

WIRELESS WORLD" GUIDE TO

# BROADCASTING STATIONS

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EDITION



*Daniel B. Marshall*



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# Guide to Broadcasting Stations

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# INTRODUCTION

IN preparing the fourth edition of this booklet every endeavour has been made to minimize errors in the lists, which have been completely revised from information obtained from the best available sources. We are indebted to the B.B.C. for allowing us to check the entries against frequency measurements made at the Tatsfield Receiving Station.

The list of long- and medium-wave stations does not entirely conform to the Lucerne Plan, introduced in 1934 and still operative, but gives the frequencies at present employed by stations in the European Area, which, for the purposes of frequency allocations, is bounded on the North and West by the natural limits of Europe, on the East by the meridian  $40^{\circ}\text{E}$  and on the South by the parallel  $30^{\circ}\text{N}$ .

In the case of the short-wave transmitters, the list includes both the frequencies at present employed by stations and those allocated to them although not necessarily in use at the time of the preparation of the data.

In order to differentiate between stations used for Forces transmissions and those for the civil population in occupied Zones of Europe and the Far East we have indicated the former in the frequency list by the initials A.F. (American Forces), B.F. (British Forces) and R.F. (Russian Forces).

Stations known to have a power of less than one kilowatt have not been included in the lists.

*The Editor,*  
"Wireless World"

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*London, S.E.1.*

# Long- and Medium-wave European Stations

kc/s	Metres	kW	Station	Dial Reading
153	1,961	—	Kaunas, Lithuania (U.S.S.R.)	.....
155	1,935	10	Prague III (Czechoslovakia)	.....
160	1,875	150	Lahti (Finland)	.....
160	1,875	150	Brasov (Rumania)	.....
160	1,875	10	Kootwijk (Netherlands)	.....
167	1,796	200	Ottringham, Yorks. (Gt. Brit.)	.....
173 174	1,724 34	500	Moscow I, Russia (U.S.S.R.)	.....
182	1,648	120	Ankara (Turkey) P A R I S ?	.....
191	1,571	100	Berlin (Germany : U.S.S.R. Zone)	.....
200	1,500	150	Droitwich, Worcs. (Gt. Brit.)	.....
200	1,500	—	Kiev, Ukraine (U.S.S.R.)	.....
208	1,442	100	Leningrad, Russia (U.S.S.R.)	.....
216	1,389	150	Motala (Sweden)	.....
224	1,339	10	Warsaw II (Poland)	.....
232	1,293	150	Luxembourg	.....
232	1,293	100	Moscow II, Russia (U.S.S.R.)	.....
240	1,250	60	Kalundborg I (Denmark)	.....
248	1,209.6	120	Kiev, Ukraine (U.S.S.R.)	.....
253	1,186	10	Bodö (Norway)	.....
260	1,154	60	Osto (Norway)	.....
260	1,154	20	Bergen I (Norway)	.....
269	1,115	—	Minsk, Byelorussia (U.S.S.R.)	.....
271	1,107	100	Reykjavik (Iceland)	.....
284	1,056	—	Königswusterhausen (R.F.) (Germany : U.S.S.R. Zone)	.....
291	1,029	10	Tromsö (Norway)	.....
310	968	1	Joensuu (Finland)	.....
347	864.6	1	Finnmark (Norway).	.....
355	845	1	Bergen II (Norway)	.....
356	843	—	Voronezh, Russia (U.S.S.R.)	.....
385	779.2	10	Kharkov, Ukraine (U.S.S.R.)	.....
392	765.3	25	Banska Bystrica (Czechoslovakia)	.....
392	765.3	10	Lulea (Sweden)	.....
405	741	—	Geneva (Switzerland)	.....

kc/s	Metres	kW	Station	Dial Reading
415	722	10	Ostersund (Sweden)	.....
433	693	10	Oulu (Finland)	.....
512	585.9	—	Tartu, Estonia (U.S.S.R.)	.....
514	583.7	15	Pizen (Czechoslovakia)	.....
519	578	20	Innsbruck (Austria : French Zone)	.....
519	578	6	Vorarlberg (Austria : French Zone)	.....
519	578	1	Hamar (Norway)	.....
527	569.3	20	Kuopio (Finland)	.....
527	569.3	5	Bremen (Germany : U.S. Zone)	.....
527	569.3	5	Ajdovscina (Yugoslavia)	.....
530	566	2	Kaiserslautern (Germany : French Zone)	.....
536	559.7	20	Bolzano (Italy)	.....
536	559.7	5	Cagliari (Italy)	.....
536	559.7	—	Vilna, Lithuania (U.S.S.R.)	.....
541	554	—	Kalundborg II (Denmark)	.....
549	549.5	50	Budapest I (Hungary)	.....
556	539.6	100	Beromunster (Switzerland)	.....
556	539.6	—	Rostov-on-Don, Russia (U.S.S.R.)	.....
563	532.5	20	Potsdam (Germany : U.S.S.R. Zone)	.....
565	531	100	Athlone (Eire)	.....
565	531	12	Palermo (Italy)	.....
565	531	—	Graz (B.F.) (Austria : British Zone)	.....
565	531	—	Klagenfurt (B.F.) (Austria : Brit. Zone)	.....
565	531	—	Kishinev, Moldavia (U.S.S.R.)	.....
566	530	—	Gorki, Russia (U.S.S.R.)	.....
574	522.6	100	Stuttgart (Germany : U.S. Zone)	.....
574	522.6	20	Jerusalem II (Palestine)	.....
583	514.6	20	Droitwich, Worcs. (Gt. Brit.)	.....
583	514.6	—	Riga, Latvia (U.S.S.R.)	.....
592	506.8	10	Vienna I (Austria : U.S.S.R. Zone)	.....
592	506.8	2	Damascus (Syria)	.....
592	506.8	2	Paris III (France)	.....
601	499.2	20	Rabat I (French Morocco)	.....
601	499.2	15	Athens (Greece)	.....
601	499.2	10	Sundsvall (Sweden)	.....
601	499.2	10	Frankfurt (A.F.) (Germany : U.S. Zone)	.....
603	497.5	4.5	Sarajevo (Yugoslavia)	.....
610	491.8	100	Florence I (Italy)	.....
615	487.8	1	Eidar (Iceland)	.....



kc/s	Metres	kW	Station	Dial Reading
620	483.9	20	Brussels I (Belgium)	.....
620	483.9	—	Cairo I (Egypt)	.....
629	476.9	100	Vigra (Norway)	.....
629	476.9	20	Kristiansand (Norway)	.....
629	476.9	20	Berlin (Germany : U.S. Zone)	●
629	476.9	40	Lisbon (Portugal)	.....
629	476.9	10	Zagreb (Yugoslavia)	.....
629	476.9	1	Linz (A.F.) (Austria : U.S. Zone)	.....
638	470.2	120	Prague I (Czechoslovakia)	●
648	463	100	Limoges-Nieul I (France)	●
648	463	—	Murmansk, Russia (U.S.S.R.)	.....
648	463	—	Petrozavodsk, Karelia (U.S.S.R.)	.....
658	455.9	100	Norden (Germany : British Zone)	.....
668	449.1	100	Moorside Edge, Yorks. (Gt. Brit.)	●
668	449.1	5	Maribor (Yugoslavia)	.....
677	443.1	100	Sottens (Switzerland)	●
677	443.1	20	Jerusalem I (Palestine)	.....
686	437.3	20	Belgrade (Yugoslavia)	.....
686	437.3	15	Madrid (Spain)	.....
695	431.7	100	Paris I (France)	.....
704	426.1	60	Andorra	●
704	426.1	55	Stockholm (Sweden)	.....
704	426.1	2	Aleppo (Syria)	.....
713	420.8	100	Rome I (Italy)	.....
722	415.5	100	Leipzig (R.F.) (Germany : U.S.S.R. Zone)	.....
722	415.5	60	Hilversum II (Netherlands)	●
722	415.5	12	Lisbon (Portugal)	.....
731	410.4	10	Monte Carlo (Monaco)	.....
731	410.4	5	Seville (Spain)	.....
731	410.4	—	Tallinn, Estonia (U.S.S.R.)	.....
740	405.4	100	Munich (Germany : U.S. Zone)	●
749	400.5	20	Marseilles I (France)	●
749	400.5	—	Dzhowtchikov, Russia (U.S.S.R.)	●
758	395.8	50	Warsaw I (Poland)	●
758	395.8	13	Madrid (Spain)	.....
758	395.8	—	Istanbul (Turkey)	.....
767	391.1	60	Burghead, Scotland (Gt. Brit.)	.....
767	391.1	60	Westerglen, Scotland (Gt. Brit.)	.....
767	391.1	2.5	Redmoss, Scotland (Gt. Brit.)	.....

kc/s	Metres	kW	Station	Dial Reading
767	391.1	—	Sofia II (Bulgaria)	.....
767	391.1	—	Vienna (B.F.) (Austria : British Zone)	.....
776	386.6	10	Paris II (France)	.....
776	386.6	10	Stalino, Ukraine (U.S.S.R.)	.....
785	382.2	100	Leipzig (Germany : U.S.S.R. Zone)	.....
795	377.4	9	Barcelona (Spain)	.....
795	377.4	—	Lwow, Ukraine (U.S.S.R.)	.....
804	373.1	60	Washford, Som. (Gt. Brit.)	.....
804	373.1	10	Penmon, Wales (Gt. Brit.)	.....
804	373.1	2	Salonika (Greece)	.....
804	373.1	1	Wrexham, Wales (Gt. Brit.)	.....
814	368.6	50	Milan I (Italy)	.....
823	364.5	60	Tunis (Tunisia)	.....
823	364.5	20	Trondheim (Norway)	.....
823	364.5	12	Bucharest I (Rumania)	.....
827	362.6	10	Freiburg (Germany : French Zone)	.....
827	362.6	5	Sigmaringen (Germany : French Zone)	.....
832	360.6	35	Moscow III, Russia (U.S.S.R.)	.....
832	360.6	10	Quimper-Quimerch (France)	.....
832	360.6	—	Djinocastra (Albania)	.....
833	360	1	Benghazi (B.F.) (Libya)	.....
841	356.7	100	Berlin (Germany : U.S.S.R. Zone)	.....
850	352.9	100	Stavanger (Norway)	.....
850	352.9	100	Sofia (Bulgaria)	.....
859	349.2	20	Strasbourg-Brumath (France)	.....
859	349.2	—	Simferopol, Russia (U.S.S.R.)	.....
863	347.6	30	Zaragoza (Spain)	.....
868	345.6	10	Brussels IV (Belgium)	.....
868	345.6	6	Poznan (Poland)	.....
868	345.6	1	Rabat II (French Morocco)	.....
877	342.1	100	Brookmans Park, London (Gt. Brit.)	.....
886	338.6	100	Alpenland (Austria : British Zone)	.....
895	335.2	100	Lyon-Tramoyes (France)	.....
895	335.2	40	Turku (Finland)	.....
904	331.9	100	Hamburg (Germany : British Zone)	.....
904	331.9	100	Cologne (Germany : British Zone)	.....
913	328.6	100	Toulouse-Muret (France)	.....
913	328.6	10	Dniepropetrovsk, Ukraine (U.S.S.R.)	.....
922	325.4	100	Morava (Czechoslovakia)	.....

kc/s	Metres	kW	Station	Dial Reading
922	325.4	20	Komarov (Czechoslovakia)	.....
932	321.9	20	Brussels II (Belgium)	.....
941	318.8	20	Algiers (Algeria)	.....
941	318.8	10	Goteborg (Sweden)	.....
950	315.8	50	Breslau (Poland)	.....
950	315.8	2	Nuremberg (Germany : U.S. Zone)	.....
959	312.8	20	Nancy I (France)	.....
961	312.2	1	Namsos (Norway)	.....
968	309.9	30	Corunna (Spain)	.....
968	309.9	20	Pau (France)	.....
968	309.9	10	Odessa, Ukraine (U.S.S.R.)	.....
968	309.9	30	Corunna (Spain)	.....
968	309.9	—	Temesvar (Rumania)	.....
977	307.1	100	Start Point, Devon (Gt. Brit.)	.....
986	304.3	24	Torun (Poland)	.....
986	304.3	80	Turin I (Italy)	.....
986	304.3	5	Genoa II (Italy)	.....
995	301.5	110	Hilversum I (Netherlands)	.....
1,004	298.8	50	Bratislava (Czechoslovakia)	.....
1,004	298.8	1	Casablanca (French Morocco)	.....
1,013	296.2	60	Droitwich, Worcs. (Gt. Brit.)	.....
1,013	296.2	1	Norwich, Norfolk (Gt. Brit.)	.....
1,022	293.5	120	Madrid (Spain)	.....
1,022	293.5	10	Cracow (Poland)	.....
1,031	291	50	Coblentz (Germany : French Zone)	.....
1,031	291	20	Weimar (Germany : U.S.S.R. Zone)	.....
1,040	288.5	20	Rennes-Alma (France)	.....
1,040	288.5	10	Leningrad, Russia (U.S.S.R.)	.....
1,040	288.5	8	Budapest II (Hungary)	.....
1,050	285.7	100	Stagshaw, North'd. (Gt. Brit.)	.....
1,050	285.7	100	Lisnagarvey, N. Ireland (Gt. Brit.)	.....
1,050	285.7	5	Bucharest II (Rumania)	.....
1,050	285.7	1	Londonderry, N. Ireland (Gt. Brit.)	.....
1,050	285.7	—	Krasnodar, Russia (U.S.S.R.)	.....
1,059	283.3	20	Bari (Italy)	.....
1,063	282.2	1.5	Brno II (Czechoslovakia)	.....
1,068	280.9	30	Lisbon (Portugal)	.....
1,068	280.9	10	Montbéliard (France)	.....

kc/s	Metres	kW	Station	Dial Reading
1,068	280.9	3	San Sebastian (Spain)	.....
1,068	280.9	2	Nimes (France)	.....
1,068	280.9	1	Vienna (A.F.) (Austria : U.S. Zone)	.....
1,068	280.9	1	Bologna II (Italy)	.....
1,068	280.9	1	Naples II (Italy)	.....
1,077	278.6	100	Bordeaux II (France)	.....
1,086	276.2	100	Falun (Sweden)	.....
1,095	274	20	Langenberg (B.F.) (Germany : British Zone)	.....
1,095	274	10	Elmshorn (B.F.) (Germany : British Zone)	.....
1,095	274	10	Hanover (B.F.) (Germany : British Zone)	.....
1,095	274	5	Berlin (B.F.) (Germany : British Zone)	.....
1,104	271.7	5	Catania (Italy)	.....
1,104	271.7	3	Florence II (Italy)	.....
1,104	271.7	1	Salzburg (A.F.) (Austria : U.S. Zone)	.....
1,104	271.7	1	Barcelona (Spain)	.....
1,113	269.5	60	Prague II (Czechoslovakia)	.....
1,113	269.5	10	Algiers (Algeria)	.....
1,122	267.4	1	Alexandria (Egypt)	.....
1,122	267.4	—	Crowborough, Sussex (Gt. Brit.)	.....
1,122	267.4	—	Ottringham, Yorks. (Gt. Brit.)	.....
1,131	265.3	100	Hörby (Sweden)	.....
1,135	264.3	2.5	Bilbao (Spain)	.....
1,140	263.2	10	Trieste (Intl. Zone)	.....
1,149	261.1	60	Brookmans Park, London (Gt. Brit.)	.....
1,149	261.1	60	Moorside Edge, Yorks.     "	.....
1,149	261.1	60	Westerglen, Scotland     "	.....
1,149	261.1	20	Burghead, Scotland     "	.....
1,149	261.1	10	Lisnagarvey, N. Ireland     "	.....
1,149	261.1	10	Stagshaw, North'd.     "	.....
1,149	261.1	2	Redmoss, Scotland     "	.....
1,149	261.1	2	Redruth, Cornwall     "	.....
1,149	261.1	1	Plymouth, Devon     "	.....
1,149	261.1	1	Londonderry, N. Ireland     "	.....
1,158	259.1	11	Ostrava (Czechoslovakia)	.....
1,158	259.1	1	Dijon I (France)	.....
1,167	257.1	15	Monte Ceneri (Switzerland)	.....

kc/s	Metres	kW	Station	Dial Reading
1,176	255.1	30	Copenhagen (Denmark)	.....
1,185	253.2	60	Nice-La Brague (France)	.....
1,195	251.6	60	Frankfurt (Germany : U.S. Zone)	.....
1,204	249.2	100	Haniska (Czechoslovakia)	.....
1,213	247.3	20	Lille-Camphin I (France)	.....
1,222	245.5	20	Venice-Campalto (Italy)	.....
1,222	245.5	2	Beek (Netherlands)	.....
1,222	245.5	2	Hoogezand (Netherlands)	.....
1,222	245.5	1	Porsgrunn (Norway)	.....
1,231	243.7	10	Katowice (Poland)	.....
1,235	242.9	20	Schwerin (Germany : U.S.S.R. Zone)	.....
1,238	242	1	Tangier (Morocco : International Zone)	.....
1,240	241.9	20	Skoplje (Yugoslavia)	.....
1,240	241.9	1	Cork (Eire)	.....
1,249	240	100	Munich (A.F.) (Germany : U.S. Zone)	.....
1,249	240	100	Stuttgart (A.F.) (Germany : U.S. Zone)	.....
1,258	238.5	5	Rome II (Italy)	.....
1,267	236.8	5	Salzburg (Austria : U.S. Zone)	.....
1,267	236.8	20	Saarbrucken (Germany : French Zone)	.....
1,267	236.8	—	Kassel (Germany : U.S. Zone)	.....
1,276	235.1	10	Fredrikstad (Norway)	.....
1,276	235.1	2	Varna (Bulgaria)	.....
1,276	235.1	2	Valencia (Spain)	.....
1,285	233.5	15	Graz (Austria : British Zone)	.....
1,285	233.5	7	Klagenfurt (Austria : British Zone)	.....
1,285	233.5	5	Brussels III (Belgium)	.....
1,285	233.5	—	Athens (Greece)	.....
1,294	231.8	15	Linz (Austria : U.S. Zone)	.....
1,294	231.8	1	Notodden (Norway)	.....
1,303	230.2	50	Bologna I (Italy)	.....
1,303	230.2	1	Warsaw (Poland)	.....
1,303	230.2	20	Magdeburg (Germany : U.S.S.R. Zone)	.....
1,312	228.7	10	Vienna II (Austria : U.S.S.R. Zone)	.....
1,312	228.7	5	Naples I (Italy)	.....
1,312	228.7	2.5	Malmo (Sweden)	.....
1,321	227.1	1	Clermont (France)	.....
1,325	226	—	Vatican City	.....
1,330	225.6	2.5	Flensburg (Germany : British Zone)	.....
1,330	225.6	20	Hanover (Germany : British Zone)	.....

kc/s	Metres	kW	Station	Dial Reading
1,330	225.6	5	Berlin (Germany : British Zone)	.....
1,339	224	25	Lyon-Dardilly (France)	.....
1,339	224	20	Limoges-Nieul II (France)	.....
1,339	224	20	Marseilles II (France)	.....
1,339	224	10	Lodz (Poland)	.....
1,339	224	10	Nancy II (France)	.....
1,339	224	20	Toulouse II (France)	.....
1,348	222.6	5	San Remo (Italy)	.....
1,348	222.6	5	Jihlava (Czechoslovakia)	.....
1,348	222.6	1	Montélimar (France)	.....
1,348	222.6	1	Perpignan (France)	.....
1,348	222.6	1	Cairo II (Egypt)	.....
1,348	222.6	1	Dublin (Eire)	.....
1,348	222.6	1	Poitiers (France)	.....
1,357	221.1	20	Turin II (Italy)	} Real Network
1,357	221.1	10	Milan II (Italy)	
1,357	221.1	10	Genoa I (Italy)	
1,366	219.6	10	Nantes-Montbert (France)	.....
1,366	219.6	5	Ceske-Budejovice (Czechoslovakia)	.....
1,366	219.6	20	Herford (B.F.) (Germany : British Zone)	.....
1,375	218.2	10	Hilversum III (Netherlands)	.....
1,375	218.2	2	Hoogezand (Netherlands)	.....
1,375	218.2	2	Beek (Netherlands)	.....
1,384	216.8	20	Clevedon, Som. (Gt. Brit.)	} .....
1,384	216.8	10	Bartley, Hants. (Gt. Brit.)	
1,384	216.8	1	Stettin (Poland)	.....
1,384	216.8	—	Memel, Lithuania (U.S.S.R.)	.....
1,393	215.4	40	Bordeaux-Carrère II (France)	.....
1,393	215.4	25	Nice-Antibes (France)	.....
1,393	215.4	24	Rennes II (France)	.....
1,393	215.4	20	Dijon II (France)	.....
1,393	215.4	20	Rouen-Louvetot (France)	.....
1,393	215.4	15	Grenoble (France)	.....
1,393	215.4	10	Montpellier I (France)	.....
1,393	215.4	10	Strasbourg II (France)	.....
1,402	214	2	Stara Zagora (Bulgaria)	.....
1,402	214	1	Umea (Sweden)	.....
1,402	214	1	Hudiksvall (Sweden)	.....
1,411	212.6	10	Bayreuth (A.F.) (Germany : U.S. Zone)	.....

kc/s	Metres	kW	Station	Dial Reading
1,411	212.6	3	Oporto (Portugal)	.....
1,420	211.3	10	Helsinki (Finland)	.....
1,420	211.3	5	Dubrovnik (Yugoslavia)	.....
1,420	211.3	1	Berlin (A.F.) (Germany : U.S. Zone)	.....
1,420	211.3	1	Oran I (Algeria)	.....
1,420	211.3	—	Trieste (B.F.) (Intl. Zone)	.....
1,429	209.9	5	Ancona (Italy) <i>Recd Net work</i>	.....
1,429	209.9	2	Bremen (A.F.) (Germany : U.S. Zone)	.....
1,429	209.9	15	Vienna (Austria : U.S. Zone)	.....
1,429	209.9	1	Montceau-les-Mines (France)	.....
1,429	209.9	1	Pori (Finland)	.....
1,438	208.6	2	Constantine II (Algeria)	.....
1,447	207.3	9	Burgos (Spain)	.....
1,456	206	2	Kosice (Czechoslovakia)	.....
1,456	206	1.5	Lille-Camphin II (France)	.....
1,456	206	1.5	Dresden (Germany : U.S.S.R. Zone)	.....
1,456	206	1	Ennezat (France)	.....
1,471	203.9	1	Tirana (Albania)	.....
1,474	203.5	—	Synchronised low power stations (Gt. Brit.) <i>BBC Third</i>	.....
1,492	201.1	5	Messina (Italy)	.....
1,492	201.1	1	Tampere (Finland)	.....
1,509	198.9	—	Trieste (A.F.) (Intl. Zone)	.....
1,510	198.7	1	Gorizia (A.F.) (Italy)	.....
1,522	197	10	Vaasa (Finland)	.....
1,584	189.4	5	Wiesbaden (Germany : U.S. Zone)	.....

Total: 327 Stns

heard 47 51  
and identified:

## European F.M. Stations

Mc/s	Metres	kW	Station
41.20	7.282	—	Copenhagen (Denmark)
41.62	7.206	—	Stockholm (Sweden)
46.50	6.452	—	Moscow (U.S.S.R.)
90.30	3.322	0.5	London (Gt. Britain)

# Geographical List of Long- and Medium- wave European Stations

	kc/s		kc/s	Finland—Cont:	kc/s
<b>ALBANIA</b>		<b>BULGARIA</b>		Kuopio	527
Djinoastr	832	Sofia	767	Lahti	160
Tirana	1,471	"	850	Oulu	433
<b>ALGERIA</b>		Stara Zagora	1,402	Pori	1,429
Algiers	94	Varna	1,276	Tampere	1,492
"	1,113	<b>CZECHOSLOVAKIA</b>		Turku	895
Constantine	1,438	Banska Bystrica	392	Vaasa	1,522
Oran	1,420	Bratislava	1,004	<b>FRANCE</b>	
<b>ANDORRA</b>	704	Brno	1,063	Bordeaux	1,077
<b>AUSTRIA</b>		Ceske-Budejovice	1,366	Bordeaux-Carràire	1,393
(British Zone)		Haniska	1,204	Clermont	1,321
Alpenland	886	Jihlava	1,348	Dijon	1,393
Graz	565	Komarov	922	"	1,158
"	1,285	Kosice	1,456	Ennezat	1,456
Klagenfurt	565	Morava	922	Grenoble	1,393
"	1,285	Ostrava	1,158	Lille-Camphin	1,213
Vienna	767	Plzen	514	" "	1,456
(French Zone)		Prague	155	Limoges-Nieul	648
Innsbruck	519	"	638	" "	1,339
Vorarlberg	519	"	1,113	Lyon-Dardilly	1,339
(U.S. Zone)		<b>DENMARK</b>		Lyon-Tramoyes	895
Linx	629	Copenhagen	1,176	Marseilles	749
"	1,294	Kalundborg	240	"	1,339
Salzburg	1,104	"	541	Montbéliard	1,068
"	1,267	<b>EGYPT</b>		Montceau-les-Mines	1,429
Vienna	1,068	Alexandria	1,122	Montélimar	1,348
"	1,429	Cairo	620	Montpellier	1,393
(U.S.S.R. Zone)		"	1,348	Nancy	959
Vienna	592	<b>EIRE</b>		"	1,339
"	1,312	Athlone	565	Nantes-Montbert	1,366
<b>BELGIUM</b>		Cork	1,240	Nice-Antibes	1,393
Brussels	620	Dublin	1,348	Nice-La Brague	1,185
"	868	<b>ESTONIA (See U.S.S.R.)</b>		Nimes	1,068
"	932	<b>FINLAND</b>		Paris	592
"	1,285	Helsinki	1,420	"	695
		Joensuu	310	"	776



France—Cont.	kc/s	Germany—Cont.	kc/s	Great Britain—Cont.	kc/s
Pau	968	Nuremberg	950	Redmoss, Scotland	767
Perpignan	1,348	Stuttgart	574	" "	1,149
Poitiers	1,346	"	1,249	Redruth, Cornwall	1,149
Quimper-Quimerch	832	(U.S.S.R. Zone)		Stagshaw, North'd.	1,050
Rennes	1,393	Berlin	191	" "	1,149
Rennes-Alma	1,040	"	841	Start Point, Devon	977
Rouen-Louvetot	1,393	Dresden	1,456	Washford, Som.	804
Strasbourg	1,393	Königswusterhausen	284	Westerglen,	
Strasbourg-Brumath	859	Leipzig	722	Scotland	767
Toulouse	1,339	"	785	" "	1,149
Toulouse-Muret	913	Magdeburg	1,303	Wrexham, Wales	804
<b>GERMANY</b>		Potsdam	563	<b>GREECE</b>	
(British Zone)		Schwerin	1,235	Athens	601
Berlin	1,095	Weimar	1,031	" "	1,285
"	1,330	<b>GREAT BRITAIN</b>		Salonika	804
Cologne	904	Bartley, Hants	1,384	<b>HUNGARY</b>	
Elmshorn	1,095	Brookmans Park,		Budapest	546
Flensburg	1,330	London	877	"	1,040
Hamburg	904	" " "	1,149	<b>ICELAND</b>	
Hanover	1,095	Burghead, Scotland	767	Eidar	615
"	1,330	" "	1,149	Reykjavik	271
Herford	1,366	Clevedon, Som.	1,384	<b>ITALY</b>	
Norden	658	Crowborough,		Ancona	1,429
Langenberg	1,095	Sussex	1,122	Bari	1,059
(French Zone)		Droitwich, Worcs.	200	Bologna	1,068
Coblenz	1,031	" "	583	"	1,303
Freiburg	827	" "	1,013	Bolzano	536
Kaiserslautern	530	Lisnagarvey,		Cagliari	536
Saarbrücken	1,267	N. Ireland	1,050	Catania	1,104
Sigmaringen	827	" "	1,149	Florence	610
(U.S. Zone)		Londonderry,		"	1,104
Bayreuth	1,411	N. Ireland	1,050	Genoa	986
Berlin	629	" "	1,149	Gorizia	1,510
"	1,420	Moorside Edge,		Messina	1,492
Bremen	527	Yorks.	668	Milan	814
"	1,429	" " "	1,149	"	1,357
Frankfurt	1,195	Norwich, Norfolk	1,013	Naples	1,068
"	601	Ottringham, Yorks.	167	"	1,312
Kassel	1,267	" "	1,122	Palermo	565
Munich	740	Penmon, Wales	804	Rome	713
"	1,249	Plymouth, Devon	1,149	"	1,258

<b>Italy—Cont.</b>	<b>kc/s</b>	<b>Norway—Cont.</b>	<b>kc/s</b>	<b>SWEDEN</b>	<b>kc/s</b>
San Remo	1,348	Tromsø	291	Falun	1,086
Turin	986	Trondheim	823	Goteborg	941
"	1,357	Vigra	629	Hörby	1,131
Venice-Campalto	1,222	<b>PALESTINE</b>		Hudiksvall	1,402
<b>LATVIA (See U.S.S.R.)</b>		Jerusalem	574	Lulea	392
<b>LIBYA</b>		"	677	Malmo	1,312
Benghazi	833	<b>POLAND</b>		Motala	216
<b>LITHUANIA</b>		Breslau	950	Ostersund	415
(See U.S.S.R.)		Cracow	1,022	Stockholm	704
<b>LUXEMBOURG</b>	232	Katowice	1,231	Sundsvall	601
<b>MONACO</b>		Lodz	1,339	Umea	1,402
Monte Carlo	731	Poznan	868	<b>SWITZERLAND</b>	
<b>MOROCCO, FRENCH</b>		Stettin	1,384	Beromunster	556
Casablanca	1,004	Torun	986	Geneva	405
Rabat	601	Warsaw	224	Monte Ceneri	1,167
"	868	"	758	Sottens	677
<b>MOROCCO</b>		"	1,303	<b>SYRIA</b>	
(INTL. ZONE)		<b>PORTUGAL</b>		Aleppo	704
Tangier	1,238	Lisbon	629	Damascus	592
<b>NETHERLANDS</b>		"	722	<b>TRIESTE</b>	1,140
Beek	1,222	"	1,068	"	1,420
"	1,375	Oporto	1,411	"	1,509
Hilversum	722	<b>RUMANIA</b>		<b>TUNISIA</b>	
"	995	Brasov	160	Tunis	823
"	1,375	Bucharest	823	<b>TURKEY</b>	
Hoogezand	1,222	"	1,050	Ankara	182
"	1,375	Temesvar	968	Istanbul	758
Kootwijk	160	<b>SPAIN</b>		<b>U.S.S.R.</b>	
<b>NORWAY</b>		Barcelona	795	Dniepropetrovsk,	
Bergen	260	"	1,104	Ukraine	913
"	355	Bilbao	1,135	Dzhowtchikov, Russia	749
Bodö	253	Burgos	1,447	Gorki, Russia	566
Finnmark	347	Corunna	968	Kaunas, Lithuania	153
Fredrikstad	1,276	Madrid	686	Kharkov, Ukraine	385
Hamar	519	"	758	Kiev, Ukraine	248
Kristiansand	629	"	1,022	"	200
Namsos	961	San Sebastian	1,068	Kishinev, Moldavia	565
Notodden	1,294	Seville	731	Krasnodar, Russia	1,050
Oslo	260	Valencia	1,276	Leningrad, Russia	208
Porsgrunn	1,222	Zaragoza	863	"	1,040
Stavanger	850			Lwow, Ukraine	795

U.S.S.R.—Cont.	kc/s	U.S.S.R.—Cont.	kc/s		kc/s
Memel, Lithuania	1,384	Rostov-on-Don,		<b>VATICAN CITY</b>	1,325
Minsk, Byelorussia	269	Russia	556	<b>YUGOSLAVIA</b>	
Moscow, Russia	174	Simferopol, Russia	859	Ajdovscina	527
" "	232	Stalino, Ukraine	776	Belgrade	686
" "	832	Tallinn, Estonia	731	Dubrovnik	1,420
Murmansk, Russia	648	Tartu, Estonia	512	Marijbor	668
Odessa, Ukraine	968	Vilna, Lithuania	536	Sarajevo	603
Petrozavodsk, Karelia	648	Voronezh, Russia	356	Skoplje	1,240
Riga, Latvia	583			Zagreb	629

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# Short-wave Stations of the World

Mc/s	Metres	kW	Call	Station	Notes
4.777	62.80	2.5	HJGB	Bucaramanga (Colombia)	.....
4.785	62.70	5	HJAN	Barranquilla (Colombia)	.....
4.825	62.18	—	—	Singapore (Malaya)	.....
4.830	62.11	2	EQD	Teheran (Iran)	.....
4.840	61.98	10	VUC2	Calcutta (India)	.....
4.860	61.73	10	VUD3	Delhi (India)	.....
4.865	61.66	2	PRC5	Belem (Brazil)	.....
4.880	61.48	10	VUB2	Bombay (India)	.....
4.881	61.46	7.5	YV5RU	Caracas (Venezuela)	.....
4.885	61.41	5	HJDP	Medellin (Colombia)	.....
4.885	61.41	1.5	VQ7LO	Nairobi (Kenya)	.....
4.893	61.31	12	FHE9	Dakar (Fr. W. Africa)	.....
4.895	61.28	5	—	Johannesburg (S. Africa)	.....
4.895	61.29	2.5	PRF6	Manaos (Brazil)	.....
4.900	61.22	11	ZOH	Colombo (Ceylon)	.....
4.911	61.09	1.3	ZOY	Accra (Gold Coast)	.....
4.915	61.04	5	YV5RN	Caracas (Venezuela)	.....
4.920	60.98	10	VUM2	Madras (India)	.....
4.950	60.61	1.2	ZQ1	Kingston (Jamaica)	.....
4.960	60.48	10	VUD2	Delhi (India)	.....
4.970	60.36	4.7	YV5RM	Caracas (Venezuela)	.....
4.994	60.07	5	YV3RS	Barquisimeto (Venezuela)	.....
5.080	59.06	—	—	Moscow, Russia (U.S.S.R.)	.....
5.200	57.69	1	YSCP	San Salvador (Salvador)	.....
5.871	51.10	1	TIGPH	San Jose (Costa Rica)	.....
5.883	50.99	5	—	Cape Town (S. Africa)	.....
5.885	50.98	15	OAX4Z	Lima (Peru)	.....
5.918	50.69	7.5	XGOA	Nanking (China)	.....
5.920	50.68	—	—	Moscow, Russia (U.S.S.R.)	.....
5.943	50.48	1	—	Godthaab (Greenland)	.....
5.958	50.36	—	—	Ashkhabad, Turkmenistan (U.S.S.R.)	.....
5.969	50.26	25	HVJ	Vatican City	.....
5.980	50.17	25	—	Andorra	.....
5.986	50.12	5	LR51	Buenos Aires (Argentina)	.....
5.994	50.05	2.5	HSPP	Bangkok (Siam)	.....

Mc/s	Metres	kW	Call	Station	Notes
5.995	50.04	1	HCJB	Quito (Ecuador)	.....
5.995	50.04	1	PR13	Belo Horizonte (Brazil)	.....
6.000	50.00	1	XEBT	Mexico City (Mexico)	.....
6.000	50.00	1	ZFY	Georgetown (British Guiana)	.....
6.000	50.00	—	RNE	Moscow, Russia (U.S.S.R.)	.....
6.005	49.96	7.5	CFCX	Verchères, Quebec (Canada)	.....
6.006	49.95	50	—	Rabat (French Morocco)	.....
6.007	49.94	5	—	Johannesburg (S. Africa)	.....
6.010	49.92	—	GRB	British Overseas Service	.....
6.010	49.92	30	OLR2A	Podebrady (Czechoslovakia)	.....
6.010	49.92	5	CE601	Antofagasta (Chile)	.....
6.010	49.92	2.5	XEO1	Mexico City (Mexico)	.....
6.010	49.92	1	CJCX	Sydney, N.S. (Canada)	.....
6.010	49.92	5	VUD3	Delhi (India)	.....
6.010	49.92	10	VUC2	Calcutta (India)	.....
6.010	49.92	1	OAX4Q	Lima (Peru)	.....
6.015	49.88	5	PRAB	Recife (Brazil)	.....
6.020	49.83	—	—	Kiev, Ukraine (U.S.S.R.)	.....
6.024	49.80	2.5	FZI	Brazzaville (Fr. Eq. Africa)	.....
6.025	49.79	5	PGD	Huizen (Netherlands)	.....
6.030	49.75	30	OLR2B	Podebrady (Czechoslovakia)	.....
6.030	49.75	—	—	Moscow, Russia (U.S.S.R.)	.....
6.030	49.75	—	—	Rome (Italy)	.....
6.035	49.71	25	—	Monte Carlo (Manaco)	.....
6.035	49.71	7.5	—	Rangoon (Burma)	.....
6.035	49.71	—	GWS	British Overseas Service	.....
6.035	49.71	1	CXA30	Montevideo (Uruguay)	.....
6.040	49.67	50	WRUL	Boston, Mass. (U.S.A.)	.....
6.040	49.67	50	WRUS	" " "	.....
6.040	49.67	50	WRUA	" " "	.....
6.040	49.67	10	—	Algiers (Algeria)	.....
6.040	49.67	5	COBF	Havana (Cuba)	.....
6.045	49.63	—	—	Moscow, Russia (U.S.S.R.)	.....
6.050	49.58	1	XLRA	Hankow (China)	.....
6.050	49.59	—	GSA	British Overseas Service	.....
6.054	49.55	1	HJFA	Pereira (Colombia)	.....
6.055	49.55	25	—	Schwarzenburg (Switzerland)	.....
6.060	49.50	100	KWID	San Francisco, Cal. (U.S.A.)	.....
6.060	49.50	50	KWIX	" " " "	.....

Mc/s	Metres	kW	Call	Station	Notes
6.060	49.50	50	CKRZ	Sackville, N.B. (Canada)	.....
6.060	49.50	50	WCRC	Brentwood N.Y. (U.S.A.)	.....
6.060	49.50	50	WCBX	" " "	.....
6.060	49.50	10	WCDA	" " "	.....
6.060	49.50	50	KNBA	Dixon, Cal. (U.S.A.)	.....
6.060	49.50	20	VUD11	Delhi (India)	.....
6.060	49.50	1.5	VQ7LO	Nairobi (Kenya)	.....
6.060	49.50	—	—	Kuala Lumpur (Malaya)	.....
6.065	49.46	25	LRS1	Buenos Aires (Argentina)	.....
6.065	49.46	12	SBO	Motala (Sweden)	.....
6.065	49.46	5	VU7MC	Akashvani, Mysore (Indian States)	.....
6.067	49.45	20	—	Tetuan (Spanish Morocco)	.....
6.070	49.42	—	—	Berlin (R.F.) (Germany : U.S.S.R. Zone)	.....
6.070	49.42	—	GRR	British Overseas Service	.....
6.070	49.42	1	CFRX	Toronto, Ont. (Canada)	.....
6.075	49.38	7.5	—	Colombo (B.F.) (Ceylan)	.....
6.075	49.38	2.5	CXA3	Montevideo (Uruguay)	.....
6.080	49.34	200	WLWR	Cincinnati, Ohio (U.S.A.)	.....
6.080	49.34	200	WLWL	" " "	.....
6.080	49.34	200	WLWS	" " "	.....
6.080	49.34	75	WLWO	" " "	.....
6.080	49.34	50	WLWK	" " "	.....
6.080	49.34	50	—	Munich (Germany: U.S. Zone)	.....
6.080	49.34	10	ZLI	Wellington (New Zealand)	.....
6.081	49.34	3	—	Tirana (Albania)	.....
6.082	49.33	14	OAX4Z	Lima (Peru)	.....
6.085	49.30	50	LYR1	Buenos Aires (Argentina)	.....
6.085	49.30	50	—	Milan (Italy)	.....
6.085	49.30	10	VUM2	Madras (India)	.....
6.090	49.26	—	GWM	British Overseas Service	.....
6.090	49.26	50	CKOB	Sackville, N.B. (Canada)	.....
6.090	49.26	10	XRRR	Peiping (China)	.....
6.090	49.26	7.5	CBFW	Verchères, Quebec (Canada)	.....
6.090	49.26	6	LXA	Luxembourg	.....
6.090	49.26	2	—	Beirut (Lebanon)	.....
6.095	49.22	5	ZYB7	Sao Paulo (Brazil)	.....
6.095	49.22	1	OAX4H	Lima (Peru)	.....

Mc/s	Metres	kW	Call	Station	Notes
6.095	49.22	1	—	Johannesturg (S. Africa)	.....
6.100	49.18	100	—	Munich (Germany : U.S. Zone)	.....
6.100	49.18	50	WNRE	Bound Brook, N.J. (U.S.A.)	.....
6.100	49.18	50	WNRI	" " " "	.....
6.100	49.18	50	WNRX	" " " "	.....
6.100	49.18	50	WNRA	" " " "	.....
6.100	49.18	50	WRCA	" " " "	.....
6.100	49.18	50	WNBI	" " " "	.....
6.100	49.18	2.5	HJFK	Pereira (Colombia)	.....
6.100	49.18	—	YUD10	Delhi (India)	.....
6.100	49.18	—	YUA	Belgrade (Yugoslavia)	.....
6.100	49.18	7.5	SP2RD	Warsaw (Poland)	.....
6.105	49.14	5	PRE9	Fortaleza (Brazil)	.....
6.105	49.14	1	WLKS	Kure (A.F.) (Japan)	.....
6.110	49.10	—	GSL	British Overseas Service	.....
6.110	49.10	5	CP2	La Paz (Bolivia)	.....
6.110	49.10	5	YUD	Delhi (India)	.....
6.115	49.06	30	OLR2C	Podebrady (Czechoslovakia)	.....
6.115	49.06	25	—	Hamburg (Germany : British Zone)	.....
6.120	49.02	100	KRHO	Honolulu (Hawaii)	.....
6.120	49.02	50	WCBX	Brentwood, N.Y. (U.S.A.)	.....
6.120	49.02	50	WCBN	" " " "	.....
6.120	49.02	50	WOOW	Wayne, N.J. (U.S.A.)	.....
6.120	49.02	50	WOOC	" " " "	.....
6.120	49.02	50	WCRC	Brentwood, N.Y. (U.S.A.)	.....
6.120	49.02	10	WCDA	" " " "	.....
6.120	49.02	1	LRX1	Buenos Aires (Argentina)	.....
6.120	49.02	10	OIX1	Helsinki (Finland)	.....
6.125	48.98	—	GWA	British Overseas Service	.....
6.125	48.98	5	CXA4	Montevideo (Uruguay)	.....
6.130	43.94	1	COCD	Havana (Cuba)	.....
6.130	48.94	1	VPD2	Suva (Fiji Islands)	.....
6.130	48.94	—	—	Georgetown (British Guiana)	.....
6.130	48.94	—	LKJ2	Fredrikstad (Norway)	.....
6.130	48.94	—	—	Vladivostok, Russia (U.S.S.R.)	.....
6.137	48.88	1.2	—	Tananarive (Madagascar)	.....
6.140	48.86	50	WBOS	Boston, Mass. (U.S.A.)	.....
6.140	48.86	50	OTC	Léopoldville (Belgian Congo)	.....

Mc/s	Metres	kW	Call	Station	Notes
6.140	48.86	—	—	Moscow, Russia (U.S.S.R.)	.....
6.140	48.86	10	—	Belgrade (Yugoslavia)	.....
6.143	48.84	35	XGOY	Chungking (China)	.....
6.145	48.82	10	LRR	Rosario (Argentina)	.....
6.145	48.82	5	HJDE	Medellin (Colombia)	.....
6.150	48.78	—	GRW	British Overseas Service	.....
6.150	48.78	5	CE615	Valparaiso (Chile)	.....
6.150	48.78	2	CKRO	Winnipeg, Manitoba (Canada)	.....
6.150	48.78	2	VLR2	Lyndhurst, Vic. (Australia)	.....
6.150	48.78	10	VUB2	Bombay (India)	.....
6.150	48.78	—	—	Moscow, Russia (U.S.S.R.)	.....
6.154	48.75	10	CS2WD	Lisbon (Portugal)	.....
6.155	48.74	2	EQB	Teheran (Iran)	.....
6.155	48.74	—	YSPB	San Salvador (Salvador)	.....
6.160	48.70	100	—	Allouis (France)	.....
6.160	48.70	50	CHAC	Sackville, N.B. (Canada)	.....
6.160	48.70	5	HJCD	Bogota (Colombia)	.....
6.160	48.70	1	—	Nuremberg (Germany : U.S. Zone)	.....
6.165	48.66	12	—	Saigon (French Indo-China)	.....
6.165	48.66	—	GWK	British Overseas Service	.....
6.165	48.66	100	HER3	Schwarzenburg (Switzerland)	.....
6.165	48.66	2	TILS	San Pedro (Costa Rica)	.....
6.170	48.62	100	—	Munich (Germany : U.S. Zone)	.....
6.170	48.62	50	WGRC	Brentwood, N.Y. (U.S.A.)	.....
6.170	48.62	50	WCBX	" " "	.....
6.170	48.62	50	WOOC	Wayne, N.J. (U.S.A.)	.....
6.170	48.62	50	WOOW	" " "	.....
6.170	48.62	50	WCBN	Brentwood, N.Y. (U.S.A.)	.....
6.170	48.62	10	WCDA	" " "	.....
6.170	48.62	30	OLR2D	Podebrady (Czechoslovakia)	.....
6.174	48.59	1	CXA21	Montevideo (Uruguay)	.....
6.175	48.58	100	—	Allouis (France)	.....
6.175	48.58	7.5	—	Athens (Greece)	.....
6.175	48.58	—	—	Kuala Lumpur (Malaya)	.....
6.180	48.54	—	GRO	British Overseas Service	.....
6.180	48.54	10	LRM	Mendoza (Argentina)	.....
6.180	48.54	—	—	Ashkhabad, Turkmenistan (U.S.S.R.)	.....



Mc/s	Metres	kW	Call	Station	Notes
6.180	48.54	10	—	Stuttgart (Germany: U.S. Zone)	.....
6.185	48.50	8	LLI	Fredrikstad (Norway)	.....
6.190	48.47	100	WGEO	Schenectady, N.Y. (U.S.A.)	.....
6.190	48.47	50	WGEA	" " "	.....
6.190	48.47	50	WNRI	Bound Brook, N.J. (U.S.A.)	.....
6.190	48.47	50	WNRX	" " "	.....
6.190	48.47	50	KGEI	Belmont, Cal. (U.S.A.)	.....
6.190	48.47	25	HVJ	Vatican City	.....
6.190	48.47	100	VUD7	Delhi (India)	.....
6.195	48.43	—	GRN	British Overseas Service	.....
6.195	48.43	5	LLJ	Oslo (Norway)	.....
6.199	48.40	10	HJCT	Bogota (Colombia)	.....
6.200	48.39	100	—	Allouis (France)	.....
6.200	48.39	5	—	Ruiselede (Belgium)	.....
6.200	48.39	1	—	Tangier (Morocco : Intl. Zone)	.....
6.200	48.39	1	YV6RD	Bolivar (Venezuela)	.....
6.210	48.31	1	—	Stuttgart (Germany: U.S. Zone)	.....
6.215	48.27	7.5	—	Warsaw (Poland)	.....
6.220	48.23	5	CE622	Santiago (Chile)	.....
6.225	48.19	6	HJFB	Manizales (Colombia)	.....
6.230	48.15	—	—	Moscow, Russia (U.S.S.R.)	.....
6.243	48.05	1	HIIN	Ciudad Trujillo (Dominican Rep.)	.....
6.250	48.00	5	CE625	Santiago (Chile)	.....
6.255	47.96	1	YSUA	San Salvador (Salvador)	.....
6.275	47.81	2.5	ZPAI	Asuncion (Paraguay)	.....
6.295	47.66	3	OTM1	Léopoldville (Belgian Congo)	.....
6.320	47.47	1	—	Baden Baden (Germany : French Zone)	.....
6.320	47.47	1	COCW	Havana (Cuba)	.....
6.345	47.28	25	HEI2	Schwarzenburg (Switzerland)	.....
6.370	47.10	1	OAX4H	Lima (Peru)	.....
6.380	47.02	1	HIIX	Ciudad Trujillo (Dominican Rep.)	.....
6.400	46.88	1	TGQA	Quezaltenango (Guatemala)	.....
6.440	46.57	1	TGWB	Guatemala City (Guatemala)	.....
6.455	46.47	1	COHI	Havana (Cuba)	.....
6.700	44.78	1	TIEP	San Jose (Costa Rica)	.....
6.700	44.78	—	—	Moscow, Russia (U.S.S.R.)	.....

Mc/s	Metres	kW	Call	Station	Notes
6.705	44.75	1	YVKB	Caracas (Venezuela)	.....
6.760	44.38	1	YNVP	Managua (Nicaragua)	.....
6.760	44.38	—	ZNR	Aden (Arabia)	.....
6.770	44.31	7.5	—	Singapore (Malaya)	.....
6.825	43.96	—	—	Tashkent, Uzbek (U.S.S.R.)	.....
6.850	43.80	—	—	Moscow, Russia (U.S.S.R.)	.....
7.000	42.86	100	WGEO	Schenectady, N.Y. (U.S.A.)	.....
7.000	42.86	50	WGEA	" " "	.....
7.007	42.82	10	XPSA	Kweiyang (China)	.....
7.015	42.76	1	CSX2	Ponta Delgada (Azores)	.....
7.035	42.64	3	EAJ3	Valencia (Spain)	.....
7.050	42.55	—	ZOY	Accra (Gold Coast)	.....
7.058	42.50	1.2	COKG	Santiago (Cuba)	.....
7.075	42.40	—	GR5	British Overseas Service	.....
7.080	42.35	1	EA9AA	Tangier (Morocco; Intl. Zone)	.....
7.092	42.30	1	YI5KG	Baghdad (Iraq)	.....
7.120	42.13	—	GRM	British Overseas Service	.....
7.130	42.07	—	FET22	Oviedo (Spain)	.....
7.150	41.96	—	GRT	British Overseas Service	.....
7.150	41.96	—	—	Moscow, Russia (U.S.S.R.)	.....
7.153	41.95	10	XGOY	Chungking (China)	.....
7.165	41.87	—	—	Moscow, Russia (U.S.S.R.)	.....
7.175	41.82	1	CR6AA	Lobito, (Port. W. Africa)	.....
7.185	41.76	—	GRK	British Overseas Service	.....
7.185	41.76	—	—	Colombo (B.F.) (Ceylon)	.....
7.200	41.67	—	—	Moscow, Russia (U.S.S.R.)	.....
7.210	41.61	—	GWL	British Overseas Service	.....
7.210	41.61	12	FHE7	Dakar (Fr. W. Africa)	.....
7.210	41.61	2	—	Beirut (Lebanon)	.....
7.210	41.61	10	VUC2	Calcutta (India)	.....
7.210	41.61	25	HEI3	Schwarzenburg (Switzerland)	.....
7.210	41.61	8	LLS	Tromsø (Norway)	.....
7.214	41.59	—	—	Rabat (French Morocco)	.....
7.215	41.58	10	VLQ2	Brisbane, Qld. (Australia)	.....
7.220	41.55	2	KOFA	Salzburg (A.F.) (Austria; U.S. Zone)	.....
7.223	41.46	3	XURA	Taiwan (China)	.....
7.230	41.49	—	GSW	British Overseas Service	.....
7.230	41.49	100	KWID	San Francisco, Cal. (U.S.A.)	.....

Mc/s	Metres	kW	Call	Station	Notes
7.230	41.49	50	KWIX	San Francisco, Cal. (U.S.A.)	.....
7.240	41.44	7.5	VUD8	Delhi (India)	.....
7.250	41.38	85	—	Munich (Germany: U.S. Zone)	.....
7.240	41.44	25	—	Reältort (France)	.....
7.240	41.44	10	VLQ	Brisbane, Qld. (Australia)	.....
7.240	41.44	10	VUB2	Bombay (India)	.....
7.245	41.41	—	—	Moscow, Russia (U.S.S.R.)	.....
7.250	41.38	—	GWİ	British Overseas Service	.....
7.250	41.38	50	KGEI	Belmont, Cal. (U.S.A.)	.....
7.250	41.38	3	PJCI	Willamstad (Curacao)	.....
7.250	41.38	1	—	Rome (Italy)	.....
7.258	41.33	—	JYW	Tokio (Japan)	.....
7.260	41.32	—	GSU	British Overseas Service	.....
7.260	41.32	10	VUM2	Madras (India)	.....
7.260	41.32	10	CSW8	Lisbon (Portugal)	.....
7.260	41.32	6	—	Copenhagen (Denmark)	.....
7.265	41.29	1	HCIBF	Quito (Ecuador)	.....
7.270	41.27	1	YSN	San Salvador (Salvador)	.....
7.270	41.27	1	—	Rome (Italy)	.....
7.270	41.27	—	—	Moscow, Russia (U.S.S.R.)	.....
7.275	41.25	7.5	—	Monsenor Nouel (Dominican Rep.)	.....
7.280	41.21	—	GWN	British Overseas Service	.....
7.280	41.21	100	VLA	Shepparton, Vic. (Australia)	.....
7.280	41.21	50	VLC8	" " "	.....
7.280	41.21	100	—	Allouis (France)	.....
7.280	41.21	—	—	Erivan, Armenia (U.S.S.R.)	.....
7.290	41.15	100	VUD5	Delhi (India)	.....
7.290	41.15	50	—	Munich (Germany: U.S. Zone)	.....
7.290	41.15	20	VUDI1	Delhi (India)	.....
7.295	41.12	1.3	ZOY	Accra (Gold Coast)	.....
7.298	41.11	10	—	Athens (Greece)	.....
7.300	41.10	5	—	Ruiselede (Belgium)	.....
7.300	41.10	—	—	Moscow, Russia (U.S.S.R.)	.....
7.320	40.98	—	GRJ	British Overseas Service	.....
7.330	40.93	—	—	Moscow, Russia (U.S.S.R.)	.....
7.350	40.82	—	—	" " "	.....
7.360	40.76	25	HET3	Schwarzenburg (Switzerland)	.....
7.360	40.76	—	RWG	Moscow, Russia (U.S.S.R.)	.....

Mc/s	Metres	kW	Call	Station	Notes
7.380	40.65	25	HEK3	Schwarzenburg (Switzerland)	.....
7.390	40.60	—	—	Moscow, Russia (U.S.S.R.)	.....
7.430	40.38	3	—	Korce (Albania)	.....
7.430	40.38	—	—	Leningrad, Russia (U.S.S.R.)	.....
7.490	40.05	—	—	Tiflis, Georgia (U.S.S.R.)	.....
7.520	39.89	—	—	Moscow, Russia (U.S.S.R.)	.....
7.550	39.74	—	JLW5	Tokio (Japan)	.....
7.558	39.69	20	EAJ43	Teneriffe (Canary Islands)	.....
7.650	39.22	—	—	Leningrad, Russia (U.S.S.R.)	.....
7.660	39.16	5	—	Sofia (Bulgaria)	.....
7.770	38.61	—	—	Moscow, Russia (U.S.S.R.)	.....
7.790	38.51	—	—	" " "	.....
7.852	38.22	3	ZAA	Tirana (Albania)	.....
7.860	38.17	10	SUX	Cairo (Egypt)	.....
7.894	38.00	—	YSD	San Salvador (Salvador)	.....
7.934	37.81	12	PSL	Marapicu (Brazil)	.....
7.947	37.75	1	—	Bissao (Port. Guinea)	.....
7.958	37.70	1.2	—	Alicante (Spain)	.....
8.000	37.50	3	PMD	Bandoeng, Java (Indonesia)	.....
8.037	37.33	2	FXE	Beirut (Lebanon)	.....
8.050	37.27	—	—	Moscow, Russia (U.S.S.R.)	.....
8.215	36.52	3	—	Scutari (Albania)	.....
8.240	36.39	1	—	Addis Ababa (Ethiopia)	.....
8.565	35.03	50	—	Munich (Germany: U.S. Zone)	.....
8.660	34.64	1	COJK	Camaguey (Cuba)	.....
8.700	34.48	5	COCO	Havana (Cuba)	.....
8.760	34.25	—	—	Moscow, Russia (U.S.S.R.)	.....
8.825	34.00	5	COCQ	Havana (Cuba)	.....
8.890	33.03	12	—	Dakar (Fr. W. Africa)	.....
8.910	33.67	—	—	Moscow, Russia (U.S.S.R.)	.....
8.955	33.50	1.2	COKG	Santiago (Cuba)	.....
9.010	33.30	—	—	Moscow, Russia (U.S.S.R.)	.....
9.025	33.24	1	COBZ	Havana (Cuba)	.....
9.045	33.17	—	—	Moscow, Russia (U.S.S.R.)	.....
9.082	33.03	2	CNR3	Rabat (French Morocco)	.....
9.084	33.02	—	—	Baghdad (Iraq)	.....
9.185	32.66	25	HEF4	Schwarzenburg (Switzerland)	.....
9.197	32.62	5	CE920	Punta Arenas (Chile)	.....
9.235	32.48	1	COBQ	Havana (Cuba)	.....

Mc/s	Metres	kW	Call	Station	Notes
9.250	32.43	5	YFA4	Macassar, Celebes (Indonesia)	.....
9.250	32.43	4	—	Bucharest (Rumania)	.....
9.270	32.36	1	COCX	Havana (Cuba)	.....
9.310	32.22	1	HC2AK	Guayaquil (Ecuador)	.....
9.320	32.19	25	LR5	Buenos Aires (Argentina)	.....
9.340	32.12	25	—	Andorra	.....
9.350	32.09	5	LZC	Sofia (Bulgaria)	.....
9.350	32.10	—	HBL	Geneva (Switzerland)	.....
9.360	32.05	10	YFA9	Macassar, Celebes (Indonesia)	.....
9.368	32.02	40	—	Madrid (Spain)	.....
9.380	31.98	50	OTM2	Léopoldville (Belgian Congo)	.....
9.405	31.90	—	FGA	Dakar (Fr. W. Africa)	.....
9.410	31.88	—	GRI	British Overseas Service	.....
9.420	31.85	50	—	Belgrade (Yugoslavia)	.....
9.430	31.81	10	XPPA	Kweiyang (China)	.....
9.440	31.78	50	FZ1	Brazzaville (Fr. Eq. Africa)	.....
9.450	31.75	5	COCH	Havana (Cuba)	.....
9.465	31.70	20	TAP	Ankara (Turkey)	.....
9.475	31.66	1	CR6RN	Loando (Port. W. Africa)	.....
9.480	31.65	5	—	Ruiselede (Belgium)	.....
9.480	31.65	—	—	Moscow, Russia (U.S.S.R.)	.....
9.490	31.61	50	WCRC	Brentwood, N.Y. (U.S.A.)	.....
9.490	31.61	50	WCBX	" " "	.....
9.490	31.61	50	WOOW	Wayne, N.J. (U.S.A.)	.....
9.490	31.61	50	KNB1	Dixon, Cal. (U.S.A.)	.....
9.490	31.61	50	KNBA	" " "	.....
9.490	31.61	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
9.500	31.58	100	—	Allouis (France)	.....
9.500	31.58	15	OIX2	Lahti (Finland)	.....
9.500	31.58	12	PRF5	Marapicu (Brazil)	.....
9.500	31.58	10	XEWW	Mexico City (Mexico)	.....
9.500	31.58	—	—	Minsk, Byelorussia (U.S.S.R.)	.....
9.504	31.57	30	OLR3B	Podebrady (Czechoslovakia)	.....
9.505	31.57	5	CP38	La Paz (Bolivia)	.....
9.505	31.57	—	JVW2	Tokio (Japan)	.....
9.507	31.56	10	—	Belgrade (Yugoslavia)	.....
9.510	31.55	—	GSB	British Overseas Service	.....
9.515	31.53	—	—	Geneva (Switzerland)	.....
9.520	31.51	200	WLWL	Cincinnati, Ohio (U.S.A.)	.....

Mc/s	Metres	kW	Call	Station	Notes
9.520	31.51	100	—	Allouis (France)	.....
9.520	31.51	100	—	Colombo (B.F.) (Ceylon)	.....
9.520	31.51	6	OZF	Copenhagen (Denmark)	.....
9.520	31.51	2	VLW7	Perth, W.A. (Australia)	.....
9.520	31.51	1	CP6	La Paz (Bolivia)	.....
9.520	31.51	—	—	Moscow, Russia (U.S.S.R.)	.....
9.523	31.50	5	—	Johannesburg (S. Africa)	.....
9.525	31.50	—	GWJ	British Overseas Service	.....
9.525	31.50	2	ZBW3	Victoria (Hong Kong)	.....
9.525	31.50	100	WGEO	Schenectady, N.Y. (U.S.A.)	.....
9.526	31.49	7.5	SPI3	Warsaw (Poland)	.....
9.528	31.49	5	—	Luxembourg	.....
9.530	31.48	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
9.530	31.48	50	KGE1	Belmont, Cal. (U.S.A.)	.....
9.530	31.48	—	—	Moscow, Russia (U.S.S.R.)	.....
9.530	31.48	10	VUC2	Calcutta (India)	.....
9.535	31.46	25	HER4	Schwarzenburg (Switzerland)	.....
9.535	31.46	12	SBU	Motala (Sweden)	.....
9.535	31.46	1	VPD2	Suva (Fiji Islands)	.....
9.539	31.45	25	HE14	Schwarzenburg (Switzerland)	.....
9.540	31.45	100	—	Allouis (France)	.....
9.540	31.45	100	VLB	Shepparton, Vic. (Australia)	.....
9.540	31.45	50	VLC5	" " "	.....
9.540	31.45	50	—	Munich (Germany : U.S. Zone)	.....
9.540	31.45	10	ZL2	Wellington (New Zealand)	.....
9.540	31.45	5	LKJ	Oslo (Norway)	.....
9.540	31.45	2	VLR	Lyndhurst, Vic. (Australia)	.....
9.540	31.45	—	—	Moscow, Russia (U.S.S.R.)	.....
9.545	31.43	25	HED5	Schwarzenburg (Switzerland)	.....
9.545	31.43	7.5	—	Rangoon (Burma)	.....
9.550	31.41	—	GWB	British Overseas Service	.....
9.550	31.41	100	—	Allouis (France)	.....
9.550	31.41	50	KGE1	Belmont, Cal. (U.S.A.)	.....
9.550	31.41	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
9.550	31.41	25	HVJ	Vatican City	.....
9.550	31.41	20	WRUW	Boston, Mass. (U.S.A.)	.....
9.550	31.41	30	OLR3A	Podebrady (Czechoslovakia)	.....
9.550	31.41	10	YUB2	Bombay (India)	.....
9.550	31.41	3	YDD3	Batavia, Java (Indonesia)	.....

Mc/s	Metres	kW	Call	Station	Notes
9.555	31.40	1	XETT	Mexico City (Mexico)	.....
9.560	31.38	100	—	Allouis (France)	.....
9.560	31.38	1	—	Linz (Austria : U.S. Zone)	.....
9.560	31.38	—	—	Moscow, Russia (U.S.S.R.)	.....
9.562	31.37	10	OAX4T	Lima (Peru)	.....
9.565	31.36	12	FHE4	Dakar (Fr. W. Africa)	.....
9.570	31.35	100	KWID	San Francisco, Cal. (U.S.A.)	.....
9.570	31.35	50	WBOS	Boston, Mass. (U.S.A.)	.....
9.570	31.35	50	WRUS	" " "	.....
9.570	31.35	50	WRUA	" " "	.....
9.570	31.35	50	KWIX	San Francisco, Cal. (U.S.A.)	.....
9.570	31.35	20	WRUW	Boston, Mass. (U.S.A.)	.....
9.570	31.35	10	—	Algiers (Algeria)	.....
9.570	31.35	5	KZFM	Manila (Philippines)	.....
9.575	31.33	—	—	Rabat (French Morocco)	.....
9.575	31.33	—	YSPA	San Salvador ( Salvador)	.....
9.580	31.32	—	GSC	British Overseas Service	.....
9.580	31.32	10	VLH3	Lyndhurst, Vic. (Australia)	.....
9.580	31.32	10	VLG	" " "	.....
9.580	31.32	—	—	Moscow, Russia (U.S.S.R.)	.....
9.582	31.31	10	CR7BF	Lourenco Marques (Mozambique)	.....
9.590	31.28	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
9.590	31.28	200	WLWR	" " "	.....
9.590	31.28	200	WLWL	" " "	.....
9.590	31.28	75	WLWO	" " "	.....
9.590	31.28	50	WLWK	" " "	.....
9.590	31.28	50	WCRC	Brentwood, N.Y. (U.S.A.)	.....
9.590	31.28	50	WCBX	" " "	.....
9.590	31.28	30	PCJ	Huizen (Netherlands)	.....
9.590	31.28	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
9.590	31.28	100	VUD5	Delhi (India)	.....
9.590	31.30	10	VUM2	Madras (India)	.....
9.600	31.25	—	GRY	British Overseas Service	.....
9.600	31.25	12	PRF5	Marapicu (Brazil)	.....
9.600	31.25	2	CE960	Santiago (Chile)	.....
9.605	31.24	5	JKE	Yamato (A.F.) (Japan)	.....
9.606	31.23	5	—	Cape Town (S. Africa)	.....
9.607	31.23	7.5	CBFX	Verchères, Quebec (Canada)	.....

Mc/s	Metres	kW	Call	Station	Notes
9.607	31.23	1	HP5J	Panama City (Panama)	.....
9.610	31.22	100	LLG	Fredrikstad (Norway)	.....
9.610	31.22	50	CHLS	Sackville, N.B. (Canada)	.....
9.610	31.22	25	ZYCB	Rio de Janeiro (Brazil)	.....
9.610	31.22	10	—	Algiers (Algeria)	.....
9.610	31.22	—	—	Moscow, Russia (U.S.S.R.)	.....
9.610	31.22	2	V.LW5	Perth, W.A. (Australia)	.....
9.615	31.20	100	VLA2	Shepparton, Vic. (Australia)	.....
9.615	31.20	100	VLB9	" " "	.....
9.615	31.20	50	VLC6	" " "	.....
9.615	31.20	5	XERQ	Mexico City (Mexico)	.....
9.615	31.20	2.5	TIPG	San Jose (Costa Rica)	.....
9.620	31.19	25	—	Realtort (France)	.....
9.620	31.19	2	CXA6	Montevideo (Uruguay)	.....
9.620	31.19	—	—	Moscow, Russia (U.S.S.R.)	.....
9.625	31.17	—	GWO	British Overseas Service	.....
9.625	31.17	10	XEBT	Mexico City (Mexico)	.....
9.625	31.17	1	ETA	Addis Ababa (Ethiopia)	.....
9.630	31.15	50	—	Milan (Italy)	.....
9.630	31.15	50	CKLO	Sackville, N.B. (Canada)	.....
9.630	31.15	7.5	CBFO	Verchères, Quebec (Canada)	.....
9.630	31.15	20	VUDI0	Delhi (India)	.....
9.630	31.15	10	VUB2	Bombay (India)	.....
9.635	31.14	35	XGOY	Chungking (China)	.....
9.638	31.13	10	CR7BJ	Lourenco Marques (Mozambique)	.....
9.640	31.12	—	GVZ	British Overseas Service	.....
9.640	31.12	50	CHMD	Sackville, N.B. (Canada)	.....
9.640	31.12	50	LRV	Buenos Aires (Argentina)	.....
9.640	31.12	10	YVCC	Caracas (Venezuela)	.....
9.640	31.12	5	COX4	Havana (Cuba)	.....
9.640	31.12	1	KZMB	Manila (Philippines)	.....
9.650	31.09	100	KRHO	Honolulu (Hawaii)	.....
9.650	31.09	50	WCRC	Brentwood, N.Y. (U.S.A.)	.....
9.650	31.09	50	WCBX	" " "	.....
9.650	31.09	50	WCBN	" " "	.....
9.650	31.09	50	KNBI	Dixon, Cal. (U.S.A.)	.....
9.650	31.09	50	KNBA	" " "	.....
9.650	31.09	50	WOOW	Wayne, N.J. (U.S.A.)	.....



Mc/s	Metres	kW	Call	Station	Notes
9.650	31.09	50	WOOO	Wayne, N.J. (U.S.A.)	.....
9.650	31.09	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
9.650	31.09	—	—	Moscow, Russia (U.S.S.R.)	.....
9.652	31.09	10	CR7BJ	Lourenco Marques (Mozambique)	.....
9.655	31.07	25	HED6	Schwarzenburg (Switzerland)	.....
9.660	31.06	—	GWP	British Overseas Service	.....
9.660	31.06	25	HVJ	Vatican City	.....
9.660	31.06	20	VUDI I	Delhi (India)	.....
9.660	31.06	10	—	Algiers (Algeria)	.....
9.660	31.06	25	LRX	Buenos Aires (Argentina)	.....
9.660	31.06	10	VLQ3	Brisbane, Qld. (Australia)	.....
9.660	31.06	7.5	HOXC	Panama City (Panama)	.....
9.665	31.04	5	ORR	Ruiselede (Belgium)	.....
9.670	31.02	100	WRCA	Bound Brook, N.J. (U.S.A.)	.....
9.670	31.02	100	WNB I	" " " "	.....
9.670	31.02	50	WNR I	" " " "	.....
9.670	31.02	50	WNRE	" " " "	.....
9.670	31.02	50	WNRX	" " " "	.....
9.670	31.02	50	WNRA	" " " "	.....
9.670	31.02	30	OLR3C	Podebrady (Czechoslovakia)	.....
9.670	31.02	5	VUD3	Delhi (India)	.....
9.670	31.02	—	WGEX	Schenectady, N.Y. (U.S.A.)	.....
9.675	31.01	—	GWT	British Overseas Service	.....
9.675	31.01	100	—	Allouis (France)	.....
9.680	30.99	100	VLA3	Shepparton, Vic. (Australia)	.....
9.680	30.99	100	VLB2	" " " "	.....
9.680	30.99	50	VLC2	" " " "	.....
9.680	30.99	10	VUD2	Delhi (India)	.....
9.680	30.99	7	EQC	Teheran (Iran)	.....
9.680	30.99	1	XEQQ	Mexico City (Mexico)	.....
9.680	30.99	3	YDB4	Batavia, Java (Indonesia)	.....
9.680	30.99	3	XAPU	Taiwan (China)	.....
9.680	30.99	100	—	Allouis (France)	.....
9.690	30.96	—	GRX	British Overseas Service	.....
9.690	30.96	7.5	—	Singapore (Malaya)	.....
9.690	30.96	10	LRA I	Buenos Aires (Argentina)	.....
9.690	30.96	2.5	HJCAB	Bogota (Colombia)	.....
9.695	30.94	1.5	—	Fort de France (Martinique)	.....

Mc's	Metres	kW	Call	Station	Notes
9.700	30.93	200	WLWR	Cincinnati, Ohio (U.S.A.)	.....
9.700	30.93	200	WLWL	" " "	.....
9.700	30.93	200	KCBR	Delano, Cal. (U.S.A.)	.....
9.700	30.93	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
9.700	30.93	50	WOOW	Wayne, N.J. (U.S.A.)	.....
9.700	30.93	50	WRUA	Boston, Mass. (U.S.A.)	.....
9.700	30.93	50	WRUS	" " "	.....
9.700	30.93	20	WRUW	" " "	.....
9.700	30.93	5	CE970	Santiago (Chile)	.....
9.700	30.93	1	CP25	La Paz (Bolivia)	.....
9.710	30.90	—	—	Moscow, Russia (U.S.S.R.)	.....
9.710	30.90	2.5	ZQP	Lusaka (Northern Rhodesia)	.....
9.720	30.86	50	PRL7	Rio de Janeiro (Brazil)	.....
9.720	30.86	—	—	Leningrad, Russia (U.S.S.R.)	.....
9.725	30.85	10	CR7BE	Lourenco Marques (Mozambique)	.....
9.727	30.84	12	—	Leipzig (Germany : U.S.S.R. Zone)	.....
9.730	30.83	10	CE970	Valparaiso (Chile)	.....
9.730	30.83	2	XGOA	Nanking (China)	.....
9.745	30.79	50	OTC2	Léopoldville (Belgian Congo)	.....
9.750	30.77	200	KCBR	Delano, Cal. (U.S.A.)	.....
9.750	30.77	200	WLWL	Cincinnati, Ohio (U.S.A.)	.....
9.750	30.77	50	WNRA	Bound Brook, N.J. (U.S.A.)	.....
9.750	30.77	50	WNRI	" " " "	.....
9.750	30.77	50	WNRX	" " " "	.....
9.750	30.77	50	KCBA	Delano, Cal. (U.S.A.)	.....
9.750	30.77	50	KCBF	" " "	.....
9.750	30.77	1	XNRA	Lanchow (China)	.....
9.760	30.74	10	TGWA	Guatemala City (Guatemala)	.....
9.760	30.74	—	—	Moscow, Russia (U.S.S.R.)	.....
9.780	30.67	—	—	" " "	.....
9.785	30.65	10	—	Léopoldville (Belgian Congo)	.....
9.820	30.55	—	HNF	Baghdad (Iraq)	.....
9.825	30.53	—	GRH	British Overseas Service	.....
9.832	30.51	—	EAQ	Madrid (Spain)	.....
9.833	30.51	1	COBL	Havana (Cuba)	.....
9.837	30.50	10	CR7BE	Lourenco Marques (Mozambique)	.....

Mc/s	Metres	kW	Call	Station	Notes
9.850	30.46	—	PLU	Bandoeng, Java ( <i>Indonesia</i> )	.....
9.860	30.43	—	—	Soerakarta, Java ( <i>Indonesia</i> )	.....
9.880	30.36	—	—	Moscow, Russia ( <i>U.S.S.R.</i> )	.....
9.870	30.40	1	—	Johannesburg ( <i>S. Africa</i> )	.....
9.915	30.26	—	GRU	British Overseas Service	.....
9.960	30.12	3	—	Tirana ( <i>Albania</i> )	.....
9.968	30.10	1	HCJB	Quito ( <i>Ecuador</i> )	.....
9.980	30.06	25	HVJ	Vatican City	.....
9.984	30.04	—	FZI	Brazzaville ( <i>Fr. Eq. Africa</i> )	.....
10.055	29.83	10	SUV	Cairo ( <i>Egypt</i> )	.....
10.140	29.59	—	OTM	Léopoldville ( <i>Belgian Congo</i> )	.....
10.205	29.40	—	—	Moscow, Russia ( <i>U.S.S.R.</i> )	.....
10.220	29.35	12	PSH	Marapicu ( <i>Brazil</i> )	.....
10.260	29.24	10	XRRR	Peiping ( <i>China</i> )	.....
10.365	28.94	3	PLS	Batavia, Java ( <i>Indonesia</i> )	.....
10.395	28.83	25	HED4	Schwarzenburg ( <i>Switzerland</i> )	.....
10.730	27.96	5	VQG3	Nairobi ( <i>Kenya</i> )	.....
10.780	27.83	12	SDB2	Motala ( <i>Sweden</i> )	.....
11.003	27.27	—	YHN	Bandoeng, Java ( <i>Indonesia</i> )	.....
11.035	27.17	10	CSW6	Lisbon ( <i>Portugal</i> )	.....
11.090	27.05	1	CS9MB	Ponta Delgada ( <i>Azores</i> )	.....
11.440	26.22	3	YDC	Batavia, Java ( <i>Indonesia</i> )	.....
11.440	26.22	2.5	PLO	Bandoeng, Java ( <i>Indonesia</i> )	.....
11.500	26.09	1	XLRA	Hankow ( <i>China</i> )	.....
11.610	25.84	—	—	Moscow, Russia ( <i>U.S.S.R.</i> )	.....
11.630	25.79	—	—	Leningrad, Russia ( <i>U.S.S.R.</i> )	.....
11.645	25.76	10	—	Léopoldville ( <i>Belgian Congo</i> )	.....
11.650	25.75	1	XTPA	Canton ( <i>China</i> )	.....
11.680	25.68	50	HVJ	Vatican City	.....
11.680	25.68	—	GRG	British Overseas Service	.....
11.700	25.64	—	GVW	" " "	.....
11.700	25.64	100	—	Allouis ( <i>France</i> )	.....
11.700	25.64	5	XORA	Shanghai ( <i>China</i> )	.....
11.700	25.64	1	HP5A	Panama City ( <i>Panama</i> )	.....
11.705	25.63	50	CKXA	Sackville, N.B. ( <i>Canada</i> )	.....
11.705	25.63	12	SBP	Motala ( <i>Sweden</i> )	.....
11.705	25.63	7.5	CBFY	Verchères, Quebec ( <i>Canada</i> )	.....
11.705	25.63	—	JLW3	Tokio ( <i>Japan</i> )	.....
11.705	25.63	200	WLWS	Cincinnati, Ohio ( <i>U.S.A.</i> )	.....

Mc/s	Metres	kW	Call	Station	Notes
11.710	25.62	200	WLWL	Cincinnati, Ohio, (U.S.A.)	.....
11.710	25.62	200	WLWR	" " "	.....
11.710	25.62	100	—	Allouis (France)	.....
11.710	25.62	75	WLWO	Cincinnati, Ohio (U.S.A.)	.....
11.710	25.62	50	WLWK	" " "	.....
11.710	25.62	10	VLG3	Lyndhurst, Vic. (Australia)	.....
11.710	25.62	.5	—	Johannesburg (S. Africa)	.....
11.710	25.62	—	—	Moscow, Russia (U.S.S.R.)	.....
11.712	25.61	12	FHE3	Dakar (Fr. W. Africa)	.....
11.715	25.61	25	HE15	Schwarzenburg (Switzerland)	.....
11.720	25.60	50	PRLB	Rio de Janeiro (Brazil)	.....
11.720	25.60	50	CHOL	Sackville, N.B. (Canada)	.....
11.720	25.60	5	—	Ruiselede (Belgium)	.....
11.720	25.60	2	CKRX	Winnipeg, Manitoba (Canada)	.....
11.720	25.60	—	—	Moscow, Russia (U.S.S.R.)	.....
11.725	25.59	—	JVW3	Tokio (Japan)	.....
11.725	25.59	50	WRUL	Boston, Mass. (U.S.A.)	.....
11.725	25.59	20	WRUW	" " "	.....
11.730	25.58	—	GVV	British Overseas Service	.....
11.730	25.58	100	—	Allouis (France)	.....
11.730	25.58	100	KGEX	Belmont, Cal. (U.S.A.)	.....
11.730	25.58	50	KGE1	" " "	.....
11.730	25.58	50	WRUA	Boston, Mass. (U.S.A.)	.....
11.730	25.58	50	WRUS	" " "	.....
11.730	25.58	10	LRA3	Buenos Aires (Argentina)	.....
11.730	25.58	.5	PHI	Huizen (Netherlands)	.....
11.730	25.58	7.5	—	Singapore (Malaya)	.....
11.735	25.56	5	CXA7	Montevideo (Uruguay)	.....
11.735	25.56	10	—	Belgrade (Yugoslavia)	.....
11.735	25.56	8	LKQ	Fredrikstad (Norway)	.....
11.740	25.55	100	VLB10	Shepparton, Vic. (Australia)	.....
11.740	25.55	25	HVJ	Vatican City	.....
11.740	25.55	15	COCY	Havana (Cuba)	.....
11.740	25.55	4	CE1174	Santiago (Chile)	.....
11.740	25.55	—	—	Moscow, Russia (U.S.S.R.)	.....
11.750	25.53	—	GSD	British Overseas Service	.....
11.750	25.53	—	—	Jerusalem (Palestine)	.....
11.750	25.53	—	—	Komsomolsk, Russia (U.S.S.R.)	.....
11.760	25.51	100	VLA8	Shepparton, Vic. (Australia)	.....

Mc/s	Metres	kW	Call	Station	Notes
11.760	25.51	100	VLB3	Shepparton, Vic. (Australia)	.....
11.760	25.51	50	CKRA	Sackville, N.B. (Canada)	.....
11.760	25.51	50	VLC3	Shepparton, Vic. (Australia)	.....
11.760	25.51	30	OLR4B	Podebrady (Czechoslovakia)	.....
11.760	25.51	10	VLG10	Lyndhurst Vic. (Australia)	.....
11.760	25.51	20	VUD11	Delhi (India)	.....
11.765	25.50	25	ZYB8	Sao Paulo (Brazil)	.....
11.765	25.50	10	—	Algiers (Algeria)	.....
11.765	25.50	—	—	Moscow, Russia (U.S.S.R.)	.....
11.770	25.49	—	GVU	British Overseas Service	.....
11.770	25.49	200	KCBR	Delano, Cal. (U.S.A.)	.....
11.770	25.49	100	VLA4	Shepparton, Vic. (Australia)	.....
11.770	25.49	100	—	Colombo (B.F.) (Ceylon)	.....
11.770	25.49	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
11.770	25.49	50	WNRA	Bound Brook, N.J. (U.S.A.)	.....
11.770	25.49	50	KNBI	Dixon, Cal. (U.S.A.)	.....
11.775	25.48	25	HE16	Schwarzenburg (Switzerland)	.....
11.780	25.47	100	—	Allouis (France)	.....
11.780	25.47	10	ZL3	Wellington (New Zealand)	.....
11.780	25.47	1	XENN	Mexico City (Mexico)	.....
11.780	25.47	10	OIX3	Lahti (Finland)	.....
11.783	25.46	12	—	Saigon (Fr. Indo-China)	.....
11.790	25.45	75	WLWO	Cincinnati, Ohio (U.S.A.)	.....
11.790	25.45	50	WNRA	Bound Brook, N.J. (U.S.A.)	.....
11.790	25.45	50	KNBX	Dixon, Cal. (U.S.A.)	.....
11.790	25.45	50	WRUS	Boston, Mass. (U.S.A.)	.....
11.790	25.45	50	WRUL	" " "	.....
11.790	25.45	50	WRUA	" " "	.....
11.790	25.45	20	WRUW	" " "	.....
11.790	25.45	50	KNBI	Dixon, Cal. (U.S.A.)	.....
11.790	25.45	—	VUD5	Delhi (India)	.....
11.800	25.42	—	GWH	British Overseas Service	.....
11.800	25.42	1	CE1180	Santiago (Chile)	.....
11.810	25.40	200	KCBR	Delano, Cal. (U.S.A.)	.....
11.810	25.40	100	VLB4	Shepparton, Vic. (Australia)	.....
11.810	25.40	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
11.810	25.40	50	WOOW	Wayne, N.J. (U.S.A.)	.....
11.810	25.40	50	—	Milan (Italy)	.....
11.810	25.40	7.5	HOXB	Panama City (Panama)	.....

Mc/s	Metres	kW	Call	Station	Notes
11.815	25.39	25	HEU5	Schwarzenburg (Switzerland)	.....
11.820	25.38	—	G5N	British Overseas Service	.....
11.825	25.37	—	—	Moscow, Russia (U.S.S.R.)	.....
11.830	25.36	50	WNRX	Bound Brook, N.J. (U.S.A.)	.....
11.830	25.36	50	WCBX	Brentwood, N.Y. (U.S.A.)	.....
11.830	25.36	50	WCBN	" " "	.....
11.830	25.36	50	WCRC	" " "	.....
11.830	25.36	50	WOOC	Wayne, N.J. (U.S.A.)	.....
11.830	25.36	50	WOOW	" " "	.....
11.830	25.36	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
11.830	25.36	2	VLW3	Perth, W.A. (Australia)	.....
11.830	25.36	10	VUD4	Delhi (India)	.....
11.833	25.35	5	CXA19	Montevideo (Uruguay)	.....
11.835	25.35	10	THA	Algiers (Algeria)	.....
11.835	25.35	10	CR7BF	Lourenco Marques (Mozambique)	.....
11.835	25.35	7.5	XGSM	Nanking (China)	.....
11.840	25.34	—	GWQ	British Overseas Service	.....
11.840	25.34	50	VLC7	Shepparton, Vic. (Australia)	.....
11.840	25.34	30	OLR4A	Podebrady (Czechoslovakia)	.....
11.840	25.34	10	VLG4	Lyndhurst, Vic. (Australia)	.....
11.840	25.34	10	CSW5	Lisbon (Portugal)	.....
11.840	25.34	5	LR52	Buenos Aires (Argentina)	.....
11.845	25.33	7.5	—	Rangoon (Burma)	.....
11.845	25.33	25	—	Muret (France)	.....
11.847	25.33	100	WGEO	Schenectady, N.Y. (U.S.A.)	.....
11.847	25.33	50	WGEA	" " "	.....
11.850	25.32	5	ORY	Ruiselede (Belgium)	.....
11.850	25.32	25	CE1185	Santiago (Chile)	.....
11.850	25.32	12	—	Marapicu (Brazil)	.....
11.850	25.32	—	—	Benghazi (B.F.) (Libya)	.....
11.850	25.31	8	LLK	Fredrikstad (Norway)	.....
11.850	25.32	20	VUD11	Delhi (India)	.....
11.850	25.32	6	OZG	Kalundborg (Denmark)	.....
11.857	25.30	—	—	Rabat (French Morocco)	.....
11.860	25.30	—	—	Madan, Sumatra (Indonesia)	.....
11.860	25.30	—	G5E	British Overseas Service	.....
11.865	25.28	100	HER5	Schwarzenburg (Switzerland)	.....
11.870	25.27	1.2	ZPA3	Asuncion (Paraguay)	.....

Mc/s	Metres	kW	Call	Station	Notes
11.870	25.27	100	KWID	San Francisco, Cal. (U.S.A.)	.....
11.870	25.27	50	KWIX	" " " "	.....
11.870	25.27	50	WBOS	Boston, Mass. (U.S.A.)	.....
11.870	25.27	50	WOOC	Wayne, N.J. (U.S.A.)	.....
11.870	25.27	50	WOOW	" " " "	.....
11.870	25.27	50	—	Munich (Germany : U.S. Zone)	.....
11.870	25.27	50	WNRA	Bound Brook, N.J. (U.S.A.)	.....
11.870	25.27	50	VLC3	Shepparton, Vic. (Australia)	.....
11.870	25.27	7.5	VUD9	Delhi (India)	.....
11.875	25.26	30	OLR4C	Podebrady (Czechoslovakia)	.....
11.875	25.26	—	—	Moscow, Russia (U.S.S.R.)	.....
11.880	25.25	10	VLG5	Lyndhurst, Vic. (Australia)	.....
11.880	25.25	10	VLH4	" " " "	.....
11.880	25.25	10	LRR	Rosario (Argentina)	.....
11.880	25.25	10	—	Algiers (Algeria)	.....
11.880	25.25	1	XEHH	Mexico City (Mexico)	.....
11.885	25.24	25	—	Murat (France)	.....
11.885	25.24	—	—	Moscow, Russia (U.S.S.R.)	.....
11.890	25.23	100	KRHO	Honolulu (Hawaii)	.....
11.890	25.23	50	WNRE	Bound Brook, N.J. (U.S.A.)	.....
11.890	25.23	50	WNRA	" " " "	.....
11.890	25.23	50	WNRX	" " " "	.....
11.890	25.23	50	WNRI	" " " "	.....
11.890	25.23	50	KWIX	San Francisco, Cal. (U.S.A.)	.....
11.890	25.23	—	—	Moscow, Russia (U.S.S.R.)	.....
11.893	25.22	50	WNBI	Bound Brook, N.J. (U.S.A.)	.....
11.893	25.22	50	WRCA	" " " "	.....
11.893	25.22	5	—	Ruiselede (Belgium)	.....
11.895	25.22	1	VPD2	Suva (Fiji Islands)	.....
11.900	25.21	100	KWID	San Francisco, Cal. (U.S.A.)	.....
11.900	25.21	50	CKEX	Sackville, N.B. (Canada)	.....
11.900	25.21	30	OLR4D	Podebrady (Czechoslovakia)	.....
11.900	25.21	20	CXA10	Montevideo (Uruguay)	.....
11.900	25.21	10	VLG9	Lyndhurst, Vic. (Australia)	.....
11.900	25.21	7.5	HI2T	Monsenor Nouel (Dominican Rep.)	.....
11.900	25.21	5	CE1190	Valparaiso (Chile)	.....
11.914	25.19	—	—	Moscow, Russia (U.S.S.R.)	.....
11.920	25.17	35	XGOY	Chungking (China)	.....

Mc/s	Metres	kW	Call	Station	Notes
11.930	25.15	—	GVX	British Overseas Service	.....
11.940	25.13	12	CNR2	Rabat (French Morocco)	.....
11.950	25.10	3	ZPA5	Encarnacion (Paraguay)	.....
11.955	25.09	—	GVY	British Overseas Service	.....
11.960	25.08	25	HEK4	Schwarzenburg (Switzerland)	.....
11.965	25.07	—	HEF7	" "	.....
11.972	25.06	7	FZI	Brazzaville (Fr. Eq. Africa)	.....
11.975	25.05	—	—	Moscow, Russia (U.S.S.R.)	.....
12.003	24.99	5	CEI 180	Santiago (Chile)	.....
12.040	24.92	—	GRV	British Overseas Service	.....
12.080	24.83	12	PST	Marapicu (Brazil)	.....
12.095	24.80	—	GRF	British Overseas Service	.....
12.116	24.76	12	TPZ	Algiers (Algeria)	.....
12.126	24.74	5	—	Tananarive (Madagascar)	.....
12.228	24.53	1	—	Tangier (Morocco : Intl. Zone)	.....
12.235	24.52	7	TFJ	Reykjavik (Iceland)	.....
12.270	24.45	—	—	Moscow, Russia (U.S.S.R.)	.....
12.455	24.09	10	HCJB	Quito (Ecuador)	.....
12.500	24.00	1	XLRA	Hankow (China)	.....
12.750	23.53	—	CS2MP	Lisbon (Portugal)	.....
12.865	23.32	10	CSWI	" "	.....
13.050	22.99	50	WNR1	Bound Brook, N.J. (U.S.A.)	.....
13.400	22.39	—	—	Moscow, Russia (U.S.S.R.)	.....
14.280	21.00	1	—	Tangier (Morocco : Intl. Zone)	.....
14.400	20.85	25	—	Andorra	.....
14.462	20.74	25	HBZ3	Geneva (Switzerland)	.....
14.538	20.64	25	HBZ2	" "	.....
14.560	20.60	50	WNRX	Bound Brook, N.J. (U.S.A.)	.....
15.040	19.95	—	—	Moscow, Russia (U.S.S.R.)	.....
15.070	19.91	—	GWC	British Overseas Service	.....
15.078	19.89	—	—	Addis Ababa (Ethiopia)	.....
15.090	19.88	50	CKLX	Sackville, N.B. (Canada)	.....
15.090	19.88	7.5	CBLX	Verchères, Quebec (Canada)	.....
15.095	19.89	50	HVJ	Vatican City	.....
15.100	19.87	100	—	Allouis (France)	.....
15.100	19.87	7.5	HOXA	Panama City (Panama)	.....
15.100	19.87	14	EPB	Teheran (Iran)	.....
15.104	19.86	—	—	Rabat (French Morocco)	.....
15.110	19.85	—	GWG	British Overseas Service	.....



Mc/s	Metres	kW	Call	Station	Notes
15.110	19.85	—	JLG4	Tokio (Japan)	.....
15.114	19.85	10	HCJB	Quito (Ecuador)	.....
15.120	19.84	50	—	Milan (Italy)	.....
15.120	19.84	100	—	Colombo (B.F.) (Ceylon)	.....
15.120	19.84	25	HVJ	Vatican City	.....
15.120	19.84	25	HED7	Schwarzenburg (Switzerland)	.....
15.130	19.83	200	WLW5	Cincinnati, Ohio (U.S.A.)	.....
15.130	19.83	200	WLWR	" " "	.....
15.130	19.83	200	WLWL	" " "	.....
15.130	19.83	50	KCBA	Delano, Cal. (U.S.A.)	.....
15.130	19.83	50	KGEI	Belmont, Cal. (U.S.A.)	.....
15.130	19.83	50	WOOC	Wayne, N.J. (U.S.A.)	.....
15.130	19.83	50	WRUA	Boston, Mass. (U.S.A.)	.....
15.130	19.83	50	WRUL	" " "	.....
15.130	19.83	50	WRUS	" " "	.....
15.130	19.83	20	WRUW	" " "	.....
15.130	19.83	20	VUDI1	Delhi (India)	.....
15.140	19.81	—	G5F	British Overseas Service	.....
15.140	19.81	—	JLW6	Tokio (Japan)	.....
15.145	19.81	20	—	Rio de Janeiro (Brazil)	.....
15.145	19.81	3	YDC	Batavia, Java (Indonesia)	.....
15.150	19.80	200	KCBR	Delano, Cal. (U.S.A.)	.....
15.150	19.80	85	—	Munich (Germany : U.S. Zone)	.....
15.150	19.80	50	WNRE	Bound Brook, N.J. (U.S.A.)	.....
15.150	19.80	50	WNRI	" " " "	.....
15.150	19.80	50	WNRX	" " " "	.....
15.150	19.80	50	WNRA	" " " "	.....
15.150	19.80	50	WRCA	" " " "	.....
15.150	19.80	50	WNBI	" " " "	.....
15.150	19.80	10	OAX4R	Lima (Peru)	.....
15.155	19.80	17	OLR5C	Podebrady (Czechoslovakia)	.....
15.155	19.79	10	5BT	Motala (Sweden)	.....
15.155	19.79	25	ZYB9	Sao Paulo (Brazil)	.....
15.160	19.79	10	VLG7	Lyndhurst, Vic. (Australia)	.....
15.160	19.79	100	VUD7	Delhi (India)	.....
15.160	19.79	100	VLB11	Shepparton, Vic. (Australia)	.....
15.160	19.79	1	VPD2	Suva (Fiji Islands)	.....
15.165	19.78	10	—	Algiers (Algeria)	.....
15.165	19.78	6	OZH	Copenhagen (Denmark)	.....

Mc/s	Metres	kW	Call	Station	Notes
15.165	19.78	10	PRE9	Fortaleza (Brazil)	.....
15.167	19.78	—	RW96	Moscow, Russia (U.S.S.R.)	.....
15.165	19.78	50	OTC4	Léopoldville (Belgian Congo)	.....
15.170	19.77	10	TGWA	Guatemala City (Guatemala)	.....
15.170	19.77	35	XGOY	Chungking (China)	.....
15.175	19.77	10	LLH	Tromsø (Norway)	.....
15.180	19.76	—	GSO	British Overseas Service	.....
15.190	19.75	50	CKCX	Sackville, N.B. (Canada)	.....
15.190	19.75	50	WNBI	Bound Brook, N.J. (U.S.A.)	.....
15.190	19.75	50	WNR1	" " " "	.....
15.190	19.75	50	WNRX	" " " "	.....
15.190	19.75	50	WNRE	" " " "	.....
15.190	19.75	50	WNRA	" " " "	.....
15.190	19.75	50	WRCA	" " " "	.....
15.190	19.75	15	OIX4	Porl (Finland)	.....
15.190	19.75	7.5	CBFZ	Verchères, Quebec (Canada)	.....
15.190	19.75	100	VUD5	Delhi (India)	.....
15.195	19.74	20	TAQ	Ankara (Turkey)	.....
15.200	19.74	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
15.200	19.74	100	VLA6	Shepparton, Vic. (Australia)	.....
15.200	19.74	100	VLB6	" " " "	.....
15.200	19.74	50	WOOC	Wayne, N.J. (U.S.A.)	.....
15.200	19.74	50	WRUA	Boston, Mass. (U.S.A.)	.....
15.200	19.74	50	VLC	Shepparton, Vic. (Australia)	.....
15.210	19.72	100	KGEX	Belmont, Cal. (U.S.A.)	.....
15.210	19.72	50	WB05	Boston, Mass. (U.S.A.)	.....
15.210	19.72	50	KGE1	Belmont, Cal. (U.S.A.)	.....
15.210	19.72	50	VLC11	Shepparton, Vic. (Australia)	.....
15.210	19.72	10	VLG11	Lyndhurst, Vic. (Australia)	.....
15.210	19.72	—	VUD3	Delhi (India)	.....
15.215	19.72	10	CSW4	Lisbon (Portugal)	.....
15.220	19.71	50	CHTA	Sackville, N.B. (Canada)	.....
15.220	19.71	50	WRUA	Boston, Mass. (U.S.A.)	.....
15.220	19.71	40	PCJ	Huizen (Netherlands)	.....
15.225	19.70	15	JLT3	Tokio (Japan)	.....
15.225	19.70	17	OLR5A	Podebrady (Czechoslovakia)	.....
15.230	19.70	200	WLWL	Cincinnati, Ohio (U.S.A.)	.....
15.230	19.70	10	VLH5	Lyndhurst, Vic. (Australia)	.....
15.230	19.70	10	VLG6	" " " "	.....

Mc/s	Metres	kW	Call	Station	Notes
15.230	19.70	—	—	Komsomolsk, Russia (U.S.S.R.)	.....
15.235	19.69	5	JVW4	Tokio (Japan)	.....
15.240	19.69	100	—	Allouis (France)	.....
15.240	19.69	50	KCBA	Delano, Cal. (U.S.A.)	.....
15.240	19.69	10	CR7BD	Lourenco Marques (Mozambique)	.....
15.240	19.69	10	VLG6	Lyndhurst, Vic. (Australia)	.....
15.250	19.67	200	WLWL	Cincinnati, Ohio (U.S.A.)	.....
15.250	19.67	200	WLWS	" " "	.....
15.250	19.67	200	WLWR	" " "	.....
15.250	19.67	100	KRHO	Honolulu (Hawaii)	.....
15.250	19.67	75	WLWO	Cincinnati, Ohio (U.S.A.)	.....
15.250	19.67	50	WBOS	Boston, Mass. (U.S.A.)	.....
15.250	19.67	50	KNBX	Dixon, Cal. (U.S.A.)	.....
15.250	19.67	50	WLWK	Cincinnati, Ohio (U.S.A.)	.....
15.260	19.66	—	GSI	British Overseas Service	.....
15.267	19.65	50	WCBX	Brentwood, N.Y. (U.S.A.)	.....
15.267	19.65	50	WCRC	" " "	.....
15.267	19.65	10	WCDA	" " "	.....
15.270	19.65	50	WCRC	" " "	.....
15.270	19.65	50	WCBN	" " "	.....
15.270	19.65	50	WCBX	" " "	.....
15.270	19.65	50	WOOW	Wayne, N.J. (U.S.A.)	.....
15.270	19.65	50	WOOC	" " "	.....
15.270	19.65	—	—	Moscow, Russia (U.S.S.R.)	.....
15.275	19.64	7.5	—	Singapore (Malaya)	.....
15.280	19.63	50	WNRE	Bound Brook, N.J. (U.S.A.)	.....
15.280	19.63	5	—	Ruiselede (Belgium)	.....
15.280	19.63	10	ZL4	Wellington (New Zealand)	.....
15.290	19.62	100	KWID	San Francisco, Cal. (U.S.A.)	.....
15.290	19.62	50	WRUL	Boston, Mass. (U.S.A.)	.....
15.290	19.62	50	WRUA	" " "	.....
15.290	19.62	50	KWIX	San Francisco, Cal. (U.S.A.)	.....
15.290	19.62	20	VUD11	Delhi (India)	.....
15.290	19.62	6	LRU	Buenos Aires (Argentina)	.....
15.295	19.61	25	—	Realtort (France)	.....
15.295	19.61	—	—	Belgrade (Yugoslavia)	.....
15.300	19.61	—	GWR	British Overseas Service	.....
15.300	19.61	2.5	CXA18	Montevideo (Uruguay)	.....

Mc/s	Mecres	kW	Call	Station	Notes
15.300	19.61	1	CP7	La Paz (Bolivia)	.....
15.300	19.61	7.5	—	Singapore (Malaya)	.....
15.305	19.60	25	HER6	Schwarzenburg (Switzerland)	.....
15.308	19.60	—	—	Milan (Italy)	.....
15.310	19.60	—	CSW7	Lisbon (Portugal)	.....
15.310	19.60	—	GSP	British Overseas Service	.....
15.315	19.59	—	—	Moscow, Russia (U.S.S.R.)	.....
15.315	19.59	25	HEU6	Schwarzenburg (Switzerland)	.....
15.320	19.58	100	VLA5	Shepparton, Vic. (Australia)	.....
15.320	19.58	50	VLC4	" " " "	.....
15.320	19.58	50	CKCS	Sackville, N.B. (Canada)	.....
15.320	19.58	17	OLR5B	Podebrady (Czechoslovakia)	.....
15.320	19.58	5	OZH	Copenhagen (Denmark)	.....
15.320	19.58	—	—	Moscow, Russia (U.S.S.R.)	.....
15.325	19.58	—	JVW3	Tokio (Japan)	.....
15.326	19.58	10	CR7BG	Lourenco Marques (Mozambique)	.....
15.330	19.57	200	KCBR	Delano, Cal. (U.S.A.)	.....
15.330	19.57	100	WGEO	Schenectady, N.Y. (U.S.A.)	.....
15.330	19.57	50	WGEA	" " " "	.....
15.330	19.57	50	KGEI	Belmont, Cal. (U.S.A.)	.....
15.330	19.57	50	—	Manila (Philippines)	.....
15.330	19.57	50	KNBX	Dixon, Cal. (U.S.A.)	.....
15.335	19.56	5	—	Ruiselede (Belgium)	.....
15.340	19.56	—	—	Sverdlovsk, Russia (U.S.S.R.)	.....
15.345	19.55	7.5	—	Athens (Greece)	.....
15.350	19.54	200	WLWR	Cincinnati, Ohio (U.S.A.)	.....
15.350	19.54	75	WLWO	" " " "	.....
15.350	19.54	50	WRUA	Boston, Mass. (U.S.A.)	.....
15.350	19.54	50	WRUL	" " " "	.....
15.350	19.54	20	WRUW	" " " "	.....
15.350	19.54	50	WRUS	" " " "	.....
15.350	19.54	25	—	Realtort (France)	.....
15.350	19.60	7.5	XGOA	Nanking (China)	.....
15.350	19.54	—	VUD8	Delhi (India)	.....
15.352	19.55	5	—	Luxembourg	.....
15.360	19.53	—	—	Moscow, Russia (U.S.S.R.)	.....
15.370	19.52	25	ZYC9	Rio de Janeiro (Brazil)	.....
15.390	19.49	12	FHE2	Dakar (Fr. W. Africa)	.....

Mcs	Metres	kW	Call	Station	Notes
15.390	19.49	—	—	Moscow, Russia (U.S.S.R.)	.....
15.405	19.48	5	PZC	Paramaribo (Dutch Guiana)	.....
15.410	19.47	—	—	Moscow, Russia (U.S.S.R.)	.....
15.435	19.44	—	GWE	British Overseas Service	.....
15.440	19.43	—	—	Moscow, Russia (U.S.S.R.)	.....
15.450	19.42	—	GRD	British Overseas Service	.....
15.530	19.31	2	—	Teheran (Iran)	.....
15.595	19.24	50	FZI	Brazzaville (Fr. Eq. Africa)	.....
15.625	19.19	40	—	Madrid (Spain)	.....
15.710	19.09	—	—	Moscow, Russia (U.S.S.R.)	.....
15.765	19.03	3	—	Tirana (Albania)	.....
16.666	18.00	2	—	Rabat (French Morocco)	.....
17.445	17.20	25	HVJ	Vatican City	.....
17.630	17.01	2.5	PLD6	Batavia, Java (Indonesia)	.....
17.700	16.95	—	GVP	British Overseas Service	.....
17.715	16.93	—	GRA	" " "	.....
17.720	16.93	10	LRA5	Buenos Aires (Argentina)	.....
17.730	16.92	—	GVQ	British Overseas Service	.....
17.730	16.92	7.5	—	Colombo (B.F.) (Ceylon)	.....
17.745	16.91	50	OTC5	Léopoldville (Belgian Congo)	.....
17.750	16.90	—	—	Moscow, Russia (U.S.S.R.)	.....
17.750	16.90	50	WRUA	Boston, Mass. (U.S.A.)	.....
17.750	16.90	50	WRUS	" " "	.....
17.750	16.90	50	WRUL	" " "	.....
17.755	16.90	20	WRUW	" " "	.....
17.760	16.89	100	KWID	San Francisco, Cal. (U.S.A.)	.....
17.760	16.89	50	KWIX	" " " "	.....
17.760	16.89	5	VUD3	Delhi (India)	.....
17.765	16.88	25	—	Muret (France)	.....
17.770	16.88	7.5	—	Colombo (B.F.) (Ceylon)	.....
17.770	16.88	25	HED8	Schwarzenburg (Switzerland)	.....
17.770	16.88	50	KNBI	Dixon, Cal. (U.S.A.)	.....
17.770	16.88	50	KNBA	" " "	.....
17.770	16.88	10	ZL5	Wellington (New Zealand)	.....
17.770	16.88	—	—	Moscow, Russia (U.S.S.R.)	.....
17.775	16.88	5	PHI	Huizen (Netherlands)	.....
17.780	16.87	50	KCBR	Delano, Cal. (U.S.A.)	.....
17.780	16.87	50	WBOS	Boston, Mass. (U.S.A.)	.....
17.780	16.87	50	WRCA	Bound Brook, N.J. (U.S.A.)	.....

Mc/s	Metres	kW	Call	Station	Notes
17.780	16.87	50	WNBI	Bound Brook, N.J. (U.S.A.)	.....
17.780	16.87	25	—	Muret (France)	.....
17.784	16.87	25	HER7	Schwarzenberg (Switzerland)	.....
17.790	16.86	—	GSG	British Overseas Service	.....
17.800	16.85	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
17.800	16.85	200	WLWR	" " "	.....
17.800	16.85	200	WLWL	" " "	.....
17.800	16.85	100	VLA7	Shepparton, Vic. (Australia)	.....
17.800	16.85	100	VLB7	" " "	.....
17.800	16.85	100	KRHO	Honolulu (Hawaii)	.....
17.800	16.85	75	WLWO	Cincinnati, Ohio (U.S.A.)	.....
17.800	16.85	50	WLWK	" " "	.....
17.800	16.85	15	OIX5	Helsinki (Finland)	.....
17.810	16.84	—	GSV	British Overseas Service	.....
17.810	16.84	100	—	Allouis (France)	.....
17.812	16.84	—	—	Rabat (French Morocco)	.....
17.815	16.84	—	—	Moscow, Russia (U.S.S.R.)	.....
17.820	16.84	50	CKNC	Sackville, N.B. (Canada)	.....
17.820	16.88	7.5	—	Colombo (B.F.) (Ceylon)	.....
17.830	16.83	50	WCRC	Brentwood, N.Y. (U.S.A.)	.....
17.830	16.83	50	WCBX	" " "	.....
17.830	16.83	50	WCBN	" " "	.....
17.830	16.83	50	WOOW	Wayne, N.J. (U.S.A.)	.....
17.830	16.83	50	WOOC	" " "	.....
17.830	16.83	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
17.830	16.83	20	VUDI0	Delhi (India)	.....
17.830	16.83	17	OLR6A	Podebrady (Czechoslovakia)	.....
17.835	16.82	7	FZI	Brazzaville (Fr. Eq. Africa)	.....
17.835	16.82	6	—	Kalundborg (Denmark)	.....
17.835	16.82	—	JVU3	Tokio (Japan)	.....
17.840	16.82	100	VLA10	Shepparton, Vic. (Australia)	.....
17.840	16.82	25	HVJ	Vatican City	.....
17.840	16.82	50	VLC9	Shepparton, Vic. (Australia)	.....
17.845	16.81	5	—	Ruiseleda (Belgium)	.....
17.850	16.81	50	PRL9	Rio de Janeiro (Brazil)	.....
17.850	16.81	50	KCBF	Delano, Cal. (U.S.A.)	.....
17.850	16.81	100	—	Allouis (France)	.....
17.850	16.81	50	KNBI	Dixon, Cal. (U.S.A.)	.....
17.859	16.80	—	—	Moscow, Russia (U.S.S.R.)	.....

Mc/s	Metres	kW	Call	Station	Notes
17.860	16.80	5	—	Ruiselede (Belgium)	.....
17.880	16.78	50	KGEX	Belmont, Cal. (U.S.A.)	.....
17.880	16.78	—	WGEX	Schenectady, N.Y. (U.S.A.)	.....
17.910	16.75	—	—	Moscow, Russia (U.S.S.R.)	.....
17.955	16.71	200	WLWR	Cincinnati, Ohio (U.S.A.)	.....
17.955	16.71	200	WLWL	" " "	.....
18.025	16.64	—	GRQ	British Overseas Service	.....
18.080	16.59	—	GVO	" " "	.....
18.130	16.55	—	GRP	" " "	.....
18.150	16.53	25	HVJ	Vatican City	.....
18.160	16.52	50	WNRA	Bound Brook, N.J. (U.S.A.)	.....
18.160	16.52	50	WNRI	" " "	.....
18.390	16.31	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
18.450	16.26	20	HBF	Geneva (Switzerland)	.....
18.540	16.18	—	—	Moscow, Russia (U.S.S.R.)	.....
18.600	16.13	2.5	PLE3	Batavia, Java (Indonesia)	.....
19.345	15.50	2.5	PLF2	" " "	.....
19.790	15.16	3	—	" " "	.....
21.004	14.29	1	FZI	Brazzaville (Fr. Eq. Africa)	.....
21.450	13.99	17	OLR7A	Podebrady (Czechoslovakia)	.....
21.450	13.99	5	—	Ruiselede (Belgium)	.....
21.460	13.98	50	WRUA	Boston, Mass. (U.S.A.)	.....
21.460	13.98	50	WRUL	" " "	.....
21.460	13.98	50	WRUS	" " "	.....
21.460	13.98	50	KCBF	Delano, Cal. (U.S.A.)	.....
21.460	13.98	50	KNBA	Dixon, Cal. (U.S.A.)	.....
21.470	13.97	—	—	Colombo (B.F.) (Ceylon)	.....
21.470	13.97	—	GSH	British Overseas Service	.....
21.480	13.97	5	PHI	Huizen (Netherlands)	.....
21.490	13.96	50	KGEI	Belmont, Cal. (U.S.A.)	.....
21.495	13.95	—	—	Moscow, Russia (U.S.S.R.)	.....
21.500	13.95	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
21.500	13.95	50	WOOW	Wayne, N.J. (U.S.A.)	.....
21.510	13.95	7.5	VUD8	Delhi (India)	.....
21.510	13.94	—	—	Moscow, Russia (U.S.S.R.)	.....
21.520	13.94	100	HER8	Schwarzenburg (Switzerland)	.....
21.520	13.94	50	WCBN	Brentwood, N.Y. (U.S.A.)	.....
21.520	13.94	50	WCBX	" " "	.....
21.520	13.94	50	WCRC	" " "	.....

Mc/s	Metres	kW	Call	Station	Notes
21.520	13.94	50	WOOC	Wayne, N.J. (U.S.A.)	.....
21.520	13.94	50	WOOW	" " "	.....
21.520	13.94	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
21.530	13.93	—	GSJ	British Overseas Service	.....
21.540	13.93	50	WBOS	Boston, Mass. (U.S.A.)	.....
21.540	13.93	100	VLB5	Shepparton, Vic. (Australia)	.....
21.550	13.92	—	GST	British Overseas Service	.....
21.550	13.92	15	—	Helsinki (Finland)	.....
21.550	13.92	10	—	Rio de Janeiro (Brazil)	.....
21.558	13.92	—	—	Moscow, Russia (U.S.S.R.)	.....
21.565	13.91	17	OLR7B	Podebrady (Czechoslovakia)	.....
21.570	13.91	50	WCBX	Brentwood, N.Y. (U.S.A.)	.....
21.570	13.91	50	WCBN	" " "	.....
21.570	13.91	50	WCRC	" " "	.....
21.570	13.91	50	WOOW	Wayne, N.J. (U.S.A.)	.....
21.570	13.91	50	WOOC	" " "	.....
21.570	13.91	10	WCDA	Brentwood, N.Y. (U.S.A.)	.....
21.590	13.89	50	WGEA	Schenectady, N.Y. (U.S.A.)	.....
21.600	13.89	100	VLA9	Shepparton, Vic. (Australia)	.....
21.600	13.89	100	VLB8	" " "	.....
21.610	13.88	100	KWID	San Francisco, Cal. (U.S.A.)	.....
21.610	13.88	50	WNRX	Bound Brook, N.J. (U.S.A.)	.....
21.610	13.88	50	WNRA	" " " "	.....
21.610	13.88	50	KNBI	Dixon, Cal. (U.S.A.)	.....
21.610	13.88	50	KWIX	San Francisco, Cal. (U.S.A.)	.....
21.620	13.87	—	—	Colombo (B.F.) (Ceylon)	.....
21.630	13.87	50	KNBA	Dixon, Cal. (U.S.A.)	.....
21.630	13.87	50	WRCA	Bound Brook, N.J. (U.S.A.)	.....
21.630	13.87	50	WNBI	" " " "	.....
21.630	13.87	50	WNRX	" " " "	.....
21.630	13.87	50	WNRI	" " " "	.....
21.630	13.87	50	WNRE	" " " "	.....
21.630	13.87	50	WNRA	" " " "	.....
21.640	13.86	—	GRZ	British Overseas Service	.....
21.640	13.86	17	OLR7C	Podebrady (Czechoslovakia)	.....
21.650	13.85	200	WLWS	Cincinnati, Ohio (U.S.A.)	.....
21.650	13.85	200	WLWR	" " "	.....
21.650	13.85	200	WLWL	" " "	.....
21.650	13.85	75	WLWO	" " "	.....



Mc/s	Metres	kW	Call	Station	Notes
21.650	13.85	50	WLWK	Cincinnati, Ohio (U.S.A.)	.....
21.675	13.84	—	GVR	British Overseas Service	.....
21.680	13.84	50	VLC10	Shepparton, Vic. (Australia)	.....
21.680	13.84	50	—	Léopoldville (Belgian Congo)	.....
21.690	13.83	200	WLWL	Cincinnati, Ohio (U.S.A.)	.....
21.690	13.83	50	WLWK	" " "	.....
21.710	13.82	—	GVS	British Overseas Service	.....
21.710	13.82	50	CHLA	Sackville, N.B. (Canada)	.....
21.715	13.82	5	—	Rulselede (Belgium)	.....
21.720	13.81	7.5	—	Singapore (Malaya)	.....
21.730	13.81	50	WNRX	Bound Brook, N.J. (U.S.A.)	.....
21.740	13.80	100	—	Allouis (France)	.....
21.750	13.79	—	GVT	British Overseas Service	.....
25.600	11.72	20	WRUW	Boston, Mass. (U.S.A.)	.....
25.640	11.70	100	HER9	Schwarzenburg (Switzerland)	.....
25.750	11.65	—	G SQ	British Overseas Service	.....
25.800	11.63	10	ZL6	Wellington (New Zealand)	.....
26.100	11.49	—	GSK	British Overseas Service	.....
26.200	11.45	5	—	Rulselede (Belgium)	.....
26.400	11.36	—	GSR	British Overseas Service	.....
26.470	11.33	5	—	Rulselede (Belgium)	.....
26.550	11.30	—	GSS	British Overseas Service	.....
27.000	11.11	2.5	CXA11	Montevideo (Uruguay)	.....

Tot: 1130 STNS

Heard  
and Identified: 3

## British Amateur Transmitting Frequencies

Mc/s	Max. Power (W)	Mc/s	Max. Power (W)
1.75 — 2.0	10	58.5 — 60.0	25
3.5 — 3.635	150	145 — 146	25
3.685 — 3.8	150	420 — 460	10
7.0 — 7.3	150	2,300 — 2,450	25
14.0 — 14.4	150	Frequencies for Radio Control	
28.0 — 30.0	150	27.66 — 28.0	5
		460.0 — 461.0	5

# Geographical List of Short-wave Stations

	Mc/s.	Argentina—Cont.	Mc/s	Australia—Cont.	Mc/s
<b>ALBANIA</b>					
Korce	7.430	Rosario	11.880	Shepparton, Vic.	21.600
Scutari	8.215	<b>AUSTRALIA</b>		"	21.680
Tirana	6.081	Brisbane, Qld.	7.215	<b>AUSTRIA</b>	
"	7.852	"	7.240	(U.S. Zone)	
"	9.960	"	9.660	Linz	9.560
"	15.765	Lyndhurst, Vic.	6.150	Salzburg	7.220
<b>ALGERIA</b>		"	9.540	<b>AZORES</b>	
Algiers	6.040	"	9.580	Ponta Delgada	7.015
"	9.570	"	11.710	"	11.690
"	9.610	"	11.760	<b>BELGIUM</b>	
"	9.660	"	11.840	Ruiselede	6.200
"	11.765	"	11.880	"	7.300
"	11.835	"	11.900	"	9.480
"	11.880	"	15.160	"	9.665
"	12.116	"	15.210	"	11.720
"	15.165	"	15.230	"	11.850
<b>ANDORRA</b>		"	15.240	"	11.893
"	5.980	Perth, W.A.	9.520	"	15.280
"	9.340	"	9.610	"	15.335
"	14.400	"	11.830	"	17.845
<b>ARABIA</b>		Shepparton, Vic.	7.280	"	17.860
Aden	6.760	"	9.540	"	21.450
<b>ARGENTINA</b>		"	9.615	"	21.715
Buenos Aires	5.986	"	9.680	"	26.200
"	6.065	"	11.740	"	26.470
"	6.085	"	11.760	<b>BOLIVIA</b>	
"	6.120	"	11.770	La Paz	6.110
"	9.320	"	11.810	"	9.505
"	9.640	"	11.840	"	9.520
"	9.660	"	11.870	"	9.700
"	9.690	"	15.160	"	15.300
"	11.730	"	15.200	<b>BRAZIL</b>	
"	11.840	"	15.210	Belem	4.865
"	15.290	"	15.320	Belo Horizonte	5.995
"	17.720	"	17.800	Fortaleza	6.105
Mendoza	6.180	"	17.840	"	15.165
Rosario	6.145	"	21.540	Manaos	4.895

Brazil—Cont.	Mc/s	Canada—Cont.	Mc/s	China—Cont.	Mc/s
Marapicu	7.934	Toronto, Ont.	6.070	Chungking	7.153
"	9.500	Verchères, Quebec	6.005	"	9.635
"	9.600	" "	6.090	"	11.920
"	10.220	" "	9.607	"	15.170
"	11.850	" "	9.630	Hankow	6.050
"	12.080	" "	11.705	"	11.500
Recife	6.015	" "	15.090	"	12.500
Rio de Janeiro	9.610	" "	15.190	Kweiyang	7.007
" "	9.720	Winnipeg, Manitoba	6.150	"	9.430
" "	11.720	" "	11.720	Lanchow	9.750
" "	15.370	<b>CANARY ISLANDS</b>		Nanking	5.918
" "	17.850	Teneriffe	7.558	"	9.730
" "	21.550	<b>CEYLON</b>		"	11.835
Sao Paulo	6.095	Colombo	4.900	"	15.350
" "	11.765	"	6.075	Peiping	6.090
" "	15.155	"	7.185	"	10.260
<b>BULGARIA</b>		"	9.520	Shanghai	11.700
Sofia	7.660	"	11.770	Taiwan	7.223
"	9.350	"	15.120	"	9.680
<b>BURMA</b>		"	17.730	<b>COLOMBIA</b>	
Rangoon	6.035	"	17.770	Barranquilla	4.785
"	9.545	"	17.820	Bogota	6.160
"	11.845	"	21.470	"	6.199
<b>CANADA</b>		"	21.620	"	9.690
Sackville, N.B.	6.060	<b>CHILE</b>		Bucaramanga	4.777
"	6.090	Antofagasta	6.010	Manizales	6.225
"	6.160	Punta Arenas	9.197	Medellin	4.885
"	9.610	Santiago	6.220	"	6.145
"	9.630	"	6.250	Pereira	6.054
"	9.640	"	9.600	"	6.100
"	11.705	"	9.700	<b>CONGO, BELGIAN</b>	
"	11.720	"	11.740	Léopoldville	6.140
"	11.760	"	11.800	"	6.295
"	11.900	"	11.850	"	9.380
"	15.090	"	12.003	"	9.745
"	15.190	Valparaiso	6.150	"	9.785
"	15.220	"	9.730	"	10.140
"	15.320	"	11.900	"	11.645
"	17.820	<b>CHINA</b>		"	15.165
"	21.710	Canton	11.650	"	17.745
Sydney, N.S.	6.010	Chungking	6.143	"	21.680

<b>COSTA RICA</b>	<b>Mc/s</b>	<b>Czechoslovakia—Cont.</b>	<b>Mc/s</b>	<b>Fiji Islands—Cont.</b>	<b>Mc/s</b>
San Jose	5.871			Suva	15.160
" "	6.700	Podebrady	21.640	<b>FINLAND</b>	
" "	9.615	<b>DENMARK</b>		Helsinki	6.120
San Pedro	6.165	Copenhagen	7.260	"	17.800
<b>CUBA</b>		"	9.520	"	21.550
Camaguey	8.660	"	15.165	Lahti	9.500
Havana	6.040	"	15.320	"	11.780
"	6.130	Kalundborg	11.850	Pori	15.190
"	6.320	"	17.835	<b>FRANCE</b>	
"	6.455	<b>DOMINICAN</b>		Allouis	6.160
"	8.700	<b>REPUBLIC</b>		"	6.175
"	8.825	Ciudad Trujillo	6.243	"	6.200
"	9.025	" "	6.380	"	7.280
"	9.235	Monsenor Nouel	7.275	"	9.500
"	9.270	" "	11.900	"	9.520
"	9.450	<b>ECUADOR</b>		"	9.540
"	9.640	Guayaquil	9.310	"	9.550
"	9.833	Quito	5.995	"	9.560
"	11.740	"	7.265	"	9.675
Santiago	7.058	"	9.960	"	9.680
"	8.955	"	12.455	"	11.700
<b>CURACAO</b>		"	15.114	"	11.710
Willemstad	7.250	<b>EGYPT</b>		"	11.730
<b>CZECHOSLOVAKIA</b>		Cairo	7.860	"	11.780
Podebrady	6.010	"	10.055	"	15.100
"	6.030	<b>EQ. AFRICA, FRENCH</b>		"	15.240
"	6.115	Brazzaville	6.024	"	17.810
"	6.170	"	9.440	"	17.850
"	9.504	"	9.984	"	21.740
"	9.550	"	11.972	Muret	11.845
"	9.670	"	15.595	"	11.885
"	11.760	"	17.835	"	17.765
"	11.840	"	21.004	"	17.780
"	11.875	<b>ETHIOPIA</b>		Realtort	7.240
"	11.900	Addis Ababa	8.240	"	9.620
"	15.155	" "	9.625	"	15.295
"	15.225	" "	15.078	"	15.350
"	15.320	<b>FIJI ISLANDS</b>		<b>GERMANY</b>	
"	17.830	Suva	6.130	(British Zone)	
"	21.450	"	9.535	Hamburg	6.115
"	21.565	"	11.895		

Germany—Cont.	Mc/s	Great Britain—Cont.	Mc/s	Great Britain—Cont.	Mc/s
(French Zone)					
Baden Baden	6.320	British Overseas		British Overseas	
(U.S. Zone)		Service	7.260	Service	17.715
Munich	6.080	" " "	7.280	" " "	17.730
"	6.100	" " "	7.320	" " "	17.790
"	6.170	" " "	9.410	" " "	17.810
"	7.250	" " "	9.510	" " "	18.025
"	7.290	" " "	9.525	" " "	18.080
"	8.565	" " "	9.550	" " "	18.130
"	9.540	" " "	9.580	" " "	21.470
"	11.870	" " "	9.600	" " "	21.530
"	15.150	" " "	9.625	" " "	21.550
Nuremberg	6.160	" " "	9.640	" " "	21.640
Stuttgart	6.180	" " "	9.660	" " "	21.675
"	6.210	" " "	9.675	" " "	21.710
(U.S.S.R. Zone)		" " "	9.690	" " "	21.750
Berlin	6.070	" " "	9.825	" " "	25.750
Leipzig	9.727	" " "	9.915	" " "	26.100
<b>GOLD COAST</b>		" " "	11.680	" " "	26.400
Accra	4.911	" " "	11.700	" " "	26.550
"	7.295	" " "	11.730	<b>GREECE</b>	25.540
<b>GREAT BRITAIN</b>		" " "	11.750	Athens	6.175
British Overseas		" " "	11.770	"	7.298
Service	6.010	" " "	11.800	"	15.345
" " "	6.035	" " "	11.820	<b>GREENLAND</b>	
" " "	6.050	" " "	11.840	Godthaab	5.943
" " "	6.070	" " "	11.860	<b>GUATEMALA</b>	
" " "	6.090	" " "	11.930	Guatemala City	6.440
" " "	6.110	" " "	11.955	" "	9.760
" " "	6.125	" " "	12.040	" "	15.170
" " "	6.150	" " "	12.095	Quetzaltenango	6.400
" " "	6.165	" " "	15.070	<b>GUIANA, BRITISH</b>	
" " "	6.180	" " "	15.110	Georgetown	6.000
" " "	6.195	" " "	15.140	"	6.130
" " "	7.075	" " "	15.180	<b>GUIANA, DUTCH</b>	
" " "	7.120	" " "	15.260	Paramaribo	15.405
" " "	7.150	" " "	15.300	<b>GUINEA, PORTU-</b>	
" " "	7.185	" " "	15.310	<b>GUESE</b>	
" " "	7.210	" " "	15.435	Bissao	7.947
" " "	7.230	" " "	15.450	<b>HAWAII</b>	
" " "	7.250	" " "	17.700	Honolulu	6.120

Hawaii—Cont.	Mc/s	India—Cont.	Mc/s	IRAQ	M/cs
Honolulu	9.650	Delhi	15.190	Baghdad	7.092
"	11.890	"	15.210	"	9.084
"	15.250	"	15.290	"	9.820
"	17.800	"	15.350	<b>ITALY</b>	
<b>HONDURAS, BRITISH</b>		"	17.760	Milan	6.085
Belize	10.600	"	17.830	"	9.630
<b>HONG KONG</b>		"	21.510	"	11.810
Victoria	9.525	Madras	4.920	"	15.120
<b>ICELAND</b>		"	6.085	"	15.308
Reykjavik	12.235	"	7.260	Rome	6.030
<b>INDIA</b>		"	9.590	"	7.250
Bombay	4.880	<b>INDIAN STATES</b>		"	7.270
"	6.150	Akashvani, Mysore	6.065	<b>JAMAICA</b>	
"	7.240	<b>INDO-CHINA,</b>		Kingston	4.950
"	9.550	<b>FRENCH</b>		<b>JAPAN</b>	
"	9.630	Saigon	6.165	Kure	6.105
Calcutta	4.840	"	11.783	Tokio	7.258
"	6.010	<b>INDONESIA</b>		"	7.550
"	7.210	Bandoeng, Java	8.000	"	9.505
"	9.530	"	9.850	"	11.705
Delhi	4.860	"	11.003	"	11.725
"	4.960	"	11.440	"	15.110
"	6.010	Batavia, "	9.550	"	15.140
"	6.060	"	9.680	"	15.225
"	6.100	"	10.365	"	15.235
"	6.110	"	11.440	"	15.325
"	6.190	"	15.145	"	17.835
"	7.240	"	17.630	Yamato	9.605
"	7.290	"	18.600	<b>KENYA</b>	
"	9.590	"	19.345	Nairobi	4.885
"	9.630	"	19.790	"	6.060
"	9.660	Macassar, Celebes	9.250	"	10.730
"	9.670	"	9.360	<b>LEBANON</b>	
"	9.680	Madan, Sumatra	11.860	Beirut	6.090
"	11.760	Soerakarta, Java	9.860	"	7.210
"	11.790	<b>IRAN</b>		"	8.037
"	11.830	Teheran	4.830	<b>LUXEMBOURG</b>	6.090
"	11.850	"	6.155	"	9.528
"	11.870	"	9.680	"	15.352
"	15.130	"	15.100	<b>LIBYA</b>	
"	15.160	"	15.530	Benghazi	11.850

<b>MADAGASCAR</b>	Mc/s	Morocco, Intl.		<b>PALESTINE</b>	Mc/s
Tananarive	6.137	Zone—Cont.	Mc/s	Jerusalem	11.750
"	12.126	Tangier	14.280	<b>PANAMA</b>	
<b>MALAYA</b>		<b>MOROCCO, SPANISH</b>		Panama City	9.607
Kuala Lumpur	6.060	Tetuan	6.067	" "	9.660
" "	6.175	<b>MOZAMBIQUE</b>		" "	11.700
Singapore	4.825	Lourenco Marques	9.582	" "	11.810
"	6.770	" "	9.638	" "	15.100
"	9.690	" "	9.652	<b>PARAGUAY</b>	
"	11.730	" "	9.725	Asuncion	6.275
"	15.275	" "	9.837	"	11.670
"	15.300	" "	11.835	Encarnacion	11.950
"	21.720	" "	15.240	<b>PERU</b>	
<b>MARTINIQUE</b>		" "	15.326	Lima	5.885
Fort de France	9.695	<b>NETHERLANDS</b>		"	6.010
<b>MEXICO</b>		Huizen	6.025	"	6.082
Mexico City	6.000	"	9.590	"	6.095
" "	6.010	"	11.730	"	6.370
" "	9.500	"	15.220	"	9.562
" "	9.555	"	17.775	"	15.150
" "	9.615	"	21.480	<b>PHILIPPINES</b>	
" "	9.625	<b>NEW ZEALAND</b>		Manila	9.570
" "	9.680	Wellington	6.080	"	9.640
" "	11.780	"	9.540	"	15.330
" "	11.880	"	11.780	<b>POLAND</b>	
<b>MONACO</b>		"	15.280	Warsaw	6.100
Monte Carlo	6.035	"	17.770	"	6.215
<b>MOROCCO, FRENCH</b>		"	25.800	"	9.526
Rabat	6.006	<b>NICARAGUA</b>		<b>PORTUGAL</b>	
"	7.214	Managua	6.760	Lisbon	6.154
"	9.082	<b>N. RHODESIA</b>		"	7.260
"	9.575	Lusaka	9.710	"	11.035
"	11.857	<b>NORWAY</b>		"	11.840
"	11.940	Fredrikstad	6.130	"	12.750
"	15.104	"	6.185	"	12.865
"	16.666	"	9.610	"	15.215
"	17.812	"	11.735	"	15.310
<b>MOROCCO, INTL.</b>		"	11.850	<b>RUMANIA</b>	
<b>ZONE</b>		Oslo	6.195	Bucharest	9.250
Tangier	6.200	"	9.540	<b>SALVADOR</b>	
"	7.080	Tromsö	7.210	San Salvador	5.200
"	12.228	"	15.175		

Salvador—Cont.	Mc/s	Switzerland—Cont.	Mc/s	U.S.A.—Cont.	Mc/s
San Salvador	6.155	Schwarzenburg	9.185	Boston, Mass.	11.870
" "	6.255	"	9.535	" "	15.130
" "	7.270	"	9.539	" "	15.200
" "	7.894	"	9.545	" "	15.210
" "	9.575	"	9.655	" "	15.220
<b>SIAM</b>		"	10.395	" "	15.250
Bangkok	5.994	"	11.715	" "	15.290
<b>SOUTH AFRICA</b>		"	11.775	" "	15.350
Cape Town	5.883	"	11.815	" "	17.750
" "	9.606	"	11.865	" "	17.755
Johannesburg	4.895	"	11.960	" "	17.780
"	6.007	"	11.965	" "	21.460
"	6.095	"	15.120	" "	21.540
"	9.523	"	15.305	" "	25.600
"	9.870	"	15.315	Bound Brook, N.J.	6.100
"	11.710	"	17.770	" " "	6.190
<b>SPAIN</b>		"	17.784	" " "	9.670
Alicante	7.958	"	21.520	" " "	9.750
Madrid	9.368	"	25.640	" " "	11.770
"	9.832	<b>TURKEY</b>		" " "	11.790
"	15.625	Ankara	9.465	" " "	11.830
O veldo	7.130	"	15.195	" " "	11.870
Valencia	7.035	<b>U.S.A.</b>		" " "	11.890
<b>SWEDEN</b>		Belmont, Cal.	6.190	" " "	11.893
Motala	6.065	" "	7.250	" " "	13.050
"	9.535	" "	9.530	" " "	14.560
"	10.780	" "	9.550	" " "	15.150
"	11.705	" "	11.730	" " "	15.190
"	15.155	" "	15.130	" " "	15.280
<b>SWITZERLAND</b>		" "	15.210	" " "	17.780
Geneva	9.350	" "	15.330	" " "	18.160
"	9.515	" "	17.880	" " "	21.610
"	14.462	" "	21.490	" " "	21.630
"	14.538	Boston, Mass.	6.040	" " "	21.730
"	18.450	" "	6.140	Brentwood, N.Y.	6.060
Schwarzenburg	6.055	" "	9.550	" "	6.120
"	6.165	" "	9.570	" "	6.170
"	6.345	" "	9.700	" "	9.490
"	7.210	" "	11.725	" "	9.590
"	7.360	" "	11.730	" "	9.650
"	7.380	" "	11.790	" "	11.830



U.S.A.—Cont.	Mc/s	U.S.A.—Cont.	Mc/s	U.S.A.—Cont.	Mc/s
Brentwood, N.Y.	15.267	Dixon, Cal.	17.770	Wayne, N.J.	21.570
" "	15.270	" "	17.850	U.S.S.R.	
" "	17.830	" "	21.460	Ashkhabad, Turk-	5.958
" "	21.520	" "	21.610	menistan	
" "	21.570	" "	21.630	" "	6,180
Cincinnati, Ohio	6.080	San Francisco, Cal.	6.060	Erivan, Armenia	7.280
" "	9.520	" "	7.230	Kiev, Ukraine	6.020
" "	9.590	" "	9.570	Komsomolsk, Russia	11.750
" "	9.700	" "	11.870	" "	15.230
" "	9.750	" "	11.890	Leningrad, "	7.430
" "	11.705	" "	11.900	" "	7.650
" "	11.710	" "	15.290	" "	9.720
" "	11.790	" "	17.760	" "	11.630
" "	15.130	" "	21.610	Minsk, Byelorussia	9.500
" "	15.200	Schenectady, N.Y.	6.190	Moscow, Russia	5.080
" "	15.230	" "	7.000	" "	5.920
" "	15.250	" "	9.525	" "	6.000
" "	15.350	" "	9.530	" "	6.030
" "	17.800	" "	9.550	" "	6.045
" "	17.955	" "	9.670	" "	6.140
" "	18.390	" "	11.770	" "	6.150
" "	21.650	" "	11.810	" "	6.230
" "	21.690	" "	11.847	" "	6.700
Delano, Cal.	9.700	" "	15.330	" "	6.850
" "	9.750	" "	17.880	" "	7.150
" "	11.770	" "	21.500	" "	7.165
" "	11.810	" "	21.590	" "	7.200
" "	15.130	Wayne, N.J.	6.120	" "	7.245
" "	15.150	" "	6.170	" "	7.270
" "	15.240	" "	9.490	" "	7.300
" "	15.330	" "	9.650	" "	7.330
" "	17.780	" "	9.700	" "	7.350
" "	17.850	" "	11.810	" "	7.360
" "	21.460	" "	11.830	" "	7.390
Dixon, Cal.	6.060	" "	11.870	" "	7.520
" "	9.490	" "	15.130	" "	7.770
" "	9.650	" "	15.200	" "	7.790
" "	11.770	" "	15.270	" "	8.050
" "	11.790	" "	17.830	" "	8.760
" "	15.250	" "	21.500	" "	8.910
" "	15.330	" "	21.520	" "	9.010

U.S.S.R.—Cont.	Mc/s	U.S.S.R.—Cont.	Mc/s	Vatican City—Cont.	Mc/s
Moscow, Russia	9.045	Moscow, Russia	15.390	" "	11.740
" "	9.480	" "	15.410	" "	15.095
" "	9.520	" "	15.440	" "	15.120
" "	9.530	" "	15.710	" "	17.445
" "	9.540	" "	17.750	" "	17.840
" "	9.560	" "	17.770	" "	18.150
" "	9.580	" "	17.815	<b>VENEZUELA</b>	
" "	9.610	" "	17.859	Barquisimeto	4.994
" "	9.620	" "	17.910	Bolivar	6.200
" "	9.650	" "	18.540	Caracas	4.881
" "	9.710	" "	21.495	"	4.915
" "	9.760	" "	21.510	"	4.970
" "	9.780	" "	21.558	"	6.705
" "	9.880	Sverdlovsk, Russia	15.340	"	9.640
" "	10.205	Tashkent, Uzbek	6.825	<b>W. AFRICA, FRENCH</b>	
" "	11.610	Tiflis, Georgia	7.490	Dakar, Senegal	4.893
" "	11.710	Vladivostok, Russia	6.130	" "	7.210
" "	11.720	<b>URUGUAY</b>		" "	8.890
" "	11.740	Montevideo	6.035	" "	9.405
" "	11.765	"	6.075	" "	9.565
" "	11.825	"	6.125	" "	11.712
" "	11.875	"	6.174	" "	15.390
" "	11.885	"	9.620	<b>W. AFRICA, PORTUGUESE</b>	
" "	11.890	"	11.735	Loando, Angola	9.475
" "	11.914	"	11.833	Lobito, "	7.175
" "	11.975	"	11.900	<b>YUGOSLAVIA</b>	
" "	12.270	"	15.300	Belgrade	6.100
" "	13.400	"	27.000	"	6.140
" "	15.040	<b>VATICAN CITY</b>		"	9.420
" "	15.167	" "	5.969	"	9.507
" "	15.270	" "	6.190	"	11.735
" "	15.315	" "	9.550	"	15.295
" "	15.315	" "	9.660		
" "	15.320	" "	9.980		
" "	15.360	" "	11.680		

95  
 121  
 116  
 99  
 108  
 105  
 106  
 114  
 100

## Special Service Stations

kc/s	Metres	kW	Call	Station
245	1224	—	Airmet	Borough Hill, Daventry, Great Britain Standard Frequency Station, Royal Observatory, Abinger, Surrey, Gt. Britain
2,000	150	0.35	GMT	
2,500	120	1	WWV	Standard Frequency Station, Washington, U.S.A.
5,000	60	8	WWV	
10,000	30	9	WWV	
15,000	20	9	WWV	
20,000	15	8.5	WWV	

In addition to the standard frequency transmissions given above, the frequencies of the following B.B.C. and G.P.O. stations are maintained at their normal values to a tolerance of better than  $\pm 1$  part in  $10^5$ :— Rugby (GBR), 16 kc/s; Droitwich, 200; Skelton (GRO), 6,180; Daventry (GSB), 9,510; Daventry (GSV), 17,810. It is also noteworthy that the frequencies of all B.B.C. medium-wave transmitters, with the exception of Droitwich, 583 kc/s, are maintained to approximately  $\pm 1$  part in  $10^6$ .

## European Television Stations

Mc/s	Metres	kW	Station
41.50	7.229	3	London (Gt. Britain). S
41.50	7.229	—	Eindhoven (Netherlands). S
42.00	7.143	5	Paris (France). S
42.50	7.029	—	Berlin (Germany : U.S.S.R. Zone). S
42.80	7.009	—	Brocken " " " V
44.30	6.772	—	Berlin " " " V
45.00	6.667	—	Brocken " " " S
45.00	6.667	17	London (Gt. Britain). V
45.00	6.667	—	Eindhoven (Netherlands). V
46.00	6.522	30	Paris (France). V

S, sound transmitter ; V, vision transmitter.

# International Allocation of Call Signs

The following revised table of Call signs was agreed at the Atlantic City Conference, 1947, and comes into use on January 1, 1949. The first character or the first two characters of a call sign indicates the nationality of the station using it.

AAA-ALZ	U.S.A.	HEA-HEZ	Switzerland
AMA-AOZ	(Not Allocated)	HFA-HFZ	Poland
APA-ASZ	Pakistan	HGA-HGZ	Hungary
ATA-AWZ	India	HHA-HHZ	Haiti
AXA-AXZ	Australia	HIA-HIZ	Dominican Republic
AYA-AZZ	Argentina	HJA-HKZ	Colombia
BAA-BZZ	China	HLA-HMZ	Korea
CAA-CEZ	Chile	HNA-HNZ	Iraq
CFA-CKZ	Canada	HOA-HPZ	Panama
CLA-CMZ	Cuba	HQA-HRZ	Honduras
CNA-CNZ	Morocco	HSA-HSZ	Siam
COA-COZ	Cuba	HTA-HTZ	Nicaragua
CPA-CPZ	Bolivia	HUA-HUZ	Salvador
CQA-CRZ	Portuguese Colonies	HVA-HVZ	Vatican City
CSA-CUZ	Portugal	HWA-HYZ	France and Colonies
CVA-CXZ	Uruguay	HZA-HZZ	Saudi Arabia
CYA-CZZ	Canada	IAA-IZZ	Italy and Colonies
DAA-DMZ	Germany	JAA-JSZ	Japan
DNA-DQZ	Belgian Congo	JTA-JVZ	Mongolia
DRA-DTZ	Byelorussia	JWA-JXZ	Norway
DUA-DZZ	Philippines	JYA-JZZ	(Not Allocated)
EAA-EHZ	Spain	KAA-KZZ	U.S.A.
EIA-EJZ	Eire	LAA-LNZ	Norway
EKA-EKZ	U.S.S.R.	LOA-LWZ	Argentina
ELA-ELZ	Liberia	LXA-LXZ	Luxembourg
EMA-EOZ	U.S.S.R.	LYA-LYZ	Lithuania
EPA-EQZ	Iran	LZA-LZZ	Bulgaria
ERA-ERZ	U.S.S.R.	MAA-MZZ	Great Britain
ESA-ESZ	Estonia	NAA-NZZ	U.S.A.
ETA-ETZ	Ethiopia	OAA-OCZ	Peru
EUA-EZZ	U.S.S.R.	ODA-ODZ	Lebanon
FAA-FZZ	France and Colonies	OEA-OEZ	Austria
GAA-GZZ	Great Britain	OFA-OJZ	Finland
HAA-HAZ	Hungary	OKA-OMZ	Czechoslovakia
HBA-HBZ	Switzerland	ONA-OTZ	Belgium and Colonies
HCA-HDZ	Ecuador	OUA-OZZ	Denmark

PAA-PIZ	Netherlands	YKA-YKZ	Syria
PJA-PJZ	Curacao	YLA-YLZ	Latvia
PKA-POZ	Netherlands Indies	YMA-YMZ	Turkey
PPA-PYZ	Brazil	YNA-YNZ	Nicaragua
PZA-PZZ	Surinam	YOA-YZR	Rumania
QAA-QZZ	(Service Abbreviations)	YSA-YSZ	Salvador
RAA-RZZ	U.S.S.R.	YTA-YUZ	Yugoslavia
SAA-SMZ	Sweden	YVA-YYZ	Venezuela
SNA-SRZ	Poland	YZA-YZZ	Yugoslavia
SSA-SUZ	Egypt	ZAA-ZAZ	Albania
SVA-SZZ	Greece	ZBA-ZJZ	British Colonies
TAA-TCZ	Turkey	ZKA-ZMZ	New Zealand
TDA-TDZ	Guatemala	ZNA-ZOZ	British Colonies
TEA-TEZ	Costa Rica	ZPA-ZPZ	Paraguay
TFA-TFZ	Iceland	ZQA-ZQZ	British Colonies
TGA-TGZ	Guatemala	ZRA-ZUZ	South Africa
THA-THZ	France and Colonies	ZVA-ZZZ	Brazil
TIA-TIZ	Costa Rica	2AA-2ZZ	Great Britain
TJA-TZZ	France and Colonies	3AA-3AZ	Monaco
UAA-UQZ	U.S.S.R.	3BA-3FZ	Canada
URA-UTZ	Ukraine	3GA-3GZ	Chile
UUA-UZZ	U.S.S.R.	3HA-3UZ	China
VAA-VGZ	Canada	3VA-3VZ	France and Colonies
VHA-VNZ	Australia	3WA-3XZ	(Not Allocated)
VOA-VOZ	Newfoundland	3YA-3YZ	Norway
VPA-VSZ	British Colonies	3ZA-3ZZ	Poland
VTA-VWZ	India	4AA-4CZ	Mexico
VXA-VYZ	Canada	4DA-4IZ	Philippines
VZA-VZZ	Australia	4JA-4LZ	U.S.S.R.
WAA-WZZ	U.S.A.	4MA-4MZ	Venezuela
XAA-XIZ	Mexico	4NA-4OZ	Yugoslavia
XJA-XOZ	Canada	4PA-4SZ	British Colonies
XPÄ-XPZ	Denmark	4TA-4TZ	Peru
XQA-XRZ	Chile	4UA-4UZ	United Nations
XSA-XSZ	China	4VA-4VZ	Haiti
XTA-XWZ	France and Colonies	4WA-4WZ	Yemen
XXA-XXZ	Portuguese Colonies	4XA-4ZZ	(Not Allocated)
XYA-XZZ	Burma	5AA-5ZZ	(Not Allocated)
YAA-YAZ	Afghanistan	6AA-6ZZ	(Not Allocated)
YBA-YHZ	Netherlands Indies	7AA-7ZZ	(Not Allocated)
YIA-YIZ	Iraq	8AA-8ZZ	(Not Allocated)
YJA-YJZ	New Hebrides	9AA-9ZZ	(Not Allocated)

# Standard Time

Hours to be added to, or subtracted from, G.M.T. to find Standard Time throughout the world.

Aden	+ 3	Canada—Cont.		Guadeloupe	- 4
Alaska	- 10	Mountain	- 7	Guatemala	- 6
Albania	+ 1	Pacific	- 8	Haiti	- 5
Algeria	0	Yukon	- 9	Hawaii	- 10.30
A.E. Sudan	+ 2	Canary Islands	- 1	Hong Kong	+ 8
Angola	+ 1	Ceylon	+ 5.30	Hungary	+ 1
Argentina	- 4	Chile	- 4	Iceland	- 1
Australia		China		India	+ 5.30
N.S.W., Queens-		Eastern	+ 8	Iran	+ 3.30
land, Victoria	+ 10	Western	+ 7	Iraq	+ 3
S. Australia, N.		Colombia	- 5	Italy	+ 1
Territory	+ 9.30	Costa Rica	- 6	Jamaica	- 5
W. Australia	+ 8	Cuba	- 5	Japan	+ 9
Austria	+ 1	Curaçao	- 4.30	Java	+ 7.30
Azores	- 2	Cyprus	+ 2	Kenya	+ 2.45
Bahamas	- 5	Czechoslovakia	+ 1	Labrador	- 3.30
Barbados	- 4	Denmark	+ 1	Lebanon	+ 2
Belgian Congo		Dominican Rep.	- 5	Liberia	- 0.44
Eastern	+ 2	Dutch Guiana	- 3.40	Libya	+ 1
Western	+ 1	Dutch New Guinea	+ 9	Luxembourg	+ 1
Belgium	+ 1	Ecuador	- 5	Madagascar	+ 3
Bermuda	- 4	Egypt	+ 2	Malaya	+ 7.20
Bolivia	- 4	Eire	0	Malta	+ 1
Borneo	+ 7.30	Ethiopia	+ 2	Martinique	- 4
Brazil		Fiji Islands	+ 12	Mexico	
Western	- 4	Finland	+ 2	Eastern	- 6
Eastern	- 3	France	+ 1	Western	- 7
British Guiana	- 3.45	French Eq. Africa	+ 1	Morocco	0
British Honduras	- 6	French Guiana	- 4	Mozambique	+ 2
British Somaliland	+ 3	French Indo-China	+ 7	Natal	+ 2
Bulgaria	+ 2	French West Africa	- 1	Netherlands	0
Burma	+ 6.30	Germany	+ 1	Newfoundland	- 3.30
Canada		Gibraltar	0	New Zealand	+ 11.30
Atlantic	- 4	Gold Coast	0	Nicaragua	- 6
Eastern	- 5	Great Britain	0	Nigeria	+ 1
Central	- 6	Greece	+ 2	N. Rhodesia	+ 2

Norway	+ 1	Switzerland	+ 1	U.S.S.R.—Cont.	
Pakistan	+ 5.30	Syria	+ 2	Kazak W., Tajik,	
Palestine	+ 2	Tanganyika	+ 2.45	Turkmenistan,	
Panama	- 5	Trinidad	- 4	Uzbek	+ 5
Papua	+ 10	Tunisia	+ 1	Kazak E., Kirghizia	+ 6
Paraguay	- 3.37	Turkey	+ 2	Russia,	
Peru	- 5	Uganda	+ 2.45	Leningrad to	
Philippines	+ 8	Union of S. Africa	+ 2	Archangel	+ 3
Poland	+ 1	Uruguay	- 3.30	to Orenburg	+ 4
Portugal	0	U.S.A.		to Tobolsk	+ 5
Portugese E. Africa	+ 2	Eastern	- 5	to Tomsk	+ 6
Puerto Rico	- 4	Central	- 6	to Kansk	+ 7
Rumania	+ 2	Mountain	- 7	to Vitim	+ 8
Salvador	- 6	Pacific	- 8	to Vladivostok	+ 9
Siam	+ 7	U.S.S.R.		to Okhotsk	+ 10
Sierra Leone	- 1	Byelorussia, Es-		to Gijiga	+ 11
S. Rhodesia	+ 2	tonia, Karelia,		to Long.	
Spain	0	Latvia, Lithua-		172.30E	+ 12
Sumatra		nia, Moldavia,		to Bering	
North	+ 6.30	Ukraine	+ 3	Strait	+ 13
South	+ 7	Armenia, Azer-		Venezuela	- 4.30
Sweden	+ 1	baijan, Georgia	+ 4	Yugoslavia	+ 1

## REPRINTS OF ARTICLES FROM "WIRELESS WORLD"

Obtainable from the Publishing Department,  
 Illiffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

GENERAL PURPOSE OSCILLOSCOPE : Modifying an ex-Government Radar Unit. (May 1948). 10½d. post free.

"WIRELESS WORLD" QUALITY AMPLIFIERS : Circuit Details—4, 8 and 12 watt designs. (Jan. 1946). 7½d. post free.

HIGH QUALITY AMPLIFIER DESIGN : Advantages of Tetrodes in the Output Stage. (Jan. 1948). 7½d. post free.

QUALITY SUPERHETERODYNE : Design for a 9-valve Receiver. (Dec. 1947). 7½d. post free.

PUSH-PULL PHASE-SPLITTER : New High-gain Circuit. (Aug. 1947). 7½d. post free.

EX-R.A.F. COMMUNICATION RECEIVER (TYPE R1155) DESCRIBED : Modifications for Civilian Use. (July 1946). 7½d. post free.

EX-GOVERNMENT VALVES and C.R. TUBES. (Aug. 1945). 6d. post free.

# Wavelength and Frequency Conversion

Broadcast receivers have their tuning scales calibrated either in metres, kilocycles, megacycles or with the names of the principal stations. Kilocycle markings, where used, are as a rule confined to the medium- and long-wave bands, while either metres or megacycles are used on the short waves. Thus in order to locate a particular station on the dial of a receiver it may be necessary to convert the available wavelength, or frequency, figures into the form it appears on the dial of the receiver.

There is a simple relationship between these quantities as both wavelength and frequency are determined by the velocity of propagation of radio waves in space, this relationship is

$$\text{Wavelength} = \frac{\text{Velocity}}{\text{Frequency}} \quad \text{or} \quad \text{Frequency} = \frac{\text{Velocity}}{\text{Wavelength}}$$

As the velocity of propagation in space is, in round figures, 300,000,000 metres per second, any of the quantities—metres, kilocycles or megacycles—are readily converted into the other forms by means of the following formulae.

### Kilocycles to Metres

$$\text{Metres} = \frac{300,000}{\text{Frequency (kc/s)}}$$

### Megacycles to Metres

$$\text{Metres} = \frac{300}{\text{Frequency (Mc/s)}}$$

### Metres to Kilocycles

$$\text{kc/s} = \frac{300,000}{\text{Wavelength (metres)}}$$

### Metres to Megacycles

$$\text{Mc/s} = \frac{300}{\text{Wavelength (metres)}}$$

## "TELEVISION RECEIVING EQUIPMENT"

By W. T. Cocking, M.I.E.E.

The second edition of this concise British book on television deals in a comprehensive manner with cathode-ray receiving equipment, and gives many practical details and design data. The circuits of the television receiver are split into a number of sections and a separate chapter is devoted to each. From all booksellers 12/6 net, or 12/11 by post from: The Publishing Dept., Dorset House, Stamford Street, London, S.E.1



# Conversion Table

Centi- metres or Metres	Mega- cycles	Metres	Mega- cycles	Metres	Mega- cycles
1 cm	30,000	34	8.823	113	2.655
5 "	6,000	35	8.572	115	2.609
10 "	3,000	36	8.332	117	2.564
50 "	600	37	8.118	120	2.50
1 metre	300	38	7.894	122	2.459
2 metres	150	39	7.692	124	2.419
5 "	60	40	7.50	126	2.381
7 "	42.86	41	7.317	128	2.344
9 "	33.33	42	7.143	130	2.308
10 "	30.0	43	6.977	135	2.222
11 "	27.27	44	6.819	140	2.143
12 "	25.0	45	6.667	145	2.069
13 "	23.08	46	6.522	150	2.0
14 "	21.43	47	6.383	160	1.875
15 "	20.0	48	6.250	165	1.818
16 "	18.75	49	6.122	170	1.765
17 "	17.64	50	6.0	175	1.714
18 "	16.67	52	5.769	180	1.667
19 "	15.78	54	5.555	185	1.622
20 "	15.0	56	5.357	190	1.579
21 "	14.28	60	5.0	195	1.538
22 "	13.64	65	4.617	200	1.5
23 "	13.04	70	4.287		
24 "	12.50	75	4.0		
25 "	12.0	80	3.750		
26 "	11.54	85	3.530	<b>Metres</b>	<b>Kilo- cycles</b>
27 "	11.11	90	3.333		
28 "	10.71	95	3.153	210	1,429
29 "	10.35	100	3.0	220	1,364
30 "	10.0	103	2.913	230	1,304
31 "	9.678	106	2,830	240	1,250
32 "	9.375	109	2.752	250	1,200
33 "	9.090	111	2.703	260	1,154

Metres	kc/s	Metres	kc/s	Metres	kc/s
270	1,111	430	697.7	1,100	272.7
280	1,071	435	689.7	1,200	250.0
290	1,034	440	681.8	1,300	230.8
300	1,000	445	674.2	1,400	214.3
305	983.6	450	666.7	1,500	200.0
310	967.8	455	659.3	1,600	187.5
315	953.4	460	652.2	1,700	176.5
320	937.5	465	645.2	1,800	166.7
325	923.0	470	638.3	1,900	157.9
330	909.0	475	631.6	2,000	150.0
335	895.6	480	625.0	2,200	136.4
340	882.3	485	618.6	2,400	125.0
345	869.6	490	612.2	2,600	115.4
350	857.2	495	606.1	2,800	107.1
355	845.0	500	600.0	3,000	100.0
360	833.2	510	588.2	3,500	85.7
365	822.0	520	576.9	4,000	75.0
370	811.8	530	566.0	4,500	66.7
375	800.0	540	555.6	5,000	60.0
380	789.4	550	545.5	5,500	54.5
385	779.2	600	500.0	6,000	50.0
390	769.2	650	461.5	6,500	46.1
395	759.4	700	428.6	7,000	42.9
400	750.0	750	400.0	7,500	40.0
405	740.7	800	375.0	8,000	37.5
410	731.7	850	352.9	8,500	35.3
415	722.9	900	333.3	9,000	33.3
420	714.3	950	315.8	9,500	31.6
425	705.9	1,000	300.0	10,000	30.0

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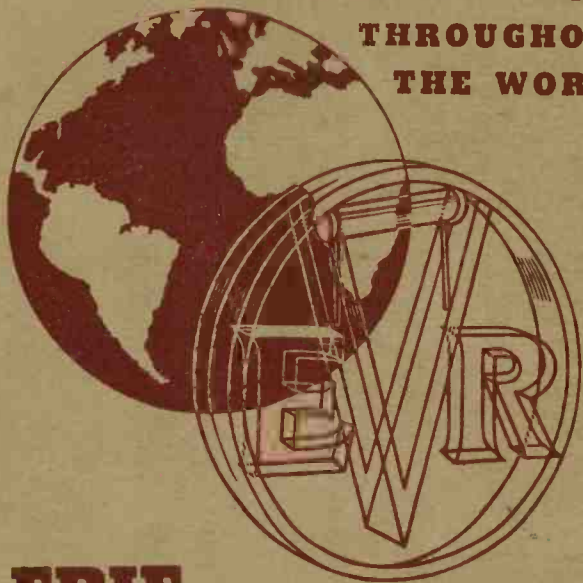
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