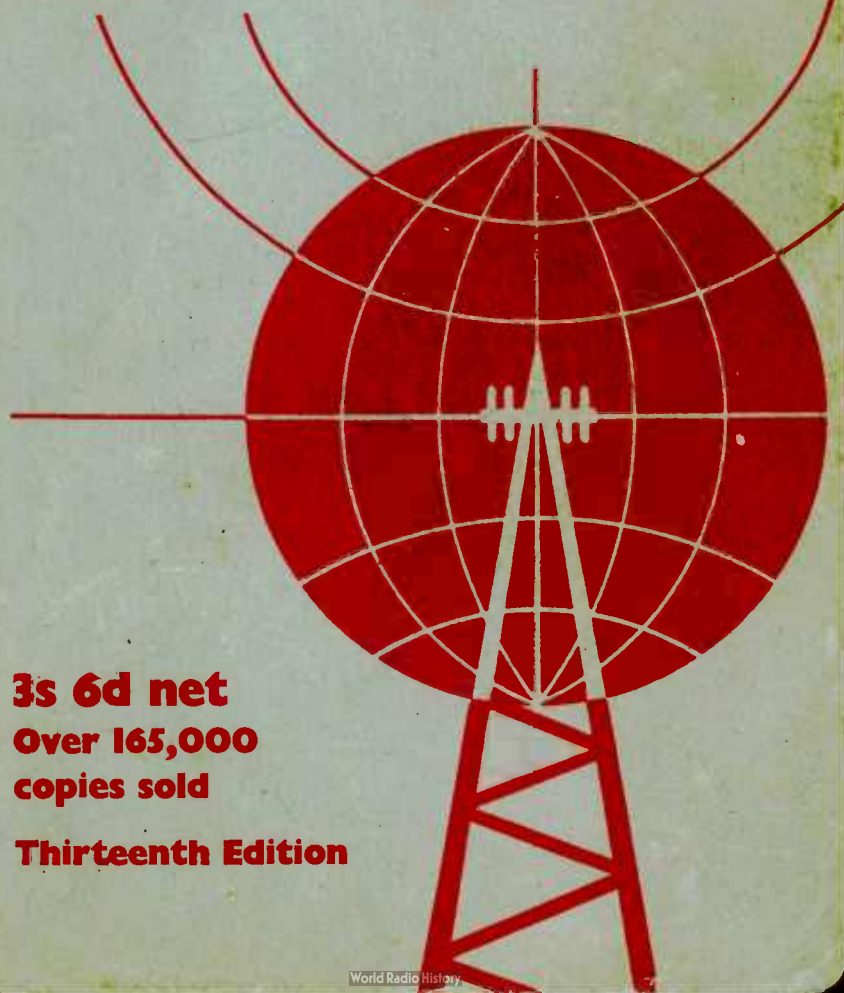


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Guide to

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Guide to Broadcasting Stations

COMPILED BY THE STAFF OF
"WIRELESS WORLD"

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Introduction

WHILE every endeavour has been made in preparing the material for this the thirteenth edition of *Guide to Broadcasting Stations* to ensure accuracy at the time of going to press, it must be remembered that alterations are frequently made in the operating characteristics of some broadcasting stations. This is particularly true of those in the short-wave bands.

In order to try and bring some semblance of order to the chaotic state of the short-wave bands, the International Frequency Registration Board has produced what are called "tentative high-frequency broadcasting schedules," which seek to rationalize the alterations made from time to time to provide for seasonal changes in propagation. All countries are not, however, adhering to the schedules and we have therefore included in the list of short-wave stations all frequencies known to be in use at the time of the preparation of the material.

We are indebted to the B.B.C. for providing us with the frequency measurements made at its Tatsfield Station and against these we have checked the information given in the list of short-wave stations.

We have again included lists of the main European television and v.h.f. sound broadcasting stations and we are grateful to the European Broadcasting Union for much of the information given.

The list of medium- and long-wave stations includes all authorised transmitters operating in the European Broadcasting Area which, as will be seen from the map on pages 48 and 49, includes the Western part of the U.S.S.R. and territories bordering on the Mediterranean Sea.

*Dorset House,
London, S.E.1*

September, 1961

THE EDITOR,
Wireless World

Long- and Medium-wave European Stations

The Copenhagen Plan (1948) provided for the operation of European long-wave and medium-wave broadcasting stations in 9-kc/s channels. The European Broadcasting Area includes the western part of the U.S.S.R. and the territories bordering on the Mediterranean Sea, but those parts of Arabia and Saudi Arabia which come within this area were excluded from the Copenhagen Broadcasting Plan; in addition Iraq is included. As will be seen from the first column in the following table there are 15 channels in the long-wave band (150-285 kc/s), 121 in the medium-wave band (525-1605 kc/s) and 3 intermediate channels, marked X1-X3. Many stations are, however, operating on frequencies not allocated to their countries under the Plan; particulars of these stations are italicized. Some stations provided for in the Plan are not yet using the frequencies allocated; these are marked † in the power column. Stations operating on the international common frequencies (1484 and 1594 kc/s) are included in the geographical list only (page 18). Where a country is operating a number of very low-power stations of 1kW or less on the same frequency—but not necessarily synchronized—the abbreviation "L.P. Stations" is used in the frequency list but the stations are named in the geographical list. The station's maximum power is given in column four. A list of abbreviations will be found on page 17.

Chan.	kc/s	Metres	kW	Station and Country	
—	151	1,987	50	<i>Hamburg (N.D.R.)</i>	<i>Germany (W.)</i>
			—	<i>Moscow, Russia</i>	<i>U.S.S.R.</i>
1	155	1,935	10	Tromsø	Norway
			150	Brasov	Rumania
2	164	1,829	250/500	Allouis	France
3	173	1,734	1,000	<i>Münich (V.o.A.)</i>	<i>Germany (W.)</i>
			100	<i>Königswusterhausen</i>	<i>Germany (E.)</i>
			500	Moscow, Russia	U.S.S.R.
—	180	1,667	200/400	<i>Saarlouis (Europe No. 1)</i>	<i>Germany (W.)</i>
4	182	1,648	†	Reykjavik	Iceland
			10	Lulea	Sweden
			120	Ankara	Turkey
—	185	1,622	300	<i>Rehmate, Berlin</i>	<i>Germany (E.)</i>
5	191	1,571	150	Motala	Sweden
6	200	1,500	400	Droitwich, Worcs. (E & L)	U.K.
			100	<i>Leningrad, Russia</i>	<i>U.S.S.R.</i>
			100	<i>Moscow, Russia</i>	<i>U.S.S.R.</i>
7	209	1,435	100	<i>Reykjavik</i>	<i>Iceland</i>
			150	Kiev, Ukraine	U.S.S.R.
8	218	1,376	200	Oslo	Norway
9	227	1,322	500	Warsaw	Poland
—	233	1,288	500	<i>Luxembourg</i>	<i>Luxembourg</i>
10	236	1,271	100	Leningrad, Russia	U.S.S.R.
			—	Moscow, Russia	U.S.S.R.
11	245	1,224	150	Kalundborg	Denmark
12	254	1,181	200	Lahti	Finland
13	263	1,141	150	<i>Königswusterhausen</i>	<i>Germany (E.)</i>
			150	Moscow, Russia	U.S.S.R.
14	272	1,103	200	Uherske Hradiste	Czechoslovakia

Chan.	kc/s	Metres	kW	Station and Country	
15	281	1,067	100	Minsk, Byelorussia	U.S.S.R.
X1	420	714.3	†	Ostersund	Sweden
X2	433	693	10	Oulu	Finland
X3	520	576.9	10	Lienz	Austria
			1	Joensuu	Finland
			5	Cottbus	Germany (E.)
			2	Brunswick (N.D.R.)	Germany (W.)
			4	L.P. Stations (B.R.)	Germany (W.)
			1	Hamar	Norway
1	529	567.1	20/200	Schwerin	Germany (E.)
			150	Beromünster	Switzerland
2	539	556.6	135	Budapest	Hungary
			0.05	Bayonne	France
3	548	547.4	20	Tamanrasset	Algeria
			100	München (A.F.N.)	Germany (West)
			150	Moscow, Russia	U.S.S.R.
			100	Odessa, Ukraine	U.S.S.R.
4	557	538.6	20/50	Cairo	Egypt
			100	Helsinki	Finland
			5	Greifswald	Germany (East)
			1	Faro	Portugal
			1	Guarda	Portugal
			1	Timisoara	Rumania
			50	Monte Ceneri	Switzerland
5	566	530	—	11 L.P. Stations	Austria
			100	Athlone	Eire
			20	Berlin (S.F.B.)	Germany (West)
			10	Caltanissetta	Italy
			5	Salento	Italy
6	575	521.7	100	Leipzig	Germany (East)
			100	Stuttgart (S.D.R.)	Germany (West)
			50	Tel-Aviv	Israel
			100	Riga, Latvia	U.S.S.R.
7	584	513.7	25	Klagenfurt	Austria
			10	Salzburg	Austria
			150	Vienna	Austria
			1	Paris	France
			120	Madrid	Spain
			5	Aleppo	Syria
			1	Sfax	Tunisia
8	593	505.9	60	Sofia	Bulgaria
			100	Frankfurt (H.R.)	Germany (West)
			20	Hoher Meissner (H.R.)	Germany (W.)
			1	Oujda	Morocco
			150	Sundsvall	Sweden
6	602	498.3	20	Nicosia	Cyprus
			100	Lyons	France
			20	Karlmarxstadt	Germany (East)
			2	Damascus	Syria
10	611	491	500	Berlin-Grünau	Germany (E.)
			10	Grafenwöhr (A.F.N.)	Germany (W.)
			10	Kaiserslautern (A.F.N.)	Germany (W.)
			10	Nürnberg (A.F.N.)	Germany (W.)
			1	Hoefn	Iceland

Chan.	kc/s	Metres	kW	Station and Country	
(10)	(611)	(491)	140	Sebaa-Aioun	Morocco
			100	Petrozavodsk, Karelia	U.S.S.R.
11	620	483.9	20	Krasnodar, Karelia	U.S.S.R.
			100	Sarajevo	Yugoslavia
			150	Brussels	Belgium
			300	Cairo	Egypt
			†	Moalatya	Turkey
12	629	476.9	25	Aldrans	Austria
			25	Lauterach	Austria
			1	Lienz	Austria
			200	Erfurt	Germany (E.)
			100	Vigra	Norway
13	638	470.2	20	Tunis	Tunisia
			150	Prague	Czechoslovakia
			100	Limassol	Cyprus
			5	Seville	Spain
			1	Lages	Azores
14	647	463.7	150	Crowborough, Sussex (E)	U.K.
			150	Daventry, Northants. (T)	U.K.
			2	Edinburgh, Midlothian (T)	U.K.
			2	Glasgow (T)	U.K.
			2	Newcastle, North'd (T)	U.K.
			7	Redmoss, Aberdeen (T)	U.K.
			100	Simferopol, Russia	U.S.S.R.
			20	Potsdam	Germany (E.)
			10	Tel Aviv	Israel
			20	Bolzano	Italy
15	656	457.3	80	Florence	Italy
			80	Naples	Italy
			35	Turin	Italy
			10	Venice	Italy
			150	Murmansk, Russia	U.S.S.R.
			20	Bad Dür rheim(S.W.F.)	Germany(W.)
			5	Athens	Greece
			5	Eidar	Iceland
			135	Lisbon	Portugal
			50	Damascus	Syria
16	665	451.1	100	Vilna, Lithuania	U.S.S.R.
			150	8 L.P. Stations	Austria
			150	Rennes	France
			10	Bodo	Norway
			—	Chernovtsy, Ukraine	U.S.S.R.
17	674	445.1	20	Jerusalem	Jordan
			100	Berlin (R.I.A.S.)	Germany (West)
			40	Hof (R.I.A.S.)	Germany (West)
			20	Madrid	Spain
			150	Belgrade	Yugoslavia
18	683	439.2	—	10 L.P. Stations	Austria
			20	Nicosia	Cyprus
			300	Suhl	Germany (E.)
			2	Cromer, Norfolk (H)	U.K.
			150	Moorside Edge, Yorks. (H)	U.K.
9	692	433.5	2	Whitehaven, Cumb. (H)	U.K.
			—	10 L.P. Stations	Austria
			20	Nicosia	Cyprus
20	701	428	300	Suhl	Germany (E.)
			2	Cromer, Norfolk (H)	U.K.
			150	Moorside Edge, Yorks. (H)	U.K.
20	701	428	2	Whitehaven, Cumb. (H)	U.K.
			150	Moorside Edge, Yorks. (H)	U.K.
			100	Banska Bystrica	Czechoslovakia

Chan.	kc/s	Metres	kW	Station and Country	
(20)	(701)	(428)	2	Bratislava	Czechoslovakia
			2	Kosice	Czechoslovakia
			5	Aachen (W.D.R.)	Germany (West)
			10	Hamburg (N.D.R.)	Germany (West)
			2	Herford (W.D.R.)	Germany (West)
			2	Lingen (N.D.R.)	Germany (West)
			2	Norden (N.D.R.)	Germany (West)
21	710	422.5	140	Sebaa-Aioun	Morocco
			20	Finnmark	Norway
			150	Istanbul	Turkey
			150	Marseilles	France
22	719	417.2	1	Jerusalem	Israel
			150	Stalino, Ukraine	U.S.S.R.
			100	Limassol	Cyprus
23	728	412.1	135	Munich (R.F.E.)	Germany (West)
			50	Norte	Portugal
			150	Ostersund	Sweden
			2	Aleppo	Syria
24	737	407	25	Klagenfurt	Austria
			20/220	Wobbelin	Germany (East)
			150	Athens	Greece
25	746	402.1	40	Hof (R.I.A.S.)	Germany (West)
			5	Akureyri	Iceland
			200	Tel Aviv	Israel
			300	Poznan	Poland
			24	Torun	Poland
			25	Barcelona	Spain
26	755	397.3	1	Colomb-Béchar	Algeria
			1	Touggourt	Algeria
			120	Hilversum	Netherlands
			20	Aleppo	Syria
27	764	392.6	20	Kuopio	Finland
			2	Siegen (W.D.R.)	Germany (West)
			135	Lisbon	Portugal
28	773	388.1	50	Timisoara	Rumania
			150	Sottens	Switzerland
29	782	383.6	—	Odessa, Ukraine	U.S.S.R.
			8	L.P. Stations	Austria
			50/100	Cairo	Egypt
			—	Voronezh, Russia	U.S.S.R.
			5	Valencia	Spain
			2	Malmberget	Sweden
30	791	379.2	150	Stockholm	Sweden
			250	Burg	Germany (East)
			100	Oporto-Miramar	Portugal
			100	Kiev, Ukraine	U.S.S.R.
31	800	375	1	Vatican City	Vatican City
			50	Salonika (V.o.A.)	Greece
31	800	375	100	Limoges	France
			100	Münich (B.R.)	Germany (West)
			100	Amman	Jordan
			0.25	Regua	Portugal
			5	Seville	Spa
			100	Leningrad, Russia	U.S.S.R.

Chan.	kc/s	Metres	kW	Station and Country	
32	809	370.8	10	Barcelona	Spain
			100	Burghead, Moray (H)	U.K.
			2	Dumfries (H)	U.K.
			5	Redmoss, Aberdeen (H)	U.K.
			100	Westerglen, Strirling (E)	U.K.
33	818	366.7	135	Skoplje	Yugoslavia
			100	Andorra	Andorra
			300	Batra	Egypt
			10	Trieste	Italy
			1	Casablanca	Morocco
34	827	362.8	300	Warsaw	Poland
			100	Sofia	Bulgaria
			3	Baden Baden (S.W.F.)	Germany (W.)
			40	Freiburg (S.W.F.)	Germany (W.)
			3	Kaiserslautern (S.W.F.)	Germany (W.)
—	833	360.1	0.5	Koblenz (S.W.F.)	Germany (W.)
			3	Sigmaringen (S.W.F.)	Germany (W.)
			3	Trier (S.W.F.)	Germany (W.)
			20	Tetuan	Morocco
			2	Benghazi (B.F.N.)	Libya
35	836	358.9	10	Ylivieska	Finland
			150	Nancy	France
			4	Beirut	Lebanon
			5	Huelva	Spain
			100	Kharkov, Ukraine	U.S.S.R.
36	845	355	150	Rome	Italy
			0.2	Helsinki	Finland
37	854	351.3	20	Berlin (R.I.A.S.)	Germany (W.)
			150	Bucharest	Rumania
			7.5	Madrid	Spain
38	863	347.6	—	Tlemcen	Algeria
			150	Paris	France
39	872	344	150	Frankfurt (A.F.N.)	Germany (West)
			20/50	Budapest	Hungary
			30	Zaragoza	Spain
40	881	340.5	150	Moscow, Russia	U.S.S.R.
			100	Berlin	Germany (East)
			8	Penmon, Anglesey (H)	U.K.
			5	Towyn, Merioneth (H)	U.K.
			100	Washford, Somerset (H)	U.K.
41	890	337.1	2	Wrexham, Denbigh. (H)	U.K.
			20	Titograd	Yugoslavia
			100/200	Algiers	Algeria
			15	Linz	Austria
			20	Bergen	Norway
42	899	333.7	20	Kristiansand	Norway
			20	Trondelag	Norway
			20	Ouchgorod, Ukraine	U.S.S.R.
			150	Milan	Italy
			100	Burg	Germany (East)
43	908	330.4	200	Baghdad	Iraq
			5	Miercurea	Rumania
—	904	331.9	140	Brookmans Park, London (H)	U.K.
—	912	328.9	20	Reichenbach	Germany (East)

Chan.	kc/s	Metres	kW	Station and Country	
44	917	327.2	5	Tetuan	Morocco
			1	Rabat	Morocco
			135	Ljubljana	Yugoslavia
—	921	325.7	2	Paphos	Cyprus
45	926	324	150	Brussels	Belgium
			100	Cairo	Egypt
—	927	923.6	2	Nis	Yugoslavia
46	935	320.9	10	Berlin (A.F.N.)	Germany (West)
			100	Burg	Germany (East)
			20	Sebaa-Atoun	Morocco
47	944	317.8	100	Lwow, Ukraine	U.S.S.R.
			100	Toulouse	France
			100	Rostov-on-Don, Russia	U.S.S.R.
			—	Voronezh, Russia	U.S.S.R.
48	953	314.8	150	Brno	Czechoslovakia
			15	Pizen	Czechoslovakia
			20	Madrid	Spain
49	962	311.9	100	Turku	Finland
			5	Paris	France
			20/120	Tunis	Tunisia
50	971	309	5	Göttingen (N.D.R.)	Germany (W.)
			100	Hamburg (N.D.R.)	Germany (W.)
			100	Langenberg (W.D.R.)	Germany (W.)
			2.5	Corunna	Spain
			†	Izmir	Turkey
51	980	306.1	100/200	Smolensk, Russia	U.S.S.R.
			2.5	Algiers	Algeria
			2.5	Trieste	Italy
			150	Göteborg	Sweden
52	989	303.3	†	Rovaniemi	Finland
			200/300	Berlin (R.I.A.S.)	Germany (West)
			10	Beirut	Lebanon
			1	Wheelus Field (A.F.N.)	Libya
			—	Madrid	Spain
53	998	300.6	140	Andorra	Andorra
			0.2	Buchen (S.D.R.)	Germany (West)
			10	Heidelberg (S.D.R.)	Germany (West)
			100	Kishinev, Moldavia	U.S.S.R.
			50	Kerkyra, Corfu	Greece
54	1,007	297.9	120	Hilversum	Netherlands
			6	Malaga	Spain
			†	Aleppo	Syria
			120	Mainz (S.W.F.)	Germany (West)
55	1,016	295.3	1	Tangier	Morocco
			100	Madrid	Spain
			†	Istanbul	Turkey
			100	Graz-Dobl	Austria
56	1,025	292.7	10	Lauterach	Austria
			100	Linz-Kronstorf	Austria
			0.5	Haifa	Israel
			1	Agadir	Morocco
			1	Safi	Morocco
—	1,029	291.5	5	San Sebastian	Spain
			1	Caceres	Spain

Chan.	kc/s	Metres	kW	Station and Country			
57	1,034	290.1	—	2 L.P. Stations (A.F.N.) Germany (W.)			
			10	Genoa Italy			
			20	Milan Italy			
			25	Naples Italy			
			5	Pescara Italy			
			5	San Remo Italy			
			25	Venice Italy			
			20	Parede Portugal			
			100	Tallinn, Estonia U.S.S.R.			
			58	1,043	287.6	240	Dresden Germany (East)
5	Salonika Greece						
1	Oujda Morocco						
20	Sebaa-Aioun Morocco						
—	1,046	286.8	1	Puigcerda Spain			
59	1,052	285.2	—	2 L.P. Stations Austria			
			20	Suhl Germany (East)			
			2	Barnstaple, Devon (H) U.K.			
			120	Start Point, Devon (H) U.K.			
			2	Tripoli Libya			
			20	Bacau Rumania			
			—	Barcelona Spain			
			60	1,061	282.8	60	Kalundborg Denmark
			20	Cagliari Italy			
			1	Livorno Italy			
61	1,070	280.4	50	Norte Portugal			
			20	Bordeaux France			
			20	Marseilles France			
			100	Paris France			
			20	Dniepropetrovsk, Ukraine U.S.S.R.			
—	1,074	279.3	20	Avila Spain			
62	1,079	278	5	Plauen Germany (East)			
			2	Bremerhaven Germany (West)			
			60	Katowice Poland			
			1	Barcelona Spain			
			5	Oviedo Spain			
			5	Valencia Spain			
			5	Vigo Spain			
			63	1,088	275.7	20	Tirana Albania
						150	Droitwich, Worcs. (H) U.K.
						7.5	Norwich, Norfolk (H) U.K.
64	1,097	273.5	150	Bratislava Czechoslovakia			
			2	Albacete Spain			
65	1,106	271.2	100	Stuttgart (A.F.N.) Germany (West)			
			2	Malaga Spain			
			2	Zaragoza Spain			
			100	Vilna, Lithuania U.S.S.R.			
			66	1,115	269.1	1	Aosta Italy
40	Bari Italy						
50	Bologna Italy						
5	Messina Italy						
10	Pisa Italy						
2	Trieste Italy						
—	Sync. Network Norway						
2	Murcia Spain						

Chan.	kc/s	Metres	kW	Station and Country	
67	1,124	266.9	—	8 L.P. Stations	Austria
			10	Brussels	Belgium
			10	Varna	Bulgaria
			3	Barcelona	Spain
68	1,133	264.8	20	Leningrad, Russia	U.S.S.R.
			2	Bilbao	Spain
			20	Rijeka	Yugoslavia
69	1,142	262.7	135	Zagreb	Yugoslavia
			20	Constantine	Algeria
			40	Oran	Algeria
			0.05	Rottenmann	Austria
			5	Bremerhaven (A.F.N.)	Germany (W.)
			—	3 L.P. Stations (A.F.N.)	Germany (W.)
70	1,151	260.6	5	Toledo	Spain
			20	Kaliningrad, Russia	U.S.S.R.
			50	Cluj	Rumania
			100	Lisnagarvey, N. Ireland (H)	U.K.
			0.25	Londonderry, N. Ireland (H)	U.K.
			2	Scarborough, Yorks. (H)	U.K.
			100	Stagshaw, North'd (H)	U.K.
—	1,152	260.4	0.3	Manises	Spain
71	1,160	258.6	150	Strasbourg	France
			1	Palamos	Spain
—	1,166	257.3	2	Almeria	Spain
72	1,169	256.6	10	Heilbronn (S.D.R.)	Germany (West)
			5	Ulm (S.D.R.)	Germany (West)
			10	Salonika	Greece
			1	Jerusalem	Israel
			10	Oporto	Portugal
			150	Odessa, Ukraine	U.S.S.R.
73	1,178	254.7	6	Koper	Yugoslavia
			2	Aswan	Egypt
			10	Dalimara Point	Malta
			5	Cuenca	Spain
			100	Hörby	Sweden
—	1,181	254	0.8	Burjasot	Spain
—	1,186	253	—	San Feliu de Llobregat	Spain
74	1,187	252.7	135	Szolnok	Hungary
			1	Casablanca	Morocco
75	1,196	250.8	150	Münich (V.o.A.)	Germany (West)
			†	Kerkyra	Greece
			†	Agadir	Morocco
			150	Warsaw	Poland
76	1,205	249	10	Alexandria	Egypt
			2/10	Cairo	Egypt
			100	Bordeaux	France
			10	Haifa	Israel
			†	Lublin	Poland
77	1,214	247.1	†	Punta Delgada	Azores
			60	Brookmans Park, London (L)	U.K.
			20	Burghead, Moray (L)	U.K.
			10	Lisnagarvey, N. Ireland (L)	U.K.
			0.25	Londonderry, N. Ireland (L)	U.K.
			58	Moorside Edge, Yorks. (L)	U.K.

Chan.	kcs	Metres	kW	Station and Country	
(77)	(1,214)	(247.1)	2	Newcastle, North'd (L)	U.K.
			0.25	Plymouth, Devon (L)	U.K.
			2	Redmoss, Aberdeen (L)	U.K.
			2	Redruth, Cornwall (L)	U.K.
			50	Westerglen, Stirling (L)	U.K.
78	1,223	245.3	20	Kursk, Russia	U.S.S.R.
			5	Tallinn, Estonia	U.S.S.R.
			30	Stara Zagora	Bulgaria
79	1,232	243.5	20	Madrid	Spain
			100	Falun	Sweden
			100	Kosice	Czechoslovakia
80	1,241	241.7	2	Hradec Karlowe	Czechoslovakia
			2	Orava	Czechoslovakia
			50	Tangier	Morocco
			25	Vaasa	Finland
			20	Brest	France
			20	Lille	France
			20	Lyons	France
			20	Nancy	France
			20	Nice	France
			20	Pau	France
81	1,250	240	20	Rennes	France
			20	Tiraspol, Moldavia	U.S.S.R.
			†	2 Stations	Egypt
			5	Cork	Eire
			5	Dublin	Eire
			135	Balatonzabadi	Hungary
			2	Barcelona	Spain
			2	Leon	Spain
			2	Viscaya	Spain
			—	1,271	236
82	1,259	238.3	50	Wroclaw	Poland
			23	Zielona Gora	Poland
			5	Valencia	Spain
83	1,268	236.6	2	Oviedo	Spain
			1	Valladolid	Spain
			84	Novi Sad	Yugoslavia
84	1,277	234.9	100	Strasbourg	France
			1	Tel-Aviv	Israel
			2	Jaca	Spain
85	1,286	233.3	100	Prague	Czechoslovakia
			2	Lisbon	Portugal
86	1,295	231.7	5	Berlin (B.B.C.)	Germany (W.)
			100	Norden (B.B.C.)	Germany (W.)
			1	Agadir	Morocco
			0.2	Rabat	Morocco
			2	Merida	Spain
			†	Ottringham, Yorks.	U.K.
87	1,304	230.1	20	Constantine	Algeria
			40	Oran	Algeria
			—	6 L.P. Stations (A.F.N.)	Germany (W.)
			1	Athens	Greece
			30	Gdansk	Poland
			50	Stettin	Poland
—	1,309	229.2	2	Granada	Spain

Chan.	kc/s	Metres	kW	Station and Country
(—)	(1,309)	(229.2)	3	<i>San Sebastlan</i> Spain
88	1,313	228.4	—	7 L.P. Stations Austria
			100	Stavanger Norway
			2	<i>Badalona</i> Spain
—	1,315	228.1	2	<i>Albacete</i> Spain
—	1,317	227.8	2	<i>Almeria</i> Spain
			0.8	<i>Talavera del Reina</i> Spain
89	1,322	226.9	150	<i>Leipzig</i> Germany (East)
			1	<i>Safi</i> Morocco
			0.15	<i>Santarem</i> Portugal
			2	<i>Cadiz</i> Spain
			2	<i>Murcia</i> Spain
			2	<i>Zaragoza</i> Spain
			100	<i>Kharkov, Ukraine</i> U.S.S.R.
90	1,331	225.4	20	<i>Bari</i> Italy
			25	<i>Bologna</i> Italy
			2	<i>Catania</i> Italy
			50	<i>Genoa</i> Italy
			12.5	<i>Palermo</i> Italy
			25	<i>Pescara</i> Italy
			80	<i>Rome</i> Italy
			1	<i>Trento</i> Italy
			1	<i>Udine</i> Italy
			100	<i>Tallinn, Estonia</i> U.S.S.R.
—	1,335	224.7	2	<i>Granada</i> Spain
—	1,338	224.2	0.2	<i>Vitoria</i> Spain
91	1,340	223.9	†	<i>Alexandria</i> Egypt
			25	<i>Nyiregyhaza</i> Hungary
			15	<i>Pecs</i> Hungary
			25	<i>Szombathely</i> Hungary
			—	2 L.P. Stations Hungary
			1	<i>Haija</i> Israel
			150	<i>Crowborough, Sussex (E)</i> U.K.
—	1,343	223.4	2	<i>Alicante</i> Spain
92	1,349	222.4	20	<i>Clermont</i> France
			20	<i>Grenoble</i> France
			20	<i>Limoges</i> France
			10	<i>Nantes</i> France
			20	<i>Toulouse</i> France
			20	<i>Kuldiga, Latvia</i> U.S.S.R.
			20	<i>Modona, Latvia</i> U.S.S.R.
—	1,354	221.6	0.4	<i>Santander</i> Spain
—	1,357	221.1	2	<i>Cordoba</i> Spain
93	1,358	220.9	†	<i>Tirana</i> Albania
			200	<i>Berlin-Köpenick</i> Germany (E.)
			20	<i>Bremen</i> Germany West)
			1	<i>Eilat</i> Israel
			0.1	<i>Elvas</i> Portugal
			1	<i>Viseu</i> Portugal
94	1,367	219.5	5	<i>Thorshavn</i> Faroe Is.
			2	<i>Florence</i> Italy
			10	<i>Genoa</i> Italy
			10	<i>Milan</i> Italy
			12.5	<i>Naples</i> Italy
			2	<i>Palermo</i> Italy

Chan.	kc/s	Metres	kW	Station and Country	
(94)	(1,367)	(219.5)	5	Rome	Italy
			5	Turin	Italy
			25	Venice	Italy
			2	Verona	Italy
			—	6 L.P. Stations	Italy
			30	Bialystok	Poland
			30	Lublin	Poland
			10	Oporto	Portugal
			—	4 L.P. Stations	Switzerland
			—	1,371	218.8
95	1,376	218	150	Lille	France
—	1,378	217.7	0.5	Sueca	Spain
—	1,383	216.9	0.2	Orihuela	Spain
96	1,385	216.6	50	Athens	Greece
			5	San Sebastian	Spain
			0.4	Tarrega	Spain
			150	Kaunas, Lithuania	U.S.S.R.
—	1,388	216	0.8	Santander	Spain
—	1,390	215.8	1	Jerusalem	Israel
—	1,391	215.7	5	Badajoz	Spain
97	1,394	215.2	25	Graz	Austria
			0.15	Angro do Heroismo	Azores
			0.25	Bitburg (A.F.N.)	Germany (West)
			†	Rhodes Island	Greece
			1	Jerusalem	Israel
			7.5	Tripoli (B.F.N.)	Libya
98	1,403	213.8	—	Sync. Network	Sweden
			20	Brest	France
			10	Montpellier	France
			20	Nice	France
			20	Rouen	France
			5	Komotini	Greece
			2	Vigo	Spain
			1	Almeria	Spain
99	1,412	212.4	2	Helsinki	Finland
			3	Bad Mergentheim (S.D.R.)	Germany (West)
			2	Gandia	Spain
			5	Maribor	Yugoslavia
			20	Pristina	Yugoslavia
—	1,418	211.5	50	Split	Yugoslavia
			2	Jaen	Spain
			40	Algiers	Algeria
			7.5	Episcopi (B.F.N.)	Cyprus
100	1,421	211.1	1	Tampere	Finland
			100	Saarbrücken	Germany (W.)
			0.05	Sfax	Tunisia
			5	Chernigov, Ukraine	U.S.S.R.
—	1,422	211	2	Zamora	Spain
—	1,425	210.5	5	Baneasa	Rumania
101	1,430	209.8	0.5	Korce	Albania
			10	Copenhagen	Denmark
			70	Skive	Denmark
			5	Mallorca	Spain

Chan.	kc/s	Metres	kW	Station and Country
(101)	(1,430)	(209.8)	—	Sabadell Spain
102	1,439	208.5	350	Luxembourg Luxembourg
103	1,448	207.2	5	Ancona Italy
			5	Catania Italy
			5	Florence Italy
			12.5	Palermo Italy
			10	Salento Italy
			5	Sassari Italy
			20	Turin Italy
			2	Verona Italy
			—	29 L.P. Stations Italy
			1	Coimbra Portugal
			2	Alicante Spain
			—	Sync. Network Sweden
—	1,453	206.5	2	Vitoria Spain
104	1,457	205.9	—	3 L.P. Stations Austria
			0.05	Caramulo Portugal
			20	Craiova Rumania
			10	Bartley, Hants. (H) U.K.
			2	Bexhill, Sussex (H) U.K.
			2	Brighton, Sussex (H) U.K.
			20	Clevedon, Somerset (H) U.K.
			1	Folkestone, Kent (H) U.K.
			2	Redruth, Cornwall (H) U.K.
105	1,466	204.6	400	Monte Carlo Monaco
			—	Sync. Network Norway
106	1,475	203.4	150	Vienna Austria
			1	Avila Spain
			2	Huesca Spain
			2	Valladolid Spain
107	1,484	202.2	—	International Common Frequency
—	1,490	201.3	2	Manresa Spain
108	1,493	200.9	—	9 L.P. Stations Austria
			—	Sync. Network France
			5	Rhodes Island Greece
			2	Albacete Spain
			20	Gomel, Byelorussia U.S.S.R.
			2	Zagreb Yugoslavia
—	1,495	200.7	0.02	Guarda Portugal
—	1,496	200.5	2	Leon Spain
			2	Segovia Spain
—	1,500	200	0.05	Lages (A.F.N.) Azores
			2	Logrono Spain
			2	Tarrasa Spain
109	1,502	199.7	0.8	Münster (W.D.R.) Germany (W.)
			—	5 L.P. Stations (A.F.N.) Germany (W.)
			60	Cracow Poland
			30	Rzeszow Poland
			0.4	Burriana Spain
			2	Gijon Spain
—	1,506	199.2	20	Brussels Belgium
110	1,511	198.5	5	Khania, Crete Greece
			0.5	Patras Greece
			0.2	Lerida Spain

Chan.	kc/s	Meters	kW	Station and Country	
(110)	(1,511)	(198.5)	2	Murcia	Spain
111	1,520	197.4	5	Ceske-Budejovice	Czechoslovakia
			2	Liberec	Czechoslovakia
			30	Ostrava	Czechoslovakia
			20	Prague	Czechoslovakia
			3	Usti-Laben	Czechoslovakia
			15	Vary	Czechoslovakia
			2	Gerona	Spain
112	1,529	196.2	†	Funchal	Madeira
			—	Sync. Network	Sweden
113	1,538	195.1	120	Vatican City	Vatican City
			40	Ravensburg (S.W.F.)	Germany (W.)
			10	Reutlingen (S.W.F.)	Germany (W.)
			†	Sync. Network	Spain
—	1,545	194.2	0.6	Vich	Spain
114	1,546	194.1	2	Elche	Spain
			5	Seelow	Germany (E.)
			—	13 L.P. Stations (T)	U.K.
			5	Vinnitza, Ukraine	U.S.S.R.
115	1,554	193.1	50	Nice	France
			†	U.S. Forces	Germany (West)
			—	Villaneuva	Spain
			20	Baranovitchi, Byelorussia	U.S.S.R.
116	1,562	192.1	0.01	Zweibrücken (Canadian Forces)	Germany (W.)
			1	Covilha	Portugal
			—	Sync. Network	Sweden
			†	Sync. Network	Switzerland
—	1,563	192	0.8	Amaliada	Greece
117	1,570	191.1	5	Michelet	Algeria
			20	Halle	Germany (East)
			10	Flensburg (N.D.R.)	Germany (W.)
			0.05	Tarragona	Spain
			†	Sfax	Tunisia
—	1,571	191	0.08	Santa Maria Aero	Azores
118	1,578	190.1	—	Sync. Network	Italy
			10	Fredrikstad	Norway
			2	Nordkapp	Norway
			10	Oporto	Portugal
—	1,585	189.3	1	Tripoli (A.F.N.)	Libya
119	1,586	189.1	5	Bonn (W.D.R.)	Germany (West)
			40	Hanover (N.D.R.)	Germany (W.)
			5	Kiel (N.D.R.)	Germany (West)
			3	Kleve (W.D.R.)	Germany (West)
			40	Oldenburg (N.D.R.)	Germany (W.)
			5	Osnabrück (N.D.R.)	Germany (W.)
			2	Olsztyn	Poland
			†	Sync. Network	Spain
120	1,594	188.2	—	International Common Frequency	
121	1,602	187.3	20	Kirchheim-Schwaben (B.R.)	Germany (West)
			20	Landau (B.R.)	Germany (West)
			20/40	Nürnberg (B.R.)	Germany (West)

Chan.	kc/s	Metres	kW	Station and Country
(121)	(1,602)	(187.3)	—	3 L.P. Stations (B.R.) Germany (W.)
			†	Sync. Network Norway
			†	Sync. Network Portugal
—	1,611	186.2	1	Tortosa Spain
—	1,629	184.2	0.04	Moro do Ebro Spain

Abbreviations

A.F.N.	American Forces Network
B.F.N.	British Forces Network
B.R.	Bayerischer Rundfunk
H.R.	Hessischer Rundfunk
N.D.R.	Norddeutscher Rundfunk
R.F.E.	Radio Free Europe
R.I.A.S.	Radio im Amerikanischen Sektor
S.D.R.	Sddeutscher Rundfunk
S.F.B.	Sender Free Berlin
S.W.F.	Sudwestfunk
V.o.A.	Voice of America
W.D.R.	Westdeutscher Rundfunk
E, H, L or T	denote, respectively, B.B.C. transmitter used for European Service, Home Service, Light Programme or Network Three.

Geographical List of Long- and Medium-wave European Stations

	kc/s		kc/s
ALBANIA			
Korce	1,430	Kindberg	1,313
Tirana	1,088	Kitzbühel	1,493
		Klagenfurt	584
ALGERIA			728
Algiers	890	Knittelfeld	1,313
"	980	Kötschach	692
"	1,421	Krems	1,052
Bône	1,484	Kufstein	1,124
Bougie	1,594	Landeck	1,493
Colomb-Béchar	746	Lauterach	629
Constantine	1,142		1,025
"	1,304	Lend	773
Michelet	1,570	Leoben	692
Oran	1,142	Lienz	520
"	1,304		629
Tamanrasset	548	Liezen	1,313
Tlemcen	863	Linz	890
Tougourt	746	Linz-Kronstorf	1,025
ANDORRA		Maria Pfarr	566
Andorra	818	Mariazell	773
"	998	Matrei	674
		Mayrhofen	1,124
AUSTRIA		Mittersill	1,493
Admont	692	Mühlbach	566
Aigen	674	Murau	692
Aldrans	629	Mürzzuschlag	692
Amstetten	1,457	Neumarkt	674
Bad-Aussee	692	Neukirchen	1,052
Bad-Ischl	566	Oberdrauburg	773
Bad St. Leonhard	773	Obervellach	692
Bischofshofen	674	Radentheim	674
Bleiburg	674	Radstadt	566
Bludenz	1,493	Reutte	1,493
Braunau-Inn	566	Ried-Innkreis	674
Bruck a.d. Mur	1,124	Rottenmann	1,142
Eisenerz	1,124	Saalfelden	1,493
Eisenkappel	566	St. Michael-im-Lunggau	773
Feistritz-Drau	566	St. Pölten	1,484
Feldkirchen	566	Salzburg	584
Friesach	1,313		773
Gloggnitz	674	Schrune	1,457
Gmünd-Karten	692	Schwarzach	1,493
Graz	1,394	Spittal-Drau	773
Graz-Dobl	1,025	Szolnok	1,344
Greifenburg	566	Tamsweg	1,124
Gyor	1,340	Vienna	584
Haslach	1,313		1,475
Hermagor	773	Villach	692
Hof-Gastein	1,124	Völkermarkt	1,313
Imst	1,124	Wiener Neustadt	1,457
Judenburg	1,124	Windischgarsten	1,493
		Wolfsberg	1,313

	kc/s		kc/s
Austria—cont.			
Wörgl	1,493	Usti-Laben	1,520
Zell-am-See	566	Zilina	1,484
Zwettl	692	DENMARK	
AZORES		Aalborg	1,484
Angra do Heroismo	1,394	Copenhagen	1,430
Lages	647	"	1,484
"	1,500	Esbjerg	1,594
Santa Maria Aero	1,571	Kalundborg	245
BELGIUM		"	1,061
Brussels	620	Skive	1,430
"	926	Tonder	1,484
"	1,124	EGYPT	
"	1,511	Alexandria	1,205
Kortrijk	1,484	Aswan	1,178
Liege	1,484	Batra	818
BULGARIA		Cairo	557
Sofia	593	"	620
"	827	"	773
"	1,484	"	926
Stara Zagora	1,223	"	1,205
Varna	1,124	EIRE	
CANARY ISLANDS		Athlone	566
Las Palmas	1,313	Cork	1,250
CYPRUS		Dublin	1,250
Episcopi (B.F.N.)	1,421	FAROE ISLANDS	
Limassol	638	Thorshavn	1,367
"	719	FINLAND	
Nicosia	602	Helsinki	557
"	692	"	845
Paphos	921	"	1,412
CZECHOSLOVAKIA		Joensuu	520
Banska Bystrica	701	Kuopio	755
Bratislava	701	Lahti	254
"	1,097	Oulu	433
Brno	953	Pietarsaari	1,484
Ceske-Budejovice	953	Pori	1,484
Gottwaldov	1,484	Tammisaari	1,484
Hradec-Karlove	1,232	Tampere	1,421
Jihlava	1,484	Turku	962
Karlovy-Vary	1,520	"	1,484
Kosice	701	Vaasa	1,241
"	1,232	Ylivieska	836
Liberec	1,520	FRANCE	
Orava	1,232	Allouis	164
Ostrava	1,520	Annemasse	1,484
Plzen	953	Bay	1,594
"	1,484	Bayonne	539
Prague	638	Besancon	1,484
"	1,286	Bordeaux	1,070
"	1,520	"	1,205
Rimarska Sobota	1,484	Brest	1,241
Tatry	1,484	"	1,403
Uherske Hladiste	272		

France—cont.	kc/s		kc/s
Caen	1,484	Plauen	1,079
Clermont	1,349	Potsdam	656
Dijon	1,484	Rehmate, Berlin	185
Grenoble	1,349	Reichenbach	912
Lille	1,484	Schwerin	529
"	1,241	Seelow	1,546
Limoges	1,376	Suhl	692
"	791		1,052
Lyons	1,349	Wöbbelin	728
"	602		
Marseilles	1,241		
"	710		
Montpellier	1,070	GERMANY, WEST	
"	1,403	Aachen (W.D.R.)	701
Nancy	1,484	Adelsheim (S.D.R.)	1,484
"	836	Ansbach (A.F.N.)	1,034
Nantes	1,241	Augsburg (B.R.)	1,484
Nice	1,349	Bad Dürkheim (S.W.F.)	665
"	1,241	Bad Kissingen (A.F.N.)	1,034
"	1,403	Bad Mergentheim (S.D.R.)	1,412
Nimes	1,554	Baden Baden (S.W.F.)	827
Paris	1,594	Bamberg (A.F.N.)	1,304
"	584	Bayreuth (B.R.)	520
"	863	Berchtesgaden (A.F.N.)	1,304
"	962	Berlin (S.F.B.)	566
"	1,070	" (R.I.A.S.)	683
Pau	1,241	" (R.I.A.S.)	854
Perpignan	1,484	" (A.F.N.)	935
Poitiers	1,484	" (R.I.A.S.)	989
Rennes	674	" (B.B.C.)	1,295
"	1,241	" (S.F.B.)	1,484
Rouen	1,403	Bitburg (A.F.N.)	1,394
Strasbourg	1,160	Bonn (W.D.R.)	1,586
"	1,277	Bopfingen (S.D.R.)	1,484
Toulon	1,594	Bremen	1,358
Toulouse	944	Bremerhaven	1,079
"	1,349	" (A.F.N.)	1,142
Sync. Network	1,493	Brunswick (N.D.R.)	520
GERMANY, EAST		Buchen (S.D.R.)	998
Berlin	881	Coburg (B.R.)	1,602
Berlin-Grünau	611	Crailsheim (S.D.R.)	1,484
Berlin-Kopenick	1,358	Eberbach/Neckar (S.D.R.)	1,484
Burg	782	Ellwangen (S.D.R.)	1,484
"	904	Felsberg	185
"	935	Flensburg (N.D.R.)	1,570
Cottbus	520	Frankfurt (H.R.)	593
Dresden	1,043	" (A.F.N.)	872
Erfurt	629	Freiburg (S.W.F.)	827
Greifswald	557	Fulda (A.F.N.)	1,304
Halle	1,570	Füssen (A.F.N.)	1,142
Karlmarxstadt	602	Garmisch (A.F.N.)	1,502
Königswusterhausen	173	Gerabronn (S.D.R.)	1,484
"	263	Giengen (S.D.R.)	1,484
Leipzig	575	Giessen (A.F.N.)	1,502
"	1,322	Göttingen (N.D.R.)	971
		Grafenwöhr (A.F.N.)	611

Germany, West—cont.

	kc/s
Hamburg (N.D.R.)	151
„ (N.D.R.)	701
„ (N.D.R.)	971
Hanover (N.D.R.)	1,586
Heidelberg (S.D.R.)	998
„ (A.F.N.)	1,304
Heidenheim (S.D.R.)	1,484
Heilbronn (S.D.R.)	1,169
Herford (N.D.R.)	701
Hersfeld (A.F.N.)	1,142
Hof (R.I.A.S.)	683
„ (R.I.A.S.)	737
„ (B.R.)	1,602
Hoher Meissner (H.R.)	593
Kaiserslautern (A.F.N.)	611
„ (S.W.F.)	827
Kassel (A.F.N.)	1,502
Kempten (B.R.)	520
Kiel (N.D.R.)	1,586
Kirchberg (S.D.R.)	1,484
Kirchheim-Schwaben (B.R.)	1,602
Kleve (W.D.R.)	1,586
Koblenz (S.W.F.)	827
Külshcim (S.D.R.)	1,484
Landau (B.R.)	1,602
Landshut (B.R.)	1,484
Langenberg (N.D.R.)	971
Lingen (N.D.R.)	701
Mainz (S.W.F.)	1,016
Mosbach (S.D.R.)	1,484
Münster (W.D.R.)	1,502
München (V.o.A.)	173
„ (V.o.A.)	548
„ (R.F.E.)	719
„ (B.R.)	800
„ (V.o.A.)	1,196
Neresheim (S.D.R.)	1,484
Norden (N.D.R.)	701
„ (B.B.C.)	1,295
Nürnberg (A.F.N.)	611
„ (B.R.)	1,602
Oldenburg (N.D.R.)	1,586
Osnabrück (N.D.R.)	1,586
Passau (B.R.)	520
Ravensburg (S.W.F.)	1,538
Regensburg (A.F.N.)	1,304
„ (B.R.)	1,602
Reutlingen (S.W.F.)	1,538
Saarbrücken	1,421
Saarlouis	180
Schwäbisch (S.D.R.)	1,484
Schweinfurt (A.F.N.)	1,142
Siegen (W.D.R.)	755
Sigmaringen (S.W.F.)	827

	kc/s
Straubing (A.F.N.)	1,502
Stuttgart (S.D.R.)	575
„ (A.F.N.)	1,106
Trier (S.W.F.)	827
Ulm (S.D.R.)	1,169
Wertheim (A.F.N.)	1,304
Wertheim/Main (S.D.R.)	1,484
Wildflecken	1,502
Würzburg (B.R.)	520
„ (A.F.N.)	1,142
Zweibrücken	1,562
GIBRALTAR	
Fort Wellington	1,484
GREECE	
Amaliada	1,563
Athens	665
„	728
„	1,304
„	1,385
Kerkyra, Corfu	1,007
Khania, Crete	1,511
Komotini	1,403
Patras	1,511
Rhodes Island	1,493
Salonika	791
„	1,043
„	1,169
Volos	1,484
HUNGARY	
Balatonszabadi	1,250
„	1,594
Budapest	539
Gyor	1,340
Magyarovar	1,594
Miscolc	1,594
Nyiregyhaza	1,340
Pecs	1,340
Szolnok	1,187
„	1,340
Szombathely	1,340
ICELAND	
Akureyri	737
Eidar	665
Hoefn	611
Keflavik (A.F.N.)	1,484
Reykjavik	209
ISRAEL	
Eilat	1,358
Haifa	1,025
„	1,205
„	1,331

	kc/s		kc/s
Israel—cont.			
Jerusalem	710	La Spezia	1,448
"	1,390	Livorno	1,061
"	1,394	"	1,594
Tel Aviv	575	Matera	1,448
"	656	Merano	1,448
"	737	"	1,594
"	1,277	Messina	1,115
ITALY		"	1,367
Agrigento	1,448	Milan	899
Alessandria	1,448	"	1,034
Ancona	1,448	"	1,367
Aosta	1,115	Naples	656
Aquila	1,484	"	1,034
Arezzo	1,484	"	1,367
Ascoli	1,448	Nuoro	1,484
Avellino	1,484	Palermo	1,331
Bari	1,115	"	1,367
"	1,331	"	1,448
"	1,367	Perugia	1,448
Belluno	1,448	Pescara	1,034
Benevento	1,448	"	1,331
Biella	1,448	Pisa	1,115
Bologna	1,115	"	1,367
"	1,331	Potenza	1,448
"	1,367	Rome	845
Bolzano	656	"	1,331
"	1,484	"	1,367
"	1,594	Salento	566
Bressanone	1,448	"	1,448
"	1,594	Salerno	1,448
Brunico	1,448	San Remo	1,034
"	1,594	Sassari	1,448
Brindisi	1,484	Savona	1,484
Cagliari	1,061	Siena	1,448
"	1,448	Sondrio	1,448
"	1,594	Taranto	1,448
Caltanissetta	566	Terni	1,484
"	1,448	Teramo	1,448
Campobasso	1,448	Trento	1,331
Catania	1,331	"	1,367
"	1,367	"	1,448
"	1,448	"	1,594
Catanzaro	1,448	Trieste	818
Como	1,448	"	980
Cortina	1,448	"	1,115
Cosenza	1,484	"	1,594
Cuneo	1,448	Turin	656
Florence	656	"	1,367
"	1,367	"	1,448
"	1,448	Udine	1,331
Foggia	1,448	"	1,448
Genoa	1,034	Venice	656
"	1,331	"	1,034
Gorizia	1,484	"	1,367
"	1,367	"	1,484

	kc/s		kc/s
Italy—cont.			
Verona	1,367	NETHERLANDS	
"	1,448	Hengelo	1,594
Sync. Network	1,367	Hilversum	746
Sync. Network	1,578	"	1,007
JORDAN		Hoogezand	1,594
Amman	800	Hulsberg	1,594
Jerusalem	677		
LEBANON		NORWAY	
Beirut	836	Bergen	890
LIBYA		Bodo	674
Benghazi (B.F.N.)	843	Bronnoysund	1,484
Tripoli	1,052	Finnmark	701
" (B.F.N.)	1,394	Fredrikstad	1,578
" (B.F.N.)	1,484	Glomfjord	1,484
" (A.F.N.)	1,585	Kristiansand	890
Wheelus Field (A.F.N.)	989	Mosjoen	1,484
LUXEMBOURG		Nordkapp	1,578
Luxembourg	233	Oslo	218
"	1,439	Rjukan	1,484
MADEIRA		Stavanger	1,313
Funchal	1,484	Tromso	155
"	1,594	Trondelag	890
MALTA		Vigra	629
Dalimara Point	1,178	Sync. Network	1,115
MONACO		Sync. Network	1,466
Monte Carlo	1,466		
MOROCCO		POLAND	
Agadir	1,025	Bialystok	1,367
"	1,196	Cracow	1,502
"	1,295	Gdansk	1,304
Ben Guerir (A.F.N.)	1,594	Katowice	1,079
Casablanca	818	Kielce	1,484
"	1,187	Koszalin	1,484
Nouaceur (A.F.N.)	1,594	"	1,594
Oujda	593	Lodz	1,484
"	1,043	Lublin	1,205
Port Lyautey (A.F.N.)	1,484	"	1,367
Rabat	917	"	1,594
"	1,043	Olsztyn	1,586
"	1,286	Opole	1,484
" (A.F.N.)	1,594	"	1,594
Sebaa-Aioun	611	Poznan	737
"	701	Rzeszow	1,502
"	935	Slupsk	1,484
Safi	1,025	Stettin	1,304
"	1,322	"	1,484
Sidi Slimane (A.F.N.)	1,594	Torun	737
Tangier	1,016	Warsaw	227
"	1,232	"	818
Tetuan	827	"	1,196
"	917	Wroclaw	1,259
		Zakopane	1,484
		Zielona Gora	1,259
		" "	1,484

	kc/s		kc/s
PORTUGAL			
Caramulo	1,457	Bilbao	1. 33
Coimbra	1,448	Burjasot	1,181
Covilha	1,562	Burriana	1,502
Elvas	1,358	Caceres	1,029
Faro	557	Cadiz	1,322
Funchal	1,484	Cordoba	1,357
Guarda	557	Corunna	971
"	1,495	Cuenca	1,178
Lisbon	665	Elche	1,546
"	755	Gandia	1,412
"	1,286	Gerona	1,520
"	1,594	Gijon	1,506
Norte	719	Granada	1,335
"	1,061	"	1,309
Oporto	1,169	Huelva	836
"	1,367	Huesca	1,475
"	1,578	Jaca	1,277
Oporto-Miramar	782	Jaen	1,418
Parede	1,034	Leon	1,259
Portalegre	1,484	"	1,496
Regua	800	Lerida	1,511
Santarem	1,322	Linares	1,271
Viseu	1,358	Logrono	1,500
		Madrid	584
RUMANIA		"	683
Bacau	1,052	"	854
Baneasa	1,425	"	953
Brasov	155	"	989
Bucharest	854	"	1,016
Cluj	1,151	"	1,223
Craiova	1,457	"	1,007
Miercurea	908	Malaga	1,106
Or Stalin	1,484	"	1,430
Sibin	1,484	Mallorca	1,152
Timisoara	557	Manises	1,490
"	755	Manresa	1,295
		Merida	1,629
SPAIN		Moro de Ebro	1,115
Albacete	1,097	Murcia	1,322
"	1,315	"	1,511
"	1,493	"	1,383
Alicante	1,343	Orihuela	1,079
"	1,448	Oviedo	1,268
Almeria	1,166	"	1,160
"	1,317	Palamos	1,046
"	1,407	Puigcerda	1,430
Antequera	1,371	Sabadell	1,186
Avila	1,074	San Feliu de Llobregat	1,025
Badajoz	1,391	San Sebastian	1,309
"	1,484	" "	1,385
Badalona	1,313	" "	1,388
Barcelona	737	Santander	1,484
"	809	"	1,496
"	1,052	Segovia	638
"	1,079	Seville	800
"	1,250	"	

	kc/s		kc/s
Spain—cont.			
Sueca	1,378	Damascus	602
Talavera del Reina	1,317	"	665
Tarragona	1,570	TUNISIA	
Tarrasa	1,502	Sfax	584
Terrega	1,385	"	1,421
Toledo	1,143	Tunis	962
Tortosa	1,611	TURKEY	
Valencia	773	Ankara	182
"	1,079	Istanbul	701
"	1,259	UNITED KINGDOM	
Valladolid	1,475	Barnstaple, Devon (H)	1,052
"	1,269	Barrow, Lancs. (H)	1,484
Vich	1,545	Bartley, Hants. (H)	1,457
Vigo	1,079	Belfast, N. Ireland (T)	1,546
Villanueva	1,554	Bexhill, Sussex (H)	1,457
Viscaya	1,250	Bournemouth, Hants. (T)	1,546
Vitoria	1,338	Brighton, Sussex (H)	1,457
"	1,453	" (T)	1,546
Zamora	1,422	Brookmans Park, London	
Zaragoza	872	(H)	908
"	1,106	(L)	1,214
"	1,322	Burghead, Moray (H)	809
SWEDEN		" (L)	1,214
Boben	1,594	Cardiff, Glamorgan (T)	1,484
Falun	1,223	Clevedon, Somerset (H)	1,457
Göteborg	980	Cromer, Norfolk (H)	692
Hörby	1,178	Crowborough, Sussex (E)	647
Jönköping	1,594	" (E)	1,340
Kristinehamn	1,594	Daventry, Northants. (T)	647
Lulea	182	Droitwich, Worcs. (L)	200
Malmberget	773	" (H)	1,088
Motala	191	Dumfries (H)	809
Ostersund	719	Dundee, Angus (T)	1,546
Porjus	1,594	Edinburgh, Midlothian (T)	647
Säffle	1,594	Exeter, Devon (T)	1,546
Stockholm	773	Farcham, Hants (T)	1,546
Sundsvall	593	Folkestone, Kent (H)	1,457
Trollhättan	1,594	Glasgow (T)	647
Umeå	1,594	Leeds, Yorks. (T)	1,546
Sync. Network	1,394	Lisnagarvey, N. Ireland (H)	
Sync. Network	1,448	"	1,151
Sync. Network	1,529	" (L)	1,214
Sync. Network	1,562	Liverpool, Lancs. (T)	1,546
SWITZERLAND		Londonderry, N. Ireland (H)	
Basle	1,367	"	1,151
Beromünster	529	" (L)	1,214
Chur	1,367	Moorside Edge, Yorks. (H)	692
Monte Ceneri	557	" (L)	1,214
Saviese	1,367	Newcastle, North'd (T)	647
Sool	1,367	" (L)	1,214
Sottens	764	Norwich, Norfolk (H)	1,088
SYRIA		Penmon, Anglesey (H)	881
Aleppo	584		
"	746		

United Kingdom—cont.		kc/s		kc/s
Plymouth, Devon (L)		1,214	Moscow, Russia	548
" " (T)		1,546	" " " " " "	872
Preston, Lancs. (T)		1,546	Murmansk, Russia	656
Ramsgate, Kent (H)		1,484	Odessa, Ukraine	548
Redmoss, Aberdeen. (T)		647	" " " " " "	764
" " (H)		809	" " " " " "	1,169
" " (L)		1,214	Ouchgorod, Ukraine	890
Redruth, Cornwall (L)		1,214	" " " " " "	1,322
" " (H)		1,457	Petrozavodsk, Karelia	611
" " (T)		1,546	Riga, Latvia	575
Scarborough, Yorks. (H)		1,151	" " " " " "	1,484
Stagshaw, North'd (H)		1,151	Rostov-on-Don, Russia	944
Start Point, Devon (H)		1,052	Simferopol, Russia	647
Stockton, Durham (T)		1,546	Smolensk, Russia	971
Swansea, Glam. (T)		1,546	Stalino, Ukraine	710
Towyn, Merioneth. (H)		881	Tallinn, Estonia	1,034
Washford, Somerset (H)		881	" " " " " "	1,214
Westerglen, Stirling. (H)		809	" " " " " "	1,331
" " (L)		1,214	Tartu, Estonia	1,214
Whitehaven, Cumb.(H)		692	Tiraspol, Moldavia	1,241
Wrexham, Denbigh. (H)		881	Vilna, Lithuania	665
Sync. Network (T)		1,546	" " " " " "	1,106
			Voronezh Russia	773
			" " " " " "	944
U.S.S.R.				
Baranovitchi, Byelorussia		1,554		
Chernigov, Ukraine		1,421		
Chernovtsy, Ukraine		674	VATICAN CITY	
Dniepropetrovsk, Ukraine		1,070	Vatican City	782
Kaliningrad, Russia		1,142	" " " " " "	1,529
Kaunas, Lithuania		1,385		
Kharkov, Ukraine		836		
Kiev, Ukraine		209	YUGOSLAVIA	
" " " " " "		782	Belgrade	683
Kishinev, Moldavia		998	Bitolja	1,484
Krasnodar, Karelia		611	Dubrovnik	1,484
Kuldiga, Latvia		1,349	Koper	1,169
Kursk, Russia		1,214	Ljubljana	917
Leningrad, Russia		200	Maribor	1,412
" " " " " "		236	Nis	927
" " " " " "		800	Novi Sad	1,268
" " " " " "		1,124	Osijek	1,484
Lwow, Ukraine		935	Pristina	1,412
Minsk, Byelorussia		281	Rijeka	1,133
Modona, Latvia		1,349	Sarajevo	611
Moscow, Russia		151	Skoplje	809
" " " " " "		173	Split	1,412
" " " " " "		200	Titograd	881
" " " " " "		236	Zagreb	1,133
" " " " " "		263	" " " " " "	1,493

Short-wave Stations of the World

In an endeavour to relieve the congestion in the short-wave bands the International Frequency Registration Board has drawn up a "Schedule for Broadcasting on Decimetric Waves." Some stations are adhering to this plan, which changes four times a year to provide for seasonal variations in propagation, but others are transmitting on whatever frequency they choose.

In the following list, therefore, which is compiled from information provided by the Tatsfield receiving station of the B.B.C, we give the frequencies in use when the material was prepared, irrespective of whether or not they were allocated to the stations using them, and frequencies notified for use. Stations known to have a power of less than one kilowatt are not included.

The abbreviations used in some instances after the name of the town indicate the organization operating the station; they are defined on page 17. At stations where there are a number of transmitters of varying power both the minimum and maximum output are given in the appropriate column.

Mc/s	Metres	kW	Call	Station and Country	
2.350	127.70	1	YDJ3	Djakakarta, Java	Indonesia
2.360	127.10	1	YVQG	Carupano	Venezuela
2.430	123.50	1	YDK2	Palembang, Java	Indonesia
2.440	123.00	1	YVLG	Maracay	Venezuela
2.450	122.40	1	YDB	Djakarta, Java	Indonesia
2.490	120.48	1	YDH	Semarang, Java	Indonesia
3.205	93.40	5	—	Ibadan	Nigeria
3.226	93.03	7.5	CR7AB	Lourenco Marques	Mozambique
3.232	92.80	5	—	Tananarive	Madagascar
3.239	92.64	10	—	Peshawar	Pakistan
3.240	92.60	1	YDR	Ambon, Moluccas	Indonesia
3.241	92.57	1	YDM6	Sibolga, Sumatra	Indonesia
3.245	92.40	0.25/10	VUC	Calcutta	India
3.245	92.40	1	YVKT	Caracas	Venezuela
3.250	92.30	10	HJKH	Sutatenza	Colombia
3.250	92.30	10	YDO	Bandjermassin, Borneo	Indonesia
3.255	92.17	2	ZFY	Georgetown	British Guiana
3.257	92.11	1	YVQL	El Tigre	Venezuela
3.265	91.87	1	ZYK21	Recife	Brazil
3.267	91.82	1	YVOC	San Cristobal	Venezuela
3.275	91.60	1	YVMC	Maracaibo	Venezuela
3.277	91.55	1	YDD	Djakarta, Java	Indonesia
3.277	91.55	1	—	Srinagar	Kashmir
3.285	91.32	1	ZYR89	Aparecida	Brazil
3.285	91.32	1	YVLE	Puerto Cabello	Venezuela
3.286	91.30	3	YDG6	Madium, Java	Indonesia
3.288	91.25	1	HI7T	Ciudad Trujillo	Dominican Rep.
3.290	91.19	20	—	Paradys	South Africa
3.295	91.05	16	HNV	Baghdad	Iraq
3.295	91.05	1	YVOG	Trujillo	Venezuela
3.300	90.91	5	—	Belize	British Honduras
3.305	90.77	1	—	Benghazi (B.F.N.)	Libya
3.305	90.77	2	YVKX	Caracas	Venezuela
3.315	90.50	10	—	Bhopal	India
3.315	90.50	6	—	Langata	Kenya

Mc/s	Metres	kW	Call	Station and Country
3.315	90.50	1	YVLI	Maracay Venezuela
3.316	90.52	8	—	Forte de France Martinique
3.316	90.52	5	—	Freetown Sierra Leone
3.316	90.52	20	—	Paradys South Africa
3.322	90.30	50	HI3U	Ciudad Trujillo Dominican Rep.
3.325	90.23	1	YVRA	Maturin Venezuela
3.326	90.20	7.5	—	Kaduna Nigeria
3.334	89.98	1	YVMU	Carora Venezuela
3.335	89.96	10	—	Gauhati India
3.345	89.69	1	ZYN22	Salvador Brazil
3.345	89.69	1	HI2S	Ciudad Trujillo Dominican Rep.
3.345	89.69	2	DZB2	Manila, Luzon Philippines
3.355	89.43	1	YVLC	Valencia Venezuela
3.356	89.40	1	YDI	Surabaya, Java Indonesia
3.356	89.40	20	—	Paradys South Africa
3.360	89.28	5	ZQI	Kingston Jamaica
3.363	89.20	5	—	St. Georges, Grenada Windward Is.
3.366	89.12	5	ZOY	Accra Ghana
3.375	88.90	20	—	Paradys South Africa
3.380	88.80	1.5	—	St. Denis Reunion Island
3.382	88.70	1	HI2D	Santiago de los Caballeros Dominican Rep.
3.385	88.62	1	YVQI	Barcelona Venezuela
3.386	88.60	1	—	Tananarive Madagascar
3.390	88.50	3	OQ2AC	Elizabethville, Katanga Congo
3.390	88.50	2	YVKX	Caracas Venezuela
3.395	88.35	1	—	Colombo Ceylon
3.395	88.35	1	APL	Lahore Pakistan
3.395	88.35	10	ZEAF	Salisbury Rhodesia-Nyasaland Fed.
3.395	88.35	1.5	YVOJ	Merida Venezuela
3.405	88.11	7.5	—	Lourenco Marques Mozambique
3.787	79.24	100	EQD	Teheran Iran
3.844	78.08	1	HC4GB	Esmeraldas Ecuador
3.900	76.90	20	—	Khabarovsk, Russia U.S.S.R.
3.910	76.72	10	HLK51	Seoul Korea (South)
3.915	76.63	15/240	—	Peking China
3.915	76.63	2.5	ZQP	Lusaka Rhodesia-Nyasaland Fed.
3.925	76.43	5	JOZ	Tokio Japan
3.937	76.14	15/120	—	Moscow, Russia U.S.S.R.
3.940	76.12	2.5	ZBW3	Victoria Hong Kong
3.945	76.04	10	YDU2	Den Pasar, Bali Indonesia
3.945	76.04	10/50	APK	Karachi Pakistan
3.950	75.95	1	CR4AD	Sao Vincente Cape Verde Is.
3.955	75.85	50/100	MCM	Overseas Service* U.K.
3.956	75.84	5	CR4AA	Praia Cape Verde Is.
3.956	75.84	2.5	ZQP	Lusaka Rhodesia-Nyasaland Fed.
3.960	75.75	15/240	—	Peking China
3.960	75.75	—	YDL	Padang, Sumatra Indonesia
3.960	75.75	1	—	Jidda Saudi Arabia
3.963	75.70	50/100	APK	Karachi Pakistan
3.965	75.66	100	—	Allouis France

* B.B.C. short-wave transmitters are located at Daventry, Northants; Skelton, Cumberland; Woofferton, Shropshire; and Rampisham, Dorset. Frequencies, calls and power are interchangeable.

Mc/s	Metres	kW	Call	Station and Country	
3.970	75.57	5	DMR20	Norden	Germany (West)
3.975	75.50	5	CQM7	Bissao	Portuguese Guinea
3.975	75.50	50/100	GRC	Overseas Service*	U.K.
3.978	75.42	7.5	—	Stettin	Poland
3.980	75.38	1	VRH4	Suva	Fiji Islands
3.980	75.38	8/100	—	Munich (V.o.A.)	Germany (West)
3.980	75.38	10	YDI2	Surabaya, Java	Indonesia
3.982	75.34	15/120	—	Peking	China
3.985	75.28	100	HER22	Schwarzenburg	Switzerland
3.995	75.09	50/100	—	Rome	Italy
3.995	75.09	1	—	Ibadan	Nigeria
4.010	74.81	25	—	Frunze, Kirghiz	U.S.S.R.
4.040	74.26	20	—	Vladivostok, Russia	U.S.S.R.
4.042	74.20	25	—	Kabul	Afghanistan
4.055	73.98	50	—	Petropavlovsk, Russia	U.S.S.R.
4.220	71.07	15/240	—	Peking	China
4.235	70.84	10	—	Achkhabad, Turkmenia	U.S.S.R.
4.273	70.20	20	—	Khabarovsk, Russia	U.S.S.R.
4.395	68.25	15/120	—	Moscow, Russia	U.S.S.R.
4.430	67.72	—	—	Novosibirsk, Russia	U.S.S.R.
4.485	66.89	—	—	Ufa, Bashkir	U.S.S.R.
4.520	66.37	—	—	Omsk, Russia	U.S.S.R.
4.534	66.08	2	—	Yakutsk, Russia	U.S.S.R.
4.545	66.00	15	—	Alma Ata, Kazak	U.S.S.R.
4.560	65.79	1	—	Guryev, Russia	U.S.S.R.
4.600	65.22	—	HCAU2	Guayaquil	Ecuador
4.620	64.94	15/240	—	Peking	China
4.635	64.73	25	—	Stalinabad, Tadzhik	U.S.S.R.
4.650	64.52	7	HCAK2	Guayaquil	Ecuador
4.679	64.12	5	HCGB1	Quito	Ecuador
4.693	63.93	—	—	Cuenca	Spain
4.709	63.72	25	—	Kabul	Afghanistan
4.710	63.69	—	HCBK2	Guayaquil	Ecuador
4.734	63.37	12	—	Hanoi	Vietnam (North)
4.751	63.11	25	—	Kabul	Afghanistan
4.751	63.12	3	YDQ2	Macassar, Celebes	Indonesia
4.755	63.09	1	ZYY3	Sao Paulo	Brazil
4.760	63.03	7.5	OTM2	Leopoldville	Congo
4.760	63.03	2.5	—	Simla	India
4.764	62.97	3	HJEF	Cali	Colombia
4.770	62.89	1	CR6RG	Dondo	Angola
4.770	62.89	10	ELWA	Monrovia	Liberia
4.770	62.89	1	YVMW	Punta Fijo	Venezuela
4.775	62.82	4	—	Libreville	Gabon Rep.
4.775	62.82	10	—	Gauhati	India
4.776	62.70	2	ZYH29	Fortaleza	Brazil
4.780	62.76	1	TYZ3	Djibouti	French Somaliland
4.780	62.76	5	ZHL7	Singapore	Malaya
4.780	62.76	1	YVLA	Valencia	Venezuela
4.785	62.70	2	ZYM8	Sao Luiz	Brazil
4.785	62.70	4	—	Fort Lamy	Chad Republic
4.785	62.70	4	—	Niamey	Niger Republic
4.787	62.66	5	VQ6MI	Hargeisa	Somali Republic
4.790	62.63	7.5	YVQN	Puerto la Cruz	Venezuela

Mc/s	Metres	kW	Call	Station and Country	
4.791	62.61	7.5	APD	Dacca	Pakistan
4.795	62.58	50	XZF2	Rangoon	Burma
4.795	62.58	1	HJFU	Armenia	Colombia
4.798	62.53	1	YSDR	Santa Ana	Salvador
4.800	62.50	1	APL	Lahore	Pakistan
4.800	62.50	2	YVME	Maracaibo	Venezuela
4.804	62.44	5	ZGW	Kisumu	Kenya
4.805	62.43	5	ZYS8	Manaos	Brazil
4.808	62.40	10	OQE	Bakavu	Congo
4.810	62.37	20	—	Paradys	South Africa
4.810	62.37	1	YVMG	Maracaibo	Venezuela
4.813	62.34	—	ZYH27	Fortaleza	Brazil
4.818	62.27	1	HJBB	Cucuta	Colombia
4.820	62.24	20/100	VUD	Delhi	India
4.822	62.21	10	—	Achkhabad, Turkmenia	U.S.S.R.
4.825	62.18	1	HJHC	Pasto	Colombia
4.825	62.18	15/120	—	Moscow, Russia	U.S.S.R.
4.828	62.14	15	ZQP	Lusaka	Rhodesia-Nyasaland Fed.
4.830	62.10	1	—	Bangkok	Thailand
4.830	62.10	1.3	YVOA	San Cristobal	Venezuela
4.835	62.05	4	—	Bamako	French Sudan
4.835	62.05	15/120	—	Moscow, Russia	U.S.S.R.
4.838	62.01	10	—	Bakavu	Congo
4.840	61.98	10	—	Bhopal	India
4.840	61.98	10	YDU	Den Pasar, Bali	Indonesia
4.840	61.98	7.5	CR7BU	Lourenco Marques	Mozambique
4.840	61.98	1.5	YVOI	Valera	Venezuela
4.842	61.96	1	CR6RO	Silva Porto	Angola
4.843	61.95	5/50	—	Brazzaville	Congo
4.849	61.88	1	YVMS	Barquisimeto	Venezuela
4.850	61.86	—	—	Ranchi	India
4.850	61.86	—	—	Leningrad, Russia	U.S.S.R.
4.852	61.84	1	CR6RQ	Nova Lisboa	Angola
4.855	61.79	10	YDK	Palembang, Sumatra	Indonesia
4.855	61.79	7	—	Nairobi	Kenya
4.855	61.79	4	—	Nouakchott	Mauritania
4.855	61.79	30	—	Monte Carlo	Monaco
4.855	61.79	2.5	—	Enugu	Nigeria
4.856	61.78	1	HJFB	Neiva	Colombia
4.860	61.73	20/100	VUD	Delhi	India
4.860	61.73	7.5	—	Srinagar	Kashmir
4.860	61.73	5	—	Kuching	Sarawak
4.861	61.72	1	YVPA	San Felipe	Venezuela
4.864	61.64	10	ZQP	Lusaka	Rhodesia-Nyasaland Fed.
4.865	61.66	2	PRC5	Belem	Brazil
4.865	61.66	10	YDR	Ambon, Moluccas	Indonesia
4.866	61.65	1	CSA93	Punta Delgada	Azores
4.868	61.63	1	CR6RN	Luanda	Angola
4.870	61.60	4	—	Cotonou	Dahomey
4.870	61.60	2	YVKP	Caracas	Venezuela
4.874	61.56	—	—	Orenburg, Russia	U.S.S.R.
4.880	61.48	10	—	Leopoldville	Congo
4.880	61.48	—	VUL	Lucknow	India
4.880	61.48	10	YDG	Surakarta, Java	Indonesia

Mc/s	Metres	kW	Call	Station and Country	
4.880	61.48	7.5	YVKF	Caracas	Venezuela
4.885	61.41	1	ZYV50	Pocos de Caldas	Brazil
4.885	61.41	10	VQ7LO	Langata	Kenya
4.890	61.35	1	—	Dakar	Senegal
4.890	61.35	4.7	YVKB	Caracas	Venezuela
4.895	61.29	2.5	PRF6	Manaos	Brazil
4.895	61.29	3	HJCH	Bogota	Colombia
4.895	61.29	8	—	Forte de France	Martinique
4.895	61.29	50	APK	Karachi	Pakistan
4.895	61.29	20	ZRG	Paradys	South Africa
4.897	61.26	2/10	VLX/W	Perth, W.A.	Australia
4.897	61.26	1	HJAG	Barranquilla	Colombia
4.898	61.25	1	YVQE	Ciudad Bolivar	Venezuela
4.900	61.22	11	—	Colombo	Ceylon
4.905	61.16	5	ZYZ20	Rio de Janeiro	Brazil
4.905	61.16	4	—	Fort Lamy	Chad Republic
4.909	61.11	4	—	Conakry	Guinea Republic
4.910	61.10	1	HJAG	Cali	Colombia
4.910	61.10	3	HCMII	Quito	Ecuador
4.910	61.10	10/50	APK	Karachi	Pakistan
4.911	61.09	10	ZQP	Lusaka	Rhodesia-Nyasaland Fed.
4.915	61.04	1	HJEQ	Popayan	Colombia
4.915	61.04	1.3/5	ZOY	Accra	Ghana
4.920	60.98	10	VLM/Q	Brisbane, Queensland	Australia
4.920	60.98	10/100	VUM	Madras	India
4.920	60.98	5	YVKR	Caracas	Venezuela
4.924	60.95	7.5	CR7BU	Lourenco Marques	Mozambique
4.925	60.94	1	HJAP	Cartagena	Colombia
4.930	60.85	1	HCRCI	Quito	Ecuador
4.930	60.85	7.5	—	Benghazi (B.F.N.)	Libya
4.934	60.80	10	ZGW	Langata	Kenya
4.935	60.79	1	ZYI21	Natal	Brazil
4.935	60.79	1	HJLF	Ibague	Colombia
4.935	60.79	4	YVMQ	Barquisimeto	Venezuela
4.940	60.73	10	—	Gauhati, Assam	India
4.940	60.73	5	—	Abidjan	Ivory Coast
4.940	60.73	40	—	Kiev, Ukraine	U.S.S.R.
4.945	60.67	1	HJCW	Bogota	Colombia
4.945	60.67	3	YDA3	Bandoeng, Java	Indonesia
4.945	60.67	20	—	Paradys	South Africa
4.950	60.61	7.5	—	Kuching	Sarawak
4.950	60.61	4	—	Dakar	Senegal
4.950	60.61	1	YVMM	Coro	Venezuela
4.954	60.56	1	CR6RZ	Luanda	Angola
4.956	60.53	1	—	Blagoveshchensk, Russia	U.S.S.R.
4.957	60.49	10	HJCQ	Bogota	Colombia
4.957	60.49	2	—	Baku, Azerbaidjan	U.S.S.R.
4.960	60.48	20/100	VUD	Delhi	India
4.960	60.48	1	YVQA	Cumana	Venezuela
4.964	60.46	10	—	Lusaka	Rhodesia-Nyasaland Fed.
4.965	60.45	7.5	—	Colombo	Ceylon
4.965	60.45	1	HJAE	Cartagena	Colombia
4.965	60.45	5	ZGW	Changamwe	Kenya
4.968	60.39	10	—	Al Kuwait	Kuwait

Mc/s	Metres	kW	Call	Station and Country
4.970	60.36	1	YVLK	Caracas Venezuela
4.971	60.34	1	—	Yaounde Cameroun Rep.
4.975	60.30	2.5	ZYY9	Sao Luiz Brazil
4.981	60.23	3	OO2AC	Elizabethville, Katanga Congo
4.981	60.23	1	HI3K	Santiago Dominican Rep.
4.982	60.22	5	YDN2	Kutaradja, Sumatra Indonesia
4.989	60.12	—	—	Hyderabad India
4.989	60.12	5	YVMQ	Barquisimeto Venezuela
4.990	60.12	20	—	Lagos Nigeria
4.995	60.06	1	ZYY2	Goiana Brazil
5.006	59.94	25	—	Kabul Afghanistan
5.010	59.88	10	HJCQ	Bogota Colombia
5.010	59.88	5	—	St. Georges, Grenada Windward Is.
5.015	59.82	10	—	Rio de Janeiro Brazil
5.015	59.82	4	FIQA	Tananarive Madagascar
5.016	59.81	20	—	Vladivostok, Russia U.S.S.R.
5.020	59.76	4	—	Bangui Central African Rep.
5.020	59.76	1	—	Colombo Ceylon
5.020	59.76	1	HJFW	Manizales Colombia
5.020	59.76	4	—	Niamey Niger Republic
5.024	59.70	1	CR6RH	Sa da Bandeira Angola
5.026	59.69	7.5	—	Kampala Uganda
5.029	59.65	7.5	YDP	Medan, Sumatra Indonesia
5.029	59.65	7.5	YVKM	Caracas Venezuela
5.030	59.64	15/240	—	Peking China
5.030	59.64	1	YDM2	Bukittinggi, Sumatra Indonesia
5.033	59.61	1	CR6AA	Lobito Angola
5.036	59.55	4	—	Lome Togoland
5.038	59.55	6	—	Khartoum Sudan
5.039	59.57	5	YVMA	Maracaibo Venezuela
5.040	59.59	10	—	Tiflis, Georgia U.S.S.R.
5.042	59.50	1	CR6RF	Benguela Angola
5.042	59.50	1	HJBJ	Quibdo Colombia
5.045	59.46	5	ZYP23	Rio de Janeiro Brazil
5.045	59.46	5	—	Bosnek, Biak Dutch New Guinea
5.050	59.41	20	—	Dar-es-Salaam Tanganyika
5.050	59.41	2.5	YVKD	Caracas Venezuela
5.055	59.35	1	ZYO23	Espirito Santo Brazil
5.055	59.35	5	HJDW	Medellin Colombia
5.060	59.29	10	ETAA	Addis Ababa Ethiopia
5.060	59.29	1.5	4VDP	Lcs Gonaires Haiti
5.060	59.29	7.5	YDJ	Djokjakarta, Java Indonesia
5.065	59.25	10	—	Petrozavodsk, Karelia U.S.S.R.
5.095	58.88	1	HJGC	Sutatenza Colombia
5.220	57.47	15/240	—	Peking China
5.260	57.03	15	—	Alma Ata, Kazak U.S.S.R.
5.290	56.71	—	—	Krasnoyarsk, Russia U.S.S.R.
5.455	55.00	15/120	—	Moscow, Russia U.S.S.R.
5.700	52.63	—	—	Pyongyang Korea (North)
5.705	52.58	20	—	Damascus Syria
5.740	52.26	5	—	Erivan, Armenia U.S.S.R.
5.750	52.20	1	CE8AA	Santiago Chile
5.780	51.90	3	HC1FA	Quito Ecuador
5.780	51.90	15/120	—	Moscow, Russia U.S.S.R.

Mc/s	Metres	kW	Call	Station and Country	
5.874	51.07	1	HROW	Tegucigalpa	Honduras Rep.
5.880	51.08	15/240	—	Peking	China
5.900	50.85	15/120	—	Moscow, Russia	U.S.S.R.
5.910	50.76	15/120	—	Moscow, Russia	U.S.S.R.
5.925	50.63	15	—	Tashkent, Uzbek	U.S.S.R.
5.930	50.59	15/240	—	Peking	China
5.930	50.59	15/120	—	Moscow, Russia	U.S.S.R.
5.933	50.56	10	—	Elizabethville, Katanga	Congo
5.935	50.55	100	—	Podebrady	Czechoslovakia
5.940	50.51	15/120	—	Moscow, Russia	U.S.S.R.
5.950	50.38	15/240	—	Peking	China
5.950	50.38	15/120	—	Moscow, Russia	U.S.S.R.
5.951	50.41	5	TGNA	Guatemala City	Guatemala
5.955	50.38	7.5	ZYR226	Sao Paulo	Brazil
5.955	50.38	—	TIQ	Puerto Limon	Costa Rica
5.955	50.38	100	—	Allouis	France
5.955	50.38	50	WBOU	Bound Brook, N.Y.	U.S.A.
5.955	50.38	50	WDSI	Brentwood, N.Y.	U.S.A.
5.960	50.34	5	—	Ulan Bator, Mongolia	China
5.960	50.34	1	HJCF	Bogota	Colombia
5.960	50.34	8/100	—	Munich (V.o.A.)	Germany (West)
5.960	50.34	50/100	—	Rome	Italy
5.960	50.34	5	VQO2	Honiara	Solomon Islands
5.960	50.34	15/120	—	Moscow, Russia	U.S.S.R.
5.965	50.30	3	—	Leopoldville	Congo
5.965	50.30	50	WBOU	Bound Brook, N.J.	U.S.A.
5.965	50.30	50	WDSI	Brentwood, N.Y.	U.S.A.
5.965	50.30	15/120	—	Moscow, Russia	U.S.S.R.
5.966	50.29	1	YNWW	Granada	Nicaragua
5.970	50.25	50	CKNA	Sackville, N.B.	Canada
5.970	50.25	3	FZI	Brazzaville	Congo
5.970	50.25	7.5	HI4T	Ciudad Trujillo	Dominican Rep.
5.970	50.25	10	YDO2	Bandjermassin, Borneo	Indonesia
5.970	50.25	7.5	APD	Dacca	Pakistan
5.970	50.25	50/100	—	Tunis	Tunisia
5.975	50.21	1	CP40	Cochabamba	Bolivia
5.975	50.21	8/100	—	Munich (V.o.A.)	Germany (West)
5.975	50.21	20/100	VUD	Delhi	India
5.975	50.21	100	HLK2	Seoul	Korea (South)
5.975	50.21	5	ZPA1	Asuncion	Paraguay
5.975	50.21	50/100	MCP	Overseas Service*	U.K.
5.980	50.17	5	VQA52	Jesselton	British North Borneo
5.980	50.17	100	—	Allouis	France
5.980	50.17	20/100	DMQ6	Julich	Germany (West)
5.980	50.17	10/100	—	Lopik	Netherlands
5.980	50.17	7.5	APD	Dacca	Pakistan
5.980	50.17	5	—	Bucharest	Rumania
5.980	50.17	1	YSWW	Santa Ana	Salvador
5.980	50.17	10	—	Tiflis, Georgia	U.S.S.R.
5.981	50.16	2	ZFY	Georgetown	British Guiana
5.985	50.13	10	BED29	Taipei	Formosa
5.985	50.13	50/100	—	Tunis	Tunisia
5.985	50.13	50/100	—	Overseas Service*	U.K.
5.985	50.13	25	—	Sana'a	Yemen

Mc/s	Metres	kW	Call	Station and Country	
5.986	50.12	5	LRS1	Buenos Aires	Argentina
5.990	50.08	25	—	Andorra	Andorra
5.990	50.08	1	TGJA	Guatemala City	Guatemala
5.990	50.08	10	—	Bhopal	India
5.990	50.08	10/50	APK	Karachi	Pakistan
5.990	50.08	5	—	Bucharest	Rumania
5.990	50.08	50/100	MCU	Overseas Service*	U.K.
5.990	50.08	50/200	KCBR	Delano, Cal.	U.S.A.
5.991	50.07	100	—	Madrid	Spain
5.995	50.04	10	—	Coquilhatville, Equateur	Congo
5.995	50.04	—	—	Taipei	Formosa
5.995	50.04	1	HRP1	San Pedro Sula	Honduras Rep.
5.995	50.04	50	WDSI	Brentwood, N.Y.	U.S.A.
5.996	50.03	8	FZF6	Fort de France	Martinique
6.000	50.00	100	—	Wavre	Belgium
6.000	50.00	5	PRK5	Belo Horizonte	Brazil
6.000	50.00	15/240	—	Peking	China
6.000	50.00	1	4VEH	Cap Haitien	Haiti
6.000	50.00	15/120	—	Moscow, Russia	U.S.S.R.
6.000	50.00	5	CXA2	Montevideo	Uruguay
6.005	49.96	1	CFCX	Montreal, Quebec	Canada
6.005	49.96	7.5	—	Colombo	Ceylon
6.005	49.96	20	—	Berlin (R.I.A.S.)	Germany (West)
6.005	49.96	50/100	—	Tokio	Japan
6.005	49.96	7.5/100	—	Warsaw	Poland
6.005	49.96	20	—	Paradys	South Africa
6.007	49.94	1	TIHBG	San Jose	Costa Rica
6.007	49.94	2.5	XEOI	Mexico City	Mexico
6.009	49.92	—	—	Pereira	Colombia
6.010	49.92	1	CJCX	Sydney, Nova Scotia	Canada
6.010	49.92	5	CE601	Antofagasta	Chile
6.010	49.92	0.25/10	VUC	Calcutta	India
6.010	49.92	50/100	—	Rome	Italy
6.010	49.92	5	YSS	San Salvador	Salvador
6.010	49.92	50/100	GRB	Overseas Service*	U.K.
6.012	49.90	1.2	4VEB	Port au Prince	Haiti
6.015	49.88	5	PRA8	Recife	Brazil
6.015	49.88	5	—	Singapore	Malaya
6.015	49.88	—	—	Kalatch, Russia	U.S.S.R.
6.018	49.85	7.5	ZEAJ	Salisbury	Rhodesia-Nyasaland Fed.
6.020	49.83	10/100	PCD	Lopik	Netherlands
6.020	49.83	40	—	Kiev, Ukraine	U.S.S.R.
6.024	49.80	5	VS2KC	Kuala Lumpur	Malaya
6.025	49.79	50	ZYR63	Sao Paulo	Brazil
6.025	49.79	—	HI1J	San Pedro	Dominican Rep.
6.025	49.79	10/100	—	Lopik	Netherlands
6.025	49.79	50/100	CSA	Lisbon	Portugal
6.030	49.75	20	—	Stuttgart	Germany (West)
6.030	49.75	100	—	Baghdad	Iraq
6.030	49.75	1	XEHW	Morelia	Mexico
6.030	49.75	1	DZH6	Manila, Luzon	Philippines
6.030	49.75	—	—	Novosibirsk, Russia	U.S.S.R.
6.034	49.71	7.5	ZYZ26	Rio de Janeiro	Brazil
6.035	49.71	50	—	Rangoon	Burma

Mc/s	Metres	kW	Call	Station and Country	
6.035	49.71	3	—	Elizabethville, Katanga	Congo
6.035	49.71	1	HRTL	Tela	Honduras Rep.
6.035	49.71	30	3AM3	Monte Carlo	Monaco
6.035	49.71	1	FK8AA	Noumea	New Caledonia
6.035	49.71	1	—	Papeete	Tahiti
6.035	49.71	50/100	GWS	Overseas Service*	U.K.
6.035	49.71	1	CXA30	Montevideo	Uruguay
6.040	49.67	10	HJLB	Ibague	Colombia
6.040	49.67	35	—	Salonika (V.o.A.)	Greece
6.040	49.67	2.5	—	Simla	India
6.040	49.67	50/100	GSY	Overseas Service*	U.K.
6.040	49.67	50/200	KCBR	Delano, Cal.	U.S.A.
6.043	49.64	1.5	TIFC2	San Jose	Costa Rica
6.045	49.63	7.5	ZYS33	Curityba	Brazil
6.045	49.63	100	YDF	Djakarta, Java	Indonesia
6.045	49.63	5	XETW	Tampico	Mexico
6.045	49.63	1	HOU31	David	Panama
6.045	49.63	50	WDSI	Brentwood, N.Y.	U.S.A.
6.045	49.63	15/120	—	Moscow, Russia	U.S.S.R.
6.047	49.61	7.5	—	Athens	Greece
6.050	49.59	1	HCJB	Quito	Ecuador
6.050	49.59	50/100	GSA	Overseas Service*	U.K.
6.050	49.59	50	—	Komsomolsk, Russia	U.S.S.R.
6.053	49.57	2.5	HJEX	Cali	Colombia
6.055	49.55	4	OEI21	Vienna	Austria
6.055	49.55	5	PRB21	Sao Paulo	Brazil
6.055	49.55	100	OLR	Podebrady	Czechoslovakia
6.055	49.55	5	JOZZ	Tokio	Japan
6.055	49.55	—	—	Irkutsk, Russia	U.S.S.R.
6.055	49.55	10	—	Petrozavodsk, Karelia	U.S.S.R.
6.060	49.50	—	—	Caltanissetta	Italy
6.060	49.50	6	VQ7LO	Langata	Kenya
6.060	49.50	50/100	GSX	Overseas Service*	U.K.
6.061	49.49	1	HRYN2	San Pedro Sula	Honduras Rep.
6.063	49.47	25	LRA1	Buenos Aires	Argentina
6.065	49.46	7.5	ZYZ31	Rio de Janeiro	Brazil
6.065	49.46	10/100	VUB	Bombay	India
6.065	49.46	1	YNEQ	Managua	Nicaragua
6.065	49.46	100	—	Horby	Sweden
6.065	49.46	10	—	Achkhabad, Turkmenia	U.S.S.R.
6.070	49.42	5	—	Sofia	Bulgaria
6.070	49.42	1	CFRX	Toronto, Ontario	Canada
6.070	49.42	10/50	APK	Karachi	Pakistan
6.070	49.42	2	—	Bangkok	Thailand
6.070	49.42	50/100	GRR	Overseas Service*	U.K.
6.075	49.38	10	HJGT	Sutatenza	Colombia
6.075	49.38	20	DMR27	Norden	Germany (West)
6.075	49.38	7.5	—	Athens	Greece
6.075	49.38	15/120	—	Moscow, Russia	U.S.S.R.
6.075	49.38	2.5	CXA3	Montevideo	Uruguay
6.079	49.34	10	OOB	Stanleyville, Orientale	Congo
6.079	49.34	1	CSB51	Lisbon	Portugal
6.080	49.34	10	HRNQ	Tegucigalpa	Honduras Rep.
6.080	49.34	50/100	—	Tokio	Japan

Mc/s	Metres	kW	Call	Station and Country	
6.080	49.34	7.5	ZL7	Wellington	New Zealand
6.080	49.34	50/100	MCV	Overseas Service*	U.K.
6.082	49.33	15	OAX4Z	Lima	Peru
6.085	49.30	16	ZYK2	Recife	Brazil
6.085	49.30	10	—	Munich (B.R.)	Germany (West)
6.085	49.30	10/100	—	Lopik	Netherlands
6.085	49.30	50/200	KCBR	Delano, Cal.	U.S.A.
6.090	49.26	50	LRV	Buenos Aires	Argentina
6.090	49.26	2	VLI6	Sydney, N.S.W.	Australia
6.090	49.26	1	—	Pnompenh	Cambodia
6.090	49.26	5	—	Luxembourg	Luxembourg
6.090	49.26	50/100	GWM	Overseas Service*	U.K.
6.090	49.26	—	—	Simferopol, Russia	U.S.S.R.
6.095	49.22	25	ZYB7	Sao Paulo	Brazil
6.100	49.18	5	—	Belize	British Honduras
6.100	49.18	8/100	—	Munich (V.o.A.)	Germany (West)
6.100	49.18	15/120	—	Moscow, Russia	U.S.S.R.
6.100	49.18	10	YUA	Belgrade	Yugoslavia
6.103	49.16	15/240	—	Peking	China
6.103	49.16	3	BEC32	Taipei	Formosa
6.105	49.14	5	ZYN6	Fortaleza	Brazil
6.105	49.14	1	HJDM	Medellin	Colombia
6.105	49.14	1	HRXW	Comayaguela	Honduras Rep.
6.110	49.10	7.5	—	Srinagar	Kashmir
6.110	49.10	50/100	GSL	Overseas Service*	U.K.
6.110	49.10	50/200	KCBR	Delano, Cal.	U.S.A.
6.110	49.10	15/120	—	Moscow, Russia	U.S.S.R.
6.112	49.08	1	HI1Z	Ciudad Trujillo	Dominican Rep.
6.115	49.06	7.5	PRG9	Sao Paulo	Brazil
6.115	49.06	1	FLA6	Duala	Cameroun Rep.
6.115	49.06	100	—	Berlin	Germany (East)
6.115	49.06	100	—	Monte Carlo	Monaco
6.116	49.05	1	—	Saigon	Vietnam (South)
6.120	49.02	1	LRX1	Buenos Aires	Argentina
6.120	49.02	7.5	ZJM4	Limassol	Cyprus
6.120	49.02	15	OIX7	Pori	Finland
6.120	49.02	1	—	Cap Haitien	Haiti
6.120	49.02	—	—	Hyderabad	India
6.124	48.99	1	HRQ	San Pedro	Honduras Rep.
6.125	48.98	10	PRG9	Sao Paulo	Brazil
6.125	48.98	15/240	—	Peking	China
6.125	48.98	10	—	Luluabourg, Kasai	Congo
6.125	48.98	50/100	—	Rome	Italy
6.125	48.98	—	—	San Fernando, Luzon	Philippines
6.125	48.98	50/100	GWA	Overseas Service*	U.K.
6.125	48.98	15/120	—	Moscow, Russia	U.S.S.R.
6.130	48.94	1	CHNX	Halifax, Nova Scotia	Canada
6.130	48.94	10	—	Gauhati	India
6.130	48.94	1	—	Vientiane	Laos
6.130	48.94	10	LKJ	Fredrikstad	Norway
6.130	48.94	2	VLT6	Port Moresby	Papua
6.130	48.94	50/200	—	Madrid	Spain
6.130	48.94	15/120	—	Moscow, Russia	U.S.S.R.
6.134	48.90	7.5	—	Athens	Greece

Mc/s	Metres	kW	Call	Station and Country
6.135	48.90	7.5	PRC21	Porto Alegre Brazil
6.135	48.90	1	HJEV	Cali Colombia
6.135	48.90	7.5	ZHP	Kuala Lumpur Malaysia
6.135	48.90	1	FO8AA	Papeete Tahiti
6.139	48.87	—	—	Madrid Spain
6.140	48.86	2/10	VLW/X	Perth, W.A. Australia
6.140	48.86	8/100	—	Munich (V.o.A.) Germany (West)
6.140	48.86	1	YNWA	Managua Nicaragua
6.140	48.86	50/100	MCW	Overseas Service* U.K.
6.140	48.86	10	CXA5	Montevideo Uruguay
6.141	48.85	100	—	Monte Carlo Monaco
6.145	48.82	50	—	Algiers Algeria
6.145	48.82	100	—	Allouis France
6.145	48.82	20/100	—	Jülich Germany (West)
6.145	48.82	2.5	—	Enugu Nigeria
6.145	48.82	35/100	—	Okinawa (V.o.A.) Okinawa Island
6.145	48.82	50/200	KNBH	Dixon, Cal. U.S.A.
6.145	48.82	15/120	—	Moscow, Russia U.S.S.R.
6.146	48.80	50	PRL9	Rio de Janeiro Brazil
6.150	48.78	10	VLG/H	Lyndhurst, Victoria Australia
6.150	48.78	5	CE615	Valparaiso Chile
6.150	48.78	10/100	VUB	Bombay India
6.150	48.78	1	—	Vientiane Laos
6.150	48.78	50/100	GRW	Overseas Service* U.K.
6.150	48.78	100	YUA	Belgrade Yugoslavia
6.151	48.77	2	TIRH	San Jose Costa Rica
6.155	48.74	4	OE121	Vienna Austria
6.155	48.74	35	—	Salonika (V.o.A.) Greece
6.155	48.74	10	CSB52	Lisbon Portugal
6.155	48.74	15/120	—	Moscow, Russia U.S.S.R.
6.156	48.74	1	4VWA	Cap Haitien Haiti
6.156	48.74	5	CXA13	Montevideo Uruguay
6.160	48.70	10	—	Algiers Algeria
6.160	48.70	5	HJKJ	Bogota Colombia
6.160	48.70	100	—	Allouis France
6.165	48.66	7.5	ZYA58	Sao Paulo Brazil
6.165	48.66	100	HER3	Schwarzenburg Switzerland
6.165	48.66	50/100	GWK	Overseas Service* U.K.
6.165	48.66	15/120	—	Moscow, Russia U.S.S.R.
6.170	48.62	7.5	ZJM5	Limassol Cyprus
6.170	48.62	100	OLR	Podebrady Czechoslovakia
6.170	48.62	6	ZGW	Langata Kenya
6.170	48.62	35/100	—	Tangier (V.o.A.) Morocco
6.170	48.62	50/100	GSZ	Overseas Service* U.K.
6.170	48.62	50	WDSI	Brentwood, N.Y. U.S.A.
6.170	48.62	1	CXA21	Montevideo Uruguay
6.170	48.62	2	YVKO	Caracas Venezuela
6.174	48.59	2.5	—	Kaduna Nigeria
6.175	48.58	10	—	Allouis France
6.175	48.58	7.5/100	—	Tebrau Malaysia
6.175	48.58	15/120	—	Moscow, Russia U.S.S.R.
6.180	48.54	1	TGZB	Guatemala City Guatemala
6.180	48.54	5	—	Malaga Spain
6.180	48.54	50/100	GRO	Overseas Service* U.K.

Mc/s	Metres	kW	Call	Station and Country	
6.180	48.54	10	—	Achkhabad, Turkmenia	U.S.S.R.
6.180	48.54	15/120	—	Moscow, Russia	U.S.S.R.
6.183	48.52	10	HJCT	Bogota	Colombia
6.185	48.50	10	ZYR77	Sao Paulo	Brazil
6.185	48.50	1	ETAA	Addis Ababa	Ethiopia
6.185	48.50	8/100	—	Munich (V.o.A.)	Germany (West)
6.186	48.50	100	CSA	Lisbon	Portugal
6.187	48.49	1	YSUA	San Salvador	Salvador
6.190	48.47	1	CE619	Santiago	Chile
6.190	48.47	—	—	Ciudad Trujillo	Dominican Rep.
6.190	48.47	10	—	Bremen	Germany (West)
6.190	48.47	20/100	VUD	Delhi	India
6.190	48.47	50	—	Sebaa-Aioun	Morocco
6.190	48.47	5	—	Bucharest	Rumania
6.190	48.47	15/120	—	Moscow, Russia	U.S.S.R.
6.190	48.47	5/100	HVJ	Vatican City	Vatican City
6.194	48.44	7.5/100	—	Warsaw	Poland
6.194	48.44	5	—	Malaga	Spain
6.195	48.43	25	—	Andorra	Andorra
6.195	48.43	7.5	PRD21	Nictheroy	Brazil
6.195	48.43	5	HJEZ	Cali	Colombia
6.195	48.43	10	—	Usumbura, Ruanda Urundi	Congo
6.195	48.43	—	—	Pyongyang	Korea (North)
6.195	48.43	50/100	GRN	Overseas Service*	U.K.
6.200	48.39	10	—	Algiers	Algeria
6.200	48.39	1.5	4VHW	Port au Prince	Haiti
6.200	48.39	15/100	—	Moscow, Russia	U.S.S.R.
6.210	48.31	15/240	—	Peking	China
6.215	48.27	25	—	Kabul	Afghanistan
6.217	48.25	50/100	—	Cairo	Egypt
6.225	48.19	15/240	—	Peking	China
6.230	48.16	1	TIGPH	San Jose	Costa Rica
6.235	48.12	100	—	Budapest	Hungary
6.240	48.10	5	—	Santa Isabel	Spanish Guinea
6.270	47.85	—	—	Urumchi	China
6.296	47.65	3	OTM1	Leopoldville	Congo
6.306	47.57	25	—	Andorra	Andorra
6.312	47.51	—	—	Berlin	Germany (East)
6.434	46.63	1	COCW	Havana	Cuba
6.635	45.21	4	—	Dakar	Senegal
6.700	44.78	1	—	Chichayo	Peru
6.790	44.18	15/240	—	Peking	China
6.790	44.18	15	—	Alma Ata, Kazak	U.S.S.R.
6.850	43.80	—	—	Opole	Poland
6.995	42.89	15/240	—	Peking	China
6.995	42.89	3	EFE17	Valencia	Spain
7.008	42.81	50	APK	Karachi	Pakistan
7.018	42.75	1	EFE1	Valladolid	Spain
7.031	42.64	1	—	Istanbul	Turkey
7.032	42.66	100	—	Teheran	Iran
7.048	42.57	100	—	Teheran	Iran
7.051	42.54	50/100	—	Cairo	Egypt
7.060	42.49	—	—	Urumchi	China
7.073	42.42	4	IBK	Mogadishu	Somali Republic

Mch	Metres	kW	Call	Station and Country	
7.080	42.37	15/240	—	Peking	China
7.083	42.35	—	—	Janina	Greece
7.100	42.25	15/240	—	Peking	China
7.100	42.25	15/120	—	Moscow, Russia	U.S.S.R.
7.103	42.23	50/200	—	Madrid	Spain
7.105	42.22	5/50	—	Brazzaville	Congo
7.105	42.22	20/100	VUD	Delhi	India
7.105	42.22	15/120	—	Moscow, Russia	U.S.S.R.
7.110	42.19	35	—	Colombo	Ceylon
7.110	42.19	100	—	Teheran	Iran
7.110	42.19	7.5/100	—	Tebrau	Malaya
7.110	42.19	50/100	MCS	Overseas Service*	U.K.
7.110	42.19	7.5	—	Kampala	Uganda
7.111	42.18	30	—	Monte Carlo	Monaco
7.115	42.16	50	—	Sebaa-Aioun	Morocco
7.120	42.13	4	—	Fort Lamy	Chad Republic
7.120	42.13	20/100	VUD	Delhi	India
7.120	42.13	7.5/100	—	Tebrau	Malaya
7.120	42.13	50/100	GRM	Overseas Service*	U.K.
7.120	42.13	15/120	—	Moscow, Russia	U.S.S.R.
7.125	42.11	20/100	VUD	Delhi	India
7.125	42.11	35/100	—	Tangier (V.o.A.)	Morocco
7.125	42.11	7.5/100	—	Warsaw	Poland
7.130	42.07	15/240	—	Peking	China
7.130	42.07	100	—	Tema	Ghana
7.130	42.07	50/100	—	Overseas Service*	U.K.
7.135	42.05	5	VQ6MI	Hargeisa	Somali Republic
7.135	42.05	20/100	VUD	Delhi	India
7.135	42.05	30	3AM4	Monte Carlo	Monaco
7.135	42.05	35/100	—	Tangier (V.o.A.)	Morocco
7.135	42.05	50/100	GRS	Overseas Service*	U.K.
7.135	42.05	15/120	—	Moscow, Russia	U.S.S.R.
7.140	42.02	7.5	APD	Dacca	Pakistan
7.140	42.02	15/120	—	Moscow, Russia	U.S.S.R.
7.141	42.01	50/100	—	Cairo	Egypt
7.145	41.99	1	—	Vientiane	Laos
7.148	41.97	1/50	—	Taipei	Formosa
7.150	41.96	10	—	Gauhati, Assam	India
7.150	41.96	10	—	Langata	Kenya
7.150	41.96	50/100	GRT	Overseas Service*	U.K.
7.150	41.96	40	—	Kiev, Ukraine	U.S.S.R.
7.155	41.93	3	OQ2AB	Elizabethville, Katanga	Congo
7.155	41.93	20/100	VUD	Delhi	India
7.155	41.93	100	—	Amman	Jordan
7.155	41.93	35	—	Okinawa (V.o.A.)	Okinawa Island
7.157	41.92	3	—	Tirana	Albania
7.160	41.90	1	CR6RB	Nova Lisboa	Angola
7.160	41.90	100	—	Allouis	France
7.160	41.90	10	—	Bhopal	India
7.160	41.90	35/100	—	Tangier (V.o.A.)	Morocco
7.160	41.90	7.5	—	Kuching	Sarawak
7.160	41.90	4	—	Mogadishu	Somali Republic
7.165	41.87	5	—	Tashkent, Uzbek	U.S.S.R.
7.167	41.86	20	—	Dar-es-Salaam	Tanganyika

Mc/s	Metres	kW	Call	Station and Country
7.170	41.84	7.5	—	Kormaksar Aden
7.170	41.84	15/240	—	Peking China
7.170	41.84	100	—	Allouis France
7.170	41.84	10/100	VUB	Bombay India
7.170	41.84	2.5	—	Simla India
7.170	41.84	4	—	Dakar Senegal
7.175	41.81	—	—	Caltanissetta Italy
7.175	41.81	8/100	—	Manila, Luzon (V.o.A.) Philippines
7.175	41.81	15/120	—	Moscow, Russia U.S.S.R.
7.180	41.78	5	VQA54	Jesselton British North Borneo
7.180	41.78	50/100	—	Cairo Egypt
7.180	41.78	16	—	Baghdad Iraq
7.184	41.76	100	HLK4	Seoul Korea (South)
7.185	41.75	100	OLR	Podebrady Czechoslovakia
7.185	41.75	20/100	VUD	Delhi India
7.185	41.75	20	—	Paradys South Africa
7.185	41.75	50/100	GRK	Overseas Service* U.K.
7.185	41.75	15/120	—	Moscow, Russia U.S.S.R.
7.186	41.75	2.5	4XB21	Tel Aviv Israel
7.190	41.72	7.5	—	Colombo Ceylon
7.190	41.72	50	4XB49	Tel Aviv Israel
7.195	41.70	100	—	Tema Ghana
7.195	41.70	5	—	Bucharest Rumania
7.199	41.67	4	—	Vienna Austria
7.200	41.67	—	—	Kuala Lumpur Malaya
7.200	41.67	35/100	—	Tangier (V.o.A.) Morocco
7.200	41.67	6	—	Khartoum Sudan
7.200	41.67	50/100	GWZ	Overseas Service* U.K.
7.200	41.67	15/120	—	Moscow, Russia U.S.S.R.
7.200	41.67	100	—	Belgrade Yugoslavia
7.205	41.64	35	—	Salonika (V.o.A.) Greece
7.205	41.64	40	—	Kiev, Ukraine U.S.S.R.
7.205	41.64	1	—	Hue Vietnam (South)
7.210	41.61	0.25/10	VUC	Calcutta India
7.210	41.61	4/25	—	Dakar Senegal
7.210	41.61	100	HEI3	Schwarzenburg Switzerland
7.210	41.61	50/100	GWL	Overseas Service* U.K.
7.210	41.61	—	—	Irkutsk, Russia U.S.S.R.
7.210	41.61	20	—	Khabarovsk, Russia U.S.S.R.
7.215	41.58	5	—	Abidjan Ivory Coast
7.215	41.58	15/120	—	Moscow, Russia U.S.S.R.
7.216	41.56	—	—	Bukavu Congo
7.220	41.55	50/100	VLA/D	Shepparton, Victoria Australia
7.220	41.55	100	—	Budapest Hungary
7.220	41.55	4	—	Mogadishu Somali Republic
7.225	41.52	20/100	VUD	Delhi India
7.225	41.52	1	APL	Lahore Pakistan
7.225	41.52	5	—	Bucharest Rumania
7.228	41.50	10	WTAN	Tangier Morocco
7.230	41.49	20	—	Paradys South Africa
7.230	41.49	100	—	Hörby Sweden
7.230	41.49	50/100	GSW	Overseas Service* U.K.
7.230	41.49	—	—	Murmansk, Russia U.S.S.R.
7.235	41.47	100	OLR	Podebrady Czechoslovakia

Mc/s	Metres	kW	Call	Station and Country	
7.235	41.47	1.5	—	Bad Durrheim	Germany (West)
7.235	41.47	8/100	—	Munich (V.o.A.)	Germany (West)
7.235	41.47	—	—	Okinawa	Okinawa Is.
7.235	41.47	15/120	—	Moscow, Russia	U.S.S.R.
7.238	41.46	20	—	Damascus	Syria
7.240	41.44	5/50	—	Taipei	Formosa
7.240	41.44	100	—	Allouis	France
7.240	41.44	35/100	—	Tangier (V.o.A.)	Morocco
7.240	41.44	15	—	Alma Ata, Kazak	U.S.S.R.
7.242	41.43	4	—	Nouakchott	Mauritania
7.242	41.43	50	APK	Karachi	Pakistan
7.245	41.41	4	OE122	Vienna	Austria
7.245	41.41	30	—	Monte Carlo	Monaco
7.250	41.38	35/100	—	Tangier (V.o.A.)	Morocco
7.250	41.38	50/100	GWJ	Overseas Service*	U.K.
7.250	41.38	40	—	Kiev, Ukraine	U.S.S.R.
7.250	41.38	5/100	HVJ	Vatican City	Vatican City
7.252	41.37	7.5	—	Lourenco Marques	Mozambique
7.254	41.36	100	OLR	Podebrady	Czechoslovakia
7.255	41.35	5	—	Sofia	Bulgaria
7.255	41.35	10	—	Coquilhatville, Equateur	Congo
7.255	41.35	20	—	Djakakarta, Java	Indonesia
7.260	41.32	10/100	VUM	Madras	India
7.260	41.32	50/100	GSU	Overseas Service*	U.K.
7.265	41.29	1.5	—	Bad Durrheim	Germany (West)
7.265	41.29	15/120	—	Moscow, Russia	U.S.S.R.
7.265	41.29	12	—	Saigon	Vietnam (South)
7.270	41.27	5/50	—	Taipei	Formosa
7.270	41.27	20/100	VUD	Delhi	India
7.270	41.27	7.5	YDB3	Djakarta, Java	Indonesia
7.270	41.27	1	—	Srinagar	Kashmir
7.270	41.27	12	—	Motala	Sweden
7.275	41.24	7.5	—	Colombo	Ceylon
7.275	41.24	30	OLR	Podebrady	Czechoslovakia
7.275	41.24	100	—	Tema	Ghana
7.275	41.24	50/100	—	Rome	Italy
7.275	41.24	35/100	—	Tangier (V.o.A.)	Morocco
7.275	41.24	2.5	—	Kaduna	Nigeria
7.275	41.25	50	APK	Karachi	Pakistan
7.275	41.24	20	—	Paradys	South Africa
7.278	41.22	—	ZHP5	Kuala Lumpur	Malaya
7.280	41.21	100	—	Allouis	France
7.280	41.21	50/100	GWN	Overseas Service*	U.K.
7.280	41.21	15/120	—	Moscow, Russia	U.S.S.R.
7.280	41.21	5/100	HVJ	Vatican City	Vatican City
7.285	41.18	5	JKI	Tokio	Japan
7.285	41.18	1	—	Ibadan	Nigeria
7.285	41.18	100	TAS	Ankara	Turkey
7.285	41.18	15/120	—	Moscow, Russia	U.S.S.R.
7.286	41.19	100	—	Teheran	Iran
7.290	41.15	1	—	Yaounde	Cameroun Rep.
7.290	41.15	2.5	ETAA	Addis Ababa	Ethiopia
7.290	41.15	20/100	VUD	Delhi	India
7.290	41.15	50/100	—	Rome	Italy

Mc/s	Metres	kW	Call	Station and Country	
7.290	41.15	50	APK	Karachi	Pakistan
7.290	41.15	15/120	—	Moscow, Russia	U.S.S.R.
7.295	41.12	5	—	Berlin	Germany (East)
7.295	41.12	100	—	Tema	Ghana
7.295	41.12	20	YDQ3	Macassar, Celebes	Indonesia
7.295	41.12	5	—	Kisumu	Kenya
7.295	41.12	7.5/100	—	Warsaw	Poland
7.296	41.11	7.5	—	Athens	Greece
7.300	41.10	15/120	—	Moscow, Russia	U.S.S.R.
7.310	41.04	40	—	Kiev, Ukraine	U.S.S.R.
7.315	40.01	7.5/100	—	Warsaw	Poland
7.315	41.01	20	—	Paradys	South Africa
7.320	40.98	50/100	—	Overseas Service*	U.K.
7.320	40.98	15/120	—	Moscow, Russia	U.S.S.R.
7.325	40.96	50/100	GRJ	Overseas Service*	U.K.
7.330	40.93	15/120	—	Moscow, Russia	U.S.S.R.
7.330	40.93	—	—	Stalinabad, Tadzhik	U.S.S.R.
7.335	40.90	15/240	—	Peking	China
7.340	40.87	100	—	Podebrady	Czechoslovakia
7.340	40.87	3.5	BEC22	Taipei	Formosa
7.340	40.87	15/120	—	Moscow, Russia	U.S.S.R.
7.350	40.82	40	—	Kiev, Ukraine	U.S.S.R.
7.360	40.76	15/120	—	Moscow, Russia	U.S.S.R.
7.370	40.71	—	—	Minsk, Byelorussia	U.S.S.R.
7.390	40.60	15/120	—	Moscow, Russia	U.S.S.R.
7.399	40.54	20	—	Damascus	Syria
7.400	40.54	40	—	Kiev, Ukraine	U.S.S.R.
7.420	40.43	15/120	—	Moscow, Russia	U.S.S.R.
7.440	40.32	15/120	—	Moscow, Russia	U.S.S.R.
7.445	40.29	50	—	Sebaa-Aioun	Morocco
7.500	40.00	15/240	—	Peking	China
7.601	39.47	50/200	—	Madrid	Spain
7.620	39.37	15/240	—	Peking	China
7.650	39.22	—	—	Erzurum	Turkey
7.670	39.11	5	—	Sofia	Bulgaria
7.851	38.21	3	ZAA	Tirana	Albania
7.925	37.85	15/120	—	Moscow, Russia	U.S.S.R.
7.936	37.81	1	HLK52	Seoul	Korea (South)
7.990	37.55	1	EPU3	Ahwaz	Iran
8.008	37.46	2	FXE	Beirut	Lebanon
8.215	36.52	3	—	Scutari	Albania
9.009	33.31	50	4XB31	Tel Aviv	Israel
9.020	33.26	15/240	—	Peking	China
9.025	33.24	1	COBZ	Havana	Cuba
9.064	33.10	15/240	—	Peking	China
9.150	32.79	15/120	—	Moscow, Russia	U.S.S.R.
9.170	32.72	15/240	—	Peking	China
9.210	32.57	50	OTH	Leopoldville	Congo
9.210	32.57	15/120	—	Moscow, Russia	U.S.S.R.
9.250	32.43	15	—	Alma Ata, Kazak	U.S.S.R.
9.350	32.09	1	OAX6E	Arequipa	Peru
9.360	32.05	40	—	Madrid	Spain
9.362	32.04	1	COBC	Havana	Cuba
9.370	32.02	40	—	Madrid	Spain

Mc/s	Metres	kW	Call	Station and Country	
9.375	32.00	20	—	Khabarovsk, Russia	U.S.S.R.
9.380	31.98	15	—	Alma Ata, Kazak	U.S.S.R.
9.385	31.97	50	OTM2	Leopoldville	Congo
9.390	31.95	15/240	—	Peking	China
9.410	31.88	50/100	GRI	Overseas Service*	U.K.
9.422	31.84	50	—	Rabat	Morocco
9.440	31.78	10	CP38	La Paz	Bolivia
9.450	31.75	15/120	—	Moscow, Russia	U.S.S.R.
9.453	31.74	2	OAX4W	Lima	Peru
9.456	31.72	15/240	—	Peking	China
9.468	31.69	—	—	Urumchi	China
9.470	31.68	15/120	—	Moscow, Russia	U.S.S.R.
9.477	31.66	50	—	Rabat	Morocco
9.480	31.65	15/240	—	Peking	China
9.480	31.65	15/120	—	Moscow, Russia	U.S.S.R.
9.485	31.63	50	HI3U	Ciudad Trujillo	Dominican Rep.
9.490	31.61	15/120	—	Moscow, Russia	U.S.S.R.
9.495	31.59	50	—	Sebaa-Aioun	Morocco
9.499	31.58	5	—	Bucharest	Rumania
9.500	31.58	10	XEWW	Mexico City	Mexico
9.500	31.58	15/120	—	Moscow, Russia	U.S.S.R.
9.502	31.58	1	CR6RF	Benguela	Angola
9.505	31.57	4	OEI3Z	Vienna	Austria
9.505	31.57	5	PRB2Z	Sao Paulo	Brazil
9.505	31.57	100	OLR3B	Podebrady	Czechoslovakia
9.505	31.57	50/100	JBD	Tokio	Japan
9.505	31.57	10	YUC	Belgrade	Yugoslavia
9.506	31.57	7.5	—	Omdurman	Sudan
9.510	31.55	15/240	—	Peking	China
9.510	31.55	50/100	GSB	Overseas Service*	U.K.
9.510	31.55	15/120	—	Moscow, Russia	U.S.S.R.
9.510	31.55	4	YVXJ	Barquisimeto	Venezuela
9.515	31.53	100	OLR	Podebrady	Czechoslovakia
9.515	31.53	—	—	Caltanissetta	Italy
9.515	31.53	100	TAT	Ankara	Turkey
9.515	31.53	50/200	KNBH	Dixon, Cal.	U.S.A.
9.515	31.53	—	—	Leningrad, Russia	U.S.S.R.
9.516	31.53	10	CXA7I	Montevideo	Uruguay
9.520	31.51	100	—	Colombo	Ceylon
9.520	31.51	50	OZF5	Copenhagen	Denmark
9.520	31.51	35	—	Salonika (V.o.A.)	Greece
9.520	31.51	10	—	Al Kuwait	Kuwait
9.520	31.51	20	—	Khabarovsk, Russia	U.S.S.R.
9.521	31.51	2	OAX8E	Iquitos	Peru
9.523	31.50	20	—	Paradys	South Africa
9.524	31.50	100	—	Tema	Ghana
9.525	31.50	50/100	JOB9	Tokio	Japan
9.525	31.50	7.5/100	—	Warsaw	Poland
9.525	31.50	50/100	GWJ	Overseas Service*	U.K.
9.530	31.48	8/100	—	Munich (V.o.A.)	Germany (West)
9.530	31.48	0.25/10	VUC	Calcutta	India
9.530	31.48	50	WBOU	Bound Brook, N.J.	U.S.A.
9.533	31.47	1	YVMZ	Maracaibo	Venezuela
9.535	31.46	—	—	Caltanissetta	Italy

Mc/s	Metres	kW	Call	Station and Country	
9.535	31.46	1	DZI2	Manila, Luzon	Philippines
9.535	31.46	100	HER4	Schwarzenburg	Switzerland
9.535	31.46	15/120	—	Moscow, Russia	U.S.S.R.
9.539	31.45	7.5/100	—	Warsaw	Poland
9.540	31.45	35/100	—	Tangier (V.o.A.)	Morocco
9.540	31.45	7.5	ZL2	Wellington	New Zealand
9.541	31.45	—	—	Lima	Peru
9.541	31.45	25	—	Komsomolsk, Russia	U.S.S.R.
9.543	31.44	4	—	Vienna	Austria
9.545	31.43	7.5	ZYS43	Curityba	Brazil
9.545	31.43	4/50	FZI	Brazzaville	Congo
9.545	31.43	8/100	—	Munich (V.o.A.)	Germany (West)
9.545	31.43	—	XEFT	Vera Cruz	Mexico
9.545	31.43	100	HER5	Schwarzenburg	Switzerland
9.545	31.43	75/200	WLWO	Cincinnati, Ohio	U.S.A.
9.550	31.41	100	OLR3A	Podebrady	Czechoslovakia
9.550	31.41	10/100	VUB	Bombay	India
9.550	31.41	10	LLD	Tromso	Norway
9.550	31.41	50/100	GWB	Overseas Service*	U.K.
9.550	31.41	5	—	St. Georges, Grenada	Windward Is.
9.552	31.41	5	YSS	San Salvador	Salvador
9.553	31.40	50	—	Sebaa-Aioun	Morocco
9.555	31.40	10	CP6	La Paz	Bolivia
9.555	31.40	10	—	Pori	Finland
9.555	31.40	35/100	—	Tangier (V.o.A.)	Morocco
9.555	31.40	50/100	—	Overseas Service*	U.K.
9.555	31.40	—	—	Orenburg, Russia	U.S.S.R.
9.555	31.40	7.5	—	Kampala	Uganda
9.560	31.38	100	—	Allouis	France
9.560	31.38	50/200	KCBR	Delano, Cal.	U.S.A.
9.565	31.37	100	—	Shepparton, Victoria	Australia
9.565	31.37	16	ZYK3	Recife	Brazil
9.565	31.37	20/100	VUD	Delhi	India
9.565	31.37	7.5	—	Kuching	Sarawak
9.565	31.37	20	—	Khabarovsk, Russia	U.S.S.R.
9.569	31.35	5	—	Bucharest	Rumania
9.570	31.35	35/100	—	Tangier (V.o.A.)	Morocco
9.570	31.35	10	—	Lusaka	Rhodesia-Nyasaland Fed.
9.570	31.35	50/100	GWX	Overseas Service*	U.K.
9.570	31.35	50/200	KNBH	Dixon, Cal.	U.S.A.
9.570	31.35	1	YVOM	San Cristobal	Venezuela
9.575	31.33	50	ZYZ27	Rio de Janeiro	Brazil
9.575	31.33	50/100	—	Rome	Italy
9.580	31.32	100	VLA/D	Shepparton, Victoria	Australia
9.580	31.32	50/100	GSC	Overseas Service*	U.K.
9.580	31.32	15/120	—	Moscow, Russia	U.S.S.R.
9.585	31.30	50	PRG9	Sao Paulo	Brazil
9.585	31.30	50	CKLP	Sackville, N.B.	Canada
9.585	31.30	100	OLR3A	Podebrady	Czechoslovakia
9.585	31.30	100	—	Allouis	France
9.585	31.30	50	YDF6	Djakarta, Java	Indonesia
9.587	31.27	5	—	Bucharest	Rumania
9.590	31.28	20/100	VUD	Delhi	India
9.590	31.28	10/100	VUM	Madras	India

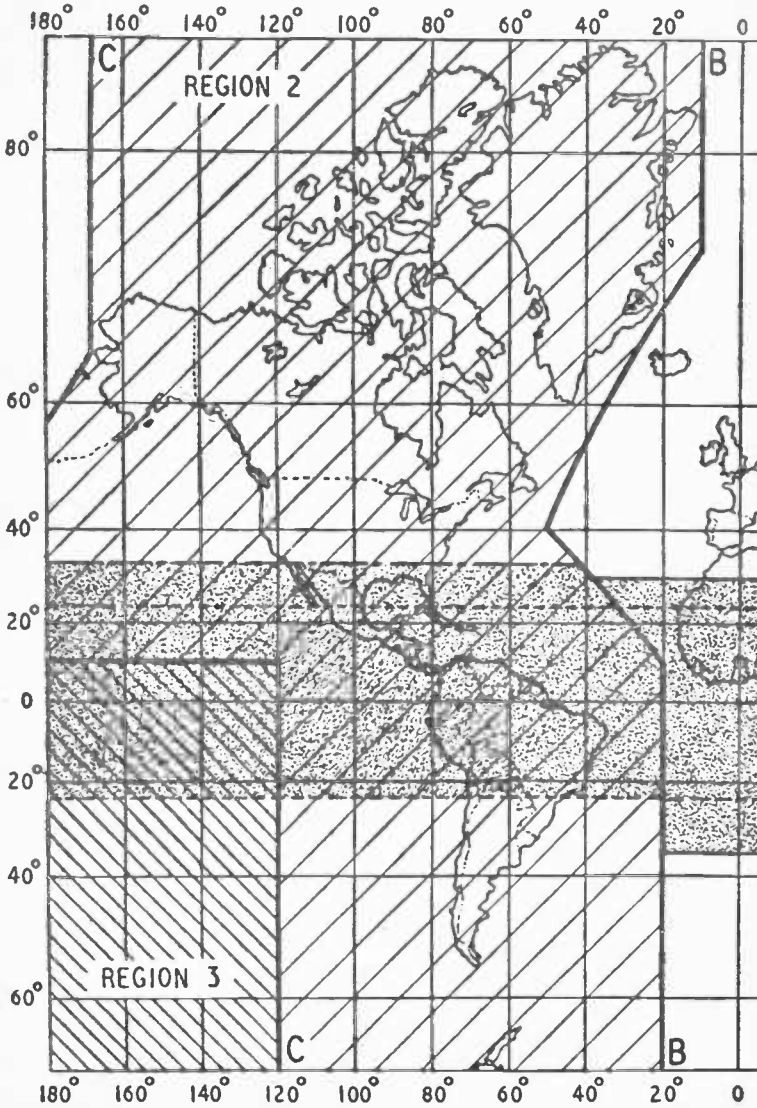
Mc/s	Metres	kW	Call	Station and Country	
9.590	31.28	8/100	—	Munich (V.o.A.)	Germany (West)
9.590	31.28	30	PCJ	Lopik	Netherlands
9.590	31.28	7.5	—	Kampala	Uganda
9.595	31.26	20	ZYN22	Salvador	Brazil
9.595	31.26	10	JOZ3	Tokio	Japan
9.595	31.26	50/100	APK	Karachi	Pakistan
9.595	31.26	7.5/100	—	Warsaw	Poland
9.595	31.26	15/120	—	Moscow, Russia	U.S.S.R.
9.598	31.26	2.5	CE960	Santiago	Chile
9.598	31.26	100	—	Tema	Ghana
9.600	31.25	50/100	GRY	Overseas Service*	U.K.
9.600	31.25	50/200	KCBR	Delano, Cal.	U.S.A.
9.600	31.25	20	—	Vladivostok, Russia	U.S.S.R.
9.605	31.23	5/50	—	Brazzaville	Congo
9.605	31.23	100	OLR	Podebrady	Czechoslovakia
9.605	31.23	20/100	—	Jülich	Germany (West)
9.605	31.23	20/100	VUD	Delhi	India
9.605	31.23	15/100	—	Moscow, Russia	U.S.S.R.
9.605	31.23	100	—	Hörby	Sweden
9.606	31.23	7.5	—	Athens	Greece
9.608	31.22	4	OEI42	Vienna	Austria
9.610	31.22	2/10	VLW/X	Perth, W.A.	Australia
9.610	31.22	25	ZYC8	Rio de Janeiro	Brazil
9.610	31.22	5	XERQ	Mexico City	Mexico
9.610	31.22	100	LLG	Fredrikstad	Norway
9.610	31.22	1	OAX8C	Iquitos	Peru
9.613	31.21	—	—	Novosibirsk, Russia	U.S.S.R.
9.613	31.21	10	—	Belgrade	Yugoslavia
9.615	31.20	35/100	—	Tangier (V.o.A.)	Morocco
9.615	31.20	7.5	CR7BJ	Lourenco Marques	Mozambique
9.615	31.20	35/100	—	Okinawa (V.o.A.)	Okinawa Island
9.615	31.20	7.5	APD	Dacca	Pakistan
9.615	31.20	15/120	—	Moscow, Russia	U.S.S.R.
9.616	31.20	3	TIDCR	San Jose	Costa Rica
9.620	31.19	4	OEI33	Vienna	Austria
9.620	31.19	7.5	ZYR96	Sao Paulo	Brazil
9.620	31.19	15/240	—	Peking	China
9.620	31.19	100	—	Allouis	France
9.620	31.19	20/100	VUD	Delhi	India
9.620	31.19	100	—	Hörby	Sweden
9.620	31.19	15/120	—	Moscow, Russia	U.S.S.R.
9.620	31.19	20	CXA6	Montevideo	Uruguay
9.620	31.19	12	—	Saigon	Vietnam (South)
9.620	31.19	10	—	Belgrade	Yugoslavia
9.625	31.17	10	XEBT	Mexico City	Mexico
9.625	31.17	1	OAX8K	Iquitos	Peru
9.625	31.17	50/100	GWO	Overseas Service*	U.K.
9.625	31.17	50/200	KNBH	Dixon, Cal.	U.S.A.
9.629	31.15	1	CR6RL	Luanda	Angola
9.630	31.15	50	CKLO	Sackville, N.B.	Canada
9.630	31.15	50	BED33	Chiayi	Formosa
9.630	31.15	20/100	VUD	Delhi	India
9.630	31.15	50/100	—	Rome	Italy
9.635	31.13	7.5	ZYR	Aparecida	Brazil

Mc/s	Metres	kW	Call	Station and Country	
9.635	31.13	5	—	Sofia	Bulgaria
9.635	31.13	8/100	—	Munich (V.o.A.)	Germany (West)
9.635	31.13	35	—	Salonika (V.o.A.)	Greece
9.635	31.13	2.5	—	Enugu	Nigeria
9.635	31.13	100	CSA	Lisbon	Portugal
9.635	31.13	50	WDSI	Brentwood, N.Y.	U.S.A.
9.635	31.13	15/120	—	Moscow, Russia	U.S.S.R.
9.640	31.12	100	—	Tema	Ghana
9.640	31.12	20/100	DMQ9	Jülich	Germany (West)
9.640	31.12	20/100	VUD	Delhi	India
9.640	31.12	100	HLK5	Scoul	Korea (South)
9.640	31.12	50/100	GVZ	Overseas Service*	U.K.
9.640	31.12	50	WDSI	Brentwood, N.Y.	U.S.A.
9.640	31.12	40	—	Kiev, Ukraine	U.S.S.R.
9.640	31.12	10	YVSC	Caracas	Venezuela
9.643	31.11	50	APK	Karachi	Pakistan
9.645	31.10	7.5	ZYV40	Pocos de Caldas	Brazil
9.645	31.10	5/100	HVJ	Vatican City	Vatican City
9.647	31.10	2	TIFC	San Jose	Costa Rica
9.649	31.09	7.5	ZJM8	Limassol	Cyprus
9.650	31.09	15/240	—	Peking	China
9.650	31.09	100	KRHK	Honolulu	Hawaii
9.650	31.09	—	—	Ranchi	India
9.650	31.09	3	—	Jidda	Saudi Arabia
9.650	31.09	50	WBOU	Bound Brook, N.J.	U.S.A.
9.650	31.09	15/120	—	Moscow, Russia	U.S.S.R.
9.655	31.07	5	JKH2	Tokio	Japan
9.655	31.07	2.5	—	Kaduna	Nigeria
9.655	31.07	40	—	Kiev, Ukraine	U.S.S.R.
9.660	31.06	25	LRX	Buenos Aires	Argentina
9.660	31.06	10	VLM/Q	Brisbane, Queensland	Australia
9.660	31.06	4	—	Vienna	Austria
9.660	31.06	5	—	Abidjan	Ivory Coast
9.660	31.06	20/100	VUD	Delhi	India
9.660	31.06	50/100	GWP	Overseas Service*	U.K.
9.661	31.06	1/50	—	Taipei	Formosa
9.665	31.04	5	TGNB	Guatemala City	Guatemala
9.665	31.04	100	—	Budapest	Hungary
9.665	31.04	35/100	—	Okinawa (V.o.A.)	Okinawa Island
9.665	31.04	100	—	Schwarzenburg	Switzerland
9.670	31.02	5	COCQ	Havana	Cuba
9.670	31.02	100	OLR3C	Podebrady	Czechoslovakia
9.670	31.02	10	—	Bhopal	India
9.670	31.02	35/100	—	Okinawa (V.o.A.)	Okinawa Island
9.671	31.02	15/240	—	Peking	China
9.675	31.01	10	ZYT29	Florianopolis	Brazil
9.675	31.01	50/100	JOB3	Tokio	Japan
9.675	31.01	7.5/100	—	Warsaw	Poland
9.675	31.01	50/100	GWT	Overseas Service*	U.K.
9.680	30.99	10	VLG/H	Lyndhurst, Victoria	Australia
9.680	30.99	100	—	Allouis	France
9.680	30.99	20/100	VUD	Delhi	India
9.680	30.99	7	EQC	Teheran	Iran
9.680	30.99	2	—	Beirut	Lebanon

Mc/s	Metres	kW	Call	Station and Country	
9.680	30.99	1	XEQQ	Mexico City	Mexico
9.680	30.99	35/100	—	Tangier (V.o.A.)	Morocco
9.680	30.99	20	—	Paradys	South Africa
9.680	30.99	100	—	Madrid	Spain
9.685	30.98	50	—	Algiers	Algeria
9.685	30.98	50	PRE6	Sao Paulo	Brazil
9.685	30.98	40	—	Kiev, Ukraine	U.S.S.R.
9.689	30.96	10	LRA32	Buenos Aires	Argentina
9.690	30.96	4	—	Libreville	Gabon Republic
9.690	30.96	7.5/100	—	Tebrau	Malaya
9.690	30.96	100	—	Monte Carlo	Monaco
9.690	30.96	50/100	GRX	Overseas Service*	U.K.
9.690	30.96	15/120	—	Moscow, Russia	U.S.S.R.
9.691	30.96	10	—	Goa	Goa
9.695	30.94	50/100	—	Tokio	Japan
9.700	30.93	5	—	Sofia	Bulgaria
9.700	30.93	10	—	Stanleyville, Orientale	Congo
9.700	30.93	100	—	Sebaa-Aioun	Morocco
9.700	30.93	50/100	GWY	Overseas Service*	U.K.
9.700	30.93	20/80	WRUL	Boston, Mass.	U.S.A.
9.700	30.93	50/200	KCBR	Delano, Cal.	U.S.A.
9.705	30.92	25	—	Kabul	Afghanistan
9.705	30.92	100	ORU	Wavre	Belgium
9.705	30.92	10	ZYZZ4	Rio de Janeiro	Brazil
9.705	30.92	20/100	VUD	Delhi	India
9.705	30.92	30	—	Monte Carlo	Monaco
9.705	30.92	15/120	—	Moscow, Russia	U.S.S.R.
9.708	30.91	4	—	Niamey	Niger Republic
9.710	30.90	100	—	Djakarta, Java	Indonesia
9.710	30.90	50/100	—	Rome	Italy
9.710	30.90	50/100	—	Overseas Service*	U.K.
9.710	30.90	110	WLWO	Cincinnati, Ohio	U.S.A.
9.715	30.88	—	CP21	Sucre	Bolivia
9.715	30.88	4/50	—	Brazzaville	Congo
9.715	30.88	10/100	—	Lopik	Netherlands
9.720	30.86	50	PRL7	Rio de Janeiro	Brazil
9.720	30.86	20/100	VUD	Delhi	India
9.720	30.86	50	—	Tel Aviv	Israel
9.720	30.86	20	—	Paradys	South Africa
9.720	30.86	15/120	—	Moscow, Russia	U.S.S.R.
9.725	30.85	50	—	Tel Aviv	Israel
9.725	30.85	7.5/100	—	Tebrau	Malaya
9.725	30.85	100	—	Hörby	Sweden
9.725	30.85	110	WLWO	Cincinnati, Ohio	U.S.A.
9.730	30.83	7.5	ZYU59	Porto Alegre	Brazil
9.730	30.83	4/50	FZI	Brazzaville	Congo
9.730	30.83	50	—	Leipzig	Germany (East)
9.730	30.83	3	DZH7	Manila, Luzon	Philippines
9.730	30.83	15/120	—	Moscow, Russia	U.S.S.R.
9.735	30.82	15/240	—	Peking	China
9.735	30.82	7.5	HI2T	Ciudad Trujillo	Dominican Rep.
9.735	30.82	20/100	DMQ	Jüllich	Germany (West)
9.735	30.82	50/100	GWFF	Overseas Service*	U.K.
9.738	30.80	50	APK	Karachi	Pakistan

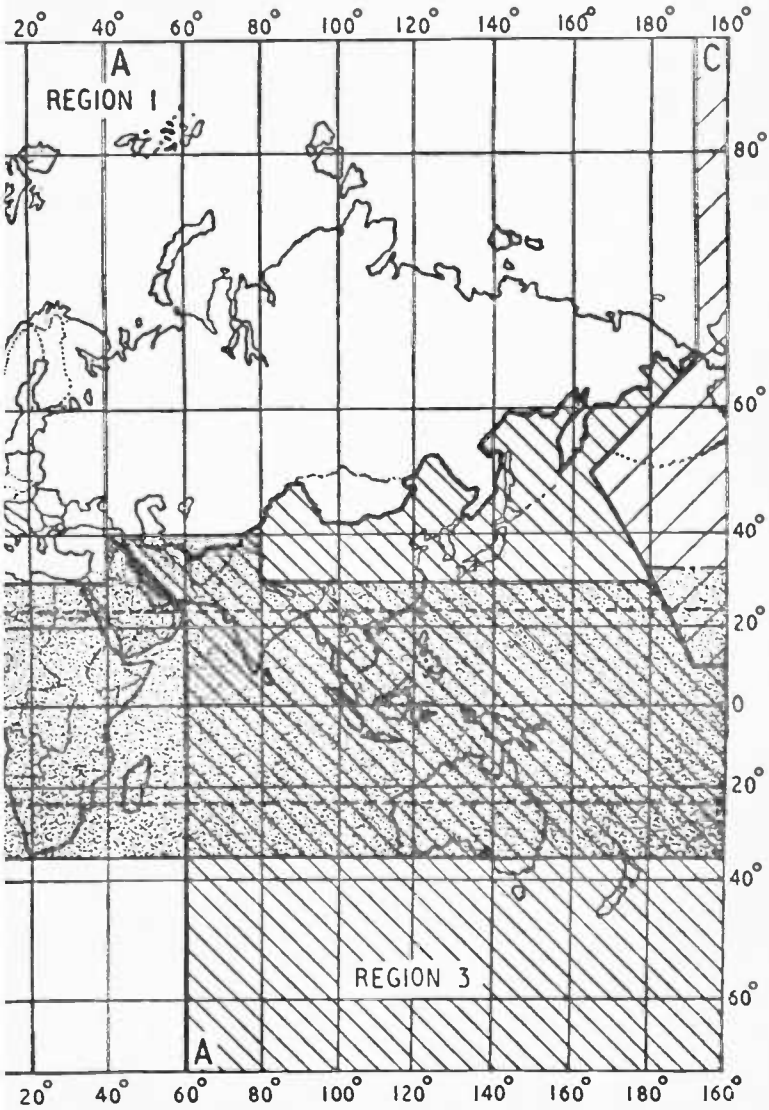
BROADCASTING REGIONS

The three regions into which the world is divided for the purpose of Area is in Region 1 and lies between lines A and B down to the parallel short-wave bands (see list on page 67) are allocated for "domestic" broad-



OF THE WORLD

frequency allocations are shown on this map. The European Broadcasting 30°N. The shaded area is the Tropical Zone in which frequencies in certain casting.



Mc/s	Metres	kW	Call	Station and Country	
9.740	30.80	10	LRS1	Buenos Aires	Argentina
9.740	30.80	20/100	VUD	Delhi	India
9.740	30.80	50/100	—	Tokio	Japan
9.740	30.80	35/100	—	Tangier (V.o.A.)	Morocco
9.740	30.80	100	CSA27	Lisbon	Portugal
9.740	30.80	50	WDSI	Brentwood, N.Y.	U.S.A.
9.740	30.80	50/200	KCBR	Delano, Cal.	U.S.A.
9.740	30.80	50/100	KNBH	Dixon, Cal.	U.S.A.
9.745	30.79	100	ORU	Wavre	Belgium
9.745	30.79	7.5	ZYR57	Sao Paulo	Brazil
9.745	30.79	1	HCJB	Quito	Ecuador
9.745	30.79	10/100	—	Lopik	Netherlands
9.745	30.79	20/100	—	Ankara	Turkey
9.745	30.79	15/120	—	Moscow, Russia	U.S.S.R.
9.750	30.77	50/100	—	Cairo	Egypt
9.750	30.77	20/100	VUD	Delhi	India
9.750	30.77	50	APK	Karachi	Pakistan
9.750	30.77	100	CSA28	Lisbon	Portugal
9.750	30.77	50/100	—	Overseas Service*	U.K.
9.750	30.77	15/120	—	Moscow, Russia	U.S.S.R.
9.755	30.75	7.5	ZYA63	Goiana	Brazil
9.755	30.75	100	—	Allouis	France
9.755	30.75	35/100	—	Tangier (V.o.A.)	Morocco
9.755	30.75	50/100	—	Overseas Service*	U.K.
9.755	30.75	25	—	Saigon	Vietnam (South)
9.760	30.74	50	LRV	Buenos Aires	Argentina
9.760	30.74	35/100	—	Tangier (V.o.A.)	Morocco
9.760	30.74	50/100	MCR	Overseas Service*	U.K.
9.760	30.74	50	WBOU	Bound Brook, N.J.	U.S.A.
9.760	30.74	15/120	—	Moscow, Russia	U.S.S.R.
9.760	30.74	12	—	Hanoi	Vietnam (North)
9.765	30.72	100	ORU	Wavre	Belgium
9.765	30.72	7.5	—	Leopoldville	Congo
9.765	30.72	100	—	Tema	Ghana
9.765	30.72	50/100	—	Overseas Service*	U.K.
9.770	30.71	4	—	Vienna	Austria
9.770	30.71	1	PRL4	Rio de Janeiro	Brazil
9.770	30.71	4/50	—	Brazzaville	Congo
9.770	30.71	3	4VEH	Cap Haitien	Haiti
9.770	30.71	8/100	—	Manila, Luzon (V.o.A.)	Philippines
9.770	30.71	50/100	MCN	Overseas Service*	U.K.
9.770	30.71	110	WLWO	Cincinnati, Ohio	U.S.A.
9.770	30.71	15/120	—	Moscow, Russia	U.S.S.R.
9.773	30.70	100	—	Wavre	Belgium
9.775	30.69	15/240	—	Peking	China
9.780	30.67	15/120	—	Moscow, Russia	U.S.S.R.
9.784	30.66	50/100	—	Cairo	Egypt
9.785	30.66	4	—	Vienna	Austria
9.785	30.66	15/240	—	Peking	China
9.790	30.64	—	—	Leningrad, Russia	U.S.S.R.
9.795	30.62	50/100	—	Cairo	Egypt
9.800	30.61	15/240	—	Peking	China
9.800	30.61	15/120	—	Moscow, Russia	U.S.S.R.
9.805	30.60	50/100	—	Cairo	Egypt

Mc/s	Metres	kW	Call	Station and Country	
9.810	30.58	15/120	—	Moscow, Russia	U.S.S.R.
9.825	30.53	50/100	GRH	Overseas Service*	U.K.
9.833	30.51	100	—	Budapest	Hungary
9.840	30.49	2	—	Baku, Azerbaidjan	U.S.S.R.
9.840	30.49	12	—	Hanoi	Vietnam (North)
9.867	30.41	100	—	Djakarta, Java	Indonesia
9.895	30.31	—	—	Benghazi	Libya
9.915	30.26	50/100	GRU	Overseas Service*	U.K.
9.972	30.08	15/240	—	Peking	China
10.260	29.24	15/240	—	Peking	China
10.530	28.49	15	—	Alma Ata, Kazak	U.S.S.R.
11.100	27.03	15/240	—	Peking	China
11.290	26.57	15/240	—	Peking	China
11.515	26.05	15/240	—	Peking	China
11.570	25.93	15/120	—	Moscow, Russia	U.S.S.R.
11.600	25.86	15/240	—	Peking	China
11.630	25.79	15/240	—	Peking	China
11.630	25.79	—	—	Leningrad, Russia	U.S.S.R.
11.650	25.75	15/240	—	Peking	China
11.660	25.73	50/100	—	Cairo	Egypt
11.672	25.70	50	APK	Karachi	Pakistan
11.675	25.69	15/240	—	Peking	China
11.680	25.68	50/100	GRG	Overseas Service*	U.K.
11.685	25.67	5/100	HVJ	Vatican City	Vatican City
11.695	25.65	—	—	Berlin	Germany (West)
11.695	25.65	5	—	Tashkent, Uzbek	U.S.S.R.
11.700	25.64	100	—	Allouis	France
11.700	25.64	—	TGQB	Quezaltenango	Guatemala
11.705	25.63	50/100	JOA11	Tokio	Japan
11.705	25.63	7.5/100	—	Warsaw	Poland
11.705	25.63	100	—	Hörby	Sweden
11.705	25.63	40	—	Kiev, Ukraine	U.S.S.R.
11.705	25.63	50	—	Petropavlovsk, Russia	U.S.S.R.
11.710	25.62	100	VLA/D	Shepparton, Victoria	Australia
11.710	25.62	20/100	VUD	Delhi	India
11.710	25.62	100	—	Djakarta, Java	Indonesia
11.710	25.62	30	—	Monte Carlo	Monaco
11.710	25.62	50	WBOU	Bound Brook, N.J.	U.S.A.
11.710	25.62	5/100	HVJ	Vatican City	Vatican City
11.711	25.62	10/100	—	Lopik	Netherlands
11.714	25.61	5	—	St. Georges, Grenada	Windward Is.
11.715	25.61	20/100	—	Jülich	Germany (West)
11.715	25.61	8/100	—	Munich (V.o.A.)	Germany (West)
11.715	25.61	20/100	VUD	Delhi	India
11.715	25.61	100	—	Schwarzenburg	Switzerland
11.715	25.61	110	WLWO	Cincinnati, Ohio	U.S.A.
11.715	25.61	50/200	KCBR	Delano, Cal.	U.S.A.
11.715	25.61	15/120	—	Moscow, Russia	U.S.S.R.
11.720	25.60	50	OTH3	Leopoldville	Congo
11.720	25.60	50	CHOL	Sackville, N.B.	Canada
11.720	25.60	7.5	ZJM7	Limassol	Cyprus
11.720	25.60	7.5	—	Athens	Greece
11.725	25.59	4/50	FZI	Brazzaville	Congo
11.725	25.59	100	OLR4B	Podebrady	Czechoslovakia

Mc/s	Metres	kW	Call	Station and Country	
11.725	25.59	50/100	JOA11	Tokio	Japan
11.730	25.58	—	—	Buenos Aires	Argentina
11.730	25.58	7.5	—	Leopoldville	Congo
11.730	25.58	7.5	—	Athens	Greece
11.730	25.58	35/100	—	Tangier (V.o.A.)	Morocco
11.730	25.58	10/100	PHI	Lopik	Netherlands
11.730	25.58	50/100	GVV	Overseas Service*	U.K.
11.730	25.58	50/100	KNBH	Dixon, Cal.	U.S.A.
11.730	25.58	15/120	—	Moscow, Russia	U.S.S.R.
11.731	25.58	—	—	Berlin (Nauen)	Germany (East)
11.731	25.58	50	APK	Karachi	Pakistan
11.735	25.56	100	—	Sebaa-Aioun	Morocco
11.735	25.56	20	—	Kharbarovsk, Russia	U.S.S.R.
11.735	25.56	5	CXA7	Montevideo	Uruguay
11.735	25.56	100	—	Belgrade	Yugoslavia
11.740	25.55	100	VLA/D	Shepparton, Victoria	Australia
11.740	25.55	4	CE1174	Santiago	Chile
11.740	25.55	8/100	—	Munich (V.o.A.)	Germany (West)
11.740	25.55	20/100	VUD	Delhi	India
11.740	25.55	7.5/100	—	Warsaw	Poland
11.740	25.55	110	WLWO	Cincinnati, Ohio	U.S.A.
11.740	25.55	5/100	HVJ3	Vatican City	Vatican City
11.745	25.54	100	OLR	Podebrady	Czechoslovakia
11.745	25.54	50/100	—	Cairo	Egypt
11.750	25.53	10	—	Tokio	Japan
11.750	25.53	50/100	GSD	Overseas Service*	U.K.
11.751	25.53	20	—	Damascus	Syria
11.755	25.52	10	—	Luanda	Angola
11.755	25.52	50	—	Leopoldville	Congo
11.755	25.52	10/100	—	Lopik	Netherlands
11.760	25.51	100	VLA/D	Shepparton, Victoria	Australia
11.760	25.51	50	CKRA	Sackville, N.B.	Canada
11.760	25.51	1	COCY	Havana	Cuba
11.760	25.51	35	—	Salonika (V.o.A.)	Greece
11.760	25.51	20/100	VUD	Delhi	India
11.760	25.51	35/100	—	Tangier (V.o.A.)	Morocco
11.760	25.51	12	—	Hanoi	Vietnam (North)
11.764	25.50	25	ZYB8	Sao Paulo	Brazil
11.765	25.50	—	—	Berlin	Germany (West)
11.765	25.50	100	—	Monte Carlo	Monaco
11.770	25.49	35	—	Colombo	Ceylon
11.770	25.49	100	YDF2	Djakarta, Java	Indonesia
11.770	25.49	50/100	GVU	Overseas Service*	U.K.
11.770	25.49	50	WBOU	Bound Brook, N.J.	U.S.A.
11.770	25.49	50	WDSI	Brentwood, N.Y.	U.S.A.
11.775	25.48	50	ZYZ28	Rio de Janeiro	Brazil
11.775	25.48	8/100	—	Munich (V.o.A.)	Germany (West)
11.775	25.48	100	—	Honolulu (V.o.A.)	Hawaii
11.775	25.48	15/120	—	Moscow, Russia	U.S.S.R.
11.778	25.47	7	—	Reykjavik	Iceland
11.780	25.47	15/240	—	Peking	China
11.780	25.47	10/100	—	Lopik	Netherlands
11.780	25.47	7.5	ZL3	Wellington	New Zealand
11.780	25.47	50/100	—	Overseas Service*	U.K.

Mc/s	Metres	kW	Call	Station and Country	
11.780	25.47	15/120	—	Moscow, Russia	U.S.S.R.
11.785	25.46	4	OE124	Vienna	Austria
11.785	25.46	7.5	ZYU61	Porto Alegre	Brazil
11.785	25.46	35	—	Salonika (V.o.A.)	Greece
11.785	25.46	35/100	—	Tangier (V.o.A.)	Morocco
11.785	25.46	4	—	Niamey	Niger Republic
11.785	25.46	8/100	—	Manila, Luzon (V.o.A.)	Philippines
11.787	25.45	3	—	Elizabethville, Katanga	Congo
11.790	25.45	20/100	VUD	Delhi	India
11.790	25.45	50/100	GWV	Overseas Service*	U.K.
11.790	25.45	20/80	WRUL	Boston, Mass.	U.S.A.
11.790	25.45	15/120	—	Moscow, Russia	U.S.S.R.
11.795	25.43	50	OTH	Leopoldville	Congo
11.795	25.43	100	OLR	Podebrady	Czechoslovakia
11.795	25.43	20/100	DMQ11	Jülich	Germany (West)
11.795	25.43	1/100	YDF2	Djakarta, Java	Indonesia
11.800	25.42	15/240	—	Peking	China
11.800	25.42	100	—	Tema	Ghana
11.800	25.42	20/100	VUD	Delhi	India
11.800	25.42	50	JOB11	Tokio	Japan
11.800	25.42	50/100	GWH	Overseas Service*	U.K.
11.800	25.42	15/120	—	Moscow, Russia	U.S.S.R.
11.803	25.41	7.5/100	—	Warsaw	Poland
11.805	25.41	100	—	Monte Carlo	Monaco
11.805	25.41	15/120	—	Moscow, Russia	U.S.S.R.
11.810	25.40	100	VLA/D	Shepparton, Victoria	Australia
11.810	25.40	50/100	—	Rome	Italy
11.810	25.40	3	—	Amman	Jordan
11.810	25.40	3	—	Bucharest	Rumania
11.815	25.39	5	ZYW24	Goiana	Brazil
11.815	25.39	50/100	—	Tokio	Japan
11.815	25.39	7.5/100	—	Warsaw	Poland
11.815	25.39	50/200	—	Madrid	Spain
11.818	25.39	4	—	Vienna	Austria
11.818	25.39	5	—	Abidjan	Ivory Coast
11.820	25.38	15/240	—	Peking	China
11.820	25.38	10	—	Pori	Finland
11.820	25.38	7.5/100	—	Tebrau	Malaya
11.820	25.38	50/100	GSN	Overseas Service*	U.K.
11.820	25.38	15/120	—	Moscow, Russia	U.S.S.R.
11.825	25.37	4	—	Vienna	Austria
11.825	25.37	16	ZYK32	Recife	Brazil
11.825	25.37	5/50	—	Taipei	Formosa
11.825	25.37	—	—	Berlin	Germany (East)
11.825	25.37	10	ELWA	Monrovia	Liberia
11.825	25.37	4	—	Papeete	Tahiti
11.825	25.37	50	WDSI	Brentwood, N.Y.	U.S.A.
11.825	25.37	40	—	Kiev, Ukraine	U.S.S.R.
11.830	25.36	8/100	—	Munich (V.o.A.)	Germany (West)
11.830	25.36	20/100	VUD	Delhi	India
11.830	25.36	50/100	—	Overseas Service*	U.K.
11.830	25.36	20/80	WRUL	Boston, Mass.	U.S.A.
11.830	25.36	50	WBOU	Bound Brook, N.J.	U.S.A.
11.830	25.36	25/100	WGEO	Schenectady, N.Y.	U.S.A.

Mc/s	Metres	kW	Call	Station and Country	
11.830	25.36	15/120	—	Moscow, Russia	U.S.S.R.
11.835	25.35	50	—	Algiers	Algeria
11.835	25.35	35	—	Colombo (V.o.A.)	Ceylon
11.835	25.35	100	—	Allouis	France
11.835	25.35	5	CXA19	Montevideo	Uruguay
11.840	25.34	2	VLW/X	Perth, W.A.	Australia
11.840	25.34	100	ORU	Wavre	Belgium
11.840	25.34	100	OLR	Podebrady	Czechoslovakia
11.840	25.34	7.5/100	—	Warsaw	Poland
11.840	25.34	50/100	CSA	Lisbon	Portugal
11.840	25.34	20	—	Paradys	South Africa
11.840	25.34	50/100	GWQ	Overseas Service*	U.K.
11.840	25.34	20	—	Khabarovsk, Russia	U.S.S.R.
11.840	25.34	12	—	Hanoi	Vietnam (North)
11.845	25.33	100	—	Allouis	France
11.845	25.33	35	—	Salonika (V.o.A.)	Greece
11.845	25.33	50	APK	Karachi	Pakistan
11.845	25.33	20/80	WRUL	Boston, Mass.	U.S.A.
11.845	25.33	15/120	—	Moscow, Russia	U.S.S.R.
11.850	25.32	100	ORU	Wavre	Belgium
11.850	25.32	120	—	Sofia	Bulgaria
11.850	25.32	8	LLK	Fredrikstad	Norway
11.850	25.32	1.2	ZPA3	Ascuncion	Paraguay
11.850	25.32	40	—	Kiev, Ukraine	U.S.S.R.
11.850	25.32	25	—	Komsomolsk, Russia	U.S.S.R.
11.855	25.31	10	—	Bocau	Philippines
11.855	25.31	6	—	Khartoum	Sudan
11.855	25.31	20/80	WRUL	Boston, Mass.	U.S.A.
11.855	25.31	110	WLWO	Cincinnati, Ohio	U.S.A.
11.860	25.30	15/240	—	Peking	China
11.860	25.30	50/100	GSE	Overseas Service*	U.K.
11.860	25.30	40	—	Kiev, Ukraine	U.S.S.R.
11.865	25.28	5	PRA8	Recife	Brazil
11.865	25.28	35/100	—	Tangier (V.o.A.)	Morocco
11.865	25.28	7.5/100	—	Warsaw	Poland
11.865	25.28	100	HER5	Schwarzenburg	Switzerland
11.867	25.28	3	—	Elizabethville, Katanga	Congo
11.867	25.28	50/100	—	Rome	Italy
11.870	25.27	50/200	KNBH	Dixon, Cal.	U.S.A.
11.871	25.27	20/100	—	Jülich	Germany (West)
11.871	25.27	20/100	VUD	Delhi	India
11.871	25.27	35/100	—	Tangier (V.o.A.)	Morocco
11.871	25.27	—	—	Kaunas, Lithuania	U.S.S.R.
11.875	25.26	10	ZYA64	Salvador	Brazil
11.875	25.26	35	—	Colombo (V.o.A.)	Ceylon
11.875	25.26	100	OLR	Podebrady	Czechoslovakia
11.875	25.26	50/100	—	Tokio	Japan
11.875	25.26	35/100	—	Tangier (V.o.A.)	Morocco
11.875	25.26	50/100	CSA58	Lisbon	Portugal
11.875	25.26	50	WDSI	Brentwood, N.Y.	U.S.A.
11.875	25.26	110	WLWO	Cincinnati, Ohio	U.S.A.
11.880	25.25	5	LRS	Buenos Aires	Argentina
11.880	25.25	35	—	Salonika (V.o.A.)	Greece
11.880	25.25	1	XEHH	Mexico City	Mexico

Mc/s	Metres	kW	Call	Station and Country
11.880	25.25	100	—	Hörby Sweden
11.880	25.25	50/100	GRE	Overseas Service* U.K.
11.880	25.25	15/120	—	Moscow, Russia U.S.S.R.
11.882	25.25	10	ZQP	Lusaka Rhodesia-Nyasaland Fed.
11.885	25.24	100	—	Allouis France
11.885	25.24	50	APK	Karachi Pakistan
11.890	25.23	35/100	—	Tangier (V.o.A.) Morocco
11.890	25.23	50/100	GWV	Overseas Service* U.K.
11.890	25.23	110	WLWO	Cincinnati, Ohio U.S.A.
11.890	25.23	15/120	—	Moscow, Russia U.S.S.R.
11.895	25.22	100	—	Budapest Hungary
11.895	25.22	10/100	VUB	Bombay India
11.895	25.22	8/100	—	Manila, Luzon (V.o.A.) Philippines
11.895	25.22	25	FHE3	Dakar Senegal
11.900	25.21	20/100	VUD	Delhi India
11.900	25.21	—	—	Kaunas, Lithuania U.S.S.R.
11.900	25.21	15/120	—	Moscow, Russia U.S.S.R.
11.905	25.20	100	OLR	Podebrady Czechoslovakia
11.905	25.20	20/100	—	Jülich Germany (West)
11.905	25.20	50/100	—	Rome Italy
11.905	25.20	50	WBOU	Bound Brook, N.J. U.S.A.
11.905	25.20	50	WDSI	Brentwood, N.Y. U.S.A.
11.907	25.20	50	APK	Karachi Pakistan
11.908	25.19	50	HSK9	Bangkok Thailand
11.910	25.19	100	—	Budapest Hungary
11.910	25.19	50/100	MCO	Overseas Service* U.K.
11.915	25.18	10	HCJB	Quito Ecuador
11.915	25.18	50/100	—	Cairo Egypt
11.915	25.18	10/100	—	Lopik Netherlands
11.915	25.18	100	—	Lisbon Portugal
11.915	25.18	20	—	Damascus Syria
11.915	25.18	15/120	—	Moscow, Russia U.S.S.R.
11.918	25.17	10	—	Leopoldville Congo
11.920	25.17	100	—	Allouis France
11.920	25.17	20/100	VUD	Delhi India
11.920	25.17	50	—	Tel Aviv Israel
11.920	25.17	10	—	Al Kuwait Kuwait
11.920	25.17	35/100	—	Okinawa (V.o.A.) Okinawa Island
11.920	25.17	50	APK	Karachi Pakistan
11.920	25.17	50	—	Bocaue Philippines
11.920	25.17	110	WLWO	Cincinnati, Ohio U.S.A.
11.924	25.16	1	CR6RQ	Nova Lisboa Angola
11.925	25.16	10	ZYR78	Sao Paulo Brazil
11.925	25.16	20/100	—	Jülich Germany (West)
11.925	25.16	50	HLK6	Seoul Korea (South)
11.925	25.16	50	—	Tunis Tunisia
11.925	25.16	15/120	—	Moscow, Russia U.S.S.R.
11.930	25.15	50/100	GVX	Overseas Service* U.K.
11.930	25.15	15/120	—	Moscow, Russia U.S.S.R.
11.935	25.14	4	OEI36	Vienna Austria
11.935	25.14	5	—	Bucharest Rumania
11.935	25.14	20	—	Paradys South Africa
11.940	25.13	—	CEI194	Santiago Chile
11.940	25.13	20/100	VUD	Delhi India

Mcs	Metres	kW	Call	Station and Country
11.940	25.13	50/100	—	Tokio Japan
11.940	25.13	50	APK	Karachi Pakistan
11.945	25.12	15/240	—	Peking China
11.945	25.12	20/100	DMQ	Jülich Germany (West)
11.945	25.12	50/100	MCQ	Overseas Service* U.K.
11.950	25.10	10	PRL5	Rio de Janeiro Brazil
11.950	25.10	20/100	VUD	Delhi India
11.950	25.10	5	—	Jidda Saudi Arabia
11.950	25.10	15/120	—	Moscow, Russia U.S.S.R.
11.950	25.10	50	—	Saigon Vietnam (South)
11.951	25.10	7.5/100	—	Warsaw Poland
11.955	25.09	10	—	Gimma Ethiopia
11.955	25.09	8/100	—	Tebrau Malaya
11.955	25.09	100	—	Monte Carlo Monaco
11.955	25.09	50/100	GVY	Overseas Service* U.K.
11.955	25.09	50	WDS1	Brentwood, N.Y. U.S.A.
11.955	25.09	—	—	Minsk, Byelorussia U.S.S.R.
11.955	25.09	5	—	St. Georges, Grenada Windward Is.
11.957	25.09	10	—	Pori Finland
11.960	25.08	2.5	CE1196	Santiago Chile
11.960	25.08	35/100	—	Okinawa (V.o.A.) Okinawa Island
11.960	25.08	50/100	MCT	Overseas Service* U.K.
11.960	25.08	15/120	—	Moscow, Russia U.S.S.R.
11.965	25.07	110	WLWO	Cincinnati, Ohio U.S.A.
11.970	25.06	4/50	FZI	Brazzaville Congo
11.970	25.06	7.5/100	—	Warsaw Poland
11.970	25.06	110	WLWO	Cincinnati, Ohio U.S.A.
11.971	25.06	1	YVLK	Caracas Venezuela
11.973	25.05	3.5/50	BED37	Taipei Formosa
11.975	25.05	15/240	—	Peking China
11.975	25.05	20/100	—	Jülich Germany (West)
11.975	25.05	50	ELWA	Monrovia Liberia
11.975	25.05	15/120	—	Moscow, Russia U.S.S.R.
11.980	25.04	15/240	—	Peking China
11.983	25.03	10	ELWA	Monrovia Liberia
11.985	25.03	15/120	—	Moscow, Russia U.S.S.R.
11.990	25.02	100	—	Podebrady Czechoslovakia
11.995	25.01	15/120	—	Moscow, Russia U.S.S.R.
12.000	25.00	15/120	—	Moscow, Russia U.S.S.R.
12.003	25.00	1	CE1180	Santiago Chile
12.006	24.99	—	—	Berlin Germany (East)
12.010	24.98	15/240	—	Peking China
12.015	24.97	15/120	—	Moscow, Russia U.S.S.R.
12.020	24.96	15/120	—	Moscow, Russia U.S.S.R.
12.030	24.94	15/120	—	Moscow, Russia U.S.S.R.
12.040	24.92	50/100	GRV	Overseas Service* U.K.
12.050	24.90	15/120	—	Moscow, Russia U.S.S.R.
12.054	24.89	50/100	—	Cairo Egypt
12.060	24.88	15/120	—	Moscow, Russia U.S.S.R.
12.070	24.85	15/120	—	Moscow, Russia U.S.S.R.
12.075	24.84	15/120	—	Moscow, Russia U.S.S.R.
12.092	24.81	50/100	—	Cairo Egypt
12.095	24.80	50/100	GRF	Overseas Service* U.K.
12.100	24.79	15/120	—	Moscow, Russia U.S.S.R.

Mc/s	Metres	kW	Call	Station and Country	
12.130	24.73	15/120	—	Moscow, Russia	U.S.S.R.
12.165	24.66	15/120	—	Moscow, Russia	U.S.S.R.
12.275	24.44	15/120	—	Moscow, Russia	U.S.S.R.
14.860	20.19	15/120	—	Moscow, Russia	U.S.S.R.
15.022	19.98	12	—	Hanoi	Vietnam (North)
15.050	19.93	—	HI4U	Ciudad Trujillo	Dominican Rep.
15.059	19.92	15/240	—	Peking	China
15.061	19.92	—	—	Ciudad Trujillo	Dominican Rep.
15.070	19.91	50/100	GWC	Overseas Service*	U.K.
15.083	19.89	50	—	Monrovia	Liberia
15.095	19.87	15/240	—	Peking	China
15.095	19.87	15/120	—	Moscow, Russia	U.S.S.R.
15.105	19.86	7.5	ZYZ32	Rio de Janeiro	Brazil
15.105	19.86	20/100	VUD	Delhi	India
15.105	19.86	—	—	Irkutsk, Russia	U.S.S.R.
15.110	19.85	20/100	VUD	Delhi	India
15.110	19.85	50/100	GWG	Overseas Service*	U.K.
15.110	19.85	40	—	Kiev, Ukraine	U.S.S.R.
15.110	19.85	15/120	—	Moscow, Russia	U.S.S.R.
15.110	19.85	1	HCJB	Quito	Ecuador
15.115	19.85	15/240	—	Peking	China
15.115	19.85	50/100	—	Tokio	Japan
15.115	19.85	15/120	—	Moscow, Russia	U.S.S.R.
15.120	19.84	100	—	Colombo	Ceylon
15.120	19.84	4/50	—	Brazzaville	Congo
15.120	19.84	7.5/100	—	Warsaw	Poland
15.120	19.84	40	—	Kiev, Ukraine	U.S.S.R.
15.120	19.84	5/100	HVJ	Vatican City	Vatican City
15.122	19.83	50	—	Seoul	Korea (South)
15.125	19.83	100	OLR5D	Podebrady	Czechoslovakia
15.125	19.83	20	EPB	Teheran	Iran
15.125	19.83	50	—	Monrovia	Liberia
15.125	19.83	8/100	—	Manila, Luzon (V.o.A.)	Philippines
15.125	19.83	50	CSA	Lisbon	Portugal
15.130	19.83	100	—	Allouis	France
15.130	19.83	8/100	—	Manila, Luzon (V.o.A.)	Philippines
15.130	19.83	50	WBOU	Bound Brook, N.J.	U.S.A.
15.130	19.83	50/200	KCBR	Delano, Cal.	U.S.A.
15.130	19.83	15/120	—	Moscow, Russia	U.S.S.R.
15.135	19.82	7	PRB23	Sao Paulo	Brazil
15.135	19.82	50/100	JOB15	Tokio	Japan
15.140	19.82	15/240	—	Peking	China
15.140	19.82	10	—	Al Kuwait	Kuwait
15.140	19.82	50/100	GSF	Overseas Service*	U.K.
15.140	19.82	40	—	Kiev, Ukraine	U.S.S.R.
15.142	19.82	7.5	CR7BG	Lourenco Marques	Mozambique
15.145	19.81	20	ZYK33	Recife	Brazil
15.145	19.81	50	APK	Karachi	Pakistan
15.148	19.80	1	CE1515	Santiago	Chile
15.150	19.80	50/100	YDC	Djakarta, Java	Indonesia
15.150	19.80	15/120	—	Moscow, Russia	U.S.S.R.
15.152	19.80	50	OAX4T	Lima	Peru
15.152	19.80	5	—	St. Georges, Grenada	Windward Is.
15.153	19.79	25	ZYB9	Sao Paulo	Brazil

Mcs	Metres	kW	Call	Station and Country
15.155	19.79	50	—	Monrovia Liberia
15.155	19.79	50	APK	Karachi Pakistan
15.155	19.79	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.155	19.79	50	WBOU	Bound Brook, N.J. U.S.A.
15.160	19.79	100	OLR	Podebrady Czechoslovakia
15.160	19.79	100	—	Allouis France
15.160	19.79	100	—	Budapest Hungary
15.160	19.79	20/100	VUD	Delhi India
15.160	19.79	10	XEWW	Mexico City Mexico
15.160	19.79	100	TAU	Ankara Turkey
15.160	19.79	15/120	—	Moscow, Russia U.S.S.R.
15.165	19.78	10	ZYN7	Fortaleza Brazil
15.165	19.78	50	OZH	Copenhagen Denmark
15.165	19.78	20/100	VUD	Delhi India
15.165	19.78	20	—	Damascus Syria
15.165	19.78	15/120	—	Moscow, Russia U.S.S.R.
15.169	19.78	1	OBX4C	Lima Peru
15.170	19.78	20/100	VUD	Delhi India
15.170	19.78	3	—	Amman Jordan
15.170	19.78	10	LKV	Fredrikstad Norway
15.170	19.78	15/120	—	Moscow, Russia U.S.S.R.
15.174	19.77	50	WBOU	Bound Brook, N.J. U.S.A.
15.175	19.77	10	LLM	Fredrikstad Norway
15.180	19.76	50/100	VLA/D	Shepparton, Victoria Australia
15.180	19.76	50/100	GSO	Overseas Service* U.K.
15.185	19.76	100	OLR	Podebrady Czechoslovakia
15.185	19.76	35/100	—	Tangier (V.o.A.) Morocco
15.185	19.76	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.185	19.76	50	WDSI	Brentwood, N.Y. U.S.A.
15.190	19.75	5	PRK9	Belo Horizonte Brazil
15.190	19.75	50	CKCX	Sackville, N.B. Canada
15.190	19.75	4/50	FZI	Brazzaville Congo
15.190	19.75	100	OIX4	Pori Finland
15.190	19.75	100	—	Tema Ghana
15.190	19.75	20/100	VUD	Delhi India
15.190	19.75	35/100	—	Tangier (V.o.A.) Morocco
15.190	19.75	110	WLWO	Cincinnati, Ohio U.S.A.
15.190	19.75	15/120	—	Moscow, Russia U.S.S.R.
15.195	19.74	50	APK	Karachi Pakistan
15.195	19.74	100	TAQ	Ankara Turkey
15.200	19.74	50	WBOU	Bound Brook, N.J. U.S.A.
15.200	19.74	50	WDSI	Brentwood, N.Y. U.S.A.
15.200	19.74	110	WLWO	Cincinnati, Ohio U.S.A.
15.200	19.74	15/120	—	Moscow, Russia U.S.S.R.
15.205	19.73	5	XESC	Mexico City Mexico
15.205	19.73	35/100	—	Tangier (V.o.A.) Morocco
15.205	19.73	50	WDSI	Brentwood, N.Y. U.S.A.
15.205	19.73	110	WLWO	Cincinnati, Ohio U.S.A.
15.205	19.73	10	—	Achkhabad, Turkmenia U.S.S.R.
15.205	19.73	15/120	—	Moscow, Russia U.S.S.R.
15.210	19.72	10	VLG/H	Lyndhurst, Victoria Australia
15.210	19.72	35	—	Colombo Ceylon
15.210	19.72	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.210	19.72	50/100	GWU	Overseas Service* U.K.

Mc/s	Metres	kW	Call	Station and Country
15.210	19.72	50/200	KCBR	Delano, Cal. U.S.A.
15.210	19.72	15/120	—	Moscow, Russia U.S.S.R.
15.215	19.72	35/100	—	Okinawa (V.o.A.) Okinawa Island
15.220	19.71	40	PCJ2	Huizen Netherlands
15.220	19.71	20/80	WRUL	Boston, Mass. U.S.A.
15.220	19.71	15/120	—	Moscow, Russia U.S.S.R.
15.225	19.70	25	—	Kabul Afghanistan
15.225	19.70	10	ZYN23	Salvador Brazil
15.225	19.70	20/100	VUD	Delhi India
15.225	19.70	25	—	Dakar Senegal
15.225	19.70	50	KGEI	Belmont, Cal. U.S.A.
15.226	19.70	3.5/50	BED3	Taipei Formosa
15.230	19.70	10	VLG/H	Lyndhurst, Victoria Australia
15.230	19.70	50	—	Sackville, N.B. Canada
15.230	19.70	100	OLR	Podebrady Czechoslovakia
15.230	19.70	8/100	—	Munich (V.o.A.) Germany (West)
15.230	19.70	50/100	GWD	Overseas Service* U.K.
15.230	19.70	15/120	—	Moscow, Russia U.S.S.R.
15.235	19.69	20/100	VUD	Delhi India
15.235	19.69	50/100	JOB15	Tokio Japan
15.235	19.69	20	—	Paradys South Africa
15.235	19.69	50	WDSI	Brentwood, N.Y. U.S.A.
15.235	19.69	20	—	Khabarovsk, Russia U.S.S.R.
15.240	19.69	100	VLA/D	Shepparton, Victoria Australia
15.240	19.69	20/100	VUD	Delhi India
15.240	19.69	100	—	Hörby Sweden
15.240	19.69	15/120	—	Moscow, Russia U.S.S.R.
15.240	19.69	100	—	Belgrade Yugoslavia
15.245	19.68	100	OLR	Podebrady Czechoslovakia
15.245	19.68	100	—	Allouis France
15.245	19.68	110	WLWO	Cincinnati, Ohio U.S.A.
15.250	19.67	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.250	19.67	3	—	Bucharest Rumania
15.250	19.67	110	WLWO	Cincinnati, Ohio U.S.A.
15.255	19.67	50/100	—	Tokio Japan
15.256	19.67	10	ZYE21	Belem Brazil
15.260	19.66	20/100	VUD	Delhi India
15.260	19.66	50/100	GSI	Overseas Service* U.K.
15.263	19.65	10	PRG9	Sao Paulo Brazil
15.263	19.65	20	—	Paradys South Africa
15.263	19.65	15/120	—	Moscow, Russia U.S.S.R.
15.265	19.65	50	WBOU	Bound Brook, N.J. U.S.A.
15.270	19.65	10/100	VUB	Bombay India
15.270	19.65	35/100	—	Tangier (V.o.A.) Morocco
15.270	19.65	7.5	APD	Dacca Pakistan
15.270	19.65	50	WBOU	Bound Brook, N.J. U.S.A.
15.270	19.65	50	WDSI	Brentwood, N.Y. U.S.A.
15.271	19.65	15/240	—	Peking China
15.275	19.64	20/100	DMQ15	Jülich Germany (West)
15.275	19.64	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.275	19.64	7.5/100	—	Warsaw Poland
15.278	19.63	1/50	BED34	Taipei Formosa
15.280	19.63	8/100	—	Munich (V.o.A.) Germany (West)
15.280	19.63	7.5	ZL4	Wellington New Zealand

Mc/s	Metres	kW	Call	Station and Country	
15.280	19.63	15/120	—	Moscow, Russia	U.S.S.R.
15.285	19.63	100	OLR5H	Podebrady	Czechoslovakia
15.285	19.63	20/100	DMQ	Jülich	Germany (West)
15.285	19.63	50	APK	Karachi	Pakistan
15.285	19.63	50/100	—	Overseas Service*	U.K.
15.287	19.62	100	—	Tema	Ghana
15.288	19.62	50	—	Sebaa-Aioun	Morocco
15.290	19.62	6	LRU	Buenos Aires	Argentina
15.290	19.62	20/100	VUD	Delhi	India
15.290	19.62	110	WLWO	Cincinnati, Ohio	U.S.A.
15.290	19.62	50/100	KNBH	Dixon, Cal.	U.S.A.
15.290	19.62	15/120	—	Moscow, Russia	U.S.S.R.
15.295	19.61	10	PRL8	Rio de Janeiro	Brazil
15.295	19.61	20/100	DMQ	Jülich	Germany (West)
15.295	19.61	35/100	—	Tangier (V.o.A.)	Morocco
15.300	19.61	35/100	—	Tangier (V.o.A.)	Morocco
15.300	19.61	2	DZH9	Manila, Luzon	Philippines
15.300	19.61	20	—	Paradys	South Africa
15.300	19.61	50/100	GWR	Overseas Service*	U.K.
15.305	19.60	20	—	Teheran	Iran
15.305	19.60	35/100	—	Tangier (V.o.A.)	Morocco
15.305	19.60	15/120	—	Moscow, Russia	U.S.S.R.
15.306	19.60	4/50	FZI	Brazzaville	Congo
15.310	19.60	20/100	VUD	Delhi	India
15.310	19.60	7.5/100	—	Tebrau	Malaya
15.310	19.60	50/100	GSP	Overseas Service*	U.K.
15.315	19.59	50/100	VLA/D	Shepparton, Victoria	Australia
15.315	19.59	35	—	Okinawa (V.o.A.)	Okinawa Is.
15.315	19.59	100	HEU6	Schwarzenburg	Switzerland
15.315	19.59	15/120	—	Moscow, Russia	U.S.S.R.
15.318	19.58	50	—	Chiaya	Formosa
15.320	19.58	50	CKCS	Sackville, N.B.	Canada
15.320	19.58	50	—	Sebaa-Aioun	Morocco
15.320	19.58	35/100	—	Tangier (V.o.A.)	Morocco
15.325	19.58	—	—	Havana	Cuba
15.325	19.58	50/100	I2RO	Rome	Italy
15.325	19.58	50/100	JOB15	Tokio	Japan
15.325	19.58	50	WBOU	Bound Brook, N.J.	U.S.A.
15.325	19.58	15/120	—	Moscow, Russia	U.S.S.R.
15.329	19.57	120	—	Sofia	Bulgaria
15.330	19.57	8/100	—	Munich (V.o.A.)	Germany (West)
15.330	19.57	35/100	—	Tangier (V.o.A.)	Morocco
15.330	19.57	50	WBOU	Bound Brook, N.J.	U.S.A.
15.330	19.57	25/100	WGEO	Schenectady, N.Y.	U.S.A.
15.335	19.56	100	ORU	Wavre	Belgium
15.335	19.56	20	ZYU68	Porto Alegre	Brazil
15.335	19.56	50	APK	Karachi	Pakistan
15.335	19.56	8/100	—	Manila, Luzon (V.o.A.)	Philippines
15.335	19.56	20	—	Paradys	South Africa
15.340	19.56	50	—	Sebaa-Aioun	Morocco
15.340	19.56	50/200	KCBR	Delano, Cal.	U.S.A.
15.340	19.56	15/120	—	Moscow, Russia	U.S.S.R.
15.345	19.55	5	LRA33	Buenos Aires	Argentina
15.345	19.55	1	ETAA	Addis Ababa	Ethiopia

Mc/s	Metres	kW	Call	Station and Country
15.345	19.55	3.5/50	BED57	Taipei Formosa
15.345	19.55	7.5	—	Athens Greece
15.350	19.54	100	—	Allouis France
15.350	19.54	50	WDSI	Brentwood, N.Y. U.S.A.
15.350	19.54	100	WLWO	Cincinnati, Ohio U.S.A.
15.350	19.54	15/120	—	Moscow, Russia U.S.S.R.
15.360	19.53	8/100	—	Manila, Luzon (V.o.A.) Philippines
15.360	19.53	50/100	—	Overseas Service* U.K.
15.360	19.53	15/120	—	Moscow, Russia U.S.S.R.
15.365	19.53	100	—	Budapest Hungary
15.365	19.53	20/100	VUD	Delhi India
15.365	19.53	35/100	—	Tangier (V.o.A.) Morocco
15.365	19.53	110	WLWO	Cincinnati, Ohio U.S.A.
15.370	19.52	25	ZYC9	Rio de Janeiro Brazil
15.370	19.52	50	—	Sebaa-Aioun Morocco
15.370	19.52	15/120	—	Moscow, Russia U.S.S.R.
15.375	19.51	35	—	Colombo Ceylon
15.375	19.51	20/100	DMQ15	Jülich Germany (West)
15.375	19.51	50/100	—	Overseas Service* U.K.
15.380	19.51	10/100	VUM	Madras India
15.380	19.51	35	—	Okinawa (V.o.A.) Okinawa Island
15.380	19.51	100	—	Lisbon Portugal
15.380	19.51	3	—	Bucharest Rumania
15.380	19.51	20/80	WRUL	Boston, Mass. U.S.A.
15.380	19.51	15/120	—	Moscow, Russia U.S.S.R.
15.384	19.49	50	—	Sebaa-Aioun Morocco
15.385	19.49	35/100	—	Tangier (V.o.A.) Morocco
15.385	19.49	50	DZF3	Manila Philippines
15.385	19.49	25	—	Dakar Senegal
15.385	19.49	15/120	—	Moscow, Russia U.S.S.R.
15.385	19.49	10	CXA60	Montevideo Uruguay
15.386	19.49	35	—	Colombo Ceylon
15.390	19.49	50/100	—	Overseas Service* U.K.
15.390	19.49	—	—	Caracas Venezuela
15.395	19.49	50	WBOU	Bound Brook, N.J. U.S.A.
15.400	19.48	50/100	—	Rome Italy
15.400	19.48	50	WBOU	Bound Brook, N.J. U.S.A.
15.400	19.48	15/120	—	Moscow, Russia U.S.S.R.
15.400	19.48	5	—	St. Georges, Grenada Windward Is.
15.405	19.48	20/100	DMQ15	Jülich Germany (West)
15.405	19.48	50	—	Sebaa-Aioun Morocco
15.405	19.48	15/120	—	Moscow, Russia U.S.S.R.
15.415	19.46	1	ZYR206	Ribeirao Preto Brazil
15.415	19.46	8/100	—	Munich (V.o.A.) Germany (West)
15.417	19.46	15/240	—	Peking China
15.420	19.45	100	—	Budapest Hungary
15.420	19.45	50/200	—	Madrid Spain
15.420	19.45	100	—	Horby Sweden
15.420	19.45	50/100	—	Overseas Service* U.K.
15.425	19.45	2/10	VLW/X	Perth, W.A. Australia
15.425	19.45	10/100	—	Lopik Netherlands
15.425	19.45	15/120	—	Moscow, Russia U.S.S.R.
15.430	19.44	15/120	—	Moscow, Russia U.S.S.R.
15.432	19.44	50/100	—	Cairo Egypt

Mc/s	Metres	kW	Call	Station and Country
15.435	19.44	100	—	Wavre Belgium
15.435	19.44	100	OLR	Podebrady Czechoslovakia
15.435	19.44	7.5/100	—	Tebrau Malaya
15.435	19.44	50/100	GWE	Overseas Service* U.K.
15.440	19.43	8/100	—	Munich (V.o.A.) Germany (West)
15.440	19.43	15/120	—	Moscow, Russia U.S.S.R.
15.445	19.42	10	ZYN32	Rio de Janeiro Brazil
15.445	19.42	4/50	—	Brazzaville Congo
15.445	19.42	100	OLR	Podebrady Czechoslovakia
15.445	19.42	10/100	—	Lopik Netherlands
15.445	19.42	7.5	APD	Dacca Pakistan
15.445	19.42	15/120	—	Moscow, Russia U.S.S.R.
15.447	19.42	50/100	GRD	Overseas Service* U.K.
15.455	19.41	40	—	Kiev, Ukraine U.S.S.R.
15.455	19.41	25	—	Komsomolsk, Russia U.S.S.R.
15.460	19.40	15/120	—	Moscow, Russia U.S.S.R.
15.464	19.40	—	—	Paramaribo Dutch Guiana
15.464	19.40	50	—	Sebaa-Aioun Morocco
15.470	19.39	15/120	—	Moscow, Russia U.S.S.R.
15.475	19.39	50/100	—	Cairo Egypt
15.480	19.38	15/240	—	Peking China
15.488	19.37	—	—	Nauen Germany (East)
15.501	19.37	15/240	—	Peking China
15.550	19.29	15/240	—	Peking China
15.574	19.26	15/240	—	Peking China
15.610	19.22	15/240	—	Peking China
15.710	19.10	15/240	—	Peking China
15.880	18.92	15/240	—	Peking China
16.250	18.46	15/120	—	Moscow, Russia U.S.S.R.
16.270	18.44	15/120	—	Moscow, Russia U.S.S.R.
16.485	18.20	100	—	Budapest Hungary
17.490	17.15	15/240	—	Peking China
17.605	17.04	15/240	—	Peking China
17.671	16.98	50/100	—	Cairo Egypt
17.700	16.95	20/100	VUD	Delhi India
17.700	16.95	50/100	GVP	Overseas Service* U.K.
17.700	16.95	15/120	—	Moscow, Russia U.S.S.R.
17.705	16.94	10	ZYR94	Sao Paulo Brazil
17.705	16.94	35/100	—	Tangier (V.o.A.) Morocco
17.705	16.94	50/100	—	Tunis Tunisia
17.705	16.94	50/100	—	Overseas Service* U.K.
17.710	16.94	10	—	Lyndhurst, Victoria Australia
17.710	16.94	10	—	Al Kuwait Kuwait
17.710	16.94	110	WLWO	Cincinnati, Ohio U.S.A.
17.710	16.94	40	—	Kiev, Ukraine U.S.S.R.
17.710	16.94	50	—	Komsomolsk, Russia U.S.S.R.
17.715	16.93	50/100	GRA	Overseas Service* U.K.
17.720	16.93	4/50	FZI	Brazzaville Congo
17.720	16.93	100	—	Budapest Hungary
17.720	16.93	20/100	VUD	Delhi India
17.720	16.93	100	HEU7	Schwarzenburg Switzerland
17.720	16.93	50/100	—	Tunis Tunisia
17.720	16.93	50/200	KCBR	Delano, Cal. U.S.A.

Mc/s	Metres	kW	Call	Station and Country
17.720	16.93	15/120	—	Moscow, Russia U.S.S.R.
17.730	16.92	100	OLR	Podebrady Czechoslovakia
17.730	16.92	50/100	GVQ	Overseas Service* U.K.
17.735	16.92	7.5/100	—	Warsaw Poland
17.740	16.91	20/100	VUD	Delhi India
17.740	16.91	50/100	—	Rome Italy
17.740	16.91	50/100	GRQ	Overseas Service* U.K.
17.740	16.91	100	WLWO	Cincinnati, Ohio U.S.A.
17.740	16.91	15/120	—	Moscow, Russia U.S.S.R.
17.745	16.90	100	VLE	Shepparton, Victoria Australia
17.745	16.90	15/240	—	Peking China
17.745	16.90	100	—	Budapest Hungary
17.745	16.90	50	APK	Karachi Pakistan
17.745	16.90	50/100	—	Overseas Service* U.K.
17.745	16.90	15/120	—	Moscow, Russia U.S.S.R.
17.750	16.90	50/100	—	Djakarta, Java Indonesia
17.750	16.90	25	—	Monte Carlo Monaco
17.750	16.90	35/100	—	Tangier (V.o.A.) Morocco
17.750	16.90	20/80	WRUL	Boston, Mass. U.S.A.
17.750	16.90	15/120	—	Moscow, Russia U.S.S.R.
17.755	16.90	100	OLR	Podebrady Czechoslovakia
17.755	16.90	50/100	JOA17	Tokio Japan
17.755	16.90	7.5/100	—	Tebrau Malaya
17.755	16.90	25/100	WGEO	Schenectady, N.Y. U.S.A.
17.755	16.90	15/120	—	Moscow, Russia U.S.S.R.
17.760	16.89	20/100	VUD	Delhi India
17.760	16.89	40	—	Kiev, Ukraine U.S.S.R.
17.765	16.89	15/240	—	Peking China
17.765	16.89	100	—	Allouis France
17.765	16.89	15/120	—	Moscow, Russia U.S.S.R.
17.770	16.88	50/100	—	Rome Italy
17.770	16.88	50/200	KCBR	Delano, Cal. U.S.A.
17.775	16.88	100	—	Podebrady Czechoslovakia
17.775	16.88	10/100	PHI	Lopik Netherlands
17.775	16.88	15/120	—	Moscow, Russia U.S.S.R.
17.780	16.87	20/100	VUD	Delhi India
17.780	16.87	50/100	—	Overseas Service* U.K.
17.780	16.87	50	WBOU	Bound Brook, N.J. U.S.A.
17.780	16.87	15/120	—	Moscow, Russia U.S.S.R.
17.785	16.87	1/50	—	Taipei Formosa
17.785	16.87	50/100	JOA9	Tokio Japan
17.785	16.87	15/120	—	Moscow, Russia U.S.S.R.
17.790	16.86	50/100	GSG	Overseas Service* U.K.
17.795	16.86	10	CR6SF	Luanda Angola
17.795	16.86	50/100	JOA17	Tokio Japan
17.795	16.86	100	HER7	Schwarzenburg Switzerland
17.795	16.86	50/100	—	Tunis Tunisia
17.795	16.86	50	KGEI	Belmont, Cal. U.S.A.
17.795	16.86	110	WLWO	Cincinnati, Ohio U.S.A.
17.795	16.86	15/120	—	Moscow, Russia U.S.S.R.
17.800	16.85	35	—	Colombo Ceylon
17.800	16.85	10	OIX5	Pori Finland
17.800	16.85	20/100	VUD	Delhi India
17.800	16.85	50/100	—	Rome Italy

Mc/s	Metres	kW	Call	Station and Country
17.800	16.85	7.5/100	—	Warsaw Poland
17.805	16.85	100	OLR4H	Podebrady Czechoslovakia
17.805	16.85	1.5	DZ16	Manila, Luzon Philippines
17.810	16.84	15/240	—	Peking China
17.810	16.84	2	—	Beirut Lebanon
17.810	16.84	10/100	—	Lopik Netherlands
17.810	16.84	50/100	GSV	Overseas Service* U.K.
17.810	16.84	15/120	—	Moscow, Russia U.S.S.R.
17.815	16.84	20/100	DMQ17	Jülich Germany (West)
17.815	16.84	50	—	Seoul Korea (South)
17.815	16.84	50/200	KCBR	Delano, Cal. U.S.A.
17.815	16.84	15/120	—	Moscow, Russia U.S.S.R.
17.820	16.84	50	CKNC	Sackville, N.B. Canada
17.820	16.84	7.5	—	Colombo Ceylon
17.820	16.84	20/100	VUD	Delhi India
17.820	16.84	100	TAV	Ankara Turkey
17.825	16.83	10	LLN	Fredrikstad Norway
17.825	16.83	50/100	—	Overseas Service* U.K.
17.825	16.83	15/120	—	Moscow, Russia U.S.S.R.
17.830	16.83	20/100	VUD	Delhi India
17.830	16.83	35/100	—	Tangier (V.o.A.) Morocco
17.830	16.83	50	WDSI	Brentwood, N.Y. U.S.A.
17.830	16.83	110	WLWO	Cincinnati, Ohio U.S.A.
17.830	16.83	15/120	—	Moscow, Russia U.S.S.R.
17.833	16.82	15/240	—	Peking China
17.840	16.82	50/100	VLA/D	Shepparton, Victoria Australia
17.840	16.82	4/50	—	Brazzaville Congo
17.840	16.82	50/100	—	Overseas Service* U.K.
17.840	16.82	15/120	—	Moscow, Russia U.S.S.R.
17.840	16.82	5/100	HVJ	Vatican City Vatican City
17.845	16.81	100	ORU	Wavre Belgium
17.845	16.81	20/100	DMQ17	Jülich Germany (West)
17.845	16.81	100	—	Horby Sweden
17.845	16.81	50/100	—	Tunis Tunisia
17.845	16.81	20/80	WRUL	Boston, Mass. U.S.A.
17.850	16.81	10	PRL9	Rio de Janeiro Brazil
17.850	16.81	100	—	Allouis France
17.850	16.81	3	—	Bucharest Rumania
17.850	16.81	15/120	—	Moscow, Russia U.S.S.R.
17.855	16.81	20/100	VUD	Delhi India
17.855	16.81	50/100	JOA24	Tokio Japan
17.855	16.81	35/100	—	Tangier (V.o.A.) Morocco
17.855	16.81	20	—	Paradys South Africa
17.860	16.80	100	ORU	Wavre Belgium
17.860	16.80	20	—	Damascus Syria
17.860	16.80	50/100	—	Overseas Service* U.K.
17.860	16.80	15/120	—	Moscow, Russia U.S.S.R.
17.860	16.80	5/100	HVJ	Vatican City Vatican City
17.865	16.80	50/100	—	Cairo Egypt
17.865	16.80	50	WDSI	Brentwood, N.Y. U.S.A.
17.870	16.79	50/100	—	Djakarta, Java Indonesia
17.870	16.79	50	—	Seoul Korea (South)
17.870	16.79	8/100	—	Manila, Luzon (V.o.A.) Philippines
17.870	16.79	50/100	GRP	Overseas Service* U.K.

Mc/s	Metres	kW	Call	Station and Country
17.870	16.79	15/120	—	Moscow, Russia U.S.S.R.
17.875	16.78	1	PRL4	Rio de Janeiro Brazil
17.875	16.78	20/100	DMQ17	Jülich Germany (West)
17.880	16.78	100	CSA	Lisbon Portugal
17.880	16.78	50/100	—	Overseas Service* U.K.
17.880	16.78	110	WLWO	Cincinnati, Ohio U.S.A.
17.880	16.78	50	—	Komsomolsk, Russia U.S.S.R.
17.880	16.78	15/120	—	Moscow, Russia U.S.S.R.
17.890	16.77	30	HCJB	Quito Ecuador
17.890	16.77	50/100	GVO	Overseas Service* U.K.
17.895	16.76	50/100	CSA43	Lisbon Portugal
17.895	16.76	100	WLWO	Cincinnati, Ohio U.S.A.
17.895	16.76	40	—	Kiev, Ukraine U.S.S.R.
17.920	16.74	50/100	—	Cairo Egypt
18.080	16.59	50/100	—	Overseas Service* U.K.
18.650	16.09	15/120	—	Moscow, Russia U.S.S.R.
19.725	15.23	15/120	—	Moscow, Russia U.S.S.R.
19.845	15.12	15/120	—	Moscow, Russia U.S.S.R.
21.450	13.99	100	OLR	Podebrady Czechoslovakia
21.455	13.98	35/100	—	Tangier (V.o.A.) Morocco
21.455	13.98	50/100	—	Overseas Service* U.K.
21.460	13.98	20/80	WRUL	Boston, Mass. U.S.A.
21.460	13.98	50/200	KCBR	Delano, Cal. U.S.A.
21.464	13.98	7.5	APD	Dacca Pakistan
21.465	13.98	50	WDSI	Brentwood, N.Y. U.S.A.
21.466	13.98	50	APK	Karachi Pakistan
21.470	13.97	50/100	GSH	Overseas Service* U.K.
21.475	13.97	15/120	—	Moscow, Russia U.S.S.R.
21.480	13.97	10/100	—	Lopik Netherlands
21.485	13.96	110	WLWO	Cincinnati, Ohio U.S.A.
21.490	13.96	50/100	—	Overseas Service* U.K.
21.492	13.95	20	—	Paradys South Africa
21.495	13.95	100	CSA67	Lisbon Portugal
21.498	13.95	8/100	—	Manila, Luzon (V.o.A.) Philippines
21.500	13.95	100	ORU	Wavre Belgium
21.500	13.95	4/50	FZI	Brazzaville Congo
21.500	13.95	20/80	WRUL	Boston, Mass. U.S.A.
21.500	13.95	50	WDSI	Brentwood, N.Y. U.S.A.
21.500	13.95	5/100	HVJ	Vatican City Vatican City
21.505	13.95	20/100	VUD	Delhi India
21.505	13.95	15/120	—	Moscow, Russia U.S.S.R.
21.510	13.95	100	ORU	Wavre Belgium
21.510	13.95	100	—	Allouis France
21.510	13.95	20/100	VUD	Delhi India
21.512	13.94	2	DZ18	Manila, Luzon Philippines
21.515	13.94	20/100	VUD	Delhi India
21.515	13.94	5/100	HVJ	Vatican City Vatican City
21.520	13.94	100	HER8	Schwarzenburg Switzerland
21.520	13.94	100	WLWO	Cincinnati, Ohio U.S.A.
21.530	13.93	50/100	GSJ	Overseas Service* U.K.
21.530	13.93	15/120	—	Moscow, Russia U.S.S.R.
21.535	13.93	10	—	Al Kuwait Kuwait
21.535	13.93	20	ELWA	Monrovia Liberia
21.540	13.93	50/100	VLA/D	Shepparton, Victoria Australia

Mc/s	Metres	kW	Call	Station and Country	
21.540	13.93	50	WBOU	Bound Brook, N.J.	U.S.A.
21.550	13.92	50/100	GST	Overseas Service*	U.K.
21.555	13.92	15/120	—	Moscow, Russia	U.S.S.R.
21.560	13.91	20/100	VUD	Delhi	India
21.560	13.91	50/100	—	Rome	Italy
21.565	13.91	20/100	VUD	Delhi	India
21.565	13.91	10/100	—	Lopik	Netherlands
21.570	13.91	10/100	VUM	Madras	India
21.570	13.91	50	WBOU	Bound Brook, N.J.	U.S.A.
21.575	13.91	50/100	—	Overseas Service*	U.K.
21.575	13.91	15/120	—	Moscow, Russia	U.S.S.R.
21.580	13.90	100	—	Allouis	France
21.580	13.90	20/100	VUD	Delhi	India
21.581	13.90	10	—	Goa	Goa
21.585	13.90	—	—	Munich	Germany (West)
21.590	13.90	50/100	APK	Karachi	Pakistan
21.590	13.90	25/100	WGEO	Schenectady, N.Y.	U.S.A.
21.596	13.89	15/120	—	Moscow, Russia	U.S.S.R.
21.600	13.89	50	CKRP	Sackville, N.B.	Canada
21.600	13.89	7.5/100	—	Warsaw	Poland
21.605	13.88	100	HEI9	Schwarzenburg	Switzerland
21.610	13.88	50/100	JOB21	Tokio	Japan
21.610	13.88	7.5/100	—	Tebrau	Malaya
21.610	13.88	110	WLWO	Cincinnati, Ohio	U.S.A.
21.615	13.87	20/100	VUD	Delhi	India
21.615	13.87	50/100	—	Overseas Service*	U.K.
21.620	13.87	100	—	Allouis	France
21.620	13.87	20/100	VUD	Delhi	India
21.620	13.87	50/100	JOB21	Tokio	Japan
21.620	13.87	50/100	—	Overseas Service*	U.K.
21.625	13.87	100	—	Podebrady	Czechoslovakia
21.626	13.87	4/50	FZI	Brazzaville	Congo
21.630	13.87	50/100	GVT	Overseas Service*	U.K.
21.630	13.87	50	—	Komsomolsk, Russia	U.S.S.R.
21.635	13.87	100	—	Honolulu (V.o.A.)	Hawaii
21.635	13.87	50	—	Seoul	Korea (South)
21.640	13.86	50/100	GRZ	Overseas Service*	U.K.
21.640	13.86	2	—	Baku, Azerbaidjan	U.S.S.R.
21.640	13.86	—	—	Leningrad, Russia	U.S.S.R.
21.650	13.86	20/100	DMQ21	Jülich	Germany (West)
21.650	13.86	10/100	VUB	Bombay	India
21.650	13.86	50	WDSI	Brentwood, N.Y.	U.S.A.
21.655	13.85	8/100	—	Manila, Luzon (V.o.A.)	Philippines
21.660	13.85	—	—	Berlin	Germany (East)
21.660	13.85	50/100	MCX	Overseas Service*	U.K.
21.670	13.84	5	LLP	Oslo	Norway
21.675	13.84	50/100	GVR	Overseas Service*	U.K.
21.680	13.84	50/100	VLA/D	Shepparton, Victoria	Australia
21.680	13.84	100	—	Allouis	France
21.680	13.84	5	—	St. Georges, Grenada	Windward Is.
21.685	13.83	20/100	VUD	Delhi	India
21.685	13.83	7.5	APD	Dacca	Pakistan
21.690	13.83	20/100	VUD	Delhi	India
21.690	13.83	50	WDSI	Brentwood, N.Y.	U.S.A.

Mc/s	Metres	kW	Call	Station	Country
21.700	13.83	20/100	VUD	Delhi	India
21.700	13.83	50	CSA	Lisbon	Portuga
21.705	13.83	20/100	DMQ	Jülich	Germany (West)
21.705	13.82	35/100	—	Tangier (V.o.A.)	Morocco
21.710	13.82	50/100	GVS	Overseas Service*	U.K.
21.715	13.82	10/100	—	Lopik	Netherlands
21.725	13.81	100	ORU	Wavre	Belgium
21.730	13.81	5	LLQ	Oslo	Norway
21.730	13.81	110	WLWO	Cincinnati, Ohio	U.S.A.
21.735	13.80	50	BED44	Chiayi	Formosa
21.735	13.80	20/100	DMQ21	Jülich	Germany (West)
21.740	13.80	50/100	MCY	Overseas Service*	U.K.
21.740	13.80	50/200	KCBR	Delano, Cal.	U.S.A.
21.766	13.78	120	—	Sofia	Bulgaria
24.281	12.35	120	—	Sofia	Bulgaria
25.610	11.71	10/100	—	Lopik	Netherlands
25.615	11.71	3	OEI38	Vienna	Austria
25.630	11.70	50/200	KCBR	Delano, Cal.	U.S.A.
25.650	11.70	50/100	—	Overseas Service*	U.K.
25.670	11.69	50/100	—	Overseas Service*	U.K.
25.695	11.67	40	—	Kiev, Ukraine	U.S.S.R.
25.700	11.67	100	—	Honolulu (V.o.A.)	Hawaii
25.720	11.67	50/100	GSR	Overseas Service*	U.K.
25.735	11.66	50/100	VLA/D	Shepparton, Victoria	Australia
25.750	11.65	50/100	GSQ	Overseas Service*	U.K.
25.800	11.63	20	—	Paradys	South Africa
25.840	11.62	50/100	GSS	Overseas Service*	U.K.
25.880	11.60	35/100	—	Tangier (V.o.A.)	Morocco
25.900	11.59	5/100	LLA	Oslo	Norway
25.950	11.56	50	WBOU	Bound Brook, N.J.	U.S.A.
26.040	11.52	10/100	—	Lopik	Netherlands
26.040	11.52	50/100	—	Overseas Service*	U.K.
26.040	11.52	50	WBOU	Bound Brook, N.J.	U.S.A.
26.080	11.50	50/100	GSK	Overseas Service*	U.K.

Short-wave Broadcasting Bands

By international agreement, reached in Geneva in 1959, broadcasting on the short waves is limited to certain bands ; these are listed below. It will be seen, however, from the foregoing list that many stations are operated outside these bands. Some bands are shared with other services and the use of others (marked T) is limited to the Tropical Zone.

2.300 — 2.498 Mc/s	(T)	} Shared with fixed and mobile services.
3.200 — 3.400	(T)	
3.950 — 4.000		Shared with fixed service.
4.750 — 4.995	(T)	Shared with fixed and mobile services.
5.005 — 5.060	(T)	Shared with fixed services.
5.950 — 6.200		

In Region 2 this band is allocated exclusively to amateurs.

7.100 — 7.300
9.500 — 9.775
11.700 — 11.975
15.100 — 15.450
17.700 — 17.900
21.450 — 21.750
25.600 — 26.100

Geographical List of Short-wave Stations of the World

	Mc/s		Mc/s		Mc/s
ADEN		ARGENTINA		Vienna	9.770
Kormaksar	7.170	Buenos Aires	5.986	"	9.785
AFGHANISTAN		" "	6.065	"	11.785
Kabul	4.042	" "	6.090	"	11.825
"	4.709	" "	6.120	"	11.935
"	4.751	" "	9.660	"	25.615
"	5.006	" "	9.689		
"	6.215	" "	9.740	AZORES	
"	9.705	" "	9.760	Punta Delgada	4.866
"	15.225	" "	11.730	BALI	
AFRICA,		" "	11.880	(See Indonesia)	
FRENCH WEST		" "	15.290	BELGIUM	
(See Dahomey, Ivory		" "	15.345	Wavre	6.000
Coast, Senegal, Sudan		AUSTRALIA		"	9.705
and Togoland)		Brisbane, Qld.	4.920	"	9.745
AFRICA,		"	9.660	"	9.765
PORT. EAST		Lyndhurst, Vic.	6.150	"	9.773
(See Mozambique)		" "	9.680	"	11.805
AFRICA,		" "	15.210	"	11.840
PORT. WEST		" "	15.230	"	11.850
(See Angola)		" "	17.710	"	15.335
ALBANIA		Perth, W.A.	4.897	"	15.435
Scutari	8.215	" "	6.140	"	17.845
Tirana	7.157	" "	9.610	"	17.860
"	7.851	" "	11.840	"	21.500
ALGERIA		" "	15.425	"	21.510
Algiers	6.145	Shepparton, Vic.	7.220	"	21.725
"	6.160	" "	9.565		
"	6.200	" "	9.580	BOLIVIA	
"	9.685	" "	11.710	Cochabamba	5.975
"	11.835	" "	11.740	La Paz	9.440
ANDORRA		" "	11.760	"	9.555
Andorra	5.990	" "	11.810	Sucre	9.715
"	6.195	" "	15.180	BORNEO	
"	6.306	" "	15.240	(See Indonesia)	
ANGOLA		" "	15.315	BORNEO, BRIT. N.	
Benguela	5.042	" "	17.745	Jesselson	7.180
"	9.502	" "	17.840	"	5.980
Dondo	4.770	" "	21.540	BRAZIL	
Lobito	5.033	" "	21.680	Aparecida	3.285
Luanda	4.868	" "	25.735	"	9.635
"	4.954	Sydney, N.S.W.	6.090	Bahia	3.345
"	9.629	AUSTRIA		Belem	4.865
"	11.755	Vienna	6.055	"	15.256
"	17.795	"	6.155	Belo Horizonte	6.000
Lubango	5.022	"	7.199	"	15.190
Nova Lisboa	4.852	"	7.245	Cuiaba	5.055
"	7.160	"	9.505	Curityba	6.045
"	11.924	"	9.543	"	9.545
Sa da Bandeira	5.024	"	9.608	Espirito Santo	5.055
Silva Porto	4.842	"	9.620		
		"	9.660		

	Mc/s		Mc/s		Mc/s
Brazil—cont.		Sao Paulo	6.115	CAPE VERDE IS.	
Florianopolis	9.675	" "	6.125	Praia	3.956
Fortaleza	4.776	" "	6.165	Sao Vicente	3.950
"	4.813	" "	6.185		
"	6.105	" "	9.505	CELEBES	
"	15.165	" "	9.585	(See Indonesia)	
Goiana	4.995	" "	9.620	CENTRAL	
"	9.755	" "	9.685	AFRICAN REP.	
"	11.815	" "	9.745	Bangui	5.020
Manaos	4.805	" "	11.764		
"	4.895	" "	11.924	CEYLON	
Natal	4.935	" "	15.135	Colombo	3.395
Nitheroy	6.195	" "	15.155	"	4.900
Pocos de Caldas	4.885	" "	15.263	"	4.965
" " "	9.645	" "	17.705	"	5.020
Porto Alegre	6.135	BULGARIA		"	6.005
"	9.730	Sofia	6.070	"	7.110
"	11.785	"	7.255	"	7.190
"	15.335	"	7.670	"	7.275
Recife	3.265	"	9.635	"	9.520
"	6.015	"	9.700	"	11.770
"	6.085	"	11.850	"	11.835
"	9.565	"	15.329	"	11.875
"	11.825	"	21.766	"	15.120
"	11.865	"	24.281	"	15.210
"	15.145	BURMA		"	15.375
Ribeirao Preto	15.415	Rangoon	4.795	"	15.386
Rio de Janeiro	4.905	"	6.035	"	17.800
"	5.015	CAMBODIA		"	17.820
"	5.045	Pnompenh	6.090	CHAD REPUBLIC	
"	6.034	"	7.290	Fort Lamy	4.785
"	6.065	"	9.755	" "	4.905
"	6.146	CAMEROUN REP.		" "	7.120
"	9.575	Duala	6.115	CHILE	
"	9.610	Yaounde	4.971	Antofagasta	6.010
"	9.705	"	7.290	Santiago	5.750
"	9.720	CANADA		"	6.190
"	9.775	Halifax, N.S.	6.130	"	9.598
"	11.775	Montreal,		"	11.740
"	11.950	Quebec	6.005	"	11.940
"	15.105	Sackville, N.B.	5.970	"	11.960
"	15.295	"	9.585	"	12.003
"	15.370	"	9.630	"	15.148
"	15.445	"	11.720	Valparaiso	6.150
"	17.850	"	11.760		
"	17.875	"	15.190	CHINA	
Salvador	9.595	"	15.230	Peking	3.915
"	11.875	"	15.320	"	3.960
"	15.225	"	17.820	"	3.982
Sao Luiz	4.785	"	21.595	"	4.220
"	4.975	"	21.600	"	4.620
Sao Paulo	4.755	Sydney, N.S.	6.010	"	5.030
"	5.955	Toronto, Ont.	6.070	"	5.220
"	6.025				
"	6.055				
"	6.055				
"	6.095				

	Mc/s		Mc/s		Mc/s
China—cont.					
Peking	5.880	Peking	15.417	Bakavu	4.838
"	5.930	"	15.480	"	7.216
"	5.950	"	15.501	Brazzaville	4.834
"	6.000	"	15.550	"	5.970
"	6.103	"	15.574	"	7.105
"	6.125	"	15.610	"	9.545
"	6.210	"	15.710	"	9.605
"	6.225	"	15.880	"	9.715
"	6.790	"	17.490	"	9.730
"	6.995	"	17.605	"	9.770
"	7.080	"	17.745	"	11.725
"	7.100	"	17.765	"	11.970
"	7.130	"	17.810	"	15.120
"	7.170	"	17.833	"	15.190
"	7.335	Ulan Bator,		"	15.306
"	7.500	Mongolia	5.960	"	15.446
"	7.620	Urumchi	6.270	"	17.720
"	9.064	"	7.060	"	17.840
"	9.170	"	9.468	"	21.500
"	9.390	COLOMBIA		"	21.626
"	9.456	Armenia	4.795	Coquilhatville	5.995
"	9.480	Barranquilla	4.779	"	7.255
"	9.510	"	4.897	Elizabethville	3.390
"	9.525	Bogota	4.895	"	4.981
"	9.620	"	4.945	"	5.933
"	9.650	"	4.957	"	6.035
"	9.671	"	4.965	"	7.155
"	9.735	"	5.010	"	11.787
"	9.775	"	5.960	"	11.867
"	9.785	"	6.160	Leopoldville	3.250
"	9.800	"	6.183	"	4.760
"	9.972	Cali	4.764	"	4.880
"	10.262	"	4.910	"	5.965
"	11.110	"	6.053	"	6.296
"	11.290	"	6.135	"	9.210
"	11.515	"	6.195	"	9.385
"	11.600	Cartagena	4.925	"	9.765
"	11.630	"	4.965	"	11.720
"	11.650	Cucuta	4.818	"	11.730
"	11.675	Ibague	4.935	"	11.755
"	11.780	"	6.040	"	11.795
"	11.800	Manizales	5.020	"	11.918
"	11.820	Medellin	5.055	Luluabourg	6.125
"	11.860	"	6.105	Usumbura	6.195
"	11.945	Neiva	4.856	Stanleyville	6.079
"	11.960	Pasto	4.825	"	9.700
"	11.975	Pereira	6.009		
"	11.980	Popayan	4.915	COSTA RICA	
"	12.010	Quibdo	5.042	Puerto Limon	5.955
"	15.059	Sutatenza	5.075	San Jose	6.007
"	15.095	"	5.095	"	6.043
"	15.115	"	6.075	"	6.151
"	15.140			"	6.230
"	15.271	CONGO		"	9.616
		Bakavu	4.808	"	9.647

	Mc/s		Mc/s		Mc/s
CUBA		DENMARK		Cairo	17.671
Havana	6.434	Copenhagen	7.306	"	17.865
"	9.025	"	9.520	"	17.920
"	9.362	"	15.165	ETHIOPIA	
"	9.670			Addis Ababa	5.060
"	11.760	DOMINICAN		" "	6.185
"	15.325	REPUBLIC		" "	7.290
CYPRUS		Ciudad Trujillo	3.288	" "	15.345
Limassol	6.120	" "	3.322	Gimma	11.955
"	6.170	" "	3.345	FIJI ISLANDS	
"	9.649	" "	5.970	Suva	3.980
"	11.718	" "	6.112	FINLAND	
CZECHOSLOVAKIA		" "	6.190	Pori	6.120
Podebrady	5.935	" "	9.485	"	9.555
"	6.055	" "	9.735	"	11.820
"	6.155	" "	15.050	"	11.957
"	6.170	La Romana	4.815	"	15.190
"	6.230	San Pedro	6.025	"	17.800
"	7.185	Santiago	4.981	FORMOSA	
"	7.235	ECUADOR		Chiayi	9.630
"	7.254	Esmeraldas	3.844	"	15.318
"	7.275	Guayaquil	4.600	"	21.735
"	7.340	"	4.650	Taipei	5.985
"	9.505	"	4.710	"	5.995
"	9.515	Portoviejo	4.700	"	6.103
"	9.550	Santiago de los		"	7.148
"	9.585	Caballeros	3.382	"	7.240
"	9.605	Quito	4.679	"	7.270
"	9.670	"	4.910	"	7.340
"	11.725	"	4.930	"	9.661
"	11.745	"	5.780	"	11.825
"	11.795	"	6.050	"	11.973
"	11.840	"	9.745	"	15.226
"	11.875	"	11.915	"	15.278
"	11.905	"	15.110	"	15.345
"	11.925	"	17.890	"	17.785
"	11.990	EGYPT		FRANCE	
"	15.120	Cairo	6.217	Allouis	5.955
"	15.125	"	7.051	"	5.980
"	15.160	"	7.141	"	6.145
"	15.185	"	7.180	"	6.160
"	15.230	"	9.750	"	6.175
"	15.245	"	9.784	"	7.160
"	15.285	"	9.795	"	7.170
"	15.435	"	9.805	"	7.240
"	15.445	"	11.660	"	7.280
"	17.730	"	11.745	"	9.560
"	17.775	"	11.915	"	9.585
"	17.805	"	12.054	"	9.620
"	21.450	"	12.092	"	9.680
DAHOMEY		"	15.432	"	9.755
Cotonou	4.870	"	15.475	"	11.700

	Mc/s		Mc/s		Mc/s
France—cont.		Munich	5.975	Janina	7.083
Allouis	11.835	"	6.085	"	11.785
"	11.845	"	6.100	Salonika	6.040
"	11.885	"	6.140	"	6.155
"	11.920	"	6.185	"	7.205
"	15.130	"	7.235	"	9.520
"	15.160	"	9.530	"	9.635
"	15.245	"	9.545	"	11.760
"	15.350	"	9.590	"	11.845
"	17.765	"	9.635	"	11.880
"	17.850	"	11.715		
"	17.892	"	11.740	GRENADA	
"	21.580	"	11.775	(See Windward Is.)	
"	21.680	"	11.805		
GABON REPUBLIC		"	11.830	GUATEMALA	
Libreville	4.775	"	15.230	Guatemala City	5.951
"	9.690	"	15.280	"	5.990
GERMANY, EAST		"	15.330	"	6.101
Berlin	6.115	"	15.415	"	6.180
"	6.312	"	15.440	"	9.665
"	7.295	"	25.585	Quezaltenango	11.700
"	11.731	Norden	3.970		
"	11.825	"	5.980	GUIANA, BRITISH	
"	12.006	"	6.075	Georgetown	3.255
"	21.660	"	15.275	"	5.981
Leipzig	9.730	Stuttgart	6.030	GUIANA, DUTCH	
Nauen	15.488			Paramaribo	15.464
GERMANY, WEST		GHANA			
Bad Durrheim	7.235	Accra	3.366	GUINEA	
"	7.265	"	4.915	REPUBLIC	
Berlin	6.005	Tema	7.130	Conakry	4.909
"	11.695	"	7.195		
"	11.765	"	7.275	GUINEA, PORT.	
Bremen	6.190	"	7.295	Bissao	3.975
Jülich	6.145	"	9.524		
"	9.605	"	9.598	GUINEA, SPANISH	
"	9.640	"	9.640	Santa Isabel	6.240
"	9.735	"	9.765		
"	11.715	"	11.800	HAITI	
"	11.795	"	15.190	Cap Haitien	6.000
"	11.871	"	15.287	"	6.120
"	11.905	"		"	6.135
"	11.925	GOA		"	6.156
"	11.945	Goa	9.691	"	9.770
"	11.975	"	21.581	Les Gonaires	5.060
"	15.285	GREECE		Port au Prince	6.012
"	15.295	Athens	5.960	"	6.200
"	15.375	"	6.047	HAWAII	
"	15.405	"	6.075	Honolulu	9.650
"	17.845	"	6.134	"	11.775
"	17.875	"	7.296	"	21.635
"	21.650	"	9.606	"	25.700
"	21.705	"	11.720	HONDURAS, BRIT.	
Munich	3.980	"	11.730	Belize	3.300
"	5.960	"	15.345	"	6.100

	Mc/s		Mc/s		Mc/s
HONDURAS		Delhi	7.185	Delhi	21.580
REPUBLIC		"	7.225	"	21.615
Comayagua	6.105	"	7.270	"	21.620
San Pedro Sula	5.995	"	7.290	"	21.685
" " "	6.061	"	9.560	"	21.690
" " "	6.124	"	9.565	"	21.700
Tegucigalpa	5.874	"	9.590	Gauhati, Assam	3.335
"	6.080	"	9.605	"	4.775
Tela	6.035	"	9.620	"	4.940
		"	9.630	"	6.130
HONG KONG		"	9.640	"	7.150
Victoria	3.940	"	9.660	Hyderabad	4.989
		"	9.680	"	6.120
HUNGARY		"	9.705	Lucknow	4.880
Budapest	6.235	"	9.720	Madras	4.920
"	7.220	"	9.740	"	7.260
"	9.665	"	9.750	"	9.590
"	9.833	"	11.715	"	15.380
"	11.895	"	11.740	"	21.570
"	11.911	"	11.760	Ranchi	4.850
"	15.160	"	11.791	"	9.650
"	15.334	"	11.800	Simla	4.760
"	15.420	"	11.830	"	6.040
"	16.485	"	11.871	"	7.170
"	17.720	"	11.900		
"	17.745	"	11.920	INDONESIA	
		"	11.940	Ambon,	
ICELAND		"	11.950	Moluccas	3.240
Reykjavik	11.778	"	15.040	" "	4.865
		"	15.105	Bandjermassin,	
INDIA		"	15.110	Borneo	3.250
Bhopal	3.315	"	15.160	" "	5.970
"	4.840	"	15.165	Bandoeng, Java	4.945
"	5.990	"	15.170	Bukittinggi,	
"	7.160	"	15.190	Sumatra	5.030
"	9.670	"	15.225	Den Pasar, Bali	3.945
Bombay	6.065	"	15.235	" "	4.840
"	6.150	"	15.240	Djakarta, Java	2.450
"	7.170	"	15.260	" "	3.277
"	9.550	"	15.290	" "	6.045
"	11.895	"	15.310	" "	7.270
"	15.270	"	15.365	" "	9.585
"	21.650	"	17.700	" "	9.710
Calcutta	3.245	"	17.720	" "	9.867
"	6.010	"	17.740	" "	11.710
"	7.210	"	17.760	" "	11.770
"	9.530	"	17.780	" "	11.795
Delhi	4.820	"	17.800	" "	15.150
"	4.860	"	17.820	" "	17.750
"	4.960	"	17.830	" "	17.870
"	5.975	"	17.855	Djokjakarta,	
"	6.190	"	21.505	Java	2.350
"	7.105	"	21.510	" "	5.060
"	7.120	"	21.515	" "	7.255
"	7.125	"	21.560	Kutaradja,	
"	7.135	"	21.565	Sumatra	4.982
"	7.155	"			

	Mc/s		Mc/s		Mc/s
Indonesia—cont.		Rome	7.275	JORDAN	
Macassar,		"	7.290	Amman	7.155
Celebes	4.751	"	9.575	"	11.810
" "	7.295	"	9.630	"	15.170
Madium, Java	3.286	"	9.710		
Medan,		"	11.810	KASHMIR	
Sumatra	5.029	"	11.867	Srinagar	3.277
Menado,		"	11.905	"	4.860
Celebes	2.700	"	15.325	"	6.110
Padang,		"	15.400	"	7.270
Sumatra	3.960	"	17.740		
Palembang,		"	17.770	KENYA	
Java	2.430	"	17.800	Changamwe	4.965
" "	4.855	"	21.560	Kisumu	4.804
Semarang, Java	2.490			"	7.295
Sibolga,		IVORY COAST		Langata	3.315
Sumatra	3.241	Abidjan	4.940	"	4.885
Surabaya, Java	3.356	"	7.215	"	4.934
" "	3.980	"	9.660	"	6.060
Surakarta, Java	4.880	"	11.818	"	6.170
				"	7.150
				Nairobi	4.855
IRAN		JAMAICA			
Ahwaz	7.990	Kingston	3.360	KOREA (NORTH)	
Isfahan	6.155			Pyongyang	5.700
Teheran	3.787	JAPAN		"	6.195
"	7.032	Tokio	6.005		
"	7.048	"	6.055	KOREA (SOUTH)	
"	7.110	"	6.080	Seoul	3.910
"	7.286	"	7.285	"	5.975
"	9.680	"	9.505	"	7.184
"	15.125	"	9.525	"	7.936
"	15.305	"	9.595	"	9.640
		"	9.655	"	11.925
		"	9.675	"	15.122
IRAQ		"	9.695	"	17.815
Baghdad	3.295	"	9.740	"	17.870
"	6.030	"	11.705	"	21.635
"	7.180	"	11.725		
		"	11.750	KUWAIT	
		"	11.800	Al Kuwait	4.968
ISRAEL		"	11.815	"	9.520
Tel Aviv	7.186	"	11.875	"	11.920
"	7.190	"	11.940	"	15.140
"	9.009	"	15.115	"	17.710
"	9.720	"	15.135	"	21.535
"	9.725	"	15.235		
"	11.920	"	15.255	LAOS	
		"	15.325	Vientiane	4.520
ITALY		"	17.755	"	6.130
Caltanissetta	6.060	"	17.785	"	6.150
"	7.175	"	17.795	"	7.145
"	9.515	"	17.855		
"	9.535	"	21.510	LEBANON	
Rome	3.995	"	21.620	Beirut	8.008
"	5.960			"	9.680
"	6.010			"	17.810
"	6.125	JAVA (See Indonesia)			

	Mc/s		Mc/s		Mc/s
LIBERIA		Mexico City	9.625	Tangier	9.570
Monrovia	4.770	" "	9.680	"	9.615
"	11.825	" "	11.880	"	9.680
"	11.975	" "	15.160	"	9.740
"	11.983	" "	15.205	"	9.755
"	15.083	Morelia	6.030	"	9.760
"	15.125	Tampico	6.045	"	9.780
"	15.155	Vera Cruz	9.545	"	11.517
"	21.535			"	11.730
LIBYA		MOLUCCAS (See		"	11.760
Benghazi	3.305	Indonesia)		"	11.785
"	4.930	MONACO		"	11.865
"	9.895	Monte Carlo	4.855	"	11.871
LUXEMBOURG		"	6.035	"	11.875
Luxembourg	6.090	"	6.115	"	11.890
LUZON		"	6.141	"	15.040
(See Philippines)		"	7.111	"	15.185
MADAGASCAR		"	7.135	"	15.190
Tananarive	3.232	"	7.245	"	15.205
"	3.386	"	9.690	"	15.270
"	5.015	"	9.705	"	15.295
MALAYA		"	11.710	"	15.300
Kuala Lumpur	6.024	"	11.760	"	15.305
"	7.200	"	11.805	"	15.320
"	7.278	"	11.955	"	15.330
Singapore	4.780	"	17.750	"	15.365
"	6.015	MOROCCO		"	15.385
"	6.135	Rabat	9.422	"	17.705
Tebrau	6.175	"	9.477	"	17.750
"	7.110	Sebaa Aioun	6.190	"	17.830
"	7.120	"	7.115	"	17.855
"	9.690	"	7.445	"	21.455
"	9.725	"	9.495	"	21.705
"	11.820	"	9.553	"	25.880
"	11.955	"	9.700	MOZAMBIQUE	
"	15.310	"	11.735	Lourenco	
"	15.435	"	15.288	Marques	3.226
"	17.755	"	15.320	"	3.405
"	21.610	"	15.340	"	4.840
MARTINIQUE		"	15.370	"	4.924
Fort de France	3.316	"	15.384	"	7.252
"	4.895	"	15.405	"	9.615
"	5.996	"	15.464	"	9.765
MAURITANIA		Tangier	6.170	"	15.142
Nouakchott	4.855	"	7.125	NETHERLANDS	
"	7.242	"	7.135	Huizen	15.220
MEXICO		"	7.160	Lopik	5.980
Mexico City	6.007	"	7.200	"	6.020
"	9.500	"	7.228	"	6.025
"	9.610	"	7.240	"	6.085
		"	7.250	"	9.590
		"	7.275	"	9.715
		"	9.540	"	9.745
		"	9.555	"	11.711

	Mc/s		Mc/s		Mc/s
Netherlands—cont.		Oslo	21.670	Lahore	3.395
Lopik	11.730	"	21.730	"	4.800
"	11.755	"	25.900	"	7.225
"	11.780	Tromso	9.550	Peshawar	3.239
"	11.915				
"	15.425	OKINAWA ISLAND		PAPUA	
"	15.445	Okinawa	6.145	Port Moresby	6.130
"	17.775	"	7.155		
"	17.810	"	7.235	PARAGUAY	
"	21.480	"	9.615	Ascuncion	5.975
"	21.565	"	9.665	"	11.850
"	21.715	"	9.670		
"	25.610	"	11.920	PERU	
"	26.040	"	11.960	Arequipa	9.350
NEW CALEDONIA		"	15.215	Chichayo	6.700
Noumea	6.035	"	15.315	David	6.045
		"	15.380	Iquitos	9.521
NEW GUINEA,		PAKISTAN		"	9.610
DUTCH		Dacca	4.791	"	9.625
Bosnek, Biak	5.045	"	5.970	Lima	6.082
NEW ZEALAND		"	5.980	"	9.453
Wellington	6.080	"	7.140	"	9.541
"	9.540	"	9.615	"	15.095
"	11.780	"	15.270	"	15.152
"	11.830	"	15.445	"	15.169
"	15.280	"	21.464		
		"	21.685	PHILIPPINES	
NICARAGUA		Karachi	3.945	Bocau	11.855
Granada	5.966	"	3.963	"	11.920
Managua	6.065	"	4.895	Manila, Luzon	3.345
"	6.140	"	4.910	"	6.030
NIGER REPUBLIC		"	5.990	"	7.175
Niamey	4.785	"	6.070	"	9.535
"	5.020	"	7.008	"	9.730
"	9.708	"	7.242	"	9.770
"	11.785	"	7.275	"	11.785
NIGERIA		"	7.290	"	11.895
Enugu	4.855	"	9.595	"	11.920
"	6.145	"	9.643	"	15.125
"	9.635	"	9.738	"	15.130
Ibadan	3.205	"	9.750	"	15.155
"	3.995	"	11.672	"	15.185
"	7.285	"	11.731	"	15.210
Kaduna	3.326	"	11.845	"	15.245
"	6.174	"	11.885	"	15.275
"	7.275	"	11.907	"	15.300
"	9.655	"	11.920	"	15.335
Lagos	4.990	"	11.940	"	15.360
		"	15.145	"	15.385
NORWAY		"	15.155	"	17.805
Fredrikstad	6.130	"	15.195	"	17.870
"	9.610	"	15.285	"	21.498
"	11.850	"	15.335	"	21.512
"	15.170	"	17.745	"	21.655
"	15.175	"	21.466	San Fernando,	
"	17.825	"	21.590	Luzon	6.125

	Mc/s		Mc/s		Mc/s
POLAND		Lusaka	9.570	SOMALILAND,	
Opole	6.850	"	11.882	FRENCH	
Stettin	3.978	Salisbury	3.395	Djibouti	4.780
Warsaw	6.005	"	6.018	SOUTH AFRICA	
"	6.194	RUMANIA		Paradys	3.290
"	7.125	Bucharest	5.980	"	3.316
"	7.295	"	5.990	"	3.356
"	7.315	"	6.190	"	3.375
"	9.525	"	7.195	"	4.810
"	9.539	"	7.225	"	4.895
"	9.595	"	9.499	"	4.945
"	9.685	"	9.569	"	6.005
"	11.705	"	9.587	"	7.185
"	11.740	"	11.810	"	7.230
"	11.803	"	11.935	"	7.275
"	11.815	"	15.250	"	7.315
"	11.840	"	15.380	"	9.523
"	11.865	"	17.850	"	9.680
"	11.951	"		"	9.720
"	11.970	SALVADOR		"	11.840
"	15.120	San Salvador	6.010	"	11.935
"	15.275	" "	6.187	"	15.235
"	17.735	" "	9.552	"	15.263
"	17.780	Santa Ana	4.798	"	15.300
"	17.800	" "	5.980	"	15.335
"	21.600	SARAWAK		"	17.855
PORTUGAL		Kuching	4.860	"	21.492
Lisbon	6.025	"	4.950	"	25.800
"	6.079	"	7.160	SPAIN	
"	6.155	"	9.565	Madrid	5.991
"	6.186	SAUDI ARABIA		"	6.130
"	9.635	Jidda	3.960	"	6.139
"	9.740	"	9.650	"	7.103
"	9.750	"	11.950	"	7.601
"	11.840	SENEGAL		"	9.360
"	11.875	Dakar	4.890	"	9.370
"	11.915	"	4.950	"	9.680
"	15.086	"	6.635	"	11.815
"	15.125	"	7.170	"	11.986
"	15.380	"	7.210	"	15.420
"	17.880	"	11.895	Malaga	6.180
"	17.890	"	15.225	"	6.194
"	21.490	"	15.385	Valencia	6.995
"	21.700	"		Valladolid	7.018
REUNION ISLAND		SIERRA LEONE		SUDAN	
St. Denis	3.380	Freetown	3.316	Khartoum	5.038
RHODESIA-		SOLOMON IS.		"	7.200
NYASALAND FED.		Honiara	5.960	"	11.855
Lusaka	3.915	SOMALI REPUBLIC		Omdurman	9.506
"	3.956	Hargeisa	4.787	SUDAN, FRENCH	
"	4.828	"	7.135	Bamako	4.835
"	4.864	Mogadishu	7.073	SUMATRA (See	
"	4.911	"	7.160	Indonesia)	
"	4.964	"	7.220		

	Mc/s		Mc/s		Mc/s
SURINAM (See Guiana, Dutch)		TOGOLAND		Overseas	
SWEDEN		Lome	5.036	Service*	7.250
Hörby	6.065	TRIPOLITANIA		" "	7.260
"	7.230	(See Libya)		" "	7.280
"	9.605	TUNISIA		" "	7.320
"	9.620	Tunis	5.970	" "	7.325
"	9.725	"	5.985	" "	9.410
"	11.705	"	17.925	" "	9.510
"	11.880	"	11.705	" "	9.525
"	15.240	"	17.720	" "	9.550
"	15.420	"	17.795	" "	9.555
"	17.845	"	17.845	" "	9.570
Motala	7.270	TURKEY		" "	9.580
SWITZERLAND		Ankara	7.285	" "	9.600
Schwarzenburg	3.985	"	7.650	" "	9.625
"	6.165	"	9.515	" "	9.640
"	7.210	"	9.745	" "	9.660
"	9.535	"	15.160	" "	9.675
"	9.545	"	15.195	" "	9.690
"	9.655	"	17.820	" "	9.700
"	11.715	Istanbul	7.031	" "	9.710
"	11.865	U.K.		" "	9.735
"	15.315	Overseas		" "	9.750
"	17.720	Service*	3.955	" "	9.755
"	17.795	" "	3.975	" "	9.760
"	21.520	" "	5.975	" "	9.765
"	21.605	" "	5.985	" "	9.770
SYRIA		" "	5.990	" "	9.825
Damascus	5.705	" "	6.010	" "	9.915
"	7.238	" "	6.035	" "	11.680
"	7.3.9	" "	6.040	" "	11.730
"	11.751	" "	6.050	" "	11.750
"	11.915	" "	6.060	" "	11.770
"	15.165	" "	6.070	" "	11.780
"	17.860	" "	6.080	" "	11.790
TAHITI		" "	6.090	" "	11.800
Papeete	6.035	" "	6.110	" "	11.820
"	6.135	" "	6.125	" "	11.830
"	11.825	" "	6.140	" "	11.840
TAIWAN (Sec Formosa)		" "	6.150	" "	11.860
TANGANYIKA		" "	6.165	" "	11.880
Dar-es-Salaam	5.050	" "	6.170	" "	11.890
"	7.167	" "	6.180	" "	11.910
TANGIER		" "	6.195	" "	11.930
(See Morocco)		" "	6.995	" "	11.945
THAILAND		" "	7.110	" "	11.955
Bangkok	4.830	" "	7.120	" "	11.960
"	6.070	" "	7.130	" "	12.040
"	11.908	" "	7.135	" "	12.095
		" "	7.150	" "	15.070
		" "	7.185	" "	15.110
		" "	7.200	" "	15.140
		" "	7.210	" "	15.180
		" "	7.230	" "	15.210

* B.B.C. short-wave transmitters are located at Daventry, Northants; Skelton, Cumberland; Woofferton, Shropshire; and Rampisham, Dorset. Frequencies, calls and power are interchangeable.

U.K.—cont.	Mc/s		Mc/s		Mc/s
Overseas		Boston, Mass	11.845	Brentwood, N.Y.	21.465
Service*	15.230	" "	11.855	" "	21.500
" "	15.260	" "	15.220	" "	21.650
" "	15.285	" "	15.380	" "	21.690
" "	15.300	" "	17.750	Cincinnati,	
" "	15.310	" "	17.845	Ohio	9.545
" "	15.360	" "	21.460	" "	9.710
" "	15.375	" "	21.500	" "	9.725
" "	15.390			" "	9.770
" "	15.420	Bound Brook,		" "	11.715
" "	15.435	N.J.	5.955	" "	11.740
" "	15.447	" "	5.965	" "	11.855
" "	17.700	" "	9.530	" "	11.875
" "	17.705	" "	9.650	" "	11.890
" "	17.715	" "	9.760	" "	11.920
" "	17.730	" "	11.710	" "	11.965
" "	17.740	" "	11.770	" "	11.970
" "	17.745	" "	11.830	" "	15.150
" "	17.780	" "	11.905	" "	15.190
" "	17.790	" "	15.130	" "	15.200
" "	17.810	" "	15.150	" "	15.205
" "	17.825	" "	15.174	" "	15.245
" "	17.840	" "	15.200	" "	15.250
" "	17.860	" "	15.265	" "	15.290
" "	17.870	" "	15.270	" "	15.350
" "	17.880	" "	15.325	" "	15.365
" "	17.890	" "	15.330	" "	17.710
" "	18.080	" "	15.390	" "	17.740
" "	21.455	" "	15.400	" "	17.795
" "	21.470	" "	17.780	" "	17.830
" "	21.490	" "	21.540	" "	17.880
" "	21.530	" "	21.570	" "	17.895
" "	21.550	" "	25.950	" "	21.485
" "	21.575	" "	26.040	" "	21.610
" "	21.615	Brentwood, N.Y.	5.955	" "	21.730
" "	21.620	" "	5.965		
" "	21.630	" "	5.995	Delano, Cal.	5.990
" "	21.640	" "	6.045	" "	6.040
" "	21.660	" "	6.170	" "	6.085
" "	21.675	" "	6.175	" "	6.110
" "	21.710	" "	9.635	" "	9.560
" "	21.740	" "	9.640	" "	9.600
" "	25.650	" "	9.740	" "	9.700
" "	25.670	" "	11.770	" "	9.740
" "	25.720	" "	11.825	" "	11.715
" "	25.750	" "	11.875	" "	15.130
" "	25.840	" "	11.905	" "	15.210
" "	26.040	" "	11.955	" "	15.340
" "	26.080	" "	15.185	" "	17.720
		" "	15.200	" "	17.770
		" "	15.205	" "	17.815
U.S.A.		" "	15.235	" "	21.460
Belmont, Cal.	15.225	" "	15.270	" "	21.740
" "	17.795	" "	17.784	" "	25.630
Boston, Mass.	9.700	" "	17.830	Dixon, Cal.	6.145
" "	11.790	" "	17.865	" "	9.515
" "	11.830				

U.S.A.—cont.	Mc/s	Kiev, Ukraine	Mc/s	Moscow, Russia	Mc/s
Dixon, Cal.	9.570	" "	4.940	" "	5.940
" "	9.625	" "	6.020	" "	5.950
" "	9.740	" "	7.150	" "	5.960
" "	11.730	" "	7.200	" "	5.965
" "	11.870	" "	7.250	" "	6.000
" "	15.290	" "	7.310	" "	6.045
Schenectady,		" "	7.350	" "	6.075
N.Y.	11.830	" "	7.400	" "	6.100
" "	15.330	" "	9.640	" "	6.110
" "	17.755	" "	9.655	" "	6.125
" "	21.590	" "	9.685	" "	6.130
		" "	11.705	" "	6.145
		" "	11.825	" "	6.155
U.S.S.R.		" "	11.840	" "	6.165
Achkhabad,		" "	11.860	" "	6.175
Turkmenia	4.235	" "	15.110	" "	6.180
" "	4.822	" "	15.120	" "	6.190
" "	6.065	" "	15.140	" "	6.200
" "	6.180	" "	15.455	" "	6.975
" "	15.205	" "	17.710	" "	7.100
Alma Ata,		" "	17.760	" "	7.105
Kazak	4.545	" "	17.895	" "	7.120
" "	5.260	" "	25.695	" "	7.135
" "	6.790	Komsomolsk,		" "	7.140
" "	7.240	Russia	6.050	" "	7.175
" "	9.250	" "	9.541	" "	7.185
" "	9.380	" "	11.891	" "	7.200
" "	10.530	" "	15.455	" "	7.215
Baku,		" "	17.710	" "	7.230
Azerbaijan	4.957	" "	17.880	" "	7.235
" "	9.840	" "	21.630	" "	7.265
" "	21.640	Krasnoyarsk,		" "	7.280
Blagoveshchensk,		Russia	5.290	" "	7.285
Russia	4.956	Leningrad,		" "	7.290
Erivan, Armenia	5.740	Russia	4.850	" "	7.300
Frunze, Kirghiz	4.010	" "	9.515	" "	7.320
Guryev, Kazak	4.560	" "	9.790	" "	7.330
Irkutsk, Russia	6.055	" "	11.630	" "	7.340
" "	7.210	" "	17.850	" "	7.360
" "	15.105	" "	21.640	" "	7.390
Kalatch, Russia	6.015	Lwow,		" "	7.420
Kaunas,		Ukraine	7.150	" "	7.440
Lithuania	11.871	Minsk,		" "	7.925
" "	11.900	Byelorussia	7.370	" "	9.150
Khabarovsk,		" "	11.955	" "	9.210
Russia	3.900	Moscow, Russia	3.937	" "	9.450
" "	4.273	" "	4.395	" "	9.470
" "	7.210	" "	4.825	" "	9.480
" "	9.375	" "	4.835	" "	9.490
" "	9.520	" "	5.455	" "	9.500
" "	9.565	" "	5.780	" "	9.510
" "	11.735	" "	5.900	" "	9.535
" "	11.840	" "	5.910	" "	9.580
" "	15.235	" "	5.930	" "	9.595
		" "		" "	9.605

U.S.S.R.—cont.	Mc/°	Mc/s	Mc/°
Moscow, Russia	9.615	Moscow, Russia	15.150
"	9.620	"	15.160
"	9.635	"	15.165
"	9.650	"	15.170
"	9.690	"	15.190
"	9.705	"	15.200
"	9.720	"	15.205
"	9.730	"	15.210
"	9.745	"	15.220
"	9.750	"	15.230
"	9.760	"	15.240
"	9.770	"	15.263
"	9.780	"	15.280
"	9.800	"	15.290
"	9.810	"	15.305
"	11.570	"	15.315
"	11.715	"	15.325
"	11.730	"	15.340
"	11.775	"	15.350
"	11.780	"	15.360
"	11.790	"	15.370
"	11.800	"	15.380
"	11.805	"	15.395
"	11.820	"	15.400
"	11.830	"	15.425
"	11.850	"	15.430
"	11.880	"	15.440
"	11.890	"	15.445
"	11.900	"	15.460
"	11.915	"	15.470
"	11.925	"	16.250
"	11.930	"	16.270
"	11.940	"	17.700
"	11.945	"	17.720
"	11.960	"	17.740
"	11.975	"	17.745
"	11.985	"	17.750
"	11.995	"	17.755
"	12.000	"	17.765
"	12.015	"	17.775
"	12.020	"	17.780
"	12.030	"	17.785
"	12.050	"	17.795
"	12.060	"	17.810
"	12.070	"	17.815
"	12.075	"	17.825
"	12.100	"	17.830
"	12.130	"	17.840
"	12.165	"	17.850
"	12.275	"	17.860
"	14.860	"	17.870
"	15.060	"	17.880
"	15.095	"	18.650
"	15.110	"	19.725
"	15.115	"	19.845
		Moscow, Russia	21.475
		"	21.505
		"	21.530
		"	21.555
		"	21.575
		"	21.596
		Murmansk, Russia	7.230
		Novosibirsk, Russia	4.430
		"	6.030
		"	9.631
		Omsk, Russia	4.520
		Orenburg, Russia	4.874
		"	9.555
		Petropavlovsk, Russia	4.055
		"	11.705
		Petrozavodsk, Karelia	5.065
		"	6.055
		Simferopol, Russia	6.090
		Stalinabad, Tadzhik	4.635
		"	7.330
		Tashkent, Uzbek	5.925
		"	7.165
		"	11.695
		Tiflis, Georgia	5.040
		"	5.980
		Ufa, Bashkir	4.485
		Vladivostok, Russia	4.040
		"	5.016
		"	9.600
		Yakutsk, Russia	4.534
		UGANDA	
		Kampala	5.026
		"	7.110
		"	9.555
		"	9.590
		URUGUAY	
		Montevideo	6.060
		"	6.035
		"	6.075
		"	6.140
		"	6.156
		"	6.170
		"	9.516
		"	9.620

	Mc/s		Mc/s		Mc/s
Uruguay—cont.		Caracas	6.170	VIETNAM, NORTH	
Montevideo	11.735	"	9.640	Hanoi	4.734
"	11.835	"	11.971	"	9.760
"	11.896	"	15.390	"	9.840
"	15.385	Carora	3.334	"	11.760
VATICAN CITY		Carupano	2.360	"	11.840
Vatican City	6.190	Ciudad Bolivar	4.898	"	11.950
" "	7.250	Coro	4.820	"	15.022
" "	7.280	"	4.950	VIETNAM, SOUTH	
" "	9.645	Cumana	4.960	Hue	7.205
" "	11.685	El Tigre	3.257	Saigon	6.116
" "	11.710	Maracaibo	3.275	"	7.265
" "	11.740	"	4.800	"	9.620
" "	15.120	"	4.810	"	11.950
" "	17.840	"	5.039	WINDWARD IS.	
" "	17.860	"	9.533	St. Georges,	
" "	21.500	Maracay	2.440	Grenada	3.363
" "	21.515	"	3.315	" " "	5.010
VENEZUELA		Maturin	3.325	" " "	9.550
Barcelona	3.385	Merida	3.395	" " "	11.714
Barquisimeto	4.849	Puerto Cabello	3.285	" " "	11.955
"	4.935	Puerto la Cruz	4.790	" " "	15.152
"	4.989	Punta Fijo	4.770	" " "	15.400
"	9.510	San Cristobal	3.267	" " "	21.680
Caracas	3.245	" "	4.830	YEMEN	
"	3.390	" "	9.570	Sana'a	5.985
"	4.870	San Felipe	4.861	YUGOSLAVIA	
"	4.880	Trujillo	3.295	Belgrade	6.100
"	4.890	Valencia	3.355	"	6.150
"	4.920	"	4.780	"	7.200
"	4.970	Valera	4.840	"	9.505
"	5.029			"	9.613
"	5.050			"	9.620
				"	11.735
				"	15.240

V.H.F. Sound Broadcasting Stations

All the Band II v.b.f. sound broadcasting stations with an effective radiated power of 5kW or more known to be operating in Europe when the material was prepared, or scheduled for operation during 1961, are listed in order of frequency. Under each carrier frequency stations are arranged alphabetically, first under countries (see abbreviations below) and then towns. Where known, the effective radiated power in kilowatts is given in the second column; an asterisk against the figure indicates that it is the transmitter power and not the e.r.p. All transmitters are frequency modulated and use a pre-emphasis time constant of 50 μ sec. The stations operated by the British Forces Network (B.F.N.) and American Forces Network (A.F.N.) are so marked.

In addition to the stations listed there are some 1,100 with an e.r.p. of less than 5kW of which about 800 are in Italy. The U.S.S.R.'s 30 or more v.h.f. sound broadcasting transmitters and some other Eastern European stations operate in Band I and are not, therefore, included in this list.

Mc/s	kW	Station and Country	Mc/s	kW	Station and Country
87.60	20	Kleine Mugel A	(88.50)	10	Genk B
		50 Houdeng B		12	Gelbsee GW
		80 Berlin† GW		50	Hamburg GW
	100	Oldenburg GW		6	M. Scuro I
	25	Witthoh-Hegau GW		6	M. Serra I
	13	M. Cavo I		60	Vännäs Sw
	15	Storuman Sw		60	Pontop Pike UK
87.80	15	Hovdefjell No		60	Rowridge UK
87.90	6	Pic du Midi F	88.53	55	Feldberg-Taunas GW
	80	Heidelberg GW	88.70	10	Cannes F
	100	Langenberg GW		12*	Lille-Ville F
	40	Lousa Pl		15	Forde No
	60	Orebro Sw		60	Blaen-Plwyf UK
	15	Pajala Sw		60	Meldrum UK
	60	Ostersund Sw	88.80	50	Jauerling A
88.00	6	Dijon F		12*	Lyon F
	—	Sogndal No		60	Berlin GW
88.10	18	M. Venda I		18	Hoher Bogen GW
	60	N. Hessary Tor UK		15	Lingen GW
	120	Sandale UK		11	Greipstad No
88.20	10	Aalter Ruiselede B		60	Hörby Sw
	100	Harz GW	88.90	10	Mikkeli Fd
	5	Eifel GW		6	M. Limbara I
	15	Irnsum Ne		6	Llangollen UK
88.30	30	Taivalkoski Fd	89.00	60	Fyn D
	12*	Carcassonne F		30	M. Venda I
	6	M. Conero I	89.10	50	Aalen GW
	5.6	Londonderry UK		50	Langenberg (B.F.N.) GW
	120	Sutton Coldfield UK		18	Martina Franca I
88.40	50	Bourges F		15	Ore No
	3.3	Douglas UK		25	Vega No
88.45	—	Leipzig GE		60	Kiruna Sw
88.50	10	Hauser Kaibling A		120	Wrotham UK
	50	Patscherkofel A			

† B.B.C. European Service.

Abbreviations: A, Austria; B, Belgium; C, Cyprus; D, Denmark; Fd, Finland; F, France; GE, Germany East; GW, Germany West; Is, Israel; I, Italy; L, Luxembourg; Mo, Monaco; Ne, Netherlands; No, Norway; P, Poland; Pl, Portugal; R, Rumania; S, Spain; Sw, Sweden; Sd, Switzerland; UK, United Kingdom; V, Vatican City; Y, Yugoslavia.

Mc/s	kW	Station and Country	Mc/s	kW	Station and Country
89.15	15	Nordhelle (B.F.N.) GW	(90.30)	120	Sandale UK
	20	Lousa PI	90.35	50	Paris F
	120	Holme Moss UK	90.40	25	Oulu Fd
	8	Orkney UK		10	Leipzig GE
89.30	18	Bremen GW	90.50	60	Grünten GW
89.35	100	Kreuzberg GW		6	M. Scuro I
89.40	60	Hornisgrinde GW		6	M. Serra I
	15	Nordfjordeid No		5.6	Londonderry UK
	15	Arridsjaur Sw		120	Sutton Coldfield UK
	15	Borlänge Sw	90.60	50	Novi Sad Y
	15	Emmaboden Sw		60	Bjerkreim No
	9	Monte Ceneri Sd		15	Sveg Sw
89.45	15	Flensburg GW		3.3	Douglas UK
89.50	8	Genoa I	90.65	100	Teutoburger Wald GW
	18	M. Sambuco I	90.70	5	Gaisberg A
89.60	20	Kleine Muegel A		6	M. Serpeddi I
	9	Llanddona UK		60	Pontop Pike UK
	11	Rosemarkie UK		60	Rowridge UK
89.69	90	Hoher Meissner GW	90.80	26	Copenhagen D
89.70	50	Pfänder A	90.85	12	Bamberg GW
	50	Metz-Luttange F	90.90	5	Hanover GW
	15	Dannenberg GW		12	Hohe Linie GW
	20	Hühnerberg GW		5	Münster GW
	18	Rome I		100	Stuttgart GW
	120	Tacolneston UK		12	Steinkjer No
89.80	10	Dresden GE		60	Sunne Sw
	12	Katowice P		60	Blaen-Plywf UK
89.90	12*	Rennes F		60	Meldrum UK
	5	Aachen GW	91.00	15	Imatra Fd
	18	M. Venda I	91.05	10	Marlow GE
	120	Kirk o'Shotts UK	91.10	12*	Niort F
89.95	120	Wenvoe UK		18	Martina Franca I
90.00	10	Berlin GW		3	Les Platons UK
	25	Haardtkopf GW		6	Llangollen UK
	15	Heide GW	91.20	50	Schoeckl A
	100	Waldenburg GW		50	Veltem B
	15	Gällivare Sw		55	Biedenkopf GW
	15	Norrköping Sw		100	Oldenburg GW
	3.5	Dover UK		20	Potzberg GW
90.05	100	Wendelstein GW		25	Wittoh-Hegau GW
90.10	15	Koli Fd		13	M. Cavo I
	10	Kristiina Fd		15	Halmstad Sw
	6	M. Argentario I		15	Storuman Sw
	60	Divis UK		60	La Dole Sd
	22	Peterborough UK	91.25	9	Hohenpeissenberg GW
	10	Thrumster UK		—	Stulpe GE
90.20	60	Vestjylland D	91.30	6	P. Badde Urbara I
	50	Langenberg GW		120	Wrotham UK
90.30	50	Verden (B.F.N.) GW	91.50	10	Anlier-Neuf Chateau B
	25	Weinbiet GW		6	Toulouse F
	6	M. Conero I		100	Brotjacklriegel GW
	50	Monte Carlo Mo		80	Heidelberg GW
	15	Tasjö Sw		6	M. Beigua I
	60	N. Hessary Tor UK		18	M. Sambuco

Mc/s	kW	Station and Country	Mc/s	kW	Station and Country
(91.50)	60	Orebro Sw	(92.70)	60	Kiruna Sw
	60	Ostersund Sw		15	Sundsvall Sw
	15	Pajala Sw		5.6	Londonderry UK
	120	Holme Moss UK		120	Sutton Coldfield UK
	8	Orkney UK	92.75	—	Schwerin GE
91.53	50	Caen F	92.80	10	Kemi Fd
91.60	25	Kuopio Fd		3.3	Douglas UK
91.70	30	Aarhus D	92.90	10	Karl-Marx-Stadt GE
	18	Rome I		6	Herford (B.F.N.) GW
91.77	60	Ochsenkopf GW		6	M. Serra I
91.80	6	Eifel GW		60	Pontop Pike UK
	12	Raichberg GW		60	Rowridge UK
	15	Hoogezand Ne	93.00	10	Pyramidenkogel A
	10	Stord No		50	Aalter-Ruiselede B
	15	Varanger No		15	Flensburg GW
	15	Bollnäs Sw		60	Hornisgrinde/Schw. GW
	25	Västervik Sw		12	Madrid S
	9	Llanddona UK		15	Arvidsjaur Sw
	6	Rosemarkie UK		15	Borlänge Sw
91.90	40	Helsinki Fd		15	Emmaboda Sw
	24	Genoa-Portofino I		12	San Salvatore Sd
	120	Tacolneston UK	93.10	25	Vaasa Fd
92.10	50	Patscherkofel A		18	Martina Franca I
	50	Mulhouse F		60	Blaen-Plywf UK
	60	Berlin GW		60	Meldrum UK
	50	Hamburg GW	93.30	50	Pfänder A
	6	M. Argentario I		30	Aalborg D
	18	Turin I		12*	Carcassonne F
	15	Göteborg Sw		50	Metz-Luttange F
	120	Kirk o'Shotts UK		15	Dannenberg GW
	120	Wenvoe UK		15	Osterloog GW
92.13	55	Feldberg-Taunas GW		6	P. Badde Urbara I
92.20	10	Jyväskylä Fd		8	Voss No
	12	Lille F		15	Solleftea Sw
92.30	6	M. Conero I		6	Llangollen UK
	60	Divis UK	93.35	12*	Paris F
	22	Peterborough UK	93.50	18	M. Sambuco I
	10	Thrumster UK		15	Mierlo Ne
92.40	50	Lyon F		15	Norrköping Sw
	15	Lingen GW		120	Wrotham UK
	18	Waldburg GW	93.60	10	Berlin GW
	15	Melhus No		15	Heide GW
	15	Hörby Sw		100	Waldenburg GW
	60	Stockholm Sw		15	Bremanger No
	3.5	Dover UK		15	Gällivare Sw
92.50	6	M. Scuro I	93.65	100	Wendelstein GW
	25	Luxembourg L	93.70	10	Tampere Fd
	20	Oporto Pl		18	Rome I
	60	N. Hessary Tor UK		120	Holme Moss UK
	120	Sandale UK		8	Orkney UK
92.60	50	Lopik Ne	93.80	80	Oslo No
92.70	50	Aalen GW	93.90	10	Leipzig GE
	6	M. Serpeddi I		18	Dillberg GW
	30	Tana No			
	15	Bäckefors Sw			

Mc/s	kW	Station and Country	Mc/s	kW	Station and Country
(93.90)	5	Hanover GW	(95.10)	60	Sonderjylland D
	15	Nordhelle GW		24	Genoa I
	15	Gävle Sw		15	Skövde Sw
	15	Tasjö Sw		60	Bantiger Sd
94.00	40	Helsinki Fd	95.20	15	Sammaltunturi Fd
	10	Ylivieska Fd		25	Vaasa Fd
	9	Llanddona UK	95.25	10	Rheinsberg GE
	11	Rosemarkie UK	95.30	6	M. Limbara I
94.10	18	M. Faito I		6	S. Cerbone I
	120	Tacolneston UK	95.37	55	Biedenkopf GW
94.20	10	Liège B	95.40	50	Schöckl A
	50	Marseille F		—	Gorlitz GE
	18	Pfaffenberg GW		100	Oldenburg GW
	100	Teutoburger Wald GW		20	Potzberg GW
	60	M. Penice I		15	Halmstad Sw
	15	Nässjö Sw		15	Lycksele Sw
	15	Sveg Sw		60	Säntis Sd
94.30	15	Jauerling A	95.50	30	Lahti Fd
	25	Turku Fd	95.60	50	Caen F
	6	M. Argentario I		18	Turin I
	6	Pescara I	95.70	100	Langenberg GW
	12	Lisbon Pl		6	M. Peglia I
	120	Kirk o'Shotts UK		12	Lisbon Pl
	120	Wenvoe UK		15	Västeras Sw
94.40	3.5	Dover UK	95.80	50	Vienna-Kahlenberg A
94.45	12	Bamberg GW		6	Dijon F
	3	Les Platons UK		10	Savonlinna Fd
94.50	30	Bornholm D	95.90	30	Aarhus D
	5	Münster GW		18	M. Cammarata I
	100	Stuttgart GW	96.00	100	Harz GW
	15	Gulen No		18	Linz GW
	15	Boden Sw		12	Raichberg GW
	60	Sunne Sw		10	Schaumberg GW
	60	Divis UK		15	Bollnäs Sw
	22	Peterborough UK		25	Västervik Sw
	10	Thrumster UK	96.05	60	Ochsenkopf GW
94.60	10	Kristiina Fd	96.10	10	Houdeng B
	10	Schwerin GE		5	Ylivieska Fd
	6	M. Beigua I		18	M. Faito I
94.70	10	Veltem B	96.20	50	Markelo Ne
	6	M. Caccia I	96.30	10	Hauser Kaibing A
	6	M. Lauro I		10	Cannes F
	18	M. Nerone I		50	Mulhouse F
	120	Sandale UK		50	Hamburg GW
94.80	50	Gaisberg A		6	M. Serpeddi I
	5	Sydsjaelland D		6	Pescara I
94.90	50	Bourges F		15	Göteborg Sw
	60	Feldberg/Ts (A.F.N.) GW	96.40	15	Kaunispää Fd
	6	Palermo I	96.50	15	Patscherkofel A
	15	Hoogezand Ne		26	Copenhagen D
	10	Mora Sw	96.55	—	Leipzig GE
95.00	6	Strasbourg F	96.60	10	Anlier-Neufchateau B
	12	Opole P		15	Büttelberg GW
95.10	50	Lichtenberg A		15	Nordhelle GW
				60	Stockholm Sw

Mc/s	kW	Station and Country	Mc/s	kW	Station and Country
96.70	18	Rovaniemi Fd	(98.30)	50	Markelo Ne
	6	M. Caccia I		30	Tron No
	6	M. Lauro I	98.40	5	Aachen GW
	18	M. Nerone I		25	Haardtkopf GW
	20	Oporto Pl		13	M. Cavo I
96.80	60	Fyn D		15	Västeras Sw
	50	Lopik Ne	98.50	40	Ahtäri Fd
	15	Bäckefors Sw	98.60	10	Berlin-Stadthaus GE
	120	Wenvoe UK	98.70	20	Kleine Mugel A
96.90	18	Bremen GW		10	Aalter-Ruiselede B
	18	Wolfsheim GW		15	Nordhelle GW
	6	Palermo I		6	M. Caccia I
	15	Sundsvall Sw		6	M. Lauro I
96.95	—	Dequede GE		18	M. Nerone I
97.00	10	Pihtipudas Fd		15	Gävle Sw
97.10	3	Les Platons UK		15	Lycksele Sw
97.15	10	Inselsberg GE		12	San Salvatore Sd
97.20	15	Irnsrum Ne	98.75	18	Dillberg GW
	25	Visby Sw	98.80	15	Pello Fd
	9	Niederhorn Sd	98.90	12*	Nantes F
97.30	15	Pori Fd		6	M. Beigua I
	10	Schwerin GE		6	Palermo I
	6	P. Badde Urbara I	99.00	50	Gaisberg A
	6	S. Cerbone I		10	Liège B
97.40	10	Brocken GE		15	Nässjö Sw
	60	M. Penice I		7.5	S. Chrischona Sd
97.50	50	Jauerling A	99.10	—	Helpterberg GE
	5	Sydsjaelland D	99.20	60	Vestjylland D
	12*	Limoges F		12*	Reims F
	15	Skövde Sw	99.30	50	Lichtenberg A
	30	Uetilberg Sd		30	Bornholm D
97.60	10	Pietarsaari Fd		80	Drachenberg (B.F.N.) GW
	50	Paris F		18	Wolfsheim GW
	—	Sonneberg GE		6	M. Limbara I
	10	Lyngdal No		6	S. Cerbone I
	40	Warsaw P	99.40	40	Kajaani Fd
97.65	—	Berlin GE		15	Boden Sw
97.70	6	M. Peglia I	99.50	25	Visby Sw
97.75	10	Kreuzberg GW	99.60	50	Caen F
97.80	10	Pyramidenkogel A		10	Cannes F
	15	Flensburg GW		100	Teutoburger Wald GW
	18	Linz GW		6	Niederhorn Sd
	10	Mora Sw	99.70	10	Kokkola Fd
97.90	15	Lahti Fd		6	M. Peglia I
	15	Pyhätunturi Fd	99.85	—	Marlow GE
	18	M. Cammarata I	99.90	50	Vienna-Kahlenberg A
98.10	30	Aalborg D		60	Sonderjylland D
	20	Hühnerberg GW		100	Harz GW
	15	Osterloog GW		18	M. Cammarata I
	18	M. Faito I		60	M. Penice I
	15	Solleftea Sw		15	Mierlo Ne
98.15	—	Burg-Magdeburg GE		9	St. Anton Sd
98.20	30	Turku Fd			
	18	Turin I			
98.30	6	Pescara I			

European Television Channels

In the list of European television stations opposite, the transmitters are arranged under channel numbers. The vision and sound carrier frequencies of these channels are listed below. The letter prefixes used in the numbering of the channels are defined at the foot of this page.

	Vision (Mc/s)	Sound (Mc/s)		Vision (Mc/s)	Sound (Mc/s)
B1	45.00	41.50	B9	194.75	191.25
E2	48.25	53.75	E8	196.25	201.75
O1	49.75	56.25	O9	199.25	205.75
B2	51.75	48.25	F10	199.70	188.55
F2	52.40	41.25	B10	199.75	196.25
IA	53.75	59.25	IG	201.25	206.75
E3	55.25	60.75	E9	203.25	208.75
B3	56.75	53.25	F11	203.45	214.60
X1	59.25	64.75	B11	204.75	201.25
O2	59.25	65.75	O10	207.25	213.75
B4	61.75	58.25	B12	209.75	206.25
E4	62.25	67.75	E10	210.25	215.75
IB	62.25	67.75	IH	210.25	215.75
F4	65.55	54.40	F12	212.85	201.70
B5	66.75	63.25	B13	214.75	211.25
O3	77.25	83.75	O11	215.25	221.75
IC	82.25	87.75	E11	217.25	222.75
O4	85.25	91.75	O12	223.25	229.75
O5	93.25	99.75	E21	471.25	476.75
X2	145.25	150.75	E22	479.25	484.75
F5	164.00	175.15	E23	487.25	492.75
F6	173.40	162.25	E24	495.25	500.75
E5	175.25	180.75	E25	503.25	508.75
ID	175.25	180.75	E26	511.25	516.75
O6	175.25	181.75	E27	519.25	524.75
F7	177.15	188.30	E28	527.25	532.75
E6	182.25	187.75	E29	535.25	540.75
O7	183.25	189.75	E30	543.25	548.75
IE	183.75	189.25	E31	551.25	556.75
F8A	185.25	174.10	E32	559.25	564.75
F8	186.55	175.40	E33	567.25	572.75
E7	189.25	194.75	E34	575.25	580.75
B8	189.75	186.25	E35	583.25	588.75
F9	190.30	201.45	E36	591.25	596.75
O8	191.25	197.75	E37	599.25	604.75
IF	192.25	197.75			

Channel Prefixes:

- B 405-line, 5-Mc/s channels.
- E 625-line, 7-Mc/s channels (except Italy and some Eastern European countries—see below) and Belgium 819-line, 7-Mc/s channels.
- X 625-line, 7-Mc/s, East German channels (where different from "E" channels).
- I 625-line, 7-Mc/s, Italian channels, which are lettered A to H.
- O 625-line, 8-Mc/s, channels.
- F 819-line, 14-Mc/s, channels.

Europe's Main Television Stations

There are now some 1,300 television stations operating in Bands I and III in the European Broadcasting Area, but over 1,000 of them (some 500 in Italy) have an effective radiated power of under 5kW. Although we have included in the following list all the television stations in the United Kingdom, only those on the Continent known to have an e.r.p. of 5kW or more are listed. The vision and sound carriers of the channel numbers used in this list are given on the opposite page. At the end of the list will be found some of the stations operating in Band IV.

The initials used in the third column to denote the country are defined below. Stations operating in each channel are arranged alphabetically, first under countries and then towns. Stations marked with an asterisk employ vertical polarization; others use horizontal polarization.

Channel	Station and Country	Channel	Station and Country
B1	Crystal Palace* UK	IA	M. Caccia I
	Divis UK		M. Cammarata I
	Sheffield UK		M. Nerone I
	Thrumster* UK	E3	Liège B
E2	Ruiselede B		Fyn D
	Biedenkopf* GW	Helpterberg GE	
	Bremen-Oldenburg GW	Kreuzberg-Rhön* GW	
	Göttelborner Höhe* GW	Louza (Coimbra) Pl	
	Grünten GW	Zaragoza S	
	Navacerrada S	Uetliberg Sd	
	Bantiger Sd	Sveg Sw	
	Hörby Sw	Skövde Sw	
	Orebro Sw	B3	Blaen-Plwyf UK
	Vännäs Sw		Kirk o'Shotts* UK
	† Jauerling A	Rowridge* UK	
	O1	Ostrava Cz	Tacolneston UK
		Prague Cz	X1 Leipzig GE
Budapest H		O2 Bratislava Cz	
Kharkov U		C. Budejovice Cz	
Moscow U		Warsaw P	
B2	Odessa U	Bucharest R	
	Dover* UK	Kalinin U	
	Holme Moss* UK	Kiev U	
	Londonderry UK	Leningrad U	
	N. Hessary Tor* UK	Moscow U	
	Rosemarkie UK	Riga U	
	Whitehawk Hill* UK	Tallinn U	
F2	Caen F	B4	Folkestone UK
	Limoges-Les Cars F		Hastings UK
	Troyes-Les Riceys F		Les Platons UK
	Monte Carlo Mo		Meldrum UK

† Vision 49.75 Mc/s; sound 55.25 Mc/s.

Abbreviations: Al, Algeria; A, Austria; B, Belgium; Cz, Czechoslovakia; D, Denmark; Fd, Finland; F, France; GE, Germany East; GW, Germany West; H, Hungary; I, Italy; L, Luxembourg; Mo, Monaco; Ne, Netherlands; No, Norway; P, Poland; Pl, Portugal; R, Rumania; S, Spain; Sw, Sweden; Sd, Switzerland; UK, United Kingdom; U, U.S.S.R.; Y, Yugoslavia.

Channel	Station and Country	Channel	Station and Country
(B4)	Sandale UK	O6	Vychodni-Cechy Cz
	Sutton Coldfield* UK	F7	Niort-Maisonnay* F
E4	Patscherkofel A	E6	Lichtenberg A
	Copenhagen D		Sydsjaelland D
	Cottbus GE		Helsinki Fd
	Flensburg GW		Brocken GE
	Ochsenkopf * GW		Dillberg GW
	Raichberg GW		Koblenz GW
	Lopik Ne		Smilde Ne
	Barcelona S		Oslo No
	Sollube S		Bollnäs Sw
	La Dôle Sd		Västervik Sw
	Ostersund Sw		Avala Y
	Stockholm Sw	IE	M. Conero I
IB	M. Faito I	F8A	Lille F
	M. Penice I		Paris* F
F4	Nantes-Haute Goulaine* F	F8	Marseille F
	Carcassone* F		Mulhouse F
B5	Douglas* UK	E7	Graz-Schöckl A
	Orkneys* UK		Sonderjylland D
	Peterborough UK		Turku Fd
	Pontop Pike UK		Berlin GW
	Wenvoe* UK		Brotjackriegel GW
O3	Kharkov U		Heidelberg-Königstuhl* GW
	Kiev U		Hoher Meissner GW
	Minsk U		Dudelange L
	Riga U		Goes Ne
IC	Turin I		Markelo Ne
O5	Vilna U		Lisbon Pl
X2	Katzenstein Cz		Halmstad Sw
F5	Pic-du-Midi F		Solleftea Sw
	Reims-Hautvillers* F		Sunne Sw
	Rennes St. Pern F		Säntis Sd
	Strasbourg F	B8	Burnhope UK
F6	Côte d'Azur* F		Lichfield* UK
	Metz-Luttange F	F9	Bourges-Neuvy F
	Puy-de-Dôme* F	O8	Katowice P
E5	Bregenz-Pfänder A	IF	M. Lauro I
	Vienna-Kahlenberg A		Roseto Capo Spulico* I
	Aalborg D	B9	Black Mountain UK
	Bornholm D		Channel Islands UK
	Berlin GE		Croydon* UK
	Inselsberg GE		Durris UK
	Kiel GW		Stockland Hill* UK
	Roermond Ne		Winter Hill* UK
	M. Ceneri Sd	E8	Salzburg-Gaisberg A
	Norrköping Sw		Wavre B
	Sundsväll Sw		Aarhus D
	Krvavec Y		Tampere Fd
ID	Gambarie I		Karl-Marx-Stadt GE
	Martina Franca I		Marlow GE
	Monreale I		Aalen* GW
	M. Serra I		Feldberg-Schw. GW
	M. Venda I		Feldberg-Taunus GW
	P. Badde Urbara I		

Channel	Station and Country	
(E8)	Hanover	GW
	Bäckefors	Sw
	Emmaboda	Sw
	Västerås	Sw
O9	Brno	Cz
F10	Bordeaux-Bouliac	F
	Dijon*	F
	Rouen	F
	Monte-Carlo	Mo
B10	Black Hill*	UK
	Dover*	UK
	Emley Moor*	UK
	St. Hilary*	UK
IG	Milan	I
	M. Scuro	I
	Pantelleria*	I
	Rome	I
E9	Lahti	Fd
	Leipzig	GE
	Hamburg	GW
	Hornisgrinde	GW
	Langenberg	GW
	Waldenburg	GW
	Bergen	No
	Oporto	Pl
	Gävle	Sw
	Göteborg	Sw
	Tasjö	Sw
	Visby	Sw
	Sljeme	Y
F11	Amiens*	F
	Aurillac*	F
B11	Caldbeck	UK
	Chillerton Down*	UK
	Mendlesham	UK
B12	Caradon Hill*	UK
	Mounteagle	UK
E10	Pyramidenkogel	A
	Sonnwendstein	A
	Wavre	B
	Vestjylland	D
	Harz	GW
	Heide*	GW
	Weinbiet	GW
	Wendelstein	GW
	Borlänge	Sw
	Nässjö	Sw
	Storuman	Sw
	M. San Salvatore	Sd
	St. Chrischona	Sd
	Fruska Gora	Y

Channel	Station and Country	
IH	M. Peglia	I
	M. Pellegrino	I
	M. Sambuco	I
	Portofino	I
F12	Cherbourg	F
	Le Mans-Mayet*	F
	Lyon-Mont Pilat	F
B13	Selkirk	UK
O11	Szente	H
E11	Schwerin	GE
	Cologne	GW
	Stuttgart	GW
	Teutoburger Wald	GW
	Kum	Y
O12	Wroclaw	P
E21	Bungsberg	GW
	Hof	GW
	Hohenpiessenberg	GW
E22	Bremen	GW
E23	Minden	GW
	Stuttgart	GW
E24	Eutin	GW
	Feldberg-Taunus	GW
	Freiburg	GW
	Haardtkopf	GW
	Lingen	GW
E25	Cuxhaven	GW
	Münster	GW
	Würzburg	GW
E26	Bonn	GW
	Fulda	GW
	Heidelberg	GW
	Kahlenberg	GE
E27	Regensburg	GW
	Düsseldorf	GW
E29	Berlin	GE
	Dortmund	GW
	Hamburg	GW
E31	Torfhaus	GW
E33	Kassel	GW
	Ravensburg	GW
E34	Berlin	GW
	Hanover	GW
	Munich	GW
E35	Bielefeld	GW
	Kiel	GW
	Rottweil	GW
E36	Bremen	GW
	Nürnberg	GW
E37	Aachen	GW
	Augsburg	GW
	Uelzen	GW

Standard Time

Hours and minutes to be added to, or subtracted from, G.M.T. to find Standard or Legal Time in places mentioned elsewhere in the Guide. The figure in parenthesis applies during the period of local Summer Time.

Aden	+ 3	Czechoslovakia	+ 1
Afghanistan	+ 4.30	Dahomey	+ 1
Albania	+ 1	Denmark	+ 1
Algeria	+ 1	Dominican Republic	- 5
Andorra	+ 1	Ecuador	- 5
Angola	+ 1	Egypt	(+3) + 2
Argentina	- 3	Eire	(+1) 0
Australia—		Ethiopia	+ 3
W. Australia	+ 8	Falkland Islands	- 4
Northern Territory,		Faroe Islands	0
S. Australia	+ 9.30	Fiji Islands	+ 12
N.S.W., Queensland,		Finland	+ 2
Victoria	+ 10	Formosa	(+9) + 8
Austria	+ 1	France	+ 1
Azores	(-1) - 2	Gabon	+ 1
Bali, Indonesia	+ 7.30	Gambia	0
Barbados	- 4	Germany, E. & W.	+ 1
Belgium	+ 1	Ghana	0
Bermuda	(-3) - 4	Gibraltar	+ 1
Bolivia	- 4	Goa	+ 5.30
Borneo—		Greece	+ 2
Indonesian	+ 7.30	Greenland	- 3
British N., Sarawak	+ 8	Guatemala	- 6
Brazil—		Guiana, British	- 3.45
Eastern States	- 3	" Dutch	- 3.30
Central States	- 4	Guinea, French	0
Western States	- 5	" Portuguese	- 1
Bulgaria	+ 2	" Spanish	+ 1
Burma	+ 6.30	Haiti	- 5
Cambodia	+ 7	Hawaii	- 10
Cameroun	+ 1	Honduras, British	- 6
Canada—		" Republic	- 6
New Brunswick, Nova		Hong Kong	(+9) + 8
Scotia	(-3) - 4	Hungary	(+2) + 1
Ontario, Quebec	(-4) - 5	Iceland	(0) - 1
Manitoba	(-5) - 6	India	+ 5.30
Alberta	(-6) - 7	Indo-China	+ 7
Canary Islands	0	Indonesia—	
Cape Verde Islands	- 2	North Sumatra	+ 6.30
Central African Republic	+ 1	Bali, Borneo (except	
Ceylon	+ 5.30	Brit. North), Java	+ 7.30
Chad Republic	+ 1	South Sumatra	+ 7
Chile	- 4	Celebes, Brit. N. Borneo	+ 8
China	+ 8	Moluccas	+ 8.30
Colombia	- 5	Iran	+ 3.30
Congo	+ 1	Iraq	+ 3
Costa Rica	- 6	Ireland	(+1) 0
Cuba	- 5	Israel	(+3) + 2
Curacao	- 4.30	Italy	+ 1
Cyprus	+ 2	Ivory Coast	0

Jamaica	- 5
Japan	+ 9
Jordan	+ 2
Kenya	+ 3
Korea, North	+ 9
Korea, South	(+9.30) + 8.30
Kuwait	+ 3
Laos	+ 7
Lebanon	+ 2
Liberia	- 0.44
Libya—	
Cyrenaica	+ 2
Tripolitania	+ 2
Luxembourg	+ 1
Madagascar	+ 3
Madeira	(0) - 1
Malaya	+ 7.30
Mauritania	0
Martinique	- 4
Mauritius	+ 4
Mexico	- 6
Monaco	+ 1
Morocco	0
Mozambique	+ 2
Nepal	+ 5.30
Netherlands	+ 1
New Caledonia	+11
New Guinea, Dutch	+ 9.30
New Zealand	+12
Nicaragua	(-5) - 6
Niger Republic	+ 1
Nigeria	+ 1
Norway	+ 1
Okinawa Island	+ 9
Pakistan, E.	+ 6
" W.	+ 5
Panama	- 5
Papua	+ 10
Paraguay	- 4
Peru	- 5
Philippines	+ 8
Poland	(+2) + 1
Portugal	(+1) 0
Reunion Island	+ 4
Rhodesia-Nyasaland	+ 2
Rumania	+ 2
St. Thomas Island	0
Salvador	- 6
Samoa	- 11
Sarawak	+ 8
Saudi Arabia	+ 3
Senegal	0
Sierra Leone	0
Solomon Islands	+11
Somalia	+ 3

Somaliland, British	+ 3
" French	+ 3
South Africa	+ 2
Spain	+ 1
Sudan	+ 2
Sudan, French	+ 2
Surinam	- 3.30
Sweden	+ 1
Switzerland	+ 1
Syria	(+3) + 2
Tahiti	-10
Tanganyika	+ 3
Tangier	0
Thailand	+ 7
Togoland	0
Trieste	+ 1
Tunisia	+ 1
Turkey	+ 2
U.S.A.—	
Massachusetts, New Jersey,	
New York, Ohio (-4)	- 5
California (-7)	- 8
U.S.S.R.—	
Zone II—Chernigov,	
Chernovtsy, Dniepro-	
petrovsk, Kalinin,	
Kaliningrad, Kaunas,	
Kharkov, Kiev,	
Kishinev, Krasnodar,	
Kuldiga, Kursk,	
Leningrad, Lwow,	
Minsk, Moscow,	
Murmansk, Odessa,	
Ouchgorod, Petroza-	
vodsk, Riga, Rostov-	
on-Don, Simferopol,	
Smolensk, Stalino,	
Tallinn, Tartu, Tiras-	
pol, Vilna, Voronezh	+ 3
Zone III—Baku, Erivan,	
Ivanovo, Saransk,	
Tiflis	+ 4
Zone IV—Achkhabad,	
Frunze, Guryev,	
Stalinabad, Tashkent	+ 5
Zone V—Alma Ata,	
Petropavlovsk	+ 6
Zone VI—Novosibirsk	+ 7
Zone VII—Krasnoyarsk	+ 8
Zone VIII—Blagovesh-	
chensk, Ulan Ude,	
Yakutsk	+ 9
Zone IX—Khabarovsk,	
Komsomolsk,	
Vladivostok	+ 10
Zone X—Magadan	+ 11

Uganda	+ 3	Venezuela	— 4.30
Uruguay	— 3	Windward Islands	— 4
Vietnam	+ 7	Yugoslavia	+ 1
Vatican City	+ 1	Zanzibar	+ 3

International Allocation of Call Signs

The first character or the first two characters of a call sign indicates the nationality of the station using it. The abbreviation O.T. is used for overseas territories, provinces or states administered by, or for which the international relations are the responsibility of, the country named.

AAA-ALZ	U.S.A.	HNA-HNZ	Iraq
AMA-AOZ	Spain	HOA-HPZ	Panama
APA-ASZ	Pakistan	HQA-HRZ	Honduras Republic
ATA-AWZ	India	HSA-HSZ	Thailand
AXA-AXZ	Australia	HTA-HTZ	Nicaragua
AYA-AZZ	Argentina	HUA-HUZ	Salvador
BAA-BZZ	China	HVA-HVZ	Vatican City
CAA-CEZ	Chile	HWA-HYZ	France and O.T.
CFA-CKZ	Canada	HZA-HZZ	Saudi Arabia
CLA-CMZ	Cuba	IAA-IZZ	Italy and O.T.
CNA-CNZ	Morocco	JAA-JSZ	Japan
COA-COZ	Cuba	JTA-JVZ	Mongolia
CPA-CPZ	Bolivia	JWA-JXZ	Norway
CQA-CRZ	Portuguese O.T.	JYA-JYZ	Jordan
CSA-CUZ	Portugal	JZA-JZZ	Neth. New Guinea
CVA-CXZ	Uruguay	KAA-KZZ	U.S.A.
CYA-CZZ	Canada	LAA-LNZ	Norway
DAA-DTZ	Germany	LOA-LWZ	Argentina
DUA-DZZ	Philippines	LXA-LXZ	Luxembourg
EAA-EHZ	Spain	LYA-LYZ	Lithuania
EIA-EJZ	Eire	LZA-LZZ	Bulgaria
EKA-EKZ	U.S.S.R.	MAA-MZZ	U.K.
ELA-ELZ	Liberia	NAA-NZZ	U.S.A.
EMA-EOZ	U.S.S.R.	OAA-OCZ	Peru
EPA-EQZ	Iran	ODA-ODZ	Lebanon
ERA-ERZ	U.S.S.R.	OEA-OEZ	Austria
ESA-ESZ	Estonia	OFA-OJZ	Finland
ETA-ETZ	Ethiopia	OKA-OMZ	Czechoslovakia
EUA-EWZ	Byelorussia	ONA-OTZ	Belgium
EXA-EZZ	U.S.S.R.	OUA-OZZ	Denmark
FAA-FZZ	France and O.T.	PAA-PIZ	Netherlands
GAA-GZZ	U.K.	PJA-PJZ	Netherlands Antilles
HAA-HAZ	Hungary	PKA-POZ	Indonesia
HBA-HBZ	Switzerland	PPA-PYZ	Brazil
HCA-HDZ	Ecuador	PZA-PZZ	Surinam
HEA-HEZ	Switzerland	QAA-QZZ	(Q Code)
HFA-HFZ	Poland	RAA-RZZ	U.S.S.R.
HGA-HGZ	Hungary	SAA-SMZ	Sweden
HHA-HHZ	Haiti	SNA-SRZ	Poland
HIA-HIZ	Dominican Republic	SSA-SSM	Egypt
HJA-HKZ	Colombia	SSN-STZ	Sudan
HLA-HMZ	Korea	SUA-SUZ	Egypt

SVA-SZZ Greece
 TAA-TCZ Turkey
 TDA-TDZ Guatemala
 TEA-TEZ Costa Rica
 TFA-TFZ Iceland
 TGA-TGZ Guatemala
 THA-THZ France and O.T.
 TIA-TIZ Costa Rica
 TJA-TRZ France and O.T.
 TSA-TSM Tunisia
 TSN-TZZ France and O.T.
 UAA-UQZ U.S.S.R.
 URA-UTZ Ukraine
 UUA-UZZ U.S.S.R.
 VAA-VGZ Canada
 VHA-VNZ Australia
 VOA-VOZ Canada
 VPA-VSZ U.K. Overseas Ter.
 VTA-VWZ India
 VXA-VYZ Canada
 VZA-VZZ Australia
 WAA-WZZ U.S.A.
 XAA-XIZ Mexico
 XJA-XOZ Canada
 XPA-XPZ Denmark
 XQA-XRZ Chile
 XSA-XSZ China
 XTA-XTZ France and O.T.
 XUA-XUZ Cambodia
 XVA-XVZ Vietnam
 XWA-XWZ Laos
 XXA-XXZ Portuguese O.T.
 XYA-XZZ Burma
 YAA-YAZ Afghanistan
 YBA-YHZ Indonesia
 YIA-YIZ Iraq
 YJA-YJZ New Hebrides
 YKA-YKZ Syria
 YLA-YLZ Latvia
 YMA-YMZ Turkey
 YNA-YNZ Nicaragua
 YOA-YRZ Rumania
 YSA-YSZ Salvador
 YTA-YUZ Yugoslavia
 YVA-YYZ Venezuela
 YZA-YZZ Yugoslavia
 ZAA-ZAZ Albania
 ZBA-ZJZ U.K. Overseas Ter.
 ZKA-ZMZ New Zealand
 ZNA-ZOZ U.K. Overseas Ter.
 ZPA-ZPZ Paraguay
 ZQA-ZQZ U.K. Overseas Ter.
 ZRA-ZUZ South Africa
 ZVA-ZZZ Brazil

2AA-2ZZ U.K.
 3AA-3AZ Monaco
 3BA-3FZ Canada
 3GA-3GZ Chile
 3HA-3UZ China
 3VA-3VZ Tunisia
 3WA-3WZ Vietnam
 3YA-3YZ Norway
 3XA-3XZ Guinea
 3ZA-3ZZ Poland
 4AA-4CZ Mexico
 4DA-4IZ Philippines
 4JA-4LZ U.S.S.R.
 4MA-4MZ Venezuela
 4NA-4OZ Yugoslavia
 4PA-4SZ Ceylon
 4TA-4TZ Peru
 4UA-4UZ United Nations
 4VA-4VZ Haiti
 4WA-4WZ Yemen
 4XA-4XZ Israel
 4YA-4YZ International Civil
 Aviation Organization
 4ZA-4ZZ Israel
 5AA-5AZ Libya
 5CA-5GZ Morocco
 5JA-5KZ Colombia
 5LA-5MZ Liberia
 5NA-5OZ Nigeria
 5PA-5QZ Denmark
 5RA-5VZ France and O.T.
 6AA-6BZ Egypt
 6CA-6CZ Syria
 6DA-6JZ Mexico
 6KA-6NZ Korea
 6OA-6OZ Somali Republic
 6PA-6SZ Pakistan
 6TA-6UZ Sudan
 7AA-7IZ Indonesia
 7JA-7NZ Japan
 7SA-7SZ Sweden
 7ZA-7ZZ Saudi Arabia
 8AA-8IZ Indonesia
 8JA-8NZ Japan
 8SA-8SZ Sweden
 8TA-8YZ India
 8ZA-8ZZ Saudi Arabia
 9AA-9AZ San Marino
 9BA-9DZ Iran
 9EA-9FZ Ethiopia
 9GA-9GZ Ghana
 9KA-9KZ Kuwait
 9MA-9MZ Malaysia
 9NA-9NZ Nepal
 9OA-9UZ Congo

Frequency Allocations

The positions of the various broadcasting bands in relation to some other services operating in the radio spectrum between 150kc/s and 10,000Mc/s, will be seen from this abridged list of frequency allocations. It is based on the Geneva Convention of 1959 in so far as it affects Region 1 (see map on pages 48 and 49).

kc/s		Service
150	— 285	Long-wave broadcasting
285	— 415	Marine and aeronautical radio navigation
415	— 525	Marine mobile (distress and calling frequency, telephony, 500). Limited use of 415 — 485 and 515 — 525 by broadcasting stations
525	— 1605	Medium-wave broadcasting
1605	— 1800	Fixed and mobile
1800	— 2000	Amateurs*
Mc/s		
2.000	— 2.045	Aeronautical fixed and mobile
2.045	— 2.065	Meteorological aids
2.065	— 2.300	Fixed and mobile (marine distress and calling frequency, telephony, 2.182)
2.300	— 2.498	Broadcasting (tropical zone only)*
2.500	—	Standard frequency
2.850	— 3.200	Aeronautical mobile
3.200	— 3.400	Broadcasting (tropical zone only)*
3.500	— 3.800	Amateurs*
3.950	— 4.000	Broadcasting (75-metre band)*
4.063	— 4.133	Ships, telephony
4.133	— 4.238	Ships, telegraphy
4.238	— 4.368	Coast stations, telegraphy
4.368	— 4.438	Coast stations, telephony
4.750	— 4.995	Broadcasting (tropical zone only)*
5.000	—	Standard frequency
5.005	— 5.060	Broadcasting (tropical zone only)*
5.950	— 6.200	Broadcasting (49-metre band)
6.200	— 6.357	Ships, telegraphy
6.357	— 6.525	Coast stations, telegraphy
6.525	— 7.000	Aeronautical mobile
7.000	— 7.100	Amateurs
7.100	— 7.300	Broadcasting (41-metre band)
8.195	— 8.265	Ships, telephony
8.265	— 8.476	Ships, telegraphy
8.476	— 8.745	Coast stations, telegraphy
8.745	— 8.815	Coast stations, telephony
9.500	— 9.775	Broadcasting (31-metre band)
10.000	—	Standard frequency
11.700	— 11.975	Broadcasting (25-metre band)
12.330	— 12.400	Ships, telephony
12.400	— 12.714	Ships, telegraphy
12.714	— 13.130	Coast stations, telegraphy
13.130	— 13.200	Coast stations, telephony
13.560	—	Industrial, scientific and medical
14.000	— 14.350	Amateurs

*Shared with fixed and mobile.

Mc/s	Service
15.000	Standard frequency
15.100 — 15.450	Broadcasting (19-metre band)
16.460 — 16.530	Ships, telephony
16.530 — 16.952	Ships, telegraphy
16.952 — 17.290	Coast stations, telegraphy
17.290 — 17.360	Coast stations, telephony
17.700 — 17.900	Broadcasting (16-metre band)
20.000	Standard frequency
21.000 — 21.450	Amateurs
21.450 — 21.750	Broadcasting (13-metre band)
22.000 — 22.070	Ships, telephony
22.070 — 22.400	Ships, telegraphy
22.400 — 22.650	Coast stations, telegraphy
22.650 — 22.720	Coast stations, telephony
25.000	Standard frequency
25.600 — 26.100	Broadcasting (11-metre band)
26.960 — 27.280	Radio control of models
28.000 — 29.700	Amateurs
40.680	Industrial, scientific and medical
41.000 — 68.000	Television broadcasting (Band I)
70.200 — 70.400	Amateurs
71.500 — 72.800	Mobile radio
72.800 — 75.200	Aeronautical radio-navigation
75.000	Aeronautical marker beacons
76.000 — 78.000	Mobile radio
78.000 — 80.000	Aeronautical radio-navigation
85.000 — 87.500	Mobile radio
87.500 — 100.000	Broadcasting (Band II)
108 — 112	Aeronautical landing aids
112 — 118	Aeronautical navigation aids
118 — 132	Air-to-ground communication (distress frequency 121.5)
144 — 146	Amateurs
156 — 165	Marine fixed and mobile
165 — 174	Mobile radio
174 — 216	Television broadcasting (Band III)
328.6 — 335.4	Instrument landing systems
400 — 420	Radiosonde
420 — 460	Amateurs and air navigation aids
460 — 470	Mobile radio (464-465 radio control of models)
470 — 582	Television broadcasting (Band IV)
610 — 960	Television broadcasting (Band V)
1000	Distance measuring equipment
1215 — 1300	Amateurs
1300 — 1365	Surveillance radar
2300 — 2450	Amateurs
2450	Industrial, scientific and medical
3000 — 3246	Shipborne radar
4200 — 4400	Radio altimeters
5000 — 5250	Instrument landing systems
5460 — 5650	Shipborne radar
5650 — 5850	Amateurs
5850	Industrial, scientific and medical
9320 — 9500	Shipborne radar
10000 — 10500	Amateurs

Wavelength and Frequency Conversion

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

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

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:

$$\begin{array}{l} \text{Kilocycles to Metres} \\ \text{Metres} = \frac{300,000}{\text{Frequency (kc/s)}} \end{array}$$

$$\begin{array}{l} \text{Megacycles to Metres} \\ \text{Metres} = \frac{300}{\text{Frequency (Mc/s)}} \end{array}$$

$$\begin{array}{l} \text{Metres to Kilocycles} \\ \text{kc/s} = \frac{300,000}{\text{Wavelength (metres)}} \end{array}$$

$$\begin{array}{l} \text{Metres to Megacycles} \\ \text{Mc/s} = \frac{300}{\text{Wavelength (metres)}} \end{array}$$

Conversion Table

Metres to Megacycles or Megacycles to Metres	Metres to Megacycles or Megacycles to Metres	Metres to Megacycles or Megacycles to Metres			
0.01	30,000	16	18.750	38	7.894
0.05	6,000	17	17.647	39	7.692
0.1	3,000	18	16.666	40	7.500
0.2	1,500	19	15.789	41	7.317
0.3	1,000	20	15.000	42	7.143
0.4	750	21	14.286	43	6.977
0.5	600	22	13.636	44	6.818
1	300	23	13.043	45	6.667
2	150	24	12.500	46	6.522
3	100	25	12.000	47	6.383
4	75	26	11.538	48	6.250
5	60	27	11.111	49	6.122
6	50	28	10.714	50	6.000
7	42.857	29	10.345	52	5.769
8	37.500	30	10.000	54	5.555
9	33.333	31	9.678	56	5.357
10	30.000	32	9.375	58	5.172
11	27.273	33	9.091	60	5.000
12	25.000	34	8.823	65	4.615
13	23.077	35	8.572	70	4.286
14	21.429	36	8.332	75	4.000
15	20.000	37	8.118	80	3.750

Metres to Megacycles or Megacycles to Metres		Metres to Kilocycles or Kilocycles to Metres		Metres to Kilocycles or Kilocycles to Metres	
85	3.529	270	1,111	490	612.2
90	3.333	275	1,091	495	606.1
95	3.158	280	1,071	500	600.0
100	3.000	285	1,053	550	545.5
103	2.913	290	1,034	600	500.0
106	2.830	295	1,017	650	461.5
109	2.752	300	1,000	700	428.6
111	2.703	305	983.6	750	400.0
113	2.655	310	967.8	800	375.0
115	2.609	315	953.4	850	352.9
117	2.564	320	937.5	900	333.3
120	2.500	325	923.1	950	315.8
122	2.459	330	909.1	1,000	300.0
124	2.419	335	895.6	1,100	272.7
126	2.381	340	882.3	1,200	250.0
128	2.344	345	869.6	1,300	230.8
130	2.308	350	857.2	1,400	214.3
135	2.222	335	845.1	1,500	200.0
140	2.143	360	833.2	1,600	187.5
145	2.069	365	822.0	1,700	176.5
150	2.000	370	811.8	1,800	166.7
155	1.935	375	800.0	1,900	157.9
160	1.875	380	789.4	2,000	150.0
165	1.818	385	779.2	2,200	136.4
170	1.765	390	769.2	2,400	125.0
175	1.714	395	759.5	2,600	115.4
180	1.667	400	750.0	2,800	107.1
185	1.622	405	740.7	3,000	100.0
190	1.579	410	731.7	3,500	85.7
195	1.538	415	722.9	4,000	75.0
200	1.500	420	714.3	4,500	66.7
205	1.463	425	705.9	5,000	60.0
210	1.429	430	697.7	5,500	54.5
215	1.395	435	689.7	6,000	50.0
220	1.364	440	681.8	6,500	46.1
225	1.333	445	674.2	7,000	42.9
230	1.304	450	666.7	7,500	40.0
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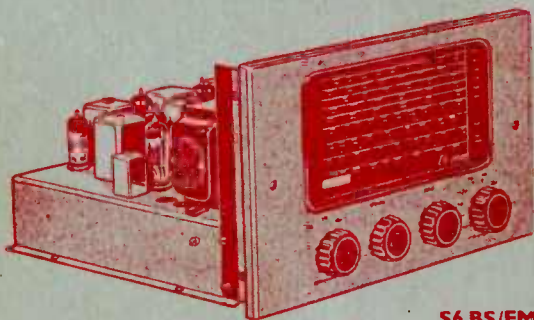
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