# R·S·G·B BULLETIN

JOURNAL OF THE RADIO SOCIETY OF GREAT BRITAIN

# August 1946

The original front cover for this edition was not available.





#### DISTRICT I (North Western)

D.R.: H. W. Stacey, B.E.M. (G6CX), "Sandleas," Eddisbury Road, West Kirby, Cheshire. Hoylake 337. Scribe: A. B. Wright (G6FW), 106 Knowsley Road, St. Helens.

Bury.—The Acting T.R. is Mr. N. Burton (BRS11,494) of 14 Apollo Avenue, Sunny Bank, Whitefield. Will members please add these particulars to the list published in the July issue?

Lancaster.—The D.R. has received a letter from Mr. R. Cordingley of 61 Cleveleys Avenue, reporting increased interest in the town and offering to organise a local group. Will members please get in touch with him and see what can be done?

Manchester.—The July meeting was held at the Reynolds Hall, College of Technology when 62 members attended. A short but

College of Technology when 62 members attended. A short but extremely interesting lecture was given by Dr. Young, BRS10,982, entitled "The Ionosphere." It is hoped that he will be able to deal with this subject more fully at a later date. The next meeting will be held at the same venue on Tuesday, August 27, 1946, when a lecture on "Aerial Array Design" will be given by Mr. Kay, late

lecturer at TRE Malvern.

Please do not forget the PDM, the date of which is now October 13, 1946. Tickets can be had from Mr. S. Levings, G3AO, 55 Derbyshire Lane, Sale, Cheshire, price 8s. 6d., which includes

the cost of lunch and tea.

Preston.—Some 40 members are now attending local meetings Preston.—Some 40 members are now attending local meetings and there is every indication of a real revival of amateur radio in the town. There are 22 licenced amateurs all active on the various bands. One consignment of Admiralty scrap has been distributed and further lots are expected; all are highly satisfied. Several members are now back from the Forces and we welcome them one and all. Regular meetings are held on the third Friday in each month at the Three Tuns Hotel, North Road, Preston, at 7.30 p.m. Local members who have not yet contacted the group are invited to get in touch with the T.R., Mr. A. Adams, G5AD, at 11 Priory Crescent, Penwortham Hill.

Stockport.—The local Society has applied for affiliation to the R.S.G.B. Two consignments of Electronic Scrap have been bought by the purchasing committee for distribution to members

bought by the purchasing committee for distribution to members of R.S.G.B. in the area and great appreciation has been shown by

the recipients.

Twenty-five members visited the B.B.C. Station at Moorside

Twenty-five members visited the B.B.C. Station at Moorside Edge on 22nd June.

The Secretary of the Stockport Radio Society has unfortunately had to leave the district and his duties have now been taken up by Mr. L. Chappel (G2AAY) of "Heathfield," Buxton Road, Disley, Cheshire.

Any R.S.G.B. member in the Stockport area who wishes to purchase Admiralty electronic scrap should contact the acting T.R., Mr. W. H. Banks, who is also Treasurer of the S. R. Society. General.—The purchase and distribution of Admiralty scrap is still engaging most of the D.R.'s spare time and correspondents are asked to be patient in awaiting replies to their innumerable letters. Prospective purchasers are again reminded that they should approach their nearest T.R.—a list of names and addresse was published in the July issue. was published in the July issue.

#### DISTRICT 2 (North Eastern)

D.R.: C. A. Sharpe (G6KU), 56 Moore Avenue, Wibsey, Bradford. Bfd. 10772. Scribe: H. Beadle (G8UO), 13 Chandos Street, Keighley, Yorks.

Bradford.—Meetings at Cambridge House continue to thrive. For future dates see Forthcoming Events. The Bradford Short Wave Club now meet every Monday evening at 1374 Leeds Road. Leeds.—BRS2317 will be in Llandudno until September 22 looking for contacts with local members. QRA is Pier Orchestra,

Llandudno.

Keighley.—G2CPF, using a 6L6 CO, has worked GW, GM, GI, GC, EI, D, I, OK and OZ on 1 8. G2VO has been recalled to the Army. As the new bands are useless in their present state local

members are not using them.

Huddersfield.—The July meeting was attended by 17 members.

Meetings are held on the third Wednesday in each month at
The White Hart, Cloth Hall Street. The next is on August 21 at

130 p.m. Halifax and Sowerby Bridge.—Mr. L. Blagborough, 39 Fountain Street, Sowerby Bridge, has been appointed Acting T.R. and members are asked to get in touch with him. 5386 is now out of hospital. 6807 bemoans the fact that he could find no amateurs in Bridlington.

Barnsley.—For dates of future club meetings see Forthcoming Events. Local members wonder when the powers-that-be are going to "move" the commercials and S.W. broadcast stations

from 7 and 14.

Skipton.—8676, now on Gib., says that 28 Mc/s. is dead.

Harrogate.—Mr. C. P. Inman (G2DRA), 27 Harlow Crescent,
has been appointed Acting T.R. He hopes to be active on 1.8 in the near future.

General.—G8IJ (1990 kc/s.), of R.A.F. Snaith, near Goole, would like weekday C.W. schedules on the top band. All are welcome to join in.

Will members who write to the Scribe please enclose a S.A.E. GSUO. when a reply is desired?

#### DISTRICT 3 (West Midlands)

D.R.: V. M. Desmond (G5VM), 92 Worcester Street, Birming-tm, 5. Scribe: E. J. Wilson (G2FDR), 48 Westbourne Road, Olton, Birmingham.

Birmingham.—At the meeting of M.A.R.S. held on July 16 it as announced that future meetings will be held at The Imperial Hotel. It was agreed to appoint a sub-committee to deal with various aspects of the Society's activities. Mr. C. Young gave an interesting talk on transformers. Fifty-eight members and visitors were present.

were present.

Coventry.—C.A.R.S. anticipate visiting Rugby Radio in the near future. It is also planned to arrange a M.A.R.S.—C.A.R.S. contest during the autumn. Congrats. to G2FTK on obtaining his licence and to 2YS on the arrival of a Junior Op.

Stoke-on-Trent.—A new Society has been formed in this area known as the Stoke-on-Trent and District Amateur Radio Society. Mr. T. A. Rudge is the Chairman and Mr. D. Poole, BRS11,298, 13 Oldfield Avenue, Norton-le-Moors, Stoke-on-Trent, the Hon. Secretary. A meeting will be held on August 31.

Thanks are due to Mr. Peter A. Arnold for his efforts in placing S.O.T. on the map—he has now returned to his native London and we wish him every success.

G2FDR.

#### **DISTRICT 4 (East Midlands)**

D.R.: L. Ridgeway (G2RI), 90, Romway Road, Leicester. Phone 24295.

Nottingham.—Local members will be glad to learn that a room sultable for meetings and a workshop, has now been found. As soon as it has been cleaned out and re-decorated we shall be

moving in

soon as it has been cleaned out and re-decerated we shall be moving in.

The Acting T.R. and others would like to hold a combined Nottingham and Notts meeting to discuss the new scheme of representation. 8DZ would welcome suggestions from other T.R.'s with a view to arranging such a meeting. Up to now the only reply to the request for crystal frequencies has been one postcard! Please send yours along. G8DZ hopes to arrange a visit during the autumn to the Nottingham G.P.O. Sorting Office and Telephone Exchange; he would be pleased to hear from those interested in the proposal.

G8DZ.

Mansfield.—Twelve members were present at the July meeting. The next will take place at The Swan on September 8. G8UZ reports that his 58 Mc/s. signals have been heard in France; he is now making up a small beam type aerial. Ex-XAZ (Sgt. Baker, R. Sigs.) is now stationed at Welbeck Abbey awaiting demob. Another new call is G2HCO.

Derby.—The T.R. has been on holiday and notes are scarce. Next meetings will be August 25 and September 8.

Northampton.—The names and addresses of the T.R.'s for Kettering and Northampton were omitted from the recent list by

Northampton.—The names and addresses of the T.R.'s for Kettering and Northampton were omitted from the recent list by some mischance and are reproduced here for reference. N. A. Owen (G4KS), 11 Kettering Road, Broughton, Kettering; R. G. Durrant (G2AAA), 65 Colwyn Road, Northampton. G2SY and 3BA are very active, the latter building a new transmitter after having sold his old one to G2AAA, who is now all set for getting on the air. 5LP is active at Wellingborough. A meeting will be held in the Wedgewood Cafe, Northamuton, at 7 p.m., Tuesday, August 19. (August 19th is on a Monday.—ED.)

Leirester.—All members are very active. A visit to R.A.F. South Luffenham was due to take place on July 28. Organisation by G5YK.

by G5YK.

#### DISTRICT 5 (Western)

D.R.: R. A. Bartlett (G6RB), 31 King's Drive, Bishopston, Bristol. Bristol 46960.

Bristol.—About 20 members attended the lecture and demonstration on Centimetric Radio given by Mr. Fertel at Bristol University. At the end of a very enjoyable evening a vote of thanks was proposed by 7961. At the usual monthly meeting an attendance of 43 was recorded. A warm welcome was given to G6AC, who hopes shortly to be operating from Ottawa with a VE3 call. 6VF has been getting consistent results with his Television receiver and on many nights the London transmissions have been of real programme value. 6GN and STC are working good DX on 14 despite the QRM. All will be pleased to hear that 5KT is well on the road to recovery after his recent operation.

Moreton-in-Marsh.—G2FZO reports active on 1.8 with plenty of contacts. He has recently been visited by one of the operators of XABC.

Bath.—We are pleased to welcome ex-2ATB, a YL who has recently moved into the district. Being a complete stranger she would like to meet some of the local members.

10,554 writes the D.R. from India. Being the possessor of a high demob. group number he expects it will be some time before he is able to attend local meetings. G6RR.

#### DISTRICT 6 (South Western)

D.R.: W. B. Sydenham, B.Sc. (G5SY), Sherrington, Cleveland Road, Torquay. Torquay 2097.

Penzance.-The June 20 meeting was held at the Woodhouse Penzance.—The June 20 meeting was held at the Woodhouse Hotel, Falmouth, when there were present; G2DDR (experimenting with a 224 ft. Windom on 1·8), 2FQD (designing a 3 element 28 beam), 41V (preparing for 14), 6LV (experimenting with a rotary Zepp for 28), and BRS1859, who has constructed a 100 kc/s. crystal reference oscillator. The meeting on July 4 was held at Penzance, and was attended by a large number of recruits including Messrs. Caddy, Brown and Rampton. Also present were G2DDR, 2FQD, 2DFH, 2JL, 2WW, 4IV, 8AW, BRS1859, 7222, and 10,498. A local contest was considered and will be worked out for presentation at the next meeting. Competitions on the best safety precautions, and for the most interesting piece of equipment will also be held. will also be held.

Will also be held.

Taunton.—On June 27 an enjoyable visit took place to the R.A.F. Station at Weston Zoyland. Those present included G2DRW, 38B, 5AK, 5GT, 6LY, BR\$10,253, 12,283 and 12,471. Unfortunately the weather was deplorable.

At the meeting held on July 11 at the Y.M.C.A., G2DRW, 2AAW, 38B, 5AK and BR\$12,283 discussed further visits of

radio interest.

Torquay.—At a recent meeting held at the Y.M.C.A. there was an attendance of 15. A discussion took place on plans for the autumn and winter sessions.

G5SY.

# **DISTRICT 7 (Southern)**

D.R.: W. E. Russell (G5WP) "Milestones," Mayford, Woking, trey. Woking 1589.

Owing to the commencement of bread rationing in addition to the postcard it will be necessary for you to bring eatables if you are coming to the meeting at G2YL, Walton-on-the-Hill, on the

are coming to the meeting at G2YL, Walton-on-the-Hill, on the 25th of this month!

G2FN, Royal Signals, Yorkshire, operates as G5KZ when on leave at Worcester Park.

Coulsdon.—The July meeting of the S.R.C.C. was well attended and the members had the pleasure of hearing a talk by their President, Mr. H. Bevan Swift, G2TI.

G4DN met 4HP whilst on holiday in Sussex. During G2ANR's first week on 14 he raised five countries.

BRS3003.

Oxford.—Will those interested in the resumption of local meetings, please contact BRS7186, 99 Stanway Road, Headington. Reading.—The June and July meetings were well attended. G6CU/Z62 gave a most interesting talk at one meeting and the 5 cwts. of Naval scrap found ready buyers. "The Short-Wave Listeners' Cup" has been presented to the club for annual award for the best lecture and demonstration of the year. Congrats to G8RS on working Italy on 58 Me/s. Election of club officers takes place at the meeting at The Palmer Hall, West Street, Reading, at 7 p.m. on September 27. BRS4573. at 7 p.m. on September 27. BRS4573.

Portsmouth.—Seventy members and friends attended the

P.D.M. at Southsea on July 13. Our grateful thanks are extended to all those who helped to make the occasion such a success. Special thanks are due to G6CJ for travelling so far to give us his

G2XC, 8WC and 2DZT are active on 58 Mc/s. The next meeting will be held on September 5 at 7.30 p.m. at The Cosham Civic Centre. New members welcomed. GSWC.

#### **DISTRICT 8 (Home Counties)**

D.R.: S. J. Granfield (G5BQ), 47 Warren Road, Cambridge. Tel.: Cambridge 54644.

The attendance at meetings has fallen off considerably owing to the holiday season. At the meeting on July 4, Mr. T. A. T.

# NORTH WALES PROVINCIAL DISTRICT MEETING

to be held at the

# NANT HALL HOTEL, PRESTATYN

#### SUNDAY, SEPTEMBER 8th, 1946

		PR	OGRAI	MME :		
Assemble						12 noon.
Lunch			***	***		1.30 p.m.
Business M	1eetir	ng, atte	ended b	y mem	bers	
of the	Cou	ncil		S		2.30 p.m.
Tea		***	***			5 p.m.
Station vis	its. e	etc.	3100	1000	- 1110	6 p.m.

Inclusive Charge, 7/6 per head

Reservations before August 25th, to Mr. F. J. E. Starkey, GW6KY, "Endon," Gronant Road, Prestatyn, or to Mr. C. E. Spillane, BRS1060, 14, Queensway, Prestatyn.

Davies gave a most interesting talk on "Home Recording," followed by a demonstration with gear and blanks, entirely of

followed by a demonstration with gear and blanks, entirely or his own making.

On Sunday, July 7, there was a District outing by motor-coach to Clacton-on-Sea. The weather was excellent, and all participants voted the affair a great success.

Cambridge.—G2DT, 2PU, 2XV, 5BQ, 5DQ, 5JO, 5OV and 8PB, have been heard frequently on 14 Mc/s., also 2PL, while he was visiting the town. 8SY, using a 3-element rotary beam is keeping to 28 for the time being. 51G is rebuilding his 60 Mc/s. rig and does a good deal of listening on this band. He reports hearing 5 TZ (Isle of Wight) at 59 on July 23.

St. Ires.—G5RL has completed his new rig, and has been heard on 14.

On 14.

Peterborough.—Signals from G2NJ have been heard off Tunis on 1.8 Mc/s. He has also worked GC on this band in daylight from his London QRA. 2NJ reports that 2UQ is putting a fine phone signal into London on 7. 5NP has been active on 1.8, SWI has

been a welcome visitor.

The D.R. would be glad if members who borrow letters of authority for the purchase of Admiralty surplus would kindly see that they are returned expeditiously as considerable inconvenience is being caused to other members by their retention.

G5BQ.

#### DISTRICT 10 (South Wales & Monmouthshire)

Deputy D.R.: D. Alan Dyer (GW8UH), 29 Ladysmith Road, Penylan, Cardiff. Tel.: Cardiff 2691.

Penylan, Cardiff. Tel.: Cardiff 2691.

Cardiff.—At the July meeting members learned with regret of the continued indisposition of the D.R. and the sincere wish was expressed that he will—be speedily restored to good health. Interest is still being maintained in the monthly meetings and members from adjoining areas are warmly welcomed. The formation of a "Brains Trust" has been of material assistance to members. Arrangements are proceeding apace with the organisation of the lecture classes for B.R.S. and any member who is not aware of these arrangements should communicate with the Acting T.R. The deepest sympathy of all members is sent to Mr. P. Jenkins, GW3VI., and his wife on the loss of their daughter (BRS11419) whose sudden death was a shock to us all.

BRS10374.

Swanse.—Preparations are now complete for the P.D.M. to be

whose sudden death was a shock to us all.

Stransea.—Preparations are now complete for the P.D.M. to be held in Swansea on September 14, details of which appear elsewhere. It is hoped that a record gathering will be present. Activity continues on a high level in the area.

As further accommodation for meetings at the Metropole Hotel cannot be provided, arrangements have been made to hold future meetings at the Grand Hotel, fortnightly, as before. The next will be on August 18th, at 7 p.m.

GW4CC.

#### DISTRICT II (NorthWales)

D.R.: F. J. E. Starkey (GW6KY), "Endon," Gronant Road, Prestatyn, North Wales. Scribe: C. Spillane (BRS1060). 14 Queensway, Prestatyn.

Queensuay, Prestayn.

Prestatyn.—The July meeting produced an attendance of 15, including GW3JI, 40H, 4MZ, 2BVA and 2CRF from Llandudno. Others present were GW6KY, 4CK, 3CF, 2HIY, 2DAH, BRS1060, 9587, 11,015, 11,062 and 12,298. Discussions centred on the forthcoming P.D.M., and the proposed trip to Liverpool to view the Admiralty Electronic Scrap. BRS9587 exhibited a midget receiver he has just built.

The next meeting will take place at the Savoy Cafe, Prestatyn, on August 18, at 3, n.m.

on August 18, at 3 p.m.

GSUN, of Manchester made a few personal contacts whilst on vacation. Ex-Sgt. Leslie Hill, GSKS, one of the "Early Birds," has also been here during which time he visited the D.R. GW4CK and 2HIY both home on leave, report moving around a little. "HIY is now at a station in Hants, and 4CK is shortly moving to Marcton in the Marcton in the Marcton. Moreton-in-the-Marsh.

Llandudno.—GW3JI reports that G6TL tried to contact him at

Languano.—Gw331 reports that GoIL related to contact him at home at a time when he was out; he regrets not being there to meet him. GW3QN is the latest to be demobbed. 2BVA has now discovered that 3JI holds an "at home" on Thursday evenings. G4OY and GW3JI were contacted on the promenade as a result

General.—As announced elsewhere in this issue the P.D.M. will be held in Prestatyn on Sunday, September 8. Catering arrangements have been made for numbers up to 50. Reservations should be made as early as possible.

BRS1060.

#### DISTRICT 12 (London North and Herts)

Deputy D.R.: S.A. Howard (GSTY) 92 Arlington Rd., Southgate, N.14. (Enterprise 3219). Scribe: E. H. Laister (BRS3386), 22 Church Hill, Winchmore Hill, N.21.

North London.—The July meeting held as usual at Merryhills, was attended by some 40 members. Mr. H. A. M. Clark, G60T gave some valuable information and advice on the subject of interference with television signals, particularly referring to third harmonic radiation from the 14 Mc/s. band. A useful discussion on wide-band beam arrays concluded with G6WU's description of the construction of an ingenious and weatherproof rotary beam, the chief ingredient being an old bicycle.

statis being closely watched!

St. Albans.—A new record of 34 members attended the last meeting, when 3412 raised a substantial sum from the sale of ex-G5NQ's station. Those present were pleased to welcome the D.D.R. G8TY. Members were very sorry to learn of the relapse in health of G5QF, and all send their best wishes.

The next meeting will include a discussion on the re-organisation of the District and the election of a Town Representative (see

"Forthcoming Events").
On Saturday, August 24, a party, limited to 15, will inspect the B.B.C. Transmitters at Brookman's Park. Volunteers with cars are required to lend a hand with transport. Details from 3412.

#### DISTRICT 13 (London South)

D.R.: S. E. Langley (G3ST), 52 Dumbarton Road, S.W.2. Scribe: W. D. Gilmour (G3VB), 35 Grangecliffe Gardens, South Norwood, S.E.25.

The D.R. regrets that because he held back the June notes until the date of the next meeting had been fixed they just missed the July issue. Thirty members attended the June meeting and enjoyed a successful junk sale. At the July meeting 20 members listened to a talk on receiver design by Mr. Newton, who has some very novel ideas on circuits.

G2GZ is now back from the Forces and hopes soon to have a new home in the Raynes Park district. 4KY has built a new transmitter and is interested in beams. 3ST is also busy on beam construction and would welcome reports on his signals from local

or DX stations.

South-Eastern Area.—The attendance at meetings held at G4DC

South-Eastern Area.—The attendance at meetings held at G4DC is still very good. Z86DO was a recent visitor.

As several members attend for meetings on the wrong date may we once again remind them that the meetings are held on the third Sunday in the month? G5WG sends greetings and 73 to District 13. There will be no meeting at G4DC in August.

Woolswich and Plumstead.—L. Buckmaster, BRS7589, of 9 St. Merryn Close, Plumstead Common, is anxious to start up meetings. Will local members please contact him.

General.—Any suggestions for a field day?

G3ST.

#### DISTRICT I5 (London West, Middlesex and Buckinghamshire)

D.R.: H. V. Wilkins (G6WN), 539, Oldfield Lane, Sudbury Hill, Greenford, Middlesex, Byron 3369. Scribe: E. Holt, (2FZQ), 36 Bulstrode Road, Hounslow, Middlesex.

West London.—Meetings will be held at the A.E.U. Rooms, 66 High Street, Chiswick, W.4, on August 20, 28, September 7 and 15, at 7.30 p.m., when the following matters will be discussed:— Representation, West London H.Q. and meeting room, District 15 post-war plan. A junk sale will take place at each meeting. RESES.

BRS6275.

A hamfest was held on July 21 at The Chiltern Works of Ernest Turner Electrical Instruments, Ltd., through the courtesy of Mr. Norman Turner, G4NT, Chairman and Managing Director of that company. Some 65 members and 14 ladies attended and thoroughly enjoyed themselves at this most convivial yet interesting meeting during which Mr. Raymond Evans (G6U) gave a graphic description of his activities on the Cocos Islands. This was followed by a heart to be at talk into which much This was followed by a heart to heart talk, into which much humour was introduced, on good operating by Mr. H. Hardy (G4CB). Messrs. Sherry, Redrup and Logan then conducted parties around the Works to see how the famous "Turner" meters are made. In brief, the tour was a complete education in

ineters are made. In brief, the tour was a complete calculation scientific engineering.

Mr. H. J. Sherry (G6JK), the new A.T.R., opened the business meeting by inviting the D.R., Mr. H. V. Wilkins (G6WN) to explain the impending re-organisation of the Society. G6WN exhorted all members to exert their rights by taking an active part in the nomination and selection of officers for the ensuing year. The Council was ably represented by Mr. P. C. G. Bradley (G8KZ).

Whilst the tour was proceeding tables were laid for an excellent the analysis of the process of the council was a proceeding tables of the council was a proceeding tables of the council was a proceeding tables.

tea and when everyone was gastronomically comfortable Mr.



District 14 Meeting at Ilford, June 30th, 1946

#### DISTRICT 14 (Eastern)

D.R.: L. J. Fuller (G6LB), Meadow Brook, Vicarage Lane, Great Baddow, Chelmsford, Essex. Tel.: Gt. Baddow 224.

Baddow, Chelmsford, Essex. Tel.: Gt. Baddow 224.

Chelmsford.—G2KG and G2SA are gettling out well on 14, the latter is finding his new SX24 a great help. G6LB and 2BGP are having trouble with their 14 Me/s. rigs. We have been glad to see our old friend G5RV again. G2GN, who is leaving us for "furrin parts" in the Autumn, has given a great deal of help to our fledgling members, and we wish him all the best in his new post. He hopes to be on the air under an Empire prefix early next year. Grays.—Our sympathies are with G3GF and G4FN. During a fire at 'GF's, the whole station was destroyed, together with FN's new 150 watt transmitter and a new seven-valve amplifier. Locals quickly rallied round with bits and pieces and got 'GF going again with a communal "lease-lend" rig. The July meeting was attended by G2BIH, FTM, CGW, BOU, G3GF, LM, OA, G4FN, BRS4462, 6491, 11,753, Messrs. Edmonds, Spokes, Taylor, and ex-W.A.A.F. Miss Howard, who has applied for a lieence.

licence.

Poor operating and licence abuses were discussed at the meeting when it was agreed to "name" those who failed to conform to the standards of "good operating" (a bit dangerous this—don't you think?—D.R.) and await the laying down by the Society of their standards of good operating procedure.

General.—The D.R. is glad to report that, after many anxious moments beforehand, the Southend P.D.M. was a great success, and he wishes to thank not only those who travelled long distances under conditions of discomfort, but also the members from Southend who did so much to help. Our thanks are also due to Messrs. Garon's for putting on such a good menu, and this on the first day of bread rationing! We were glad to see old-timers G6UT, 6LL, 2KT and YI among the company, which reached the goodly total of 77.

Messrs. Labgear and Denco very kindly contributed to the

Messrs. Labgear and Denco very kindly contributed to the ever-popular Lucky Dip, and Miss Gadsden from H.Q. distributed the prizes. In all, a very happy day. Thanks, everybody.

To all T.R.'s.—In future, Notes must be in the D.R.'s hands by

the 22nd of the month. BULLETIN publishing arrangements make this imperative.

G6LB.

Austin Forsyth, O.B.E. (G6FO), rose and proposed a hearty vote of thanks to Mr. Turner for his hospitality. The proposal was carried amid vigorous applause. The D.R. expressed his regret at the loss of Mr. C. M. Freer's services as A.T.R. and thanked him for the good work he had put in. After tea Mr. F. H. Arnold (G6MB) presented, on behalf of Messrs. Berry's Short Wave, Ltd., a box of most useful components which were distributed by means of a "Lucky Dip" carried out by Mrs. Wilkins. Free beer for the males and short drinks for the ladies were then provided, whilst Mr. Freer very ably carried out a grand junk sale. This was followed by a general ragchew and music by the "All Hamband." General.—Owing to lack of space it is regretted that reports from the A.T.R.'s have been omitted but these will appear in full in the new District 15 journal "The Rag," due to be published on September 1, a copy of which will be sent to each district member.

member.

#### SOUTH-EASTERN PROVINCIAL DISTRICT MEETING to be held at

#### THE PANTILES GRILL, THE PANTILES, TUNBRIDGE WELLS

SUNDAY, SEPTEMBER 1st, 1946 PROGRAMME:

Assemble 12.15 p.m., ... Lunch 1 p.m. 2.15 p.m. Business Meeting ... ... \*\*\* \*\*\* 5. 0 p.m.

Display of Components and Receivers

Inclusive Charge, 6/6

Reservations to the D.R., Mr. W. H. Allen, M.B.E. (G2UJ), 32 Earls Road, Tunbridge Wells, Kent, by not later than August 24th, 1946.

#### DISTRICT 16 (South Eastern)

D.R.: W. H. Allen, M.B.E. (G2UJ), 32, Earls Road, Tunbridge ells, Kent. Scribe: E. H. Trowell (G2HKU), 27, Unity Street, Wells, Kent. Sheerness, Isle of Sheppey, Kent.

Sheerness, Isle of Sheppey, Kent.

Bromley.—At a recent meeting G6NF gave a lecture on frequency measurement which was well received. Local members are urged to attend monthly meetings. Details from 2AVI.

Chatham.—A party of M.A.T.S. members attended the Southend P.D.M., led by 6NU, complete with a District 16 flag, which attracted much attention—including that of the local Police! 6NU has been working DX on "top band."

Sheppey.—3NQ visited 3GW recently. 2VA has been seriously Ill in Ceylon but is now out of hospital (a speedy recovery, O.M.—D.R.). 2HKU and 3GW attended the Southend P.D.M., and recently enjoyed a visit to 2KH. 2DCG is back on "top band." Canterburg.—2JN has been getting good reports on his 7 Mc/s. 3 watts battery rig, but is now house hunting.

Berhill.—BRS10,363 is now G3AAL of 6 (c), Jameson Road, and asks for 58 Mc/s. co-operation.

Brighton and Hoee.—We have pleasure in welcoming Mr. J. R. D. Sainsbury, 8HV, 80 Lansdowne Place, Hove, 2 (Hove 4213) as A.T.R. for this area. There are at present 65 members in these two towns and it is hoped that they will in due course report to 8HV.

these two towns and it is hoped that they will in due course report to 8HV.

Neuhaven.—Nearly 50 members and friends enjoyed a meeting and tea on the lawn of 8CP's QRA, The Rectory, on Saturday, July 6. The meeting was addressed by the D.R. and 8CP, and discussion centred about Admiralty scrap, "break-in," 58 Mc/s, work and local societies. For the latter it was generally agreed that something less formal than a fully-organised club best suited the need of keeping members in touch in places where the amateur population was fairly small. The D.R. desires to thank sCP for all the work he put into making the meeting a success.

General.—Those who intend visiting Portsmouth for Naval scrap are informed that the authorities there require a covering letter from the D.R. in addition to the normal letter of authority.

Don't forget to book up for the P.D.M. on September 1. The

Don't forget to book up for the P.D.M. on September 1. The charge is 6s. 6d. and not 5s. 6d. as stated last month, and it is hoped to arrange a display of components and gear by a leading manufacturer.

Attention is drawn to the supplement on "Representation" in the July issue. This is your chance of expressing your choice of a C.R. and T.R., so let's have some action! See you on September 1?

G2UJ.

# DISTRICT 17 (Mid East)

D.R.: A. C. Simons (G5BD), "The Elms," Church Road, Mablethorpe. Phone 69.

The attendance at the recent P.D.M. created a record for purely

The attendance at the recent P.D.M. created a record for purely District 17 members. A report appears elsewhere. Photos are available from G5BD, price 3/- each.

4315 has submitted evidence to the G.P.O. and hopes to be on the air soon. 2CSX has been fixed up with a receiver by 2FT, 8RW is hitting DX on 1.8. 11802, at present in India, hopes to be on the air with a VU call shortly. His home town is Cleethorpes. 8562 (R. Sigs.) expects to take his G.P.O. test before being posted abroad. 2UK and 2BQC are keen to get going on 59 Me/s. and 5LL has supplied them with the circuits used by 5BD and himself. 6LI almost due for demob is contemplating duplex and break-in experiments. 5LL and 5BD have had a lean month on "Five" with no contacts. 'BD's 45 feet towers are nearly built and super results are hoped for.

#### DISTRICT 18 (East Yorkshire)

D.R.: A. G. Dunn (G3PL), 79 Hayton Grove, Hull.

D.R.: A. G. Dunn (G3PL), 79 Hayton Grove, Hull.

Hull.—At the meeting held on July 22, G6OY gave an informative talk on the problems of D.C. mains operation. The first steps towards obtaining a club licence have been taken and offers of parts for a transmitter and receiver gratefully received.

There is growing interest in 60 Mc/s. work and G2AMJ, 3PL, 5tx A and 6OS are on the band. Several members have receivers in operation or under construction. So far little use is being made of 7 Mc/s. owing to the uncanny way broadcast stations have of parking themselves on members' crystal frequencies.

Johnny Hay (1948) is now licensed as G3AAR in London. 4530 and 4590 have been demobbed and the former has applied for a licence. 7345 should be on the air very soon, 2BIP is taking the Morse test.

Bridlington.—Will members please contact the A.T.R. Ma. D.

Bridlinaton.—Will members please contact the A.T.R., Mr. D. Dixon, BRS10,357, 15 St. Martin's Grove?

General.—No one has yet volunteered for the job of A.T.R. at Scarborough. How about it, chaps?

A cordial welcome is extended to all new members. G3PL.

#### DISTRICT 19 (Northern)

D.R.: R. J. Bradley (G2FO), 36 Raby Road, Stockton-on-Tees, Co. Durham.

West Hartlepool.—The fortnightly meetings continue to attract an increasing number of members. 2VB was welcomed at the last when he gave an interesting talk on his 20 years experience of amateur radio. As the "call of the north" has become too strong for the T.R. (BRS6469) to resist any longer, he has decided to return to GM. We are sorry to see him go, and hope that he will accept our thanks for devoting so much time and energy to bringing amateur radio to life in West Hartlepool.

Newcastle-on-Tyne.—An interesting letter arrived recently from 6MK, giving details of how he overcame the difficulties of lack of mains and gear. After begging and borrowing, he got a transmitter and receiver built, and then started on the power pack. This consists of an old bieyele driving three generators. The outfit is installed in an old barn and the banshee walls coming from the generators startle the rabbits outside, and the bats, including the one on the bike, inside!

Darlington.—Mr. R. Toase, BRS1291, having offered to become acting T.R. is anxious to start regular meetings and asks those interested to get in touch with him at 91 Northgate.

General.—At last it has been found possible to arrange a District 19 P.D.M. The meeting will take place at the Grand Hotel, West Hartlepool, on Saturday, October 26. The General Secretary expects to be present. Book the date now! Details later.

Mr. Whitelock, Gas House, Castle Eden, Co. Durham, has purchased an army transceiver model 58 Mark 1, and would be pleased to hear from anybody possessing circuit of same.

BR869683, 11 Station Road, Southbank, Nr. Middlesbrough, has offered his services as T.R. for Middlesbrough.

G2FO.

#### Northern Ireland

D.R.: J. N. Smith (GI5QX), 19 Hawthornden Drive, Belmont, Belfast. Phone 63323.

Belfast. Phone 63323.

Mr. W. H. Martin, G15HV, who now has the GI QSL Bureau in full swing, reports that he has cards on hand for some 30 GI stations. G15HV has gone to some expense to instal an excellent filing system, weighing machine, etc., for the benefit of the District, and it only remains for members to send him stamped addressed envelopes for their cards. So far, only a few members have done so, with the result that Mr. Martin's files are bulging with cards. Will all GI's please co-operate?

G15QX.

#### Scotland

Scottish Records Officer: J. Hunter (GM&ZV), 51 Camphill Avenue, Langside, Glasgow, S.1. Langside 237.

"C" Area: (Dundee, Forfar, Perthshire, etc.)

A.R.: T. Reay (GM31X), 38 Park Avenue, Dundee.

Meetings are being well attended with an average turn-out of 14 members. A welcome visitor to the last meeting was G2ABR who is posted nearby. Active at present are GM5SC, 3NH, 4HR, 3NR, while 3IX and 2HFV are building new rigs. GM2FXN has passed his century in QSO's. Arrangements are well in hand for meetings in the Perth and Montrose areas. The District workshop at 33 Mains Loan, Dundee, is being well attended on Monday, Wednesday and Friday evenings. Meetings are to be held in Dundee Y.M.C.A., Room 7, at 7.30 p.m. on August 21 and September 18. ber 18.

"D" Area (Edinburgh and Midlothian, etc.).
A.R.: J. Wilson, C.A., 52 Macdowall Road, Newington,
Edinburgh, 9. Edinburgh 42153.
GM6UU gave his long awaited talk to an audience which while
smaller than expected was warmly appreciative. The "old man"
can certainly do his stuff. Several stations are active, but there is
still a dearth of VHF transmissions. See "Forthcoming Events"
for the date of business meeting. for the date of business meeting.

"E" Area (Ayrshire and South West Scotland).
A.R.: D. A. MacQueen (GMAPW), 3 Ayr Road, Prestscick.
Prestscick 78375. Scribe: Miss J. A. C. Rainie (BRS7988),
Montgomeric Terrace, Ayr. Ayr 2375.
Fifteen members attended the July meeting in the Y.W.C.A.,
Catheart Street, Ayr, when BRS7270 gave a talk on Service Type
transmitters. 2BUD also gave a short report of the Glasgow
Conventionette. Congrats to 2BUD and his wife on the arrival of
a Junior Op. 6140 is continuing Morse instruction.

BRS7988.

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No. 2

#### REPRESENTATION

UR last issue gave details of the steps being taken by the Council to provide for better representation. By now we hope that every member has studied the written word and that throughout the length and breadth of the British Isles arrangements are well in hand to ensure that the plans do not fall to the ground because of apathy.

Some years ago when the Society operated a scheme of County Representation it frequently happened that the members in some quite thickly-populated counties failed to submit nominations. Inasmuch as the Council were thereby compelled to make appointments, the democratic object of the scheme was defeated. In later years the Town Representation scheme was introduced in the hope that local groups of members would demonstrate their interest by nominating one of their number to serve as T.R. Our records show, however, that whilst the members in some towns were glad to avail themselves of the opportunity provided, many groups made no move to elect a Representative. Because of this apathy our District Representatives were called upon by the Council to make nominations, an arrangement which was far less democratic than the one envisaged by those who introduced the scheme.

Since the last T.R. elections were held, during the winter of 1938, the home membership of the Society has increased from 3,000 to more than 12,000. In view of this expansion it would be reasonable to expect that nominations will flow in from every town and city in the country, but this will only happen if

every member pulls his weight. Amateur Radio is a friendly hobby, depending for its very existence upon the regular exchange of ideas and thoughts. How better can the membership exchange ideas and thoughts than by regularly supporting local meetings and other activities? Our Town Representatives are responsible for the social side of the Society's affairs in their respective towns. They are given a free hand to make whatever arrangements seem desirable to them for fostering Amateur Radio.

An enthusiastic T. R. will give advice to the newer member and will see that he is put in touch with others who will coach him in the art. T.R. too will organise Morse classes and lectures, and will from time to time provide facilities for visits to places of interest. He will no doubt organise local contests and field days both for transmitting and receiving members. He will also send to his County Representative a brief activity report each month for inclusion in "Regional Notes and News," the new feature which will shortly replace the present "District Notes."

Will you make it your personal business to see that when October 1, 1946 arrives, Headquarters are in possession of a nomination on behalf of a member in your town?

All that we have written about the T.R. scheme applies with equal force to the new scheme of County Representation. With a greatly increased membership it has become apparent to the Council that arrangements must be made to relieve some of the burden which at present falls upon the shoulders of their District Representatives. A County Representative, in addition to acting as a liaison between his Regional and Town Representatives, will also be responsible for arranging periodical meetings between his town representatives so that matters of general interest can be brought forward for discussion.

County Representatives should be fully licenced amateurs with a wide pre-war experience and knowledge of amateur radio. This requirement seems to us to be essential, especially at a time when many hundreds of newcomers are entering our ranks. The C.R. will be expected to do his share towards the preparation of the monthly "Regional Notes and News" from the material supplied by his T.R.'s, and much of the success or failure of the new feature

will depend upon his efforts.

There are some members of the Society who are not inclined to concern themselves with the question of representation. They are content to accept what others have striven to organise for them. We believe there will always be such a feeling of disinterestedness here and there, but to those who are sufficiently interested we want to say once more that the chance for broader representation is here. The scheme is ready to be worked. We cannot work it without your votes. J. C.

BOOK THE DATE

# LONDON MEMBERS' LADIES NIGHT

SATURDAY, DECEMBER 7th, 1946

Full details next month

# A HETERODYNE FREQUENCY METER WITH BUILT-IN CRYSTAL CALIBRATOR

By A. A. Jones, A.M.I.Mech.E., A.M.Brit.I.R.E. (G3RU). (By permission of D.G.S.R. (D), MOS.).

·HE ideas referred to in this description of a heterodyne frequency meter are not new, in fact a very excellent frequency meter in use by the Services (American SCR 211) was the model upon which the present instrument was based.

Basically, the meter consists of a variable frequency oscillator, a mixer, a crystal oscillator, and an A.F. amplifier. The V.F.O. has two ranges, 125-250 kc/s. and 2,000-4,000 kc/s, giving a complete coverage from 125 kc/s. to at least 20 Mc/s. with the use of harmonics.

#### General

The V.F.O, frequency is mixed with the signal frequency to be checked (e.g. transmitter) in V2, the resulting beat frequency being amplified by V3 and passed to the 'phones. For calibration check purposes the triode section of V2 is used as a crystal oscillator and is brought into operation by switching to the position marked "Check" on the "Crystal-check-operate" switch. The action of this switch will be discussed in detail.

#### (i) "Crystal" position

H.T. is connected to the anode of the triode section of V2, thus allowing the crystal oscillator to function, and is removed from the screen of V1, thereby stopping the V.F.O. from working. In this position only the crystal frequency and its harmonics are present at the aerial terminal.

(ii) "Check" position

H.T. remains applied to the crystal oscillator and is also connected to the screen of V1 allowing the V.F.O. to function.

The crystal frequency, plus its harmonics, together with the V.F.O. frequency and its harmonics, are fed to the mixer section of V2, and, when the resultant beat notes are within audible range they will be heard, amplified by V3, in the meter phones.

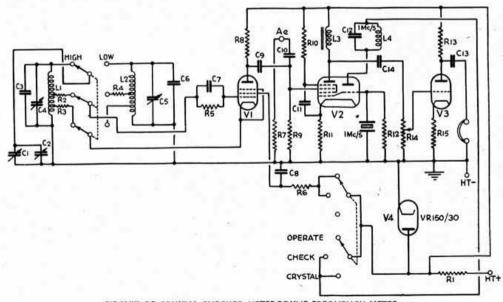
A list of frequencies at which the stronger beat notes are heard, is given in Table 1 for both frequency bands.

A small variable condenser (C2), connected across the main tuning condenser, allows the frequency of the V.F.O. to be adjusted slightly to give zero beat with the crystal at selected points in both bands, thus ensuring that at these frequencies the actual frequency of the V.F.O. is in fact that given by the calibration curve or chart at all times.

(iii) "Operate" position
H.T. is removed from the anode of the crystal oscillator, otherwise the circuit is as for the "check" position. The V.F.O. frequency is mixed with any incoming signal in V2 in the normal way, the resultant beat note being heard in the 'phones.

#### Construction

Standard components can be used throughout but care should be taken with the V.F.O. section. All



CIRCUIT OF CRYSTAL-CHECKED HETERODYNE FREQUENCY METER.

C.I.I.C.I.I				DELTANCE
500 pF var.	C13, 14	-05 μF.	R8, 13	50,000 ohms.
10 pF max, var.	L1, 2	Tapped 4 and 4 from	R10	10,000 ohms.
See text.		earthy end.	RII	150 ohms.
	RI	See text.	R12	I Megohm.
15 pF.	R2	1.500 ohms.	R14	I Megohm var.
·001 µF.	R3. 7	5,000 ohms.	R15	1,000 ohms.
50 pF.	R4	27 ohms.	VI	6J7, 6AC7, EF39, etc.
		500,000 ohms.	V2	6K8, ECH35, etc.
20 pF.	R6	20,000 ohms.	V3	6C5, 6J5, etc.
	10 pF max. var. See text. 15 pF. -001 μF. 50 pF. 25 pF.	10 pF max. var. L1, 2 See text. R1 15 pF. R2 · 001 μF. R3, 7 50 pF. R4 25 pF. R5, 9	10 pF max. var.  See text.  RI See text.  15 pF. R2 1,500 ohms. 50 pF. R4 25 pF. R5 R6 R6 R6 R7 R8 R6 R7 R8 R8 R9 R8 R9	10 pF max. var.  See text.  R1 See text.  R1 See text.  R2 15 pF. R2 1,500 ohms. R14 001 μF. R3,7 7,000 ohms. R15 pF. R4 27 ohms. V1 25 pF. R5,9 500,000 ohms. V2

wiring to coils and switches should be rigid and as short as possible. The former components should be mounted on the underside of the chassis to minimise the effect of heat from the valves.

The main tuning condenser (C1), together with the respective band trimmers, may be of any value that will give a 4 to 1 capacity range. For example, 500 μμ F max. 20 μμ F min. capacity would require 140μμ F trimmers (less valve and stray capacity) to give the necessary coverage.

Since the value of CI may vary as stated, it is not proposed to give actual coil winding data but having decided on the value to be used the relevant coil

sizes can be obtained from Abacs.

The cathode tap should be one-third from the "earthy" end, and the grid tap placed in the centre

of the coil.

The value of R1 will be determined by the supply voltage it is proposed to use. The total current consumption of the meter using 150 volts H.T. is of the order of 22 mA., plus 8 mA. for the neon (V4). Thus when switching on the meter from cold, R1 must be of such a value that 30 mA. will flow through V4, the voltage across V4 will then be 150.

e.g. Supply volts = 300.

30 mA. through R1 to drop 150 volts.

.. R1 should be 5,000 ohms.

The dial should incorporate a good reduction gear free from backlash. In the meter constructed by the author, a gear system was used, in which the dial rotated 5½ times for full condenser travel. This dial was calibrated in 100 divisions through 360°, thus giving 550 divisions for full coverage. A vernier was also fitted giving a readability of one part in 5,500, which is accurate enough for most purposes.

Suitable dials to use, are the Muirhead 6 in. precision model, No. 0-111-AV, or the Muirhead version

of the HRO dial and worm drive unit.

#### Calibration

If the coils and condenser are of the right values, the V.F.O. should oscillate from about 124 to 251 kc/s. on the low position, and from about 1,995 to 4,010 kc/s. on the high position. (These figures can be checked by listening on a receiver.)

be checked by listening on a receiver.)

Turn the selector switch to "Check," and set the corrector condenser (C2) at approximately half mesh. This condenser must not be touched again during

calibration.

Allow the meter to run for about half-an-hour before commencing to take readings.

#### (a) Switch to low band

On tuning from the bottom end of the dial to the top, a series of whistles will be heard. Several of these (indicated by a cross in Table I) will be much louder than others. These should be noted and the dial reading taken.

A rough graph of frequency—dial readings should be made using these points only. From this graph the other points can be identified by reading off approximate dial readings and a note made of the

exact dial readings.

An accurate graph to as large a scale as possible, should now be prepared. This may be used for future reference or to compile a chart of spot frequencies, i.e. every kilocycle.

#### (b) Switch to high band

On tuning through the dial coverage, the 1 Mc/s. harmonics will be heard beating extremely loudly with the V.F.O. These three points should be noted and a graph made as for the low band. From this graph an accurate list of the other heterodyne points can be drawn up, and a final graph produced.

If a fairly accurately calibrated receiver is available, the rough graph may be dispensed with and the beat notes identified immediately.

Table I Beat Frequencies

Low Ba	ND.	HIGH BAND.		
V.F.O.	Crystal.	V.F.O.	Crystal.	
ke/s.	Me/s.	kc/s.	Mc/s.	
125.00 (8)	1 ×	2,000(1)	2 ×	
133 · 33 (15)	2	2,250 (4)	9	
142.85 (7)	1 ×	2,500(2)	5	
153 · 85 (13)	2	2,750 (4)	11	
166-67 (12)	2	3.000(1)	3 ×	
181 · 81 (11)	2	3,250 (4)	13	
200.00(5)	1 ×	3,500(2)	7	
214 · 29 (14)	3	3,750 (4)	15	
222 · 22 (9)	2	4,000(1)	4 ×	
230 - 77 (13)	3	-	-	
250.00(4)	1 ×			

Note.—A considerably greater number of beat notes may be heard, but those listed above need only be recorded.

#### Operation

- (a) Turn the selector switch to the "Check" position.
- (b) Set the dial accurately to the reading of the appropriate check point.
  - (c) Adjust the corrector for zero beat.

(d) Switch to "Operate."

(e) Set the dial to the required frequency or adjust for zero beat with the incoming signal.

The whole meter should be housed in a metal cabinet and R.F. chokes fitted in the power supply leads

It is important that the meter should be in its case before calibration is commenced and later when in use.

The instrument should be capable of giving good results up to 40 or even 80 Mc/s, but the degree of accuracy will obviously not be so high as on the lower frequencies.

[Editorial Note.—A very comprehensive list of frequency bands, with a check point in each band, was submitted by the author but owing to pressure on space it has been omitted.]

#### Calibration Service

Until such time as the future of the Society's Calibration Service is decided, the Council will be glad to hear from any experienced member who is prepared to furnish, on request, accurate frequency calibration checks over the air. Members willing to undertake this task are invited to submit details of the frequency measuring gear they propose to use. Whilst the Council will take every care to ensure

Whilst the Council will take every care to ensure that only suitably qualified members are appointed to operate this new service, it will be appreciated that the Society will not be in a position to guarantee the accuracy of any service which may be instituted.

Members are warned that the marked frequency of crystals which have been out of a service for a considerable period, cannot always be relied upon, and is also dependent upon the circuit valves chosen. It is therefore recommended that a check over the air should be obtained whenever possible.

# AUXILIARY APPARATUS AT THE AMATEUR STATION

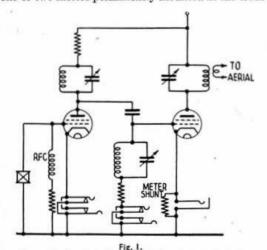
W. H. ALLEN, M.B.E. (G2UJ).\*

HE newcomer to amateur radio will find very early on in his work that some means of measuring current and voltage is absolutely essential. Good meters are never cheap, and the higher the accuracy required, the higher the cost will be. While it is undeniable that an array of meters for all purposes is most convenient and impressive, the cost would be almost prohibitive. It is sound common sense, therefore, to purchase one good multi-range instrument which will serve for nearly all the routine current, voltage and resistance measurements about the station, with, perhaps, two or three other single meters of a lower standard of accuracy for incorporation in built-up apparatus.

Multi-range meters are made by several well-known manufacturers, and it is more or less personal preference and the size of the bank balance which determines one's choice. One of the best known is the Avometer range made by the Automatic Coil Winder Their most and Electrical Equipment Co., Ltd. ambitious instrument, the Avometer Model 7, caters for practically every measurement of current and voltage—both A.C. and D.C.—that is normally required, as well as for resistance, capacity, A.F. power output and power-level readings. The cost is naturally rather high, although well below that of separate instruments which would perform the same functions.

This firm also markets a junior edition of this instrument, the Universal Avominor, which although not pretending to be so versatile, nor of such high accuracy as the senior model, is nevertheless an excellent meter which will be found to perform satisfactorily under all ordinary circumstances. Voltage and current up to 500 volts and 500 mA respectively may be measured together with resistances up to 20,000 ohms, while a rectifier is incorporated for A.C. voltage measurements.

A meter such as has been described can be used for tuning up a transmitter by inserting it in the various circuits as required, but most people prefer to have one or two meters permanently mounted in the trans-



Plug and jack system of meter switching in a transmitter. \* 32 Earls Road, Tunbridge Wells, Kent,

mitter for this purpose. These need not possess a particularly high accuracy as they can always be checked against the multi-range instrument when required, but they should be of the moving-coil type to ensure a more or less dead-beat movement.

It is convenient to arrange such meters so that they may be used in any of the circuits either by switching or by a system of plugs and jacks. An example of the latter arrangement is shown in Fig. 1. It is assumed in this case that the meter will have a rating such that the C.O. cathode and P.A. grid currents fall within its working range but not the P.A. cathode current. This being so, a suitable shunt is arranged in parallel with the latter jack, which owing to its low resistance, will not require the provision of short-circuiting contacts.

Metal cased meters should always be so wired that no great difference of potential exists between the movement and the case. If this cannot be avoided the meter must be mounted on an insulating panel and the metal case protected in some way from accidental contact by the operator.

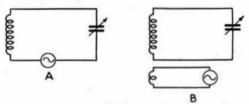


Fig. 2. Simple absorption frequency meter with flashlamp bulb as R.F. indicator. (A) Bulb in series with tuned circuit; (B) connected across link winding.

#### Frequency Measuring Equipment

Frequency meters fall into two main classes; Absorption and Heterodyne.

The former is by far the simpler, consisting merely of a tuned circuit resonant to the frequency of the nearby transmitter. A portion of the radiated R.F. is absorbed and made to operate some form of R.F. indicator. Coils are provided covering the required ranges, and the tuning condenser is calibrated either directly in frequency, or the latter read from dial readings via a chart or curve.

An absorption meter cannot be used to set the frequency of a receiver unless the latter includes an oscillating detector, but has the advantage that it does not respond to harmonics, thus removing the ambiguity which might exist when using a heterodyne frequency meter to determine the frequency of a transmitter, particularly when frequency multiplying stages are involved.

The heterodyne type is, in fact, a low-power transmitter, its tuned circuit being accurately calibrated in frequency. The signal is picked up on a receiver and the transmitter tuned to the same frequency by the zero-beat method. This is quite satisfactory provided both the transmitter and the receiver are roughly calibrated, but unless this is the case there is a grave risk of confusion between fundamental frequencies and harmonics, with the result that an inexperienced operator might so adjust his transmitter that he radiated a signal outside the allotted band.

It will thus be seen that neither type alone is capable of fulfilling all requirements, and it is strongly advised that an example of each type be constructed.

#### The Absorption Frequency Meter

The tuned circuit should employ well constructed plug-in coils and a good variable condenser, so that calibration once made may not seriously be disturbed by ordinary handling.

The R.F. indicator may be a flashlamp bulb arranged in circuit as shown in Fig. 2. At "A" the bulb is directly in series with the tuned circuit, while at "B" it is connected across a link winding coupled to the coil. The latter is to be preferred as it introduces less damping and gives sharper indication of resonance.

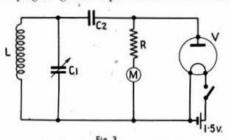


Fig. 3.

Two examples of a valve voltmeter used as an R.F. indicating device in an absorption frequency meter.

(a) Simple diode.

CI, L See text. R2 1000 ohms for 0-1 mA. meter. C2 -001 pF. 200 ... 0-5 ... ... C3 3/30 ppF trimmer. R3 600 ... 0-1 ... ... 200 ... 0-5 ... ... M 0-1 or 0-5 mA. meter. V 1H5G or 155.

More elaborate and versatile instruments with a valve voltmeter as R.F. indicator are shown in Fig. 3; that at "A" being a diode rectifier, while a diode followed by a D.C. amplifier is illustrated at "B." Valves with 1·4 volt low-consumption filaments are particularly suitable for such duties, as dry batteries of small dimensions may be employed for both H.T. and L.T.

Fig. 3B is the more sensitive arrangement, and if readings are not required more than a few wavelengths from the aerial a meter with a maximum reading of up to 5 mA may be used. With the simple diode arrangement, a meter having a scale reading not exceeding ImA should be employed, unless measurements are only to be made close to the transmitter.

The whole frequency meter, including batteries and tuned circuit, should be mounted in a metal box and pick-up from the transmitter arranged via a short rod aerial.

The tuned circuit components should be suited to the frequency concerned, i.e. for frequencies up to about 15 Mc/s. Cl could be 50 to 100 μμF, while 15 to 30 μμF would be suitable above that range.

Calibration need not be extremely accurate so long as harmonics may be distinguished easily from fundamental frequencies of the oscillator, but it is interesting to note that a commercial instrument on the lines of Fig. 3A has a guaranteed accuracy of  $\pm$  1 per cent. from 16 kc/s. to 50 kc/s. and  $\pm$  ·25 per cent. from 50 kc/s. to 50 Mc/s., which shows what can be done with such a simple circuit.

In Fig. 3B the rectified R.F. appears across R1 and is applied to the control grid of the valve, which may be either a diode-triode or a diode-pentode. This causes the standing anode current to fall in proportion to the strength of the incoming signal. In order that the meter may give an increase in reading for an increase in signal, the two resistances R2 and R3 are incorporated, enabling the standing anode current of the valve to be balanced out of the meter by current in the reverse direction supplied from the L.T. cell. Suitable values for R2 and R3 are shown for use with meters of 1 or 5 mA. full scale deflection.

Uses other than frequency measurement to which an absorption meter with valve voltmeter may be put include the following:—

Tuning all stages of a transmitter for maximum R.F. output.

Checking that frequency multiplying circuits are correctly tuned.

Accurate neutralising of the P.A. stage.

Detection of parasitic oscillations.

Detection of harmonic output.

Adjustment of the aerial coupling circuit.

Adjustment of directional aerials.

#### The Heterodyne Frequency Meter

One of the best circuit arrangements for a heterodyne frequency meter is that shown in blockdiagram form in Fig. 4.

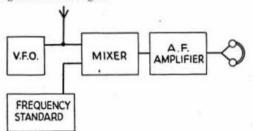


Fig. 4.

Heterodyne frequency meter employing a frequency standard and an interpolating oscillator.

Two R.F. signals, one from a stable variable frequency oscillator (V.F.O.) and the other from a fixed oscillator which may be (preferably) crystal controlled, are applied to a mixer valve so that a heterodyne beat will be heard in the phones via the A.F. amplifier each time the V.F.O. is tuned through a harmonic of the fixed oscillator. It will be appreciated that the V.F.O. need only have short-period accuracy, as it has only to interpolate between adjacent harmonic check points; the accuracy of the whole frequency meter rests with the fixed oscillator which can conveniently be a 1 Mc/s. crystal.

Where such a crystal is not available, its place may be taken by a stable oscillator which can be checked frequently against a standard of known accuracy. For example, the fixed oscillator could operate on 100 or 200 kc/s. and be checked against the B.B.C. transmitter at Droitwich which operates on 200 kc/s.

Such a frequency meter has been constructed by the writer, and comprises a 68J7 E.C.O. with a frequency range of 1 6 to 4 Mc/s., a mixer valve (6K8G) of which the triode portion serves as the fixed-tuned oscillator—also E.C.O.—on 200 kc/s., and a triode A.F. amplifier (6J5G). The two tuned circuits are temperature compensated for changes both in inductance and capacity, and stability is extremely good, while harmonics from the V.F.O. are useable up to at least 60 Mc/s.

This type of frequency meter, incidentally, also makes a very satisfactory C.W. monitor, R.F. being picked up from the transmitter on the small rod aerial attached to the frequency meter and the tuning control operated until a satisfactory beat note is obtained.

It should be the aim of every radio amateur to transmit good, carefully-sent Morse with a steady D.C. note, free from chirps, clicks and other faults, and to give audible proof of this while transmission is in progress is the function of the monitor.

Listening to one's own transmitter on a receiver in the same room is rarely satisfactory, unless the receiver is unusually well screened, and even so it is extremely tedious to have to retune the receiver each time a change is made from transmission to reception. It is far better, therefore, to employ a separate monitor for the purpose.

Fig. 5 gives the circuit of a C.W. monitor suitable for most needs, and offers the advantage of serving as a phone monitor if provision be made to switch off the

oscillator.

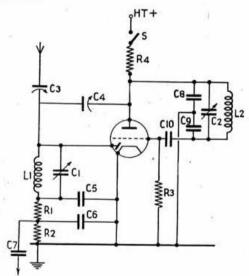


Fig. 5.

Circuit of monitor suitable for either C.W. or telephony.

L1, L2 See text. C7 -001 µµF

See text. R1, R4 50000 ohms. C1 C2, C5, C6, C8, C9, C10 C3, C4 R2 500000 100mF. 100000 R3 S.P.S.T.switch C.W.-'phone 3-30µµF. trimmer.

The tuned circuit L1, C1 must tune to the frequency of the transmitter, but is not critical as to values or setting. L2, C2 is the oscillator circuit whose function it is to beat with the incoming signal and so produce an audible note which is fed either directly to the phones in parallel with the receiver, or through the last A.F. stage in the latter. It will probably be found that if L2, C2 are made to oscillate on the lowest frequency band in use that the harmonics will give an adequate signal on the remaining bands, thus doing away with coil-changing. It should be noted that any of the usual oscillator circuits may be used in place of the Colpitts shown.

It may be found there is sufficient coupling to the oscillator without C4, in which case it may be omitted, and that the R.F. filter R1, C6 is not required. All operating voltages may conveniently be obtained from the receiver.

#### The Artificial Aerial

With crowded amateur bands it behoves all users not to take up vital space on the air with testing and adjusting the transmitter to the discomfort of those who are seeking to make contacts.

An artificial aerial enables all adjustments (with the exception of aerial coupling) to be made to the transmitter without radiating a signal, so that accidental off-frequency radiation when tuning will be of no consequence. The final frequency may be checked by the absorption meter, and the keying or modulation by the monitor before going on the air.

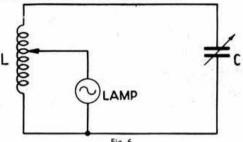


Fig. 6. Artificial Aerial Circuit,

The artificial aerial is a very simple piece of apparatus, a suitable form being a funed circuit resonant to the frequency required, with an ordinary electric lamp of suitable wattage connected across part of the coil at the earthy end. By correct adjustment of the tapping point for the lamp, and by varying the inductive coupling between the artificial aerial and the output tank coil of the transmitter, the loading effect of the normal serial may be reproduced and the transmitter tuned as if it were in fact connected to the aerial. The circuit of the artificial aerial described is given in Fig. 6.

# Other Items

Owing to the limitations upon paper, space cannot be given at present to describe certain other items of test equipment which the radio amateur would find extremely useful in his station. These include a bridge for the measurement of resistance and capacity, some means of measuring inductance, and an instrument for measuring impedance, and used for matching aerials and feeders.

It is also impossible at this juncture to discuss that very versatile and useful research tool the cathode ray

oscilloscope.

A good deal of information on bridges of various kinds will be found in M. G. Scroggie's book The Radio Laboratory Handbook, published by The Wireless World, while the R.S.G.B. and American handbooks contain much useful data concerning auxiliary apparatus.

#### QSL Bureau

The QSL Bureau is now in full operation and cards can be accepted for the whole world although we ask you still to send that rare one direct.

Please mark your call sign in the top left-hand corner of your envelopes. A large number of cards still await envelopes. There are 39 cards for G4LV for example.

A sub manager is being appointed to handle three

letter G3 cards.

If you do not want your cards, please tell us so. They can be destroyed and our files cleared.

G2MI.

#### MR. GERALD MARCUSE (G2NM) HONOURED BY THE SOCIETY

THE news that Honorary Membership of the Society has been conferred upon Mr. Gerald Marcuse—"Gerry" to all his friends—will be warmly received, not only in Great Britain, but throughout the British Empire and the United States, where his name and call are as well known as any in the world of

Amateur Radio.

To chronicle just one of "Gerry's" past achieve-ments would be the same as writing the opening chapter of a book on Empire Broadcasting for he, more than any man living, was responsible for the idea which brought that great project into being. "Gerry" did it the hard way. In the face of all the sceptics and at his own expense he set up a station in his Caterham home, a station whose fame became legendary. From there, under the call G2NM, he transmitted regular broadcast programmes to the remote corners of the earth and he persuaded his professional friends to sing and play before his microphone. The National Press quickly grasped the possibilities of this new wonder and gave the fullest possible publicity to the programmes. Within a few months the B.B.C. began a regular short-wave Empire broadcasting service, but "Gerry"—the amateur—had given them the lead.

During this time Mr. Marcuse was Hon. Secretary of the old T. & R. Section of the Society. Later when fusion came about he combined the duties of Hon. Secretary to the Society with those of G.P.O. Liaison Officer. Only the "old timers" know how much the Society is indebted to him for his persistency and zeal

at a critical stage in our history.

In 1925 "Gerry" was elected a Vice-President of the International Amateur Radio Union which he helped to form in Paris. Four years later he became President of the Society, an office he filled with dignity

and understanding for a period of two years.

Throughout his long amateur career, dating back to before the first world war, "Gerry" has never to our knowledge been off the air for more than a few months at a time. His keen interest and wide experience have endeared him to succeeding generations of amateurs.

May he live long to enjoy the honour which the present Council has bestowed upon him. J.C.

#### **Acting Town Representatives**

The following additions should be made to the list published last month:—

District	Town	Name, Address and Call Sign of Acting T.R.  MR. N. A. OWEN (64KS), 11, Kettering Road, Broughton.  MR. R. G. DURRANT (G2AAA), 65 Colwyn Road.		
4	Kettering Northampton			
6	Torquay Exeter Plymouth N. Devon Taunton Penzance	Mr. F. J. Wadman (G2GK), 106, Warbor' Road, Babbacombe. Mr. H. A. Bartlett (G5QA), Lendorie, Birchey Barton Hill. Heavitree Mr. J. Eddy (G3TX), 55 Greenbank Avenue, Lipson. Mr. D. H. Jones (G3BO), Westover, Windmill Lane, Northam, Bideford. Mr. A. O. KELLAWAY (G5AK), 86, Winchester Street, Taunton. Mr. R. A. ALLBRIGHT (G2JL), Green acre, Liddon.		

#### Congrats

- To Mr. L. Briggs, BR88496, on the safe arrival of Veronica Anne on July 12, 1946.
- To Mr. G. V. Haylock, G2DHV, and his wife on the birth of a junior op., Peter Michael, on July 27, 1946.



# THE TRANSMITTING LICENCE

The first of a new series of Pocket Booklets dealing with specific aspects of Amateur Radio

CONTENTS: How to Apply for a Licence—Summary of Conditions—
Technical and Morse Code Qualifications— Exemptions— Radio Service
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AN R.S.G.B. PUBLICATION

#### NORTH OF THE BORDER

THE twin Conventionettes held in Edinburgh and Glasgow on June 15 and 16 gave Scotland its first opportunity of making personal contact with Headquarters since 1938. The official party, the largest that has ever travelled north of the border, consisted of the President, Mr. E. L. Gardiner (G6GR), the Executive Vice-President, Mr. S. K. Lewer (G6LJ), the Honorary Editor and QSL Manager, Mr. A. O. Milne (G2MI), the Honorary Treasurer, Mr. A. J. H. Watson (G2YD), Council Member Mr. P. C. G. Bradley (G8KZ) and the General Secretary, Mr. John Clarricoats (G6CL). Mr. H. A. M. Clark (G6OT), the Honorary Secretary, had also intended to be present but was unfortunately detained by business responsibilities. Mrs. Clarricoats accompanied her husband to spend a short holiday in Edinburgh at the invitation of the "D" Area Representative, Mr. J. Wilson (GM6XI).

Immediately after the arrival in Edinburgh on the Friday evening, the Headquarters Representatives were met by the Edinburgh Committee and other local amateurs, and many old friendships—and many old arguments—were renewed. All "shop talk," however, was suspended the following morning while sightseeing visits were made to the Forth Bridge and to the Castle.

#### The Edinburgh Meeting

The Edinburgh Conventionette was held at the Scotia Hotel where Mr. Wilson (GM6XI) opened the meeting with a speech of welcome to the Council representatives. The President, accepting the chair, greeted those present and spoke of the help which established members of the Society can give to the newcomers. He also referred to the need for suppressing piracy.

The Secretary then addressed the meeting and in 95 minutes surveyed the history of the Society's activities since the beginning of the war. The major subjects covered by his talk included the broadening of District Representation and the forthcoming election of Town and County Representatives, the return of licences with improved conditions, the reopening of the amateur bands, and the restriction of the size of The Bulletin by paper control. He also spoke of the new series of booklets being published by the Society and the plans that were being made to institute a Headquarters station and, in addition, two official broadcasting stations for an amateurs' news service.

Mr. Milne (G2MI) explained the functioning of the new QSL Bureau which he has organised and announced the appointment of Mr. D. R. Macadie (GM6MD) as Scottish QSL sub-manager.

A tribute was paid by Mr. Lewer (G6LJ) to the Secretary and his loyal assistant, Miss Gadsden, for the way in which they worked throughout the war, especially during the heavy Luftwaffe and V1 attacks, to conduct the business of the Society and to produce The Bulletin with unfailing regularity.

When the meeting was opened to general discussion after tea, it was obvious that the subject of predominant interest was The BULLETIN. For some obscure reason, there was no response to the Secretary's request for suggestions for new or revived contests.

#### Regional Scheme Discussed

In the evening, the Headquarters Representatives and the Scottish Area Representatives thrashed out the details of the new Regional scheme. (This was subsequently approved by Council on June 24.)

#### The Glasgow Meeting

The Glasgow Conventionette, held at the Beresford Hotel on the Sunday, was even bigger. Over 80 members were present at the preliminary luncheon, some of them coming from a distance of 100 miles or more.

After the opening speeches of welcome, the President commented on the growth of the Society, and the reopening of the bands. He also stressed the importance of choosing the right band for each kind of operational activity to ensure that each band is always being used most effectively and is free of avoidable interference.

The Secretary's address which followed was again a concentrated account of the Society's activities, plans and ambitions. The extent of the Society's work is now so vast that, although he spoke fast for a full hour, there were many subjects to which he could only allow a few brief words. He noted with regret the apparent lack of liaison with the Press and urged members to gain the support of the Press as a means of strengthening their own position in local affairs.

Details of the new QSL Bureau were repeated by Mr. Milne who seemed to be deeply concerned with the failure of many members to observe the simple basic principles on which the success of the Bureau depends. (The working rules were printed in the May BULLETIN, page 176.—Ed.). Mr. Milne also emphasised the need for using really good receivers in attempting DX work on the five-metre band.

Mr. Lewer referred again to the difficulties under which the work of the Society was carried on so successfully by Mr. Clarricoats and Miss Gadsden throughout the war. He went on to make a plea for more individuality in design and construction of amateur apparatus and a break-away from conventional mass-production methods.

Prompted by several questions regarding the cost of running local meetings, Mr. Watson (G2YD), speaking as Honorary Treasurer, discussed the Society's financial position in a masterly manner and dispelled any doubts that may have existed on the handling of the Society's funds.

Congratulations are due to Mr. J. Hunter (GM6ZV) and to Mr. J. Wilson (GM6XI), on the success that rewarded their work in organising these Conventionettes which will be remembered as marking an important milestone in post-war amateur radio north of the border.

Tartan

#### DOWN BY THE SEA

THE forty-seven members who attended the P.D.M. at Mablethorpe on July 7, found themselves participating in as pleasant an amateur gathering as could be wished for. The weather was perfect and several members took the opportunity of spending the morning by the sea prior to meeting at the Regent Cafe at 2 p.m. for a preliminary ragchew. Many friendships made recently on the "top band" were further strengthened by personal contact.

The D.R. (Arthur Simons, G5BD) opened the meeting by introducing the team from headquarters—Messrs. H. A. M. Clark, G6OT; F. G. Hoare, G2DP; S. E. Langley, G3ST and C. H. L. Edwards, G8TL. Mr. Clark then gave a resumé of the Society's plans for the future, explaining the current BULLETIN difficulties, and drawing attention to the fact that the present satisfactory licence position had resulted

from continued representation by the Society to the authorities concerned. He intimated that the future would see further extensions of transmitting facilities. Mention was made of a series of booklets to be published by the Society dealing with various aspects of Amateur Radio, the first—"The Transmitting Licence"—being on sale at the meeting. Mr. Clark pointed out, that whilst the Society's financial assets appeared to represent a small fortune, when the interests of each of the 12,000 members was considered they were really very small. Other interesting points dealt with were the new schemes of representation, the creation of a H.Q. station and Service Reserves.

Mr. Edwards dealt briefly with the position regard-

# SYNTHETIC AIDS to RADIO TRAINING

RANWELL, best known of all the R.A.F. Radio Schools, staged last month an Exhibition of Synthetic (Radio) Training Aids which have been a feature of the technical training organisation throughout the R.A.F. during the past six years.

The exhibition was promoted with a view to displaying the novel and ingenious aids which progressively have been developed and incorporated into training courses, partly as a means of overcoming shortages of equipment required for operational purposes and also as a more effective means of training than the actual item itself, in cases where operational conditions must be simulated.



DISTRICT 17 MEETING AT MABLETHORPE, JULY 7th, 1946.

ing surplus Service equipment and several members gave their experience of visits to Admiralty dumps; the co-operation of officials being specially stressed.

#### Discussion and Thanks

During the ensuing discussion G6GH asked what steps were being taken to remove "MCE" from the 14 Mc/s. band. G4KZ whilst appreciating the excellent work already done by the Society hoped they would not sit back on their laurels but would endeavour to become a power not only in this country but internationally. He regarded some of the stations on the Continent being run by British amateurs with colossal power as a menace to our good name and hoped that steps would be taken to bring them into line.

G6GH proposed a vote of thanks to 5BD for keeping things going in the District during the war and for organising such an enjoyable P.D.M. G2UK did the same for the HQ team, especially mentioning the concise and interesting way in which Mr. Clark had put over the HQ "gen." Later in the proceedings G2FT officiated with a "Twist" for components donated by Messrs. Stratton and Company, whose Mr. Wood had brought along a range of "Eddystone" components for the visitors to inspect. Mr. Philpott, G4BI also sent along some very fine metal cabinets and panels.

Following an excellent tea, visits were made to the stations of G5LL and 5BD, where their 60 Mc/s. gear was examined with great interest. The new Eddystone 504 receiver was then put through its paces in 'BD's shack.

On behalf of all present at the meeting, the writer wishes to thank Mr. Arthur Simons and his wife and daughter for their grand hospitality. G2UK.

Admission to the exhibition was limited to a small number of representatives drawn from other interested Government Departments, the Army, the Navy, Allied Air Forces, Dominion Forces and certain electrical and radio technical institutions.

The following were among the many interesting items on display:—

Standing-Wave Demonstrator, Wave Form Generator, Fault-Finding Board with Cathode Ray Tube, Antenna Polar Diagram Demonstrator, Dimensional Model of Fundamental Pattern in Wave-guide, 3 Centimetre Wave-guide Assembly Model, Wave-guide Switching demonstration, H2S (Radar) Trainer, Flying Spot Trainer, Radial Time-Base Demonstrator, Cathode-Follower Impedance Demonstration, Quadrantal Error Correction Demonstrator, Visual and Aural D./F. Demonstrator, Cathode-Switching Demonstrator, Morse Transcription Unit, Radio Altimeter Demonstrator, Interference Unit Type 3 (Radar), SCR720 Trainer, S.B.A. Demonstrator and, of course, the Harwell Box!

Special praise is due to Mr. Norman Davis, G6TV (again back on the staff at Cranwell), for providing a most convincing aerials demonstration, using microwave technique.

Praise is also due to No. 27 Group R.A.F. for their enterprise, but it seems unfortunate that an exhibition so full of interest cannot be given wider publicity. Perhaps the I.E.E. or failing them the Society, will be permitted to stage the Exhibition in London at an early date.

Around the Trade

Apropos the announcement published in our last issue, we are informed that the transmitters marketed by Amateur Radio Service (G6HP), 27-29 Canning Street, Stoneyholme, Burnley, embody band-switching arrangements for all bands. Senior and Junior models are available price £50 (50 watts) and £40 (25 watts) respectively.

# THE MONTH ON THE AIR

By A. O. MILNE (G2MI)\*

#### For Your Information

WE feel bound to inform our readers that the 1.8 and 28 Mc/s. bands are still open to amateur stations also that there is always to-morrow and that we know of no reason for thinking that 14 Mc/s. will go dead next month! All of which is our nasty sarcastic way of suggesting that the present dog fight on 14 Mc/s. is just a little unnecessary.

The amateur fraternity has descended upon these two hundred poor little innocent kilocycles as if they were something to be torn and rent asunder and utterly knocked right out of the spectrum! Give it a break chaps and spread yourselves out a bit for the love of mike! There are 2,000 nice empty kilocycles still waiting between 28 and 30; what about a quiet life for a change?

#### Licence News

Major Jack Drudge-Coates writing from Japan, tells us that British Army personnel there will shortly be able to obtain licences. The calls will be J4 followed by three letters. G2AIQ informs us that licences are being issued in Greece. He is now SV2WE. 50 watts on all bands plus 56, 130, 260 and 520 Mc/s.

It appears now that Great Britain is the only major country still unable to use 3.5 Mc/s. Careful check on the remainder of 7 and 14 reveals little justification for continued retention of half of both of these bands for "military necessity."

#### How's DX ?

The answer to that one is "pretty grim!" Still, if you stick it long enough, QSO's of a sort are possible on 14 and here are a few of the plums. G6RH sends the following. VS9AN (our old friend Newman ex-G6NC, ZB1J, etc., Met. office HQ, BF, Aden, 14135), VS4JH (14100), PZ1A (14310 'phone), PZ1RM (CW on the low end of the band), FK8OSL (New Caledonia 14100 about midday), VESMC and VESMR (N.W. Territory) and VESAI (Yukon) all around 14150. EL4A (14120), AC3SS (14180) (QSL via R.S.G.B.).

G2VV says EL4A is at Robertsport Liberia, and that EZ4F is not DX but is near Munich. OB4SV is on 14300 at 0900, QRA is Benham Gota 5, Sarawak. Says he is an Italian with an expedition and will be on the air until September 12.

BRS5360 gives QTH of ET3Y as Box 1191, Addis Ababa. Heard between 1930 and 2030 G.M.T. VP4TR is Pan American Airways, Trinidad. BRS7025 hears many G's in Khartoum of whom the loudest are G3HZ and G6AG. He hopes to be on soon as an ST.

G2MI has worked EQ4DC (QSL via W9RRT.) G4CP has worked RAEM the station of the Central Radio Club, Moscow. The Chairman, Ernst Krenkel was at the key. Apparently the Russians thought we were operating "under cover!" We have taken immediate steps to dispel this impression. GM2UU tells us that OXIAA is W2NVD. TRIP is in Tripoli and cards have been received by the Bureau from him. His status is unknown. 6CJ says UA0KAA is on Dickson Island 80°E 70°N, operated by a YL named Lydia.

VS7QB was operated by P./O. Tel. Thorne, who is now on as VS1QB in Singapore. QSL via R.S.G.B.

Eric Trebilcock comes across with some more good ones. PK6TC Sgt. Thyssen, 2990/A, N.E.I. Airforce, Biak Is., N.E.I. VR2AB (CW) and VR2AC ('phone) are both active—Box 338, Suva, Fiji.

Has anyone any information regarding the rumour that China is now CI?

\* 29 Kechill Gardens, Bromley, Kent.

VU2WP is BRS3740 who has operated from both Calcutta and Delhi. He says the most consistent 28 Mc/s. signals are G2IQ and G15UR. He also mentions that two British officers have taken over PK4DA's magnificent aerials and that DA himself is now back in Holland.

Here are some new QTH'S :-

XZ2DN Signals Section R.A.F., Mingaladon, Near Rangoon.

XZ2AM Capt. Twinn, Burma Command

YI2CA
VU2AD
Signals, S.E.A.C.
Habbaniya R.A.F. Station, Iraq.
Sgt. Rouse, STC(B) Mhow, India
Command.

VU2AB Sgt. Mather, ditto.

2CDI says VS6DY is on a British ship and is not in Hong Kong. VS9AP is G4JD in Aden. BRS12046 kindly draws attention to our reference last month to EQ3W and says the airport is Abadan not Adaman.

Will G4PS please get in touch with G2HGJ. G6QX has been doing well with a VS1AA aerial; here are a few good ones from his log. HK1AB (14010, 0030–0300 B.S.T.), OA4AX (14020, 2330–0030), TG9PB (Pan American Airways Guatemala City, 14080, 2300–2400), VR5BY (14150, 2130, Friendly Is.). Another user of the Windom type aerial is G3ZI who has worked 18 countries on 14 Mc/s.

SU1KE will be on the air during August as ZC4NX, portable on 14100. QSL to Box 360, Cairo. G6GH offers an unusual one in ZA1BQ at Scutari. QSL after receiving his card. He also mentions that the prefix LB is used by Norwegian stations working portable.

VS7JX is BRS7475 at Ekala, Ceylon. QSL via R.S.G.B.

#### CQ Calls

It is now a sad fact that G's head the list for sending unnecessarily long CQ calls. 51 times and sign twice was heard recently on  $1\cdot8$ !

#### Polar Expedition

BRS8748 reports hearing KLPO operated by W1KKS which is our old friend the schooner Bowdoin on an expedition near the North Pole. He is on at the following times to contact amateurs: 1900–2000 E.S.T. on 3 · 8 Mc/s., replies on 4150 kc/s. 2000–2100 E.S.T. on 7 Mc/s., replies on 8250 kc/s. 0200–0300 on 14 Mc/s., replies on 11025 kc/s. All transmissions on CW. He was heard on the 8250 frequency at 0100 G.M.T.

#### VK Contest

We have had notification from W.I.A. that they propose to revive their International DX Contest probably in November of this year. They ask for ideas regarding rules. If any of our contest-minded members have any suggestions to offer, will they please write by air letter direct to W.I.A., Box 2611 W, G.P.O., Melbourne, Cl, Australia.

#### The Great Fade-Out

The biggest fade-out so far recorded, occurred during the period July 25–27th, Beginning at approximately 1715 G.M.T. on the 25th, everything from 4 Mc/s. upwards completely disappeared.

When conditions returned to normal on the 27th signals from the Far East were extraordinarily strong. VS1BV in particular being louder than many local G's when using only 20 watts input.

The "hiss" phenomenon was heard at 0650 G.M.T. at G2MI on June 30th on 14 Mc/s.

# THE MONTH ON FIVE

By W. A. SCARR, M.A. (G2WS).\*

WO interesting letters from the Continent deserve first place in this month's log. From Zurich, under the joint signatures of HB9RLA, HB9RQB and HB9RSM, comes a report of the reception on June 24 of the following British stations :- G2MV, 5BJ, 5BY, 5TX, 6JB and 8H. All signals were very loud, with rapid QSB. Receivers used were 3 and 4 valve TRF and super-regen, and in all cases longwire aerials were in use.

We are indebted to Dr. Siljeholm, SM5SI for the second letter, which deals with reception on June 30. SM5SI, SM5II and a listening station between them logged G2MC, 5TX, 6UH and 8RK on that date. SM5SI is using a superhet and will be on the air with about 100 watts by the time these notes are in print.

#### Some Words of Advice

Before giving British reports this month, here are a few of the comments which are being voiced over the air, at P.D.M.'s and such like. Firstly, the universal grumble about the stations who persist in holding long (and often valueless) conversations and never take the trouble to use the key to identify themselves. Many of these merchants after seemingly endless recitals, sign off at high speed, giving their calls once only. Picture the five-metre enthusiast in a bad location, perhaps 50 or 100 miles from the next active station, listening for hours to these S2 carriers with no hope of identifying them. Need one say more!

Then a word about transmitting times. In the London area, at any rate, a vicious circle exists. Nobody will come on the air before 9 p.m., because no one is on the air! This state of affairs is likely to persist until a few stations are prepared to put out regular calls or make skeds in the early evenings. The same might be said of afternoons at the weekends.

\* 8 Beckenham Grove, Shortlands, Kent.

#### Result of First Radio Amateurs' Examination, Held 8th May, 1946

The following general report issued by the City and Guilds of London Institute will be of considerable interest to all members especially those who propose to sit for the next examination which will be held during November, 1946.

No. of	No. of	No. of	Percentage	
Candidates	Passes	Failures	of Failures	
182	145	37	22.2	

This examination was the first of the series and was arranged at fairly short notice, so that entrants had not much time for preparation. In view of this, the standard of the papers was very satisfactory, 77.8% of the entrants obtaining a pass. The balance was fairly equally divided between the very poor and the excellent. It is worth recording that, apart from the few candidates whose knowledge obviously was insufficient to enable them to tackle questions, the vast majority found time to attempt all the questions. Comments on the questions individually are as follows :-

Question 1 (a) was answered well.

Question 1 (b). A number of candidates encountered difficulties here, some of them calculating the total

#### **Activity Reports**

To return to the month's activities. Rather fewer stations have been on and there are not so many

reports to hand.

G2XC (Portsmouth) is carrying out research on propagation. Using the detailed weather reports issued by the meteorological office (which incidentally record temperature inversions), he is making careful comparison between conditions observed on the air and the data published. He has in recent weeks maintained regular schedule three times a day with G6KB (Henley), at a distance of 47 miles. Times are 0730 (0800 during August), 1730 and 2300 B.S.T., and reports would be welcomed from listening stations. Best contacts during early July from 2XC have been GSUZ (Sutton-in-Ashfield), G6CW (Nottingham), G2ZV and G6YU (Coventry), G5BY (S. Devon), G2BMZ (Torquay) and G6DH (Clacton).

G6DH (Clacton) has been on the watch for E-layer reflections. He considers it very unlikely that contact with U.S.A. will be possible through multiple shortskip and thinks it more likely that F2-layer bending in spring or autumn will eventually give the long

awaited Trans-Atlantic contact.

6DH has heard G5BY, 240 miles distant and hopes to effect a QSO soon. Daily "skeds" with G2MV (Coulsdon) have shewn that excellent conditions often exist on the band in the early morning.

G2ZV (Kenilworth) worked F3JB on July 21 and received an S9 report from him. He recommends regular watch on harmonics above 35 Mc/s. as an indication of likely E-layer reflections on 60 Mc/s. Recent contacts by 2ZV include G2XC, 4CI, 5MA, 5TX, 6LK and 6VX.

G2WS has now been granted a portable licence and has contacted numerous stations from the North Downs. Call-sign is G2WS/P and the portable

transmitter is crystal-controlled C.W.

power expenditure, instead of that in the 100 ohms resistor alone.

Question 2. The term "resonance" was fairly well described and the numerical calculation was well

Most candidates could draw the diagram, though the description of how it functioned tended to be confused.

Question 4 was well done, though there was a tendency to stress the high "Q" of the quartz crystal, whereas the principal reason for using it is the high degree of frequency stability.

Question 5 was fairly well done.

Question 6 was quite well done.

Question 7. A limited number of the students answered this question extremely thoroughly. The majority of the others did it quite well.

Question 8 was also well done.

A large number of students illustrated their answers by excellent diagrams, but a number handicapped themselves by failing to give any diagrams at all.

A list of the questions set in the first examination

was published in the July issue of this journal.

# A Break with Tradition

For the first time in the history of British Amateur Radio, call signs embodying the letter E are now being issued by the G.P.O. F/Sgt. J. Douglas Kay of Bournemouth has the unique distinction of being the holder of the first "E" call in the new G3 threeletter series. His call is G3AAE.

Portable Permits

The Postmaster-General is now prepared, as in prewar days, to grant portable facilities to licenced amateurs, on application, subject to the payment of an additional 10s. per year. Power to be 25 watts except on 1.8 Me/s.-2.0 Me/s. when the power would be The licensee will be permitted to work within a 10 miles radius of his station, or within 10 miles of a point named by him. Authorised amateurs when operating a portable station will use-their own call sign with the addition of /PP. This arrangement does not include organised field day applications which as hitherto will continue to be granted free of charge.

In connection with the above announcement, the Council wish to point out that for the past nine months they have been endeavouring to persuade the G.P.O. and other interested parties that much administrative expense would be saved if every licenced amateur were authorised to operate portable provided he notifies the G.P.O. in advance. Unfortunately. certain difficulties have so far prevented the carrying into effect of this plan, but we understand that our acceptance of the present arrangements will not prevent a reconsideration of the matter at a later date on the basis of (a) there being no charge, and (b) the applicant notifying the G.P.O. of his intention The Society's suggestion is to operate portable. that the notification should stand for say 60 days. after which time the applicant would be required to re-notify the G.P.O. if he wishes to continue to operate portable.

Operation from an Alternate Address

We are pleased to announce that as the result of discussions which have taken place between the Society and the G.P.O. it has been decided that in future an amateur licence may be regarded as covering the use by the licencee of wireless transmitting apparatus at two addresses, provided—

(1) That both addresses are mentioned on the

licence, and

(2) That the licencee does not use (or allow others to use on his behalf) transmitting apparatus simultaneously at both addresses.

In addition to this new concession the G.P.O. have agreed to the Society's suggestion that when a station is operated from an alternate address the call sign shall be the allocated call sign followed by A, e.g., G6CL/A.

The G.P.O. will make no charge for operation from

an alternate address.

The 28 Mc/s. Band

The G.P.O. have agreed to the suggestion made by the Society that holders of Class B licences shall be permitted to use an input power of 150 watts on 28-30 Mc/s. Permission cannot yet be granted for the use of power in excess of 25 watts on 58 · 5-60 Me/s.

The I-8 Mc/s. Band

The G.P.O. have agreed that the 1.8-2 Mc/s. band shall continue to be used by amateurs on a shared basis. Input power will, as hitherto, be restricted to 10 watts.

Unlicenced Operation and Breaches of Licence Regulations

The Society has been informed by the G.P.O. that two persons were recently prosecuted for operating unlicenced stations on amateur frequencies and that in both cases, fines of £5 with £5 costs were imposed by the magistrates. The equipments were ordered to be confiscated.

We are also informed by the G.P.O. that three cases have occurred of breaches of the licence regulations. In each case the licence has been cancelled. The breaches included (a) the use of power in excess of licence, and (b) operation on frequency bands other than those which the licencee was authorised to use.

Members are urged to take every precaution to avoid off-frequency operation, and the use of power in excess of their licence.

Broadcasting in the 7 Mc/s. Band

The Council wish to make it known to all members that they have registered vigorous protests with the authorities regarding the continued operation of broadcasting stations within that portion of the 7 Mc/s. band which lies between 7150 kc/s. and 7200 kc/s. It is anticipated that as the result of these protests the interference will shortly cease.

In regard to that portion of the band between 7200 ke/s, and 7300 kc/s, it should be pointed out that in the European region these frequencies are shared with broadcasting. Whilst deprecating the position, the Society is at present powerless to take action other than to assure members that every effort is being made to press for the early return of the low

frequency half of the band.

#### MCE and Other Commercials

The Council has also protested to the authorities regarding the continued presence in the 14 Mc/s. band of MCE and other commercial stations. It is hoped that as a result of these protests the band will shortly be cleared of these offending stations, meanwhile every effort is being made to press for the early return to amateurs of the remainder of this band.

Radio Amateurs' Examination

A course covering the syllabus of the Radio Amateurs' Examination of the City and Guilds of London Institute will be held during the 1946-47 session at the Brentford Evening Institute. Institute is situated in Boston Manor Road at the rear of Brentford Library and is on the 97 bus and 655 trolley bus routes.

Classes commence in the week beginning September 23 but the enrolment week begins on September 16 when, from Monday to Friday, 7 to 8.30 p.m., the Head of the Institute and his Staff will be present to

advise and enrol intending students.

A copy of the prospectus, which includes details of the Technical and Commercial Courses in addition to the Radio Amateurs' Course, may be obtained on application to J. M. R. Sutton, B.Sc., Head of the Brentford Evening Institute, Winterbourne, Gipsy Lane, S.W.15.

Fees For the period, September, 1946, to March, 1947:

Students joining at the first opportunity after leaving a Day School ... 2s. 0d.

subjects Single (non-vocational) (Students under 16 years of age) 2s. 6d. Single subjects (Students of 16 years of

age and over) .. 5s. 0d. . .

**Electronic Scrap** 

Members are reminded that the letter of authority loaned to them by their D.R. should on no account be handed over to a Naval Stores Officer or to his representative. The letter must be returned to the D.R. after a visit has been made to a Naval establishment.

In at least one instance difficulties have arisen because a member has handed over the letter of authority to an Admiralty official.

Colonial Empire

The G.P.O. inform us that they have now sent to the Colonial Office, copies of the licence forms in current use by them. As a result of this arrangement it is hoped that the conditions governing the issue of licences in the U.K. will be adopted as far as possible by Colonial administrations.

Malaya Call Signs We publish below a list of call signs issued by the Posts and Telegraphs Dept., Kuala Lumpur, F.M.S. E. C. Yates, 46 Orchard Road, Singapore.
J. P. Edwards, ALFSEA, Signals, Singa-VSIBA pore. S/Ldr. A. H. Dormer, H.Q. Air Command, VS1BD S.E.A., Singapore. VSIBF Capt. D. C. Finlay-Maxwell, ALFSEA, Signals, Singapore. VS1BG K. Clayton, No. 2 B.S. & R.U. Paya Lebar, Singapore. VSIBH T. C. Cocks, Rear H.Q., ALFSEA, Signals, Singapore. Capt. D. C. Finlay-Maxwell, Secretary, VS1BJ R. Signals Amateur Radio Club, Selerang Signals Barracks, Singapore. P. Zeid, 129 S.P., Cocos Island. J. A. Jones, Rear H.Q., VS1BK VS1BL ALFSEA. Singapore. VS1BM F/Lt. W. A. W. Launder, Air Command, S.E.A., Singapore. VS1BN Williams, Singapore F/Sgt. H. G. P. Signals Centre, S.E.A. VSIBO F/Lt. J. Wilson, R.A.F. Station, Kallang, Singapore. Sgt. D. Woodcock, No. 2 B.S. & R.U., R.A.F., Singapore. VS1BP Lt. J. H. Robertson, 7 Ind. Air Formation VS1BQ Signals, S.E.A.A.F., Singapore. VS1BS Sgt. R. G. Lascelles, Signal Section, Singapore, Area Flying Control, Singapore. Lt. W. R. Longworth, 7 Ind. Air Forma-VS1BR tion Signals, R.A.F., S.E.A.A.F., Changi, Singapore. Sigmn. P. Balestrini, 34 High Speed W/T Section, 2 Coy., ALF Sigs., Rear Headquarters, S.E.A.C., Singapore. VSIBT ALF VS1BU Capt. J. H. Cancellor, (Selerang Barracks), S.E.A.C., Singapore. VS1BV L.A.C. G. E. Horn, Singapore Control Centre Signals, Singapore. VS2AA J. MacIntosh, Postal Dept., Kuala Lumpur. VS2AE Tungku Temenggong Ahmad, Jalan Abdul Samad, Johore Bahru. K. J. Vickery, Signals Section Air H.Q., VS2BA Malaya, Kuala Lumpur. VS2BB P. R. Taylor, Air H.Q., Malaya, Kuala Lumpur. Chong Foong, 21 Kengkalan Kapal, Alor VS2BC Star, Kedah. VS2BD R. C. Scarlett, D Mess, X Branch, H.Q. Malaya Command, Kuala Lumpur. VS2BE Capt. G. M. Johnston, H.Q. Malaya

Kuala Lumpur.

It will be noted that stations located in Kedah are now using the prefix VS2. Prior to the war Kedah was one of the Unfederated Malay States, and the prefix VS3 was used. Calls beginning VS1A and VS2A are being reserved for pre-war licencees. Newcomers will receive calls beginning VS1B or VS2B.

VS2BF

Command, Signals Officers Mess, Golf View Road, Kuala Lumpur.

Signals Officers Mess, Golf View Road,

Capt. E. A. Charles, H.Q. Malaya Command,

Mr. Jim MacIntosh, VS2AA, now back in Malaya, has resumed his duties as the R.S.G.B. representative for Singapore Colony and the Malayan Union.

Mr. MacIntosh is located at the Central Accounts Office, Postal Dept., Kuala Lumpur, F.M.S., at which address he will be pleased to receive letters from old friends. As his gear was stolen by the Japs his station is temporarily out of action.

#### An Invitation to Distributors

In view of the increasing importance of the Amateur Radio market, the Radio Component Manufacturers Federation is anxious to ensure that the requirements of radio amateurs will be fully met in the future by the British Component Industry.

To assist in the efficient distribution of these components the Federation proposes to compile a Register of Retail Distributors who specialise more or less exclusively in catering for the Radio amateur.

An invitation is extended therefore to all Distributors in this category to apply to the Federation for inclusion in the R.C.M.F. Register. Applications should be addressed to the Secretary, Radio Component Manufacturers Federation, 22 Surrey Street, Strand, W.C.2.

#### R.S.G.B. Slow Morse Practices

The following is the schedule of Slow Morse Practices being operated by members of the Society:—

Mondays 21.30 B.S.T... G2CPF, G2BJY
Wednesdays 21.30 ... G2CPF, G3LP, GW3GL
22.00 ... G5FW

 Frequencies.
 11.30

 G2CPF (Yorks)
 1892 kc/s.

 G3JK (Notts)
 1865 kc/s.

 G5UM (Herts)
 1900 kc/s.

 G3MD (Essex)
 1960 kc/s.

 G5FW (Essex)
 1915 kc/s.

 G2BJY (Staffs)
 1905 kc/s.

 G3LP (Glos.)
 1865 kc/s.

 GW3GL (N. Wales)
 1965 kc/s.

 G2QI (Essex)
 1820 kc/s.

G2QI (Essex)

The organiser (Mr. D. Rock, GSPR, "Sandhurst," Vicarage Road, Amblecote, Stourbridge, Wores.) will be glad to receive further offers of assistance from qualified members.

#### An Offer

Mr. J. P. Cuff, who is at present resident at Amiralsvagen 8 Saltsjobaden, Stockholm, offers to translate into Swedish, any letters sent to a Stockholm address, provided such letters are confined strictly to amateur radio matters. Mr. Cuff would like to contact Swedish amateurs.

#### SUBSCRIPTIONS

Now that the war emergency is deemed to have ended, the Council have resolved that, as from October 1, 1946, the statutory subscription rates, as laid down in Article 19 of the Articles of Association, shall again apply to all Corporate Members.

The subscription rates will be as follows:—
Per

Town Corporate Members ... 21/Country Corporate Members ... 15/Dominion, Colonial and Foreign
Members residing outside the
British Isles ... ... ... ... ... 12/6
Associates ... ... ... ... ... 10/-

Town Corporate Members are those whose residence or usual place of business is situate within a radius of 25 miles from Charing Cross. Other Corporate Members resident in the British Isles are Country Members.

Town Corporate Members using the Bankers Order system are requested to instruct their Bankers to modify their order in accordance with the terms of this statement. Corporate Members who have previously taken advantage of the reduced Service rate of subscription, and have used the Bankers Order system, are also requested to instruct their Bankers to modify their order accordingly.

#### HEADQUARTERS CALLING

#### COUNCIL 1946

President:

ERNEST LETT GARDINER, B.Sc., G6GR.

Executive Vice-President: S. K. Lewer, B.Sc., G6LJ. Honorary Secretary: H. A. M. Clark, B.Sc. (Eng.),

Honorary Treasurer: A. J. H. Watson, F.S.A.A., G2YD. Arthur O. Milne, G2Ml. ident: A. D. Gay, G6NF. Honorary Editor: Immediate Past President:

Members: P. C. G. Bradley, G8KZ, C. H. L. Edwards, G8TL, R. H. Hammans, G2IG, F. G. Hoare, G2DP, S. E. Langley, G3ST, Capt. J. W. Mathews, G6LL, K. Morton Evans, O.B.E., GW5KJ.

G.P.O. Liaison Officer: Arthur E. Watts, G6UN. General Secretary: John Clarricoats, G6CL.

#### June Council Meeting

Resume of the Minutes of a Meeting of the Council of the Inc. Radio Society of Great Britain, held at New Ruskin House, Little Russell Street, London, W.C.1, on Monday, June 24, 1946.

Present.—The President (Mr. E. L. Gardiner in the Chair), Messrs. Bradley, Clark, Edwards, Morton-Evans, Hammans, Hoare, Langley, Lewer, Mathews, Watson and John Clarricoats (General Secretary).

Apologies.—Apologies were presented for the absence of Messrs. Gay, Milne and Watts.

Membership

Membership

It was resolved to elect 500 Corporate Members, 52 Associates and 21 Junior Associates. Nine Junior Associates applied for, and were granted, Corporate membership. Three Corporate members, Messrs. Allen, Bourke and Sunter, applied for and were granted Life Membership. Total elected 585. Affiliated Societies

It was resolved to grant affiliation to the Doncaster and District Radio Society, the Maidstone Amateur Radio Club, the Stockport Radio Society, and the Surrey Radio Contact Club.

Honorary Member In accordance with the requirements of Article 11, a ballot was conducted for the election of Mr. Gerald Marcuse, G2NM, to Honorary Membership of the Society. The ballot proved unanimous in favour of Mr. Marcuse's election.

It was resolved to accept and adopt the Cash Account for the month ended May 31, 1946.

The Treasurer reported that an Excess Profits Tax refund of £29 9s. 7d. was due to the Society.

Greater London Region Proposals for the setting up of a Greater London Region were considered and approved. It was agreed to convene a meeting of the affected D.R.'s at an early date.

Representation Draft announcements dealing with Regional, County and Town Representation were submitted and approved for publication.

London Region Meetings, 1946–47

It was agreed to apply to the Institution of Electrical Engineers for permission to hold meetings on the following dates:
October 18, November 15, December 20 (A.G.M.), 1946.
January 17, February 14, March 14, April 11, May 30, 1947.

German Nationals

It was agreed that applications for membership from German nationals could not be accepted.

National Institute for the Blind

The Institute was granted permission to make one Braille manuscript copy of the Amateur Radio Handbook. It was resolved to contribute a sum not exceeding 50 guineas to the Institute towards the cost of this project. Standard Log Pads

It was reported that due to the difficulty of obtaining suitable paper it was not at present possible to submit quotations for standard log books.

District 10, South Wales

It was agreed to appoint Mr. D. Alan Dyer, GWSUH, as
Deputy D.R. for South Wales to act on behalf of Mr. Hugh Phillips, who is seriously ill.

Handbook; Supplement and Booklet

It was reported that 15,000 copies of the Handbook were now available for sale in the export market, and that supplies of the 5th printing of the Supplement were due to be delivered early in July. It was further reported that the first booklet in the new series of R.S.G.B. Publications was due to appear on June 30. Release of 3.5 Mc/s. and remainder of 7 and 14 Mc/s. Bands
It was reported that a letter had been addressed to the W./T.
Board asking for a target date to be fixed for the release of the
3.5 Mc/s. band, and the remainder of the 7 and 14 Mc/s. bands.
A request had also been made for the removal of the limitation of
power from the 28 and 60 Mc/s. bands so that holders of Class B
licences may use 150 watts on both bands. Band Planning

It was reported that an alternative suggestion had been sent to the A.R.R.L. regarding their proposal to allocate the channel 14·2-14·4 Me/s. for telephony.

District 1 P.D.M.
Approval was sought and granted for the holding of a P.D.M.
in Manchester later in the year.

Re-Constitution of R.N.V.(W.)R.

The Secretary reported that steps are being taken by the Admiralty to reconstitute the R.N.V.(W.) R. on pre-war lines. He had been invited by the Admiral Commanding Reserves to attend a meeting of the Advisory Committee.

Service Valve Equivalents
Capt. A. A. Jones, GGTF, having submitted a very extensive tabulated list of Service valve equivalents, it was agreed to publish the list in booklet form, and to send a copy to each member through the medium of The Bulletin distribution. It was further agreed to print an additional supply of copies for sale to non-members.

Interference with Television

Interference with Television

The Secretary and Mr. Clark reported upon conversations which they had had with Mr. A. H. Cooper of the R.I.C. Technical Executive Committee in regard to interference with television reception. The Council agreed to delegate to Mr. Clark full powers to act on their behalf in discussions with the R.I.C. It was further agreed to record that no objection would be raised to the R.I.C. making full use of any technical information issued by the Society on the subject of interference suppression. Mr. Clark was requested to inform the R.I.C. that the Society will be glad to publish any new material on the subject which may now be available. available.

Prisoners of War Fund

Permission was granted to Mr. Edwards to place orders for 13 Avometers and 51 fountain pens for presentation to ex-prisoners of war.
The meeting terminated at 9.40 p.m.

Secretary's Vacation

The General Secretary will be on vacation from September 8 to 22, during which time it will be appreciated if correspondence requiring his personal attention can be kept to a minimum. All routine correspondence, will, of course, be dealt with as usual by Miss Gadsden and her staff.

#### Licence Matters

During recent weeks Headquarters staff have been inundated with inquiries relating to the issue of transmitting licences.

All such enquiries should be addressed to:

Engineer-in-Chief,
Radio Section, W5/5,
G.P.O., London, E.C.1.
Incidentally the Society's new publication "The Transmitting icence" will provide an answer to almost all licence queries.

#### Record Cards

Already a very large number of members have returned to Headquarters the record card enclosed with the July issue of the Bulletin, but several thousands of cards are still out-

If you have not yet returned your card, please do so at once as our printers are ready to begin work on the preparation of a list of members. Names and addresses of those who fail to return the card will not be included in the list of members.

#### Technical Articles Still Required

The Editor will be pleased to receive offers from members who are prepared to contribute technical articles of general interest. Sound constructional articles are urgently required. To assist the editorial staff, prospective contributors are requested to submit a synopsis of the article it is proposed to contribute.

contribute.

#### Amateur Radio on the Air

On July 30 last, a recorded programme entitled "Meet the Hams" was broadcast on the North Regional wavelength (450M.)
The recording was made at G5CP and G6OM. Others taking part were G2WQ and 3AO.

We congratulate the Manchester group on its enterprise.

#### STAFF VACANCIES

Vacancies exist at Headquarters for qualified Typists or Shorthand Typists. All communications should be addressed to the General Secretary and marked Staff

#### FORTHCOMING EVENTS

- District 6 (Falmouth), 7.30 p.m. at the Wood-Aug. 15
  - house Hotel. District 14 (Chelmsford), 7.30 p.m. at 184 16 Moulsham Street.
  - District 14 (Grays), 7.30 p.m. at Baird's Cafe, 16
  - Orsett Road District 2 (Bradford), 8 p.m. at 66 Great Horton
  - Land District 18 (Hull), 7.30 p.m. at 30 Princes 19
  - Rooms, 66 High Street, Chiswick. Meetings will also be held on August 28, September 7 and 15, at 20
  - the same address.

    District 15 (Hayes), 7 p.m. at the Labour Hall, ,, 21
  - District 15 (riayes), 7 p.m. at the Labour man, Uxbridge Road, Southall.
    Scotland ("C"Area), 7.30 p.m. in Room 7, Dundee Y.M.C.A.
    District 4 (Nottingham), 7 p.m. at The Foresters 21

  - District 5 (Bristol), 7 p.m. at the Foresers Hall, Peachey Street.
    District 12 (St. Albans), Monthly Dinner, 7 p.m. at Jack's Cafe, Verulam Road.
    District 5 (Bristol), 7 p.m. at Keen's Cafe, Park Row. 99
  - 23
  - 25 ..
  - Park Row. District 7 (Tadworth), 2.30 p.m. at G2YL, Petersmead, Meadow Walk, Walton-on-the-Hill. Scotland ("A "Area), 7 p.m. in the Institute of Engineers and Shipbuilders, 39 Elmbank 28
  - Crescent, Glasgow. District 15 (Ruislip), 7 p.m. at 11a Ickenham 29
  - 30
- District 2 (Barnsley), 7 p.m. at 22 Market Street. District 14 (Grays), 7.30 p.m. at Baird's Cafe, Orsett Road. DISTRICT 16 P.D.M. AT TUNBRIDGE Sept. 1
  - WELLS. District 2 (Bradford), 8 p.m. at 66 Great Horton
  - Lane.

- Sept. 4 District 6 (Penzance), 7.30 p.m. at the Dolphin Hotel, The Quay. ,, 5 District 4 (Nottingham), 7 p.m. at The Foresters
- District 4 (Nottings...) Hall, Peachey Street. Scotland ("D" Area), 7.30 p.m. Chamber of Scotland ("D" Area), 7.30 p.m. Chamber of Scotland ("D" Area), 7.30 p.m. Chamber of
  - District 12 (North London), 7.30 p.m. at Merry
  - \*\*
  - District 12 (North London), 7.30 p.m. at Merry Hills Hotel, Enfield West. District 13 and 7. Combined meeting, 7.30 p.m. at the Brotherhood Hall, West Norwood. District 15 (Hounslow), 7 p.m. at The Scouts Hall, Sutton Estate, Great West Road. DISCRICT 11 P.D.M. AT NANT HALL HOTEL, PRESTATYN. 8
  - \*\*
  - District 10 (Cardiff), 7 p.m. at the Park Hotel. District 7 (Coulsdon), 7.30 p.m. at Blacksmiths Arms, South End, Croydon. District 14 (Grays), 7.30 p.m. at Baird's Cafe, , 10
  - ., 13
  - Orsett Road.
    DISTRICT 10 P.D.M. AT THE GRAND
    HOTEL, SWANSEA.
  - .. 14
  - .. 15
  - HOTEL, SWANSEA.
    District 15 (Ashford), 6.30 p.m. at G6RS, 81
    The Avenue, Sunbury-on-Thames.
    District 13 (S.E. London), 3 p.m. at G4DC,
    63 Erlanger Road, London, S.E.14.
    District 2 (Bradford), 8 p.m. at 66 Great Horton ., 16
  - Scotland ("C" Area), 7.30 p.m. in Room 7, Y.M.C.A. Dundee. ,, 18
  - District 4 (Nottingham), 7 p.m. at The Foresters .. 19
  - Hall, Peachey Street. District 6 (Falmouth), 7.30 p.m. at the Wood-.. 19
  - house Hotel. District 18 (Hull), 7.30 p.m. at 30 Princes ., 23
  - Avenue.
  - District 3 (Birmingham), M.A.R.S. Annual General Meeting and Dinner at Imperial Hotel

A cordial invitation is extended to Society members to attend any of the above meetings

#### SOUTH WALES & MONMOUTHSHIRE PROVINCIAL DISTRICT MEETING to be held on

SATURDAY, SEPTEMBER 14th, 1946 at the

# **GRAND HOTEL, SWANSEA**

PROGRAMME

Assemble .		 	1.30 p.m.
<b>Business Meetin</b>	1g	 	2.15 p.m.
Tea		 	4.45 p.m.
Informal Discus	sions	 	5,30 p.m.

Inclusive charge: 6/-. Reservations for above and for lunch (extra) to Mr. W. Bowen (GW4CC) "Thistle Dhu" Upper Killay, Swansea or to Mr. D. A. Dyer (GW8UH) 29, Ladysmith Road, Penylan, Cardiff, not later than September 1st.

#### Channel Islands

Channel Islands

Jersey.—Visits have been received from G6TV, VU2EB/VK3EE
and BRS12,500. GC4LI made "history" by working Guernsey
on 28 Mc/s. GC8NO and 2FMV continue to obtain good results on
18. GC3GS claims to be first GC to work all Britain on 7.
GC2CNC caused a stir by a QSO on 14 with OA4AX using 3 watts.
Other GC's insist on seeing QSL (when it arrives).

Guernsey.—GC8MF is working some grand DX. What about
more interest being shown in that isle?
Stop Press.—GC2CNC has had a QSO with OQ5AV on 14
(2 watts).

GC2CNC.

# Cheltenham Amateur Radio Society

The Cheltenham Amateur Radio Society

The Cheltenham Amateur Radio Society are to hold a D.F.
hunt on August 25. The call sign used will be 68DA/P and the
hidden transmitter will operate on 1900 kc/s. The search area
will be limited to a five miles radius of Cheltenham. All amateurs
—transmitting or listening—are invited to join in the hunt which
will start at 1400 BST from G5BK (200 Prestbury Road) and
will end four hours later.

The Society which meets weekly at the Technical Callege.

will end four nours later.

The Society, which meets weekly at the Technical College,
Lansdown Road, by permission of the Principal, invites all
interested in Amateur Radio to attend there on Friday evenings
at 7.30 p.m. The Secretary is Mr. H. Brislin, 52 Cleevemount

# North West of Ireland Amateur Radio Society

A successful inaugural meeting and dinner was held in London A succession mangurar meeting and differ was field in London-derry on July 20, 1946, when a constitution was adopted and office bearers elected.

The guests included several U.S. amateurs at present serving with the U.S. Navy in the port, one of whom, a W6 from Southern

California, gave an interesting talk on the work of the amateurs in the U.S.A.

The Chairman of the Society is Mr. J. J. Hargan, GI2DHB, 8 Epworth Street, Londonderry. Hon. Secretary is Mr. S. H. Foster, I Nicholson Square, Londonderry.

#### South Shields Amateur Radio Club

This Club, which meets every Friday evening at 7 p.m. in St. Paul's School Room, Westoe, South Shields, cordially welcomes new members. At a recent meeting, the Chairman, Mr. J. Teasdale, GSVV, gave an interesting talk on crystals.

#### Stoke-on-Trent Radio Society

Mr. D. Poole, BRS11298, 13 Oldfield Avenue, Norton-le-Moors, Stoke-on-Trent, is the Honorary Secretary of the above Society, which is open to all interested in radio. Present membership is 30.

#### Wolverhampton Amateur Radio Society

Meetings of the Society are held on the first Monday in every month at Messrs. Baynell, Merridale Street, Wolverhampton. An interesting programme of lectures has been arranged for the coming season.

Young members are particularly welcomed, as are Service members of the R.S.G.B. who are taking up residence in the town. The Hon. Secretary, Mr. W. O. Sturmey, GSKL, 3 Broome Road, Wolverhampton, will be pleased to advise potential

#### Wirral Amateur Transmitting and Short Wave Club

members on any matter concerning the Society.

The Wirral Amateur Transmitting and Short Wave Club having been re-formed, past and prospective members in the areas of Birkenhead, Wallasey and West Cheshire are asked to communicate with the Acting Secretary, Mr. B. O'Brien (G2AMV), "Caldy," Irby Road, Heswall, Cheshire, with a view to calling an early receive. an early meeting. 

#### OUR FRONT COVER

NOTHING much of real experimental worth in radio can be accomplished without accurate measurement. The Model 7 Universal AvoMeter is a 50-range B.S. first-The Model 7 Universal AvoMeter is a 50-range B.S. first-grade combination measuring instrument giving direct readings of A.C. and D.C. Voltage, A.C. and D.C. current, Resistance and Capacity. Audio-frequency power output and Power Level readings are also provided for. It is but one of the comprehensive range of "AVO" high-grade electrical measuring instruments—a range which includes something to meet the needs of every amateur, service engineer and serious experimenter. Fuller particulars obtainable from The Automatic Coil Winder & Electrical Equipment Co., Ltd., Windsor House, Douglas Street, S.W.I.

Douglas Street, S.W.I.

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A MATEUR closing down offers Proceedings I.R.E., Wireless World, R.S.G.B. BULLETIN, I.E.E. Journals Pt. 1, 2, 3. P.O.E.E. Journal, Wireless Engineer, Electronics, Power Engineer, 1936-45 incl. Sets or single copies cheap. S.A.E.—Write Box B/80, Parrs, 121 Kingsway, London, W.C.2.

A RMY Officer, now available, seeks situation as travelling representative, world coverage for electrical and electronic products. Technically qualified, pre-war traveller European countries, personality, linguist, unmarried.—Box B/7, Parrs, 121 Kingsway, London, W.C.2.

A R77 communication receiver, 1941 model. 30 Mc/s.-540 kc/s., 110-245 A.C., with speaker; £60, or near offer. Vortexion 50 watt speech amplifier and 616 modulator with microphone and power supplies, 10,000 ohm output, £20.—G2TR, Boundaries,

power supplies, 10,000 ohm output, £20.—G2TR, Boundaries, Four Marks, Alton, Hants. Medstead 2153.

AVO-MINOR Universal, Practically new, but no test leads or case. First £7 secures.—WEST, 76 Escombe Road, Bishop

A Vo-altage Children and Case. First £7 secures.—West, 76 Escombe Road, Bishop Aukland, Co. Durham.

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E.C.O. Unit, 68K7 oscillator, 807 doubler, on metal chassis, with power supply (230v. A.C.), meter, ganged tuning, complete, £25.—Box B/61, Parrs, 121 Kingsway, London, W.C.2.

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EXCHANGE Zeiss, Contax II with Sonnar F.2 in Ever-ready case, perfect condition, for complete National H.R.O. Standard; covering Amateur frequencies.—SMITH, 25 Moor Street South, Wolverhampton.

EX-SERVICE Crystals wanted, below 7 Mc/s. for experimental purposes; frequency, price.—GSDD, 37 Meadow Road,

Porposes: Trequency, price—OSDD, 37 Meanow Road,
POR SALE.—T55, T40, 807R.C.A., 6K7G, 6K8G, 6B8G, 2μf
Aerovox oil-filled, Thordarson 300mA swinging choke, Woden
5v. 4A. + 5v. 4A., Dunco relay 6·3v., Speedex key; offers.
Wanted: new 35T.—G3DO, 27 Pilkington Avenue, Sutton
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Coldfield, Birmingham.

G6VS for Ham gear. Eddystone and Pullin equipment. Hundreds of bargains. S.A.E. for list.—G6VS (EX-VU2EU) Carlton Music Salon, West Kirby, Cheshire.

G4JI. For sale, wooden racks for standard metal panel sizes, One 3-tier, 25s.; two 4-tiers, 35s. each.; one 6-tier, 50s., all unused and ready for use. Surplus gear for sale.—41 Willoughby

unused and ready for use. Surplus gear for sale.—41 Willoughby Road, Boston, Lines.

HALLICRAFTERS S20 Sky Champion receiver 550 kc/s.-44
Mc/s. Hardly used. £25 or best offer. Buyer must collect.—
BR86239, 17 Barnhill Avenue, Pateham, Brighton, 6.

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Box B/42, PARS, 121 Kingsway, London, W.C.2.

JAMES S. Kendall, A.M.I.R.E. can supply most types of receiving valves at current prices. Eric kits of 48 assorted; watt in steel case, 24s. Transformers 350-0-350, 80mA, 4 + 4v. or 6·3 + 5v., 30s. Multi-ratio O.P. 6s. 6d. Oli-filled condensers 600v. D.C. 1µf, 1s. 6d. 2µf, 2s. 6d. 10µf, 10s. 6d.—49 High Brow, Birmingham, 17.

ITS! Grade 1 accuracy multi-range meters in kit form. 16

Birmingham, 17.

KITS! Grade 1 accuracy multi-range meters in kit form. 16 ranges, A.C., D.C. 1,000v. and 500m/A. 0-400,000 ohms. 0·25m/A FSD movement accurately calibrated scales. All necessary switches, knobs, resistors, rectifier, terminals and prefabricated case: £7 15s. Immediate delivery. Limited supplies. Moreton Cheyney Co., Gaol Road, Stafford.

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Finehley, London, N.3.

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stand. Charger less valve, 2 energised loudspeakers. £20 or exchange. Carr. Forwd. Box B/43, Parrs, 121 Kingsway, London, W.C.2.

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5 metre superhet convertor with 1852, 6Ks. 1-v-2 mains receiver, built-in speaker, coils, etc. Quantity of radio gear.—G3SN, 7 Sidwell Terrace, Exeter.

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SALE.—Cathode ray oscilloscope 250 volts A.C., also complete Linguaphone French course, both new, little used.—ThoMas, Baglan House, Treorchy, Glam.

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STUDENT I.P.R.E. desires employment, radio trade, diligent student, available September.—Box B/81, PARRS, 121 Kingsway, London, W.C.2.

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