discharge from war-time service in the Army, joined the Ministry of Information Exhibitions Division for whom he organised the "Greater London Plan" exhibition and the tours of "Back to Work" and "Mulberry."

Mr. Stretton is 45 years of age. He is a Londoner and was educated at Merchant Taylors' School, and now lives at Bognor Regis. His appointment dates from February 1.

## UNITED NATIONS EDUCATIONAL SCIENTIFIC & CULTURAL ORGANIZATION

### First Unesco Radio Review

On Saturday, 19 February 1949, Unesco released the first weekly fifteen-minute radio review of education, science and culture called "Unesco World Review."

It was published in English, French and Spanish and consisted of about five minutes of news and two five-minute talks on such current topics as "What is new in Science" or "The latest developments in the relation between food and people."

Among the well-known writers who have already agreed to contribute are Ritchie Calder, Watson Davis, Professor Bronowski, Philippe Soupault, Margaret Read and Pierre Lepine.

Once a month the bulletin will contain the profile of some eminent figure in the fields of education, science and culture.

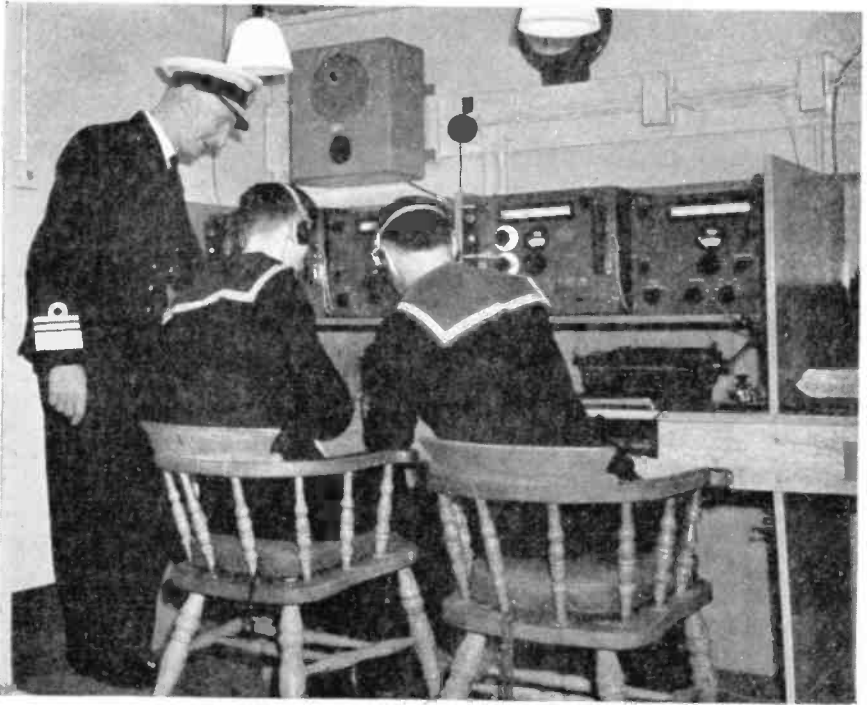
## NEW SOUND EQUIPMENT AT THE TROCADERO

Six Philips microphones and thirty loudspeakers in the Empire Room at the Trocadero Restaurant contribute to what is believed to be the most advanced sound equipment ever fitted in a hall.

The equipment, incorporating one microphone used for the opening of the Olympic Games by the King, was used for the first time at a major function at the annual dinner and dance of the Skat Club of London.

Two hundred and fifty members of the Skat Club and their friends were present, and the chief guest was Mr. J. A. Beasley, High Commissioner for Australia.

The thirty loudspeakers in the Empire Room are specially built into the ceiling, and the six microphones can be plugged into any of the seven six-way connecting boxes fitted flush with the floor in various parts of the room.



*The Admiral Commanding Reserves; Vice-Admiral, Sir Wilfred Paterson, talking to leading Telegraphists L. J. Lester and A. Padfield during a tour of the new Royal Naval (Wireless) Reserve Centre at the Admiralty which was recently opened. The Vice-Admiral, after opening the new centre, spoke by radio to the only other centre at present manned by R.N.V.(W.)R. personnel, at Grimsby. (British Official Photograph: Issued by the Central Office of Information, London)*

The microphones are controlled during the actual event by a small, six-way switchbox. When one of these switches is depressed, it connects with the microphone concerned and automatically brings into operation whichever loudspeakers have been selected on the large pre-selection panel visible on the amplifier console.

#### **Microphone Among Flowers**

This pre-selection panel, which embodies many automatic switches\*, is a unique feature and automatically turns off the loudspeakers nearest to whichever microphone is in use. This allows the volume control to be turned up without the risk of howling, thereby allowing the microphone to be placed further from the person speaking.

"As a result," declares a Philips official, "this is perhaps the only installation in the world where it is not necessary to put microphones on

tall stands in front of each speaker's face. In fact, each microphone is sometimes concealed in a bowl of flowers."

\*As a matter of technical interest these automatic switches or relays are so arranged that a loudspeaker pre-selected as "off" for one microphone cannot be connected while that microphone is on, even if a further microphone is switched on for which that speaker has been pre-selected as "on."

#### **BRITISH RADIO TELEPHONES FOR NETHERLANDS**

##### **Pye Get £10,000 Contract**

Another triumph for British radio technique abroad has been achieved by one of the leading British radio manufacturing firms, who have obtained and are carrying out a £10,000 order for

*(Continued on page 104)*

**THE RADIO & ELECTRICAL MART**  
(G3BSW) of

253 Portobello Road, LONDON, W.11 Park 6026

Take pleasure in offering the following:—

T.R. 1196. These 6 valve Super-Hets are the best buy of the day. Just fit a 2 Gang Variable Condenser and All Wave Coil Pack. Requires only 5 connections to Frequency Changer valve and set is ready for use. Price with circuit 27/6.

Mains Supply Unit. This neat and handy unit in black enamelled case 9 x 6 x 6 ins., contains heavy duty transformer, Rectifier valve, smoothing choke, condensers, fuses, panel light and switch. Input 200/260v AC. Output 6.3v at 3.5 amps. HT 350v at 80 ma. Larger output available by changing rectifier valve. Price £3/5/0.

250 watt Double Wound Transformers. 230v/110v. Made by G.E.C. with steel shroud. New, each £2/7/6.

R.1132A. This grand 10 valve Super-Het, covering from 100 to 126 Mcs., is easily adapted for 144 Mcs. band by simply moving connection on tuning coils. Large Slow Motor Dial. S Meter, etc. Case measures 20 x 12 x 12 ins. Price £5/10/0.

Test Set, Type 46. We still have a few of these excellent battery operated frequency meters covering from 2 to 23.5 Mcs. Made by Marconi Instruments. Can be adapted to all wave by inclusion of MW and LW Coils. Circuit supplied, each 40/-. Aluminium Rods Aerials for use with same, extra 3/6.

U.S. Signal Corps 15 Watt Amplifiers. Complete in handsome enamelled green steel cases. Complete except for power pack. Contains tapped input and output transformers, etc. Two 1619 Metal Valves. Price 50/-. T17 Carbon Microphone as used with these sets 10/- extra.

12 x v. Vibrator Unit with push-pull audio Amplifier. Complete for 30/-. A bargain.

Khaki Canvas Parachute Cases. New. Ideal for school satchels, tool holdalls, shopping bags, brief cases, etc. Price 2/6 each.

Remember money back guarantee.

**METAL WORK**  
*with a Difference!*

If you want a well-made, attractive and robust cabinet for that receiver or transmitter; if you need a chassis for a modulator, amplifier or converter; in fact, if you need any metalwork at all for your ham requirements

**YOU CAN DO NO BETTER THAN TO WRITE US FOR AN ESTIMATE**

All metal work "made to measure"

For full details and address of nearest agent, contact—

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(E. J. PHILPOTT)

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**Radio Component Specialists**

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**PADDINGTON 1008/9**

(Opposite Edgware Road Tube)

Volume Controls : w/w 100, 200, 2k, 5k, 8k, 10k, 20k, ohms; carbon 25k, 50k, 75k, 100k, 250k, 15k, 500k, 1 meg. 2 megohms. 1/9 each. Reduction for quantities.

Midget Mains Transformers : Primary 230v 50 cps. Secondaries 240v. at 60mA, 6.3v at 1.5A. Size 3½ in. x 2½ in. x 2½ in. 10/- each.

Selenium Rectifier, half-wave, 250v 60mA 3/11 each.

Above Two Items Ideal for Test Gear Power Supplies.

Used EF50's (all tested) 3/- each.

Meters, 2 in. square, fsd 200 microamps 2/6 each.

6 Bank 11-way Switches 2/6 each.

Midget 4.5v Buzzers 2/6 each.

Postage extra on orders under £1

**GARLAND RADIO**

DEPTFORD BRIDGE, LONDON, S.E.8

Phone TIDeway 3965

# SMALL ADVERTISEMENTS

Readers' small advertisements will be accepted at 2d. per word, minimum charge 2/-. Trade advertisements will be accepted at 6d. per word, minimum charge 6/-. If a Box Number is required, an additional charge of 1/- will be made. Terms: Cash with order. All copy must be in hand by the 10th of the month for insertion in the following month's issue

## PRIVATE.

**EDDYSTONE 640.** Brand New, Maker's Guarantee. £20. Benton, 33 Douglas Rd., Sutton Coldfield, Warwickshire

**FOR SALE:** BC312M receiver. £20 or offers. Mackay, 41 Sutton Common Road, Sutton, Surrey.

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**SALE OF V.H.F. transmitter/receiver 60-70 Mcs.** with 49 page instruction book and circuits, telescopic aerial, telephone handset, etc. Housed in large black crackle cabinet, size 1 ft. 6 in. x 1 ft. 3 in. x 8 ins Send S A E to arrange to see. Price £2 10. R. Pyatt, 3 Oakley Avenue, Ealing, W.5.

**WANTED**—The following valves required: Type KTW62, X66, DH63, and KT63. Stonehaven, Horncastle Road, Boston, Lincs.

**HALLICRAFTERS S20 8 valve Communications Super-Het,** 45 Mcs.-550 kcs., in 4 bands, 2 converters. Eddystone preselector with plug-in coils. Spare valves and condensers. All the above in good condition at Birmingham. £20. Box No. 1058.

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**SALE!** Brand New Walkie Talkie. 38 Set. 35/-, 62 Barnfield Kingston, Surrey.

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**SMITH, 98 West End Road, Morecambe,** for all Components, Valves, etc. Send for lists. Eddystone, Raymart, etc.

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**G6MN** for the "Best" QSL's and approved log books, send for sample: G6MN, Bridge Street, Worksop, Notts.

**DUKE & CO. CLIENTS.** Stamps only please when sending for lists of valves, from 3/6, and receivers. 219 Ilford Lane, Ilford, Essex.

**LOOK!** New Components Only. Everything for the Home Constructor. Send 2d. stamp for List. Electro Radio Co., Llwyngwll, Merioneth.

**TELEVISION CONSTRUCTION FROM EX-GOVT. GEAR.** We have had a tremendous response for the Constructional Details advertised last month. These show how to modify Radar Units for TV reception, and are supplied gratis with the units, which cost £6 10s. Alternatively, they will be supplied on receipt of 7/6d., which will be allowed against the purchase of the units within 14 days. A combined HT and EHT Mains Transformer is factory built, and costs £5 10s., but if purchased with the Radar Unit the total cost is £11 10s., showing an additional saving of 10/-. The stocks of units are holding out, but please bear with us if there is a few days delay in delivery. Please add 12/6d. carriage plus 10/- deposit on returnable packing case.

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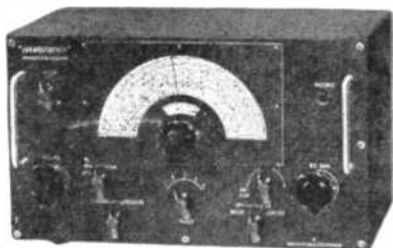
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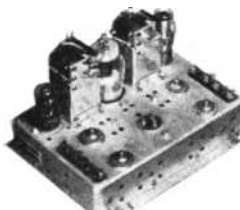
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