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Frequencies Used by the Broadcast Service

STANDARD BROADCAST (AM) STATIONS

Classes and Power of Standard Broadcast Stations¹

(a) *Clear channel.* A clear channel is one on which the dominant station or stations render service over wide areas, and which are cleared of objectionable interference within their primary service areas and over all or a substantial portion of their secondary service areas. Stations operating on these channels are classified as follows:

(1) *Class I station.* A Class I station is a dominant station operating on a clear channel and designed to render primary and secondary service over an extended area and at relatively long distances. Its primary service area is free from objectionable interference from other stations on the same and adjacent channels, and its secondary service area free from interference except from stations on adjacent channels, and from stations on the same channel in accordance with the channel designation in Sections 73.25 or 73.182 FCC Rules and Regulations. The operating power shall not be less than 10 kilowatts nor more than 50 kilowatts.

(2) *Class II station.* A Class II station is a secondary station which operates on a clear channel (see Section 73.25) and is designed to render service over a primary service area which is limited by and subject to such interference as may be received from Class I stations. Whenever necessary a Class II station shall use a directional antenna or other means to avoid interference with Class I stations and with other Class II stations, in accordance with Section 73.182 (and Section 73.22 in the case of Class II-A stations). Class II stations are divided into three groups:

(i) *Class II-A station.* A Class II-A station is an unlimited time Class II station operating on one of the clear channels listed in Section 73.22 and assigned to a community within a state specified in the Table contained in that section. A Class II-A station shall operate with power of not less

than 10 kilowatts nighttime nor more than 50 kilowatts at any time.

(ii) *Class II-B station.* A Class II-B station is an unlimited time Class II station other than those included in Class II-A. A Class II-B station shall operate with power not less than 0.25 kilowatts nor more than 50 kilowatts.

(iii) *Class II-D station.* A Class II-D station is a Class II station operating daytime or limited time. A Class II-D station shall operate with power not less than 0.25 kilowatts nor more than 50 kilowatts.

(b) *Regional channel.* A regional channel is one on which several stations may operate with powers not in excess of 5 kilowatts. The primary service area of a station operating on any such channel may be limited to a given field intensity contour as a consequence of interference.

(1) *Class III station.* A Class III station is a station which operates on a regional channel and is designed to render service primarily to a principal center of population and the rural area contiguous thereto. Class III stations are subdivided into two classes.

(i) *Class III-A station.* A Class III-A station is a Class III station which operates with power not less than 1 kilowatt nor more than 5 kilowatts and the service area of which is subject to interference in accordance with Section 73.182.

(ii) *Class III-B station.* A Class III-B station is a Class III station which operates with power not less than 0.5 kilowatt nor more than 1 kilowatt night and 5 kilowatts daytime, and the service area of which is subject to interference in accordance with Section 73.182.

(c) *Local channel.* A local channel is one on which several stations operate with powers no greater than provided in this paragraph. The primary service area of a station operating on any such channel may be limited to a given field intensity contour as a consequence of interference. Such stations operate with power no greater than 250 watts nighttime, and no greater than 1 kilowatt daytime (except that for stations in an area in the State of Florida south of the parallel 28° north latitude, and between the

¹All section numbers refer to the FCC Rules and Regulations used by the Broadcast Services.

meridians 80° and 82° west longitude, power is limited to 250 watts, daytime and nighttime).

(1) *Class IV station.* A Class IV station is a station operating on a local channel and designed to render service primarily to a city or town and the suburban and rural areas contiguous thereto. The power of a station of this class shall not be less than 0.25 kilowatt, and not more than 0.25 kilowatt nighttime and 1 kilowatt daytime, and its service area is subject to interference in accordance with Section 73.182. Stations which are licensed to operate with 100 watts day or night may continue to do so.

Assignment of Class II-A Stations

(a) *Table of assignments.* One Class II-A station may be assigned on each channel listed in the following table within the designated State or States:

Channel (kHz)	Location of existing Class I station	State(s) in which Class II-A assignment may be applied for
670...	Chicago, Ill.	Idaho.
720...	Chicago, Ill.	Nevada or Idaho.
780...	Chicago, Ill.	Nevada.
880...	New York, N.Y. . .	North Dakota, South Dakota, or Nebraska.
890...	Chicago, Ill.	Utah.
1020...	Pittsburgh, Pa. . . .	New Mexico.
1030...	Boston, Mass. . . .	Wyoming.
1100...	Cleveland, Ohio . . .	Colorado.
1120...	St. Louis, Mo. . . .	California or Oregon.
1180...	Rochester, N.Y. . .	Montana.
1210...	Philadelphia, Pa. .	Kansas, Nebraska, or Oklahoma.

(b) *Minimum service to "white" areas.* No Class II-A station shall be assigned unless at least 25 percent of its nighttime interference-free service area or at least 25 percent of the population residing therein receives no other interference-free nighttime primary service.

(c) *Power.* Class II-A stations shall operate with not less than 10-kilowatt power nighttime.

(d) *Protection.* (1) *Protection by Class II-A stations to other stations.* The co-channel Class I-A station shall be protected by the Class II-A station to its 0.1 mv/m contour daytime and its 0.5 mv/m 50 percent skywave contour nighttime. All other stations of any class authorized on or before October 30, 1961, shall normally receive protection from objectionable interference from Class II-A stations as provided in Section 73.182.

(2) *Protection to Class II-A stations.* A Class II-A station shall normally receive daytime protection to its 0.5 mv/m groundwave contour and nighttime protection to the contour to which it is limited by the co-channel Class I-A station.

(e) *Applications not complying with this section.* Applications for Class II-A stations which do not meet the requirements stated under Minimum Service and Power sections will be returned without further consideration.

Time of Operation of Standard Broadcast Stations

The several classes of standard broadcast stations may be licensed to operate in accordance with the following:

(a) Unlimited time permits operation without a maximum limit as to time.

(b) Limited time is applicable to Class II (secondary) stations operating on a clear channel with facilities authorized before November 30, 1959. It permits operation of the secondary station during daytime, and until local sunset if located west of the dominant station on the channel, or if located east thereof, until sunset at the dominant station, and in addition during night hours, if any, not used by the dominant station or stations on the channel.

(c) Daytime permits operation during the hours between average monthly local sunrise and average monthly local sunset.

(d) Sharing time permits operation during hours which are so restricted by the station license as to require a division of time with one or more other stations using the same channel.

(e) Specified hours means that the exact operating hours are specified in the license. Specified hours stations operating on local channels, except those sharing time with other stations may operate at hours beyond those specified in their licenses to carry special events programming. To the extent that such operation is conducted during the nighttime hours, the station's authorized nighttime facilities must be used.

Minimum Operating Schedule

(a) All standard broadcast stations are required to maintain an operating schedule of not less than two-thirds of the total hours they are authorized to operate between 6 a.m. and 6 p.m., local time, and two-thirds of the total hours they are authorized to operate between 6 p.m. and midnight, local time, each day of the week except Sunday: *Provided, however,* that stations authorized for daytime operation only need to comply with the minimum requirement for operation between 6 a.m. and 6 p.m.

AM/FM SECTION

Frequencies Used for Standard Broadcast Stations

The band 535-1605 kHz is used for standard broadcasting. It is divided into 107 channels of 10 kHz each. Following is a list of standard broadcast channels and the conditions under which each may be used in the United States. For further reference and additional information, see FCC Rules, and the 1950 North American Regional Broadcast Agreement.

<i>Channel</i>	<i>Classification</i>	<i>NARBA Class I Priority</i>	<i>Use Under FCC Rules</i>	<i>See Footnotes</i>
540	Clear	Canada (I-A) Mexico (I-A)	II	(2) (3) (12) (14) (21)
550	Regional	Cuba (I-C)	III-A, III-B	(4) (5) (11)
560	Regional		III-A, III-B	(4) (11)
570	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)
580	Regional		III-A, III-B	(4) (11)
590	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)
600	Regional		III-A, III-B	(4) (11)
610	Regional		III-A, III-B	(4) (11)
620	Regional	Dominican Republic (I-C)	III-A, III-B	(4) (5) (11)
630	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)
640	Clear	USA (I-A) Canada (I-B) Cuba (I-C)	I, II	(5) (6) (8) (9) (10) (19) (22) (26)
650	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
660	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
670	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
680	Clear	USA (I-B)	I, II	(10) (11) (13) (19) (26)
690	Clear	Canada (I-A) Cuba (I-C) Mexico (I-B)	II	(1) (3) (5)
700	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
710	Clear	USA (I-B)	I, II	(10) (11) (13) (19) (26)
720	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
730	Clear	Mexico (I-A)	II	(14) (21) (25)
740	Clear	Canada (I-A) Cuba (I-D)	II	(1) (3) (7)
750	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
760	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
770	Clear	USA (I-A)	I, II	(6) (8) (9) (20)
780	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
790	Regional		III-A, III-B	(4) (11)
800	Clear	Mexico (I-A)	II	(14) (21) (25)
810	Clear	USA (I-B)	I, II	(10) (13) (19) (26)
820	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
830	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
840	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
850	Clear	USA (I-B) Mexico (I-B)	I, II	(10) (13) (19) (26)
860	Clear	Canada (I-A) Cuba (I-C)	II	(1) (3) (5)
870	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
880	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
890	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
900	Clear	Mexico (I-A)	II	(14) (21) (25)
910	Regional		III-A, III-B	(4) (11)
920	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)
930	Regional		III-A, III-B	(4) (11)
940	Clear	Canada & Mexico (I-B)	I, II	(19) (26)
950	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)
960	Regional		III-A, III-B	(4) (11)
970	Regional		III-A, III-B	(4) (11)
980	Regional	Cuba (I-D)	III-A, III-B	(4) (7) (11)

8 Frequencies Used by the Broadcast Service

<i>Channel</i>	<i>Classification</i>	<i>NARBA Class I Priority</i>	<i>Use Under FCC Rules</i>	<i>See Footnotes</i>
990	Clear	Canada (I-A)	II	(1) (3)
1000	Clear	Mexico & USA (I-B)	I, II	(10) (13) (19) (26)
1010	Clear	Canada (I-A) Cuba (I-B)	II	(1) (3) (15)
1020	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
1030	Clear	USA (I-A)	I, II	(6) (11) (13) (16) (20) (23)
1040	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
1050	Clear	Mexico (I-A)	II	(14) (17) (21) (25)
1060	Clear	Mexico & USA (I-B)	I, II	(10) (13) (19) (26)
1070	Clear	Canada & USA (I-B)	I, II	(10) (13) (19) (26)
1080	Clear	USA (I-B)	I, II	(10) (13) (19) (26)
1090	Clear	Mexico & USA (I-B)	I, II	(10) (13) (19) (26)
1100	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
1110	Clear	USA (I-B)	I, II	(10) (13) (19) (26)
1120	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
1130	Clear	Canada & USA (I-B)	I, II	(10) (13) (19) (26)
1140	Clear	Mexico & USA (I-B)	I, II	(10) (13) (19) (26)
1150	Regional		III-A, III-B	(4) (11)
1160	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
1170	Clear	USA (I-B)	I, II	(10) (13) (19) (26)
1180	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
1190	Clear	Mexico & USA (I-B)	I, II	(10) (13) (19) (26)
1200	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (22)
1210	Clear	USA (I-A)	I, II	(6) (8) (9) (10) (19) (23)
1220	Clear	Mexico (I-A)	II	(14) (18) (21) (25)
1230	Local		IV	
1240	Local		IV	
1250	Regional		III-A, III-B	(4) (11)
1260	Regional		III-A, III-B	(4) (11)
1270	Regional		III-A, III-B	(4) (11)
1280	Regional		III-A, III-B	(4) (11)
1290	Regional		III-A, III-B	(4) (11)
1300	Regional		III-A, III-B	(4) (11)
1310	Regional		III-A, III-B	(4) (11)
1320	Regional		III-A, III-B	(4) (11)
1330	Regional		III-A, III-B	(4) (11)
1340	Local		IV	
1350	Regional		III-A, III-B	(4) (11)
1360	Regional		III-A, III-B	(4) (11)
1370	Regional		III-A, III-B	(4) (11)
1380	Regional		III-A, III-B	(4) (11)
1390	Regional		III-A, III-B	(4) (11)
1400	Local		IV	
1410	Regional		III-A, III-B	(4) (11)
1420	Regional		III-A, III-B	(4) (11)
1430	Regional		III-A, III-B	(4) (11)
1440	Regional		III-A, III-B	(4) (11)
1450	Local		IV	
1460	Regional		III-A, III-B	(4) (11)
1470	Regional		III-A, III-B	(4) (11)
1480	Regional		III-A, III-B	(4) (11)
1490	Local		IV	
1500	Clear	USA (I-B)	I, II	(13) (19) (26)
1510	Clear	USA (I-B)	I, II	(13) (19) (26)
1520	Clear	USA (I-B)	I, II	(13) (19) (26)
1530	Clear	USA (I-B)	I, II	(13) (19) (26)
1540	Clear	Bahamas (I-A) USA (I-B)	II	(19) (24)
1550	Clear	Canada & Mexico (I-B)	I, II	(19) (26)

<i>Channel</i>	<i>Classification</i>	<i>NARBA Class I Priority</i>	<i>Use Under FCC Rules</i>	<i>See Footnotes</i>
1560	Clear	USA & Cuba (I-B)	I, II	(13) (19) (26)
1570	Clear	Mexico (I-A)	II	(14) (21) (25)
1580	Clear	Canada (I-A)	II	(1) (3)
1590	Regional		III-A, III-B	(4) (11)
1600	Regional		III-A, III-B	(4) (11)

Note:

1. For Class II stations which will not deliver over 5 microvolts per meter groundwave or 25 microvolts per meter 10 percent time skywave at any point on the Canadian border and provided that such stations operating nighttime (i.e., sunset to sunrise at the location of the Class II station) are located not less than 650 miles from the nearest Canadian border.

2. Subject to the condition that no harmful interference be caused to services operating on 500 kHz and in the band 510-535 kHz.

3. Proposed rule making in Docket 10453 provides for certain assignments on this channel to be submitted to the Canadian government for comments, taking into account daytime skywave. No applications are being granted at this time which are not in conformity with the proposals contained in Docket 10453.

4. Class IV stations presently operating on this channel are allowed to continue operation, but are not protected against interference from Class III stations. No new Class IV stations will be assigned to the channel.

5. New assignments may not deliver over 25 microvolts per meter 10 percent time skywave at any point on the border of the country having priority for a Class I-C station on this channel. For definition of this class of station and requirements for daytime protection, see 1950 North American Regional Broadcasting Agreement.

6. Class II stations may operate presunrise with a power not in excess of 500 watts from 6 a.m. local time to sunrise where such stations are located west of the Class I-A station.

7. New assignments may not deliver over 50 microvolts per meter 10 percent time skywave at any point on the border of the country having priority for a Class I-D station on this channel. For definition of this class of station and requirements for daytime protection, see 1950 North American Regional Broadcasting Agreement.

8. One Class I and one or more Class II stations may be assigned on this channel. Class II stations are restricted to limited time or daytime only operation in the continental limits of the United States. There may be assigned to this frequency Class II stations operating unlimited time in Alaska, Hawaii, Virgin Islands, and Puerto Rico which will not deliver over 5 microvolts per meter groundwave day or night or 25 microvolts per meter 10 percent time skywave at night at any point within the continental limits of the United States.

9. Power shall not be less than 50 kilowatts for Class I stations on this channel.

10. Pending finalization of Docket 6741, action is being withheld on applications for new daytime or limited time assignments, changes in frequency to operate on this channel, or applications for modification of facilities which would increase radiation or change stations location.

11. Class III station may commence operation with their daytime antenna systems at 6 a.m. local time, and continue such operation until local sunrise provided that the presunrise power not exceed 500 watts or such lesser power as may be determined.

12. Class II stations shall not deliver a signal of more than 5 microvolts per meter groundwave or 25 microvolts per meter 10 percent skywave at any point on the Canadian border, nor more than 10 microvolts per meter daytime or 50 microvolts per meter nighttime at any point on the Mexican border provided that stations operating at night shall be located within the continental United States including Alaska and not less than 650 miles from the nearest point on the Canadian border and north of the parallel 35 degrees north if west of the meridian 93 degrees west or north of the parallel 30 degrees north if east of said meridian.

13. One or more Class I stations may be assigned to this channel. Class II applications are subject to the same provisions as stated in Footnote 10.

14. In continental U.S., for Class II stations which operate daytime only with power not in excess of 1 kilowatt and which will not deliver over 5 microvolts per meter groundwave at any point on the Mexican border, and in Alaska, Hawaii, Puerto Rico, and the Virgin Islands, for Class II stations which will not deliver over 5 microvolts per meter groundwave or 25 microvolts per meter 10 percent time skywave at any point on said border.

15. A station on 1010 kHz shall also protect a Class I-B station at Havana, Cuba.

16. Under terms of the 1950 North American Regional Broadcasting Agreement, Class I-A priority on this channel is assigned to USA, however, FCC Rules continue to classify 1030 kHz as Class I-B, pending ratification of the 1950 Agreement.

17. The U.S. is permitted under the "Gentlemen's Agreement" to continue operation of one 50 kilowatt full-time Class II station with directional pattern that will direct the signal to the northeast and protect the Mexican station's signal in the U.S. as much as possible.

18. The U.S. is permitted under the "Gentlemen's Agreement" to assign a station in the Detroit, Michigan, area with a directional antenna that will direct the signal to the northward and protect the Mexican station's coverage in the U.S. as much as possible.

19. All new assignments on this channel must be in accordance with Section 73.187.

20. Two Class I stations will be assigned this frequency.

21. The United States may assign stations to operate with powers not in excess of 5 kilowatts daytime on this frequency. Stations with powers in excess of 1 kilowatt may not be assigned in areas within the following distances of the locations specified:

800 kHz—820 miles from Ciudad Juarez, Chihuahua
1050 kHz—620 miles from Monterrey, Nuevo Leon
1570 kHz—620 miles from Ciudad Acuma, Coahuila

22. Docket 6741 proposes no action at this time but introduces subject of increased power.

23. Unlimited Class II-A stations will be assigned in underserved areas.

24. Class I and II stations on 1540 kHz shall deliver not over 5 microvolts per meter groundwave or 25 microvolts per meter 10 percent skywave at any point of land in the Bahama Islands and such station operating nighttime (i.e., sunset to sunrise at the location of the Class II station shall be located not less than 650 miles from the nearest point of land in the Bahama Islands.

25. Class II stations are permitted to operate on Mexican Class I-A clear channels commencing at 6 a.m. local time with their daytime antenna system and to continue such operation until the sunrise time specified in their basic instrument of authorization provided that the power not exceed 500 watts.

26. Presunrise operation is permitted on this frequency provided a special showing is made.

FM STATIONS

Classes and Power of FM Stations

Class A station. A Class A station is a station that operates on a Class A channel and is designed to render service to a relatively small community, city, or town, and the surrounding rural area. A Class A station will not be authorized to operate with effective radiated power (ERP) greater than 3 kilowatts, and the coverage of a Class A station may not exceed that obtained from 3 kilowatts effective radiated power and antenna height of 300 feet above average terrain. A Class A station will not be licensed with more than 3 kilowatts effective radiated power or less than 100 watts effective radiated power.

Class B station. A Class B station is a station that operates on a Class B-C channel in Zone 1 or Zone I-A and is designed to render service to a sizable community, city, or town, or to the principal city or cities of an urbanized area, and to the surrounding area. No Class B station will be authorized with effective radiated power (ERP) greater than 50 kilowatts and the coverage of a Class B station must not exceed that obtained from 50 kilowatts effective radiated power and 500-foot antenna height above average terrain. A Class B station will not be licensed with more than 50 kilowatts effective radiated power or less than 5 kilowatts effective radiated power.

Class C station. A Class C station is a station that operates on a Class B-C channel in Zone II and is designed to render service to a community, city, or town, and large surrounding areas. No such station will be authorized with an effective radiated power (ERP) greater than 100 kilowatts, and the coverage of a Class C station may not exceed that obtained from 100 kilowatts effective radiated power and antenna height of 2000 feet above average terrain. A Class C station will not be licensed with more than 100 kilowatts effective radiated power or less than 25 kilowatts effective radiated power.

Time of Operation

(a) All FM broadcast stations will be licensed for unlimited time operation. All FM stations are required to maintain an operating schedule of not

less than 8 hours between 6 a.m. and 6 p.m., local time, and not less than 4 hours between 6 p.m. and midnight, local time, each day of the week except Sunday.

(b) In the event that causes beyond the control of a permittee or licensee make it impossible to adhere to the operating schedule in paragraph (a) of this section or to continue operating, the station may limit or discontinue operation for a period of not more than 10 days, without further authority of the Commission. If causes beyond the control of the permittee or licensee make it impossible to comply within the allowed period, informal written request shall be made to the Commission in Washington, D.C. no later than the 10th day for such additional time as may be deemed necessary.

Subsidiary Communications Authorizations (SCA)

FM broadcast stations may engage in "functional (background) music" operations in addition to their regular FM broadcast service. The SCA will run concurrently with the FM broadcast license, and may not be renewed unless the FM broadcast license is also renewed.

Stereophonic Broadcasting

FM broadcast stations may, without further authority, transmit stereophonic programs in accordance with the Commission's technical standards provided that the Commission is notified within 10 days of the installation of accepted stereophonic transmission equipment or any change therein.

Frequencies Used for FM Broadcast Stations

The band 88-108 MHz is reserved for the FM Broadcast Service. These are 100 channels of 200 kHz each (80 for commercial broadcasting and 20 for educational broadcasting). Educational channels are in the 88-92 MHz portion of the FM band, and commercial broadcasting is allotted the remainder, 92-108 MHz.

Channel No.	Frequency (in MHz)	For Class	Channel No.	Frequency (in MHz)	For Class
221	92.1	A	278	103.5	B-C
222	92.3	B-C	279	103.7	B-C
223	92.5	B-C	280	103.9	A
224	92.7	A	281	104.1	B-C
225	92.9	B-C	282	104.3	B-C
226	93.1	B-C	283	104.5	B-C
227	93.3	B-C	284	104.7	B-C
228	93.5	A	285	104.9	A
229	93.7	B-C	286	105.1	B-C
230	93.9	B-C	287	105.3	B-C
231	94.1	B-C	288	105.5	A
232	94.3	A	289	105.7	B-C
233	94.5	B-C	290	105.9	B-C
234	94.7	B-C	291	106.1	B-C
235	94.9	B-C	292	106.3	A
236	95.1	B-C	293	106.5	B-C
237	95.3	A	294	106.7	B-C
238	95.5	B-C	295	106.9	B-C
239	95.7	B-C	296	107.1	A
240	95.9	A	297	107.3	B-C
241	96.1	B-C	298	107.5	B-C
242	96.3	B-C	299	107.7	B-C
243	96.5	B-C	300	107.9	B-C
244	96.7	A			
245	96.9	B-C			
246	97.1	B-C			
247	97.3	B-C			
248	97.5	B-C			
249	97.7	A			
250	97.9	B-C			
251	98.1	B-C			
252	98.3	A			
253	98.5	B-C			
254	98.7	B-C			
255	98.9	B-C			
256	99.1	B-C			
257	99.3	A			
258	99.5	B-C			
259	99.7	B-C			
260	99.9	B-C			
261	100.1	A			
262	100.3	B-C			
263	100.5	B-C			
264	100.7	B-C			
265	100.9	A			
266	101.1	B-C			
267	101.3	B-C			
268	101.5	B-C			
269	101.7	A			
270	101.9	B-C			
271	102.1	B-C			
272	102.3	A			
273	102.5	B-C			
274	102.7	B-C			
275	102.9	B-C			
276	103.1	A			
277	103.3	B-C			

Note: In Hawaii, the frequency band 98-108 MHz is allocated for nonbroadcast use. The frequencies 98.1 through 107.9 MHz will not be assigned in Hawaii for broadcast use.

In Alaska, the frequency band 88-100 MHz is allocated exclusively to government radio services and nongovernment fixed service. The frequencies 88.1 through 99.9 MHz will not be assigned in Alaska for use by FM broadcast stations.

The frequency 89.1 MHz is reserved in the New York area for the use of the United Nations.

TELEVISION STATIONS

Minimum and Maximum Visual Effective Radiated Power (ERP)

Minimum

Applications will not be accepted for filing if they specify less than—10 dbk (100 watts) visual effective radiated power in any horizontal direction. No minimum antenna height above average terrain is specified.

Maximum¹

Channel Nos.	Maximum Visual ERP
2-6	20 dbk (100 Kw)
7-13	25 dbk (316 Kw)
14-83	37 dbk (5000 Kw)

¹The maximum visual effective radiated power of television broadcast stations operating on Channels 14-83 within 250 miles of the Canadian-USA border may not be in excess of 30 dbk (1000 kilowatts).

Time of Operation

All television broadcast stations are licensed for unlimited time operation. Each station must maintain a regular program operating schedule as follows:

First 18 months of operation: Not less than 2 hours daily in any five broadcast days per week, and not less than a total of 12 hours per week.

Each successive 6-month period. Not less than 2 hours daily in any five broadcast days per week, and not less than a total of 16 hours, 20 hours, and 24 hours per week, respectively.

Third year of operation and thereafter: Not less than 2 hours in each of the seven days of the week, and not less than a total of 28 hours per week.

Frequencies Used for Television Stations

There are 82 channels in the Television Broadcast Service, 12 for VHF television and 70 for UHF television. Each channel has a bandwidth of 6 MHz.

Assignment of a channel to an applicant is made in accordance with the Table of Assignments given in FCC Rules.

The channel numbers and frequency bands for television stations are as follows:

Channel No.	Frequency Band (in MHz)	Channel No.	Frequency Band (in MHz)
2	54-60	43	644-650
3	60-66	44	650-656
4	66-72	45	656-662
5 ¹	76-82	46	662-668
6 ¹	82-88	47	668-674
7	174-180	48	674-680
8	180-186	49	680-686
9	186-192	50	686-692
10	192-198	51	692-698
11	198-204	52	698-704
12	204-210	53	704-710
13	210-216	54	710-716
14	470-476	55	716-722
15	476-482	56	722-728
16	482-488	57	728-734
17	488-494	58	734-740
18	494-500	59	740-746
19	500-506	60	746-752
20	506-512	61	752-758
21	512-518	62	758-764
22	518-524	63	764-770
23	524-530	64	770-776
24	530-536	65	776-782
25	536-542	66	782-788
26	542-548	67	788-794
27	548-554	68	794-800
28	554-560	69	800-806
29	560-566	70 ²	806-812

Channel No.	Frequency Band (in MHz)	Channel No.	Frequency Band (in MHz)
30	566-572	71 ²	812-818
31	572-578	72 ²	818-824
32	578-584	73 ²	824-830
33	584-590	74 ²	830-836
34	590-596	75 ²	836-842
35	596-602	76 ²	842-848
36	602-608	77 ²	848-854
37	608-614	78 ²	854-860
38	614-620	79 ²	860-866
39	620-626	80 ²	866-872
40	626-632	81 ²	872-878
41	632-638	82 ²	878-884
42	638-644	83 ²	884-890

¹In Alaska and Hawaii, the frequency bands 76-82 MHz and 82-88 MHz are allocated for nonbroadcast use. These frequency bands (Channels 5 and 6) will not be assigned in Alaska or Hawaii for use by television broadcast stations.

²No new translator authorizations are being issued on channels 70 through 83.

Frequency Selection

Service	Choice
AM Broadcasting	Applicant must specify frequency. Search must be made for an available frequency by applicant.
FM Broadcasting	Applicant must select any unassigned channel from table of assignments.
TV Broadcasting	Applicant must select any unassigned channel from table of assignments.

TRANSLATOR STATIONS

Definition

A television translator is a station in the broadcasting service operated solely for the purpose of retransmitting the signals of a television broadcast station or another television broadcast translator station, by means of direct frequency conversion and amplification of the incoming signals and without significantly altering any characteristic of the incoming signal other than its frequency and amplitude, for the purpose of providing television reception to the general public.

Power

A television broadcast translator station will not be authorized to operate with a transmitter power output in excess of the rated power output

of the transmitter and in no event shall the rated peak visual power output of the transmitter be in excess of 100 watts.

Frequencies Used for Translator Stations

Any one of the 12 standard VHF channels may be assigned to a VHF translator on the condition that no interference is caused to the direct reception by the public of any television broadcast station.

Any one of the 15 UHF channels from 55-69 inclusive with a power up to 100 watts with restrictions.

Any one of the UHF channels from 14-54 provided a showing is made that the translator may not be accommodated on the 15 channels from 55-69.

AUXILIARY BROADCAST SERVICES

Introduction

FCC Rules provide for the use of radio transmitting apparatus to supply certain auxiliary services in connection with broadcasting. These services fall into four general categories:

1. *Portable or mobile stations* which may be used to relay programs from places of origination other than a studio.
2. *Base stations*, usually located at the studio or transmitter of a broadcast station, and used to coordinate the activities of portable or mobile stations.
3. *Fixed stations (STL)* which may be used to provide a program circuit between the main or auxiliary studios to the transmitter of a broadcast station.
4. *Fixed stations (Intercity Relay)* which may be used to relay programs from one broadcast station to other broadcast stations for network programming.

Category 1 includes two classes of stations, i.e., *Remote Pickup Broadcast Mobile Stations* which may be used for relaying aural broadcast program material or the aural portion of television programs and are available to AM, FM, and TV broadcast station licensees; and *Television Pickup Stations* which may be used for relaying television program material, either visual alone or the combined visual and aural program material by means of multiplexing. Television pickup stations are available only to television broadcast stations.

Category 2 contains a class of station called a *Remote Pickup Broadcast Base Station*. From the standpoint of equipment, frequency assignments, technical operation, and availability, they are identical with Remote Pickup Broadcast Mobile

Stations. A differentiation is made because they are permanently installed at a fixed location and do not normally carry program material. The primary purpose of such base stations is to provide communication with remote mobile stations or television pickup stations, however, other uses are permitted under special circumstances.

Category 3 includes three classes of stations; *Standard Broadcast STL Stations*, *FM Broadcast STL Stations*, and *Television STL Stations*. STLs (studio-transmitter links) are used to provide a program circuit between the studio and the transmitter of a broadcast station. They are available to AM, FM, and TV broadcast stations. AM, FM, and TV STLs which are used to carry only the aural portion of TV programs, operate in the same general portion of the spectrum and the same type of transmitting equipment is used in all three services. Television STLs which are used to carry the visual portion of television programs operate in the so-called "microwave" portion of the spectrum. Some equipment is designed to simultaneously carry the aural portion of the program material on the same carrier by means of multiplexing, and such use is permitted if it can be accomplished without degrading the visual and aural signal to a point where the overall performance of the television system cannot meet the minimum requirements of the Rules Governing Television Broadcast Stations.

Category 4 includes two classes of stations; *FM Broadcast Intercity Relay Stations* and *TV Intercity Relay Stations*. (There is no AM Intercity Relay Service.) Intercity relay stations are used for the interexchange of programs between broadcast stations for network operation. Circuits for the interexchange of broadcast programs are normally operated by communications common carriers, however, in the case of FM broadcasting, where high-quality aural circuits are required and in the case of television, where special video circuits as well as high-quality aural circuits are required, the telephone company serving a certain area may not be able to supply the desired service due to lack of adequate facilities. Under such circumstances, intercity relay stations are available to FM and TV broadcasters. No provision is made for intercity relay stations to be used in conjunction with AM broadcast stations since telephone circuits of suitable broadcast quality are generally available or can be made available on short notice. FM intercity relay stations and TV intercity relay stations which carry only the aural portion of the television program operate in the same general portion of the spectrum as AM, FM, and TV STL stations. TV intercity relay stations used for the visual portion of television programs operate in the microwave bands used by TV pickup and TV STL stations. As in the case of TV STLs, the aural portion of the TV

program may be transmitted on the same carrier as the visual program material by means of multiplexing. Quality standards for intercity relay stations are left to the discretion of the individual broadcaster.

Remote pickup broadcast stations are required to monitor for EBS Radio Alerts and go off the air until the Radio All Clear. They may obtain the Radio Alert by monitoring any standard, FM, or TV station. Since the remote personnel would naturally be in communication with the mother station, and monitoring its transmissions in any case, no special receiver is required.

All of the material in this section is intended to be an explanation of the FCC Rules relating to the operation of auxiliary broadcast stations. It does not replace the need for reference to the full text of Part 74 of the FCC Rules which covers the services. The material in this article is arranged according to classes of broadcasting stations which may use auxiliary stations, and reference is made throughout to the pertinent sections of Part 74 for further study.

AM/FM SECTION¹

Remote Pickup Broadcast Stations

Broadcasters may use remote pickup broadcast stations at their discretion, and the choice between radio and wire lines does not depend on whether or not wire lines are available.

Remote pickup broadcast stations may be used for:

1. Transmission of AM, FM, or the aural portion of TV program material originating outside a regular studio. (Normally, only Mobile stations are used.)

2. Orders and related communications directly concerning such transmissions, but *may not be used* to provide private mobile telephone systems to station personnel. (Both Base and Mobile stations may be so used.)

3. Emergency program or order circuits from studios in the event of failure of regular wire circuits, *may not be used* for such purposes on a regular basis. (Both Base and Mobile stations may be so used.)

¹FCC Docket No. 20189 proposes to substantially amend these rules.

4. In Alaska, Hawaii, Puerto Rico, and Virgin Islands for intercity relays and STLs, provided such transmissions are not intended to be received directly by the public. Such use is not authorized in the continental limits of the U.S. (Both Base and Mobile stations may be so used.)

5. Under STA for mobile communications in connection with adjustment and maintenance of antenna system, or in connection with field intensity surveys. (Both Base and Mobile stations may be so used.)

6. Coordination of the activities of portable or mobile stations.

7. Two-way communication between the studio and transmitter of a broadcast station which has a radio STL. (Base stations only.)

Wire lines may be used to complete remote pickup circuits, if necessary.

Remote pickup broadcast stations will not be granted exclusive frequency assignments, and the same frequency or frequencies may be assigned to other licensees in the same area. (In the television section, it will be noted that some exclusive assignments of auxiliary frequencies are made for television purposes.)

Applicants may request information about the existing remote pickup assignments in a particular area, and apply for unassigned frequencies to the extent permitted by the FCC rules. The Commission is unable to supply information regarding existing assignments to the Industrial Radio Stations in the band shared by remote pickup stations with the service.

Where a frequency is shared by two or more remote pickup stations and simultaneous operation is contemplated, the transmission of actual program material has first priority, the transmission of cues and orders including preparatory communications has second priority, and the use of the remote pickup station for other authorized communication has the lowest priority.

The following groups of frequencies are allocated for assignment to remote pickup broadcast stations. A licensee may have one or more frequencies assigned for operation in the same area, but is limited within each "division" to assignments from a single "group."

Division	Group	Frequencies (in kHz)	Type of Emission	Notes
1	A	1606 ¹ 1622 1646	A-3	Not shared with other services.
2	D	(in MHz) 25.87 ¹ 26.15 26.25		

<i>Division</i>	<i>Group</i>	<i>Frequencies (in MHz)</i>	<i>Type of Emission</i>		<i>Notes</i>
2	E	26.35			
		25.91 ¹			
		26.17			
		26.27			
		26.37			
		25.95 ¹			
2	F	26.19	A-3 or 40-F-3		Not shared with other services. See Note
		26.29			
		26.39			
2	G	25.99 ¹			
		26.21			
		26.31			
		26.41			
2	H	26.03 ¹			
		26.23			
		26.33			
		26.43			
3	I	26.07 ¹			Not shared with other services. See Note
		26.11			
		26.45			
3	J	26.09 ¹	A-3 or 20-F-3		
		26.13			
		26.47			
4	K	152.87			Shared with Industrial Radio Services which have first priority on the frequencies.
		152.93			
		152.99			
		153.05			
		153.11			
		153.17			
		153.23			
		153.29			
153.35					
		161.64	A-3 or 30-F-3		These frequencies may not be used by remote pickup stations in Puerto Rico or the Virgin Islands. In other areas, certain existing stations in the Public Safety and Land Transportation Radio Service have been per- mitted to continue operation on these frequencies on conditions that no harmful interference is caused to remote pickup broadcast stations.
		161.67			
		161.70			
		161.73			
		161.76			
		160.89	A-3 or 60-A-3		These frequencies are allocated for assignment to re- mote pickup and base stations in Puerto Rico and the Virgin Islands only. They are shared with the Land Transportation Radio Service.
		160.95			
		161.01			
		161.07			
		161.13			
		161.19			
		161.25			
		161.31			
161.37					

<i>Division</i>	<i>Group</i>	<i>Frequencies (in MHz)</i>	<i>Type of Emission</i>	<i>Notes</i>
5	L	166.25	A-3	Operation on these frequencies not authorized (1) within the area bounded on the west by the Mississippi River, on the north by the parallel of latitude 37°30' N and on the east and south by that arc of the circle with center at Springfield, Ill. and radius equal to the airline distance between Springfield, Ill. and Montgomery, Alabama, subtended between the foregoing west and north boundaries; (2) within 150 miles of New York City; and (3) in Alaska or outside the continental United States and is subject to the condition that no harmful interference is caused to government radio stations in the band 162-174 MHz.
5	M	170.15	60-A-3	
6	N	450.05 ²	A-3 or 100-F-3	Not shared with other services. See Note
		450.15 ²		
		450.25 ²		
		450.35 ²		
		450.45 ²		
		450.55 ²		
		450.65 ²		
		450.75 ²		
		450.85 ²		
		450.95 ²		
		455.05 ²		
		455.15 ²		
		455.25 ²		
		455.35 ²		
455.45 ²				
455.55 ²				
455.65 ²				
455.75 ²				
455.85 ²				
455.95 ²				

Note: The operation of studio cueing transmitters and wireless microphones will be authorized in the bands 26.10 through 26.48 MHz and 450 through 451 MHz. Transmitting units may be operated on any frequency within these bands provided that emissions are confined to the authorized band.

¹Use is subject to the condition that no harmful interference is caused to the reception of broadcast stations.

²FCC Docket #2189 proposes to charge this allocation plan.

AM/FM Studio-Transmitter Link Stations

STL stations are available to the licensees of both AM and FM broadcast stations and are used to relay programs from the studio to the transmitter of the station. Where the licensee of an AM station is also the licensee of an FM station, the same STL may be used for both stations. The STL may also be used for the purpose of providing communication between studio and transmitter when no programs are being transmitted, or if multiplexing is employed, may be used for communication during program transmission.

Broadcasters may use radio STLs at their discretion, and the choice between radio STL and wire line (common carrier) STL does not depend on whether or not wire lines are available.

Any AM or FM station employing a radio STL may also use remote pickup base stations to provide an "order circuit" for communication of information concerning program service. Radio circuits may be used for this purpose *only* when the broadcast station uses a radio STL.

Exclusive assignments will be made to STL stations providing the program circuit from the main studio to the transmitter of FM broadcast stations. In the case of AM STL stations, and FM STL stations at secondary studios, exclusive assignments will be made wherever practicable.

The following frequencies are available for the transmission of aural program material between a studio and the transmitter and for the transmission of aural program material between stations (intercity):

<i>Frequency (in MHz)</i>	<i>Type of Emission</i>	<i>Notes</i>
947.0 947.5 948.0 948.5 949.0 949.5 950.0 950.5 951.0 951.5	400-F-3	Not shared with other services.

Note: If a single licensee requires more than one aural program channel between the same point of origin or destination (stereo) more than one transmitter may be authorized to operate within a single 500 kHz channel employing carrier frequencies above and below the center frequency listed above.

No new stations will be authorized in the band 942—947 MHz. All stations presently authorized to operate on frequencies in the band 942—947 MHz may continue to operate pursuant to the provisions of their existing authorizations until the termination of such authorizations. Renewal of authorizations for such stations will be issued only on the condition (1) that they accept any harmful interference that may be experienced from either ISM equipment or from the radio-positioning service in the band 890—942 MHz and (2) that they do not cause harmful interference to the radio-positioning service.

Radio Order Circuits

Remote pickup base stations may be authorized to provide two-way communication between the studio and transmitter of a broadcast station which has a radio STL.

The following frequencies may be assigned for radio order circuits. They are licensed for unlimited time operation, but their use is secondary to other need for the same frequency(s).

<i>Group</i>	<i>Frequency (in MHz)</i>	<i>Type of Emission</i>
I	26.07 ¹ 26.09 ¹ 26.11 26.45	20-A-3 or 20-F-3
J	26.13 26.47	20-A-3 or 20-F-3

¹Use is subject to the condition that no harmful interference is caused to the reception of high frequency broadcast stations.

FM Intercity Relay Stations

The operation of FM intercity relay stations is subject to the condition that no harmful interference is caused to other radio stations, present or future, operating in accordance with the Table of Frequency Allocations.

Wire lines may be used to complete circuits for FM intercity relays. Intercity relay stations may be used for communication of program information when no programs are being transmitted, or if multiplexing is employed, may be used for communication during program transmission.

Relay stations will be authorized only when suitable common carrier facilities are not available. Each application for a new FM intercity relay system, or for renewal of an existing system must be accompanied by verified statements showing:

1. Why the facilities are needed, including reasons why common carrier facilities are not available.

2. That the applicant has requested such facilities from the common carrier serving the area, and including copies of such request(s) and reply(s).

Frequencies available for FM intercity relay stations are the same as those used for broadcast STLs.

As in the case of STLs, they are licensed for unlimited time operation, directional antennas are required, and they may be operated by remote control.

TELEVISION SECTION

Television Pickup Stations

Television pickup stations may be used for:

1. Transmission of program material originating outside a regular studio. These channels are primarily used for the transmission of the video portion of the pickup, but the aural portion may be multiplexed on the same channel. Applications must clearly state the nature of any multiplexing proposed. If only the video portion is transmitted on the television pickup channel, the aural portion may be transmitted by wire line, or on one of the frequencies designated for remote pickup broadcast stations.

2. To provide temporary studio-transmitter links (without further authority of the FCC provided the installation of the antenna does not increase the height of any existing structure by more than 20 feet. Authority for increase of more than 20 feet may be obtained from FCC if necessary).

3. Orders and related communications concerning such transmissions. They *may not be used solely* for this purpose.

Television STL Stations

The TV STL may be used for communications relating to program continuity during periods when no programs are being transmitted, or by multiplexing at any time.

The aural signal may be multiplexed on the STL, but broadcasters contemplating the use of multiplexing should assure themselves that the equipment proposed to be used has sufficient performance quality to enable them to meet the requirements of the FCC Rules.

The television broadcaster may elect to have a communications common carrier provide television pickup or television STL service, and in this case, the common carrier may use the same channels which would normally be assigned to the television station.

When the television station uses a television channel STL, it may also use remote pickup base stations to provide an "order circuit" for communication of information concerning program service. Radio circuits may be used for this purpose *only* when a television channel STL is used.

Television Intercity Relay Stations

Television intercity relay stations provide a means whereby television broadcast licenses may provide their own intercity television transmission services in connection with the operation of their television broadcast stations.

The use of channels for television intercity relay stations is on a secondary basis and is subject to the condition that no harmful interference is caused to stations operating in accordance with the Table of Frequency Allocations.

No standards are specified in either FCC Rules or in any existing proposed rulemaking concerning the quality of television intercity relay stations. Intercity relay stations may be used for communication of program information either by multiplexing, or by simplex during periods of nonuse for program transmission.

Assignment of Channels for the Television Auxiliary Services

The television auxiliary frequencies are assigned interchangeably for television pickups, STLs, or intercity relay stations.

Television stations may request the assignment of one channel in Band A or Band B, and one channel in Band D, or the following list of channels for use on an exclusive basis. In addi-

tion, they may request the assignment of additional channels which will be assigned, if available in the area, on a nonexclusive basis. The non-exclusive channels may be withdrawn any time they are needed to provide exclusive channels for other television stations in the same area.

If two television stations in the same area are so located that they may share a single STL, they may by mutual agreement request the same assignment of the exclusive channel and, in addition, may be granted a second exclusive channel for each station from either Band A or Band B and a third exclusive channel from Band D.

Where only one exclusive channel is assigned, it is normally assigned to the main studio STL (where the television station employs a television channel STL); additional STLs may be operated at the broadcaster's discretion. Operation of the STL on a nonexclusive channel is subject to the condition that no harmful interference is caused to the operation of television pickup stations.

Any suitable type of emission may be used for the frequencies above 1500 MHz. Identification of the emission may be by whatever means the emission is authorized for, except that a visual-only transmitter may be identified by means of a keyed signal, either interrupting the carrier or by means of modulation impressed on the carrier, giving the call sign of the station.

Directional antennas are not required, but are usually employed at these frequencies.

Assignment of Channels for the Television Auxiliary Services

The following frequencies are available for assignment to television pickup, television studio-to-transmitter links, and television intercity relay stations:¹

<i>BAND A</i> <i>(in MHz)</i>	<i>BAND B</i> <i>(in MHz)</i>
1990-2008	6875-6900
2008-2025	6900-6925
2025-2042	6925-6950
2042-2059	6950-6975
2059-2076	6975-7000
2076-2093	7000-7025
2093-2110	7025-7050
2450-2467 ²	7050-7075
2467-2484 ²	7075-7100
2484-2500 ²	7100-7125

¹Frequencies in the bands 17700-19300 MHz, 19400-19700 MHz, 27525-31300 MHz, and 38600-40000 MHz are available for assignment on a case-by-case basis for television pickups, STL, and intercity relay purposes.

²Channels are allocated to accommodate the incidental radiations of industrial, scientific, and medical equipment,

BAND D (in MHz)

12700-12725 ³	12975-13000
12725-12750 ³	13000-13025
12750-12775 ³	13025-13050
12775-12800 ³	13050-13075
12800-12825 ³	13075-13100
12825-12850 ³	13100-13125
12850-12875 ³	13125-13150
12875-12900 ³	13150-13175
12900-12925 ³	13175-13200
12925-12950 ³	13200-13225
12950-12975	13225-13250

and stations operating therein must accept any interference that may be caused by the operation of such equipment. These frequencies are also shared with other communications services and exclusive channel assignments will not be made, nor is the channeling shown necessarily that which will be employed by such other services.

³The use of channels between 12700 and 12950 MHz by television pickup stations is subject to the condition that no harmful interference is caused to community antenna relay, television STL, and television intercity relay stations.

Radio Order Circuits

Remote pickup base stations may be authorized to provide two-way communication between the studio and transmitter of a television station which has a television channel STL.

The following frequencies may be assigned for radio order circuits. They are licensed for unlimited time operation, but their use is secondary to other need for the same frequency(s).

<i>Group</i>	<i>Frequency (in MHz)</i>	<i>Type of Emission</i>
I	26.07 ¹	20-A-3
	26.09 ¹	or
	26.11	20-F-3
	26.45	
J	26.13	20-A-3
	26.47	or 20-F-3

¹Use is subject to the condition that no harmful interference is caused to the reception of high-frequency broadcast stations.

OTHER FREQUENCIES OF INTEREST TO BROADCASTERS

Motion Picture Radio Service

Of all the types of industrial enterprises, only the Motion Picture Radio Service seems to be applicable to use by broadcasters, and this service

may only be used by broadcasters while they are engaged in the production or filming of motion pictures (newsreels, documentaries, features, etc.). Since other services are both more practicable and more economical for general use as auxiliary broadcast stations, the Motion Picture Radio Service should be considered only by television stations that employ full-time motion picture crews, or by companies engaged in the business of making motion pictures for use either by theaters or television stations.

Frequencies Used for Motion Picture Radio Service Stations

All assignments of frequencies to base and mobile stations in the Motion Picture Radio Service are on a *shared basis with other services*.

Certain other frequencies are available to the Motion Picture Radio Service for use in developmental operations for the service, but only the frequencies available for assignment without this limitation are shown below. For lists of developmental operations frequencies, see Section 91.404 of the FCC rules.

Base and Mobile Stations¹

<i>Frequency (in kHz)</i>	<i>Type of Emission</i>	<i>Notes</i>
1628		
1652		
2292	A-3	All shared with other services
2398	or	
4637.5	40-F-3	

Base, Mobile and Fixed

<i>(in MHz)</i>	
27.235	
27.245	No protection from ISM
27.255	
27.265	
27.275	

Base and Mobile Stations

152.87	
152.90	
152.93	Shared with the Industrial Radio Service
152.96	
152.99	
153.02	
173.225	
173.275	Shared with the Relay Press Radio Service
173.325	
173.375	
173.375	

¹Also paired frequencies in the 952-960 MHz and on certain frequencies between 1427 and 40000 MHz.

Operational Fixed Stations

Subject to the condition that no harmful interference will be caused to reception of television channel numbers 4 or 5, the following frequencies are available for assignment to operational fixed stations in the Motion Picture Radio Service on a shared basis with other services.

The type of emission employed for these stations is either A-3 or 40-F-3.

MHz	MHz	MHz	MHz
72.02	72.82	73.66	74.50
72.06	72.86	73.70	75.54
72.10	72.90	73.74	74.58
72.14	72.94	73.78	75.42
72.18	73.02	73.82	75.46
72.22	73.06	73.90	75.50
72.26	73.10	73.94	75.54
72.30	73.14	73.98	75.58
72.34	73.18	74.02	75.62
72.38	73.22	74.06	75.66
72.42	73.26	74.10	75.70
72.46	73.30	74.14	75.74
72.50	73.34	74.18	75.78
72.54	73.38	74.22	75.82
72.58	73.42	74.26	75.86
72.62	73.46	74.30	75.90
72.66	73.50	74.34	75.94
72.70	73.54	74.38	75.98
72.74	73.58	74.42	
72.78	73.62	74.46	

BROADCASTING SATELLITES

In 1971 the ITU World Administrative Radio Conference for Space Telecommunications (WARC-ST) held a meeting in Geneva during which several allocations to accommodate the Broadcasting-Satellite service were adopted. On November 14, 1973, the Federal Communications Commission amended its Rules and Regulations to conform with the actions taken during the WARC-ST meeting and in so provided for the following:

620-790 MHz Band. No provisions were made for accommodating the broadcasting-satellite service in this band.

2500-2690 MHz Band. This band was allocated for the broadcasting-satellite service (shared with the fixed and the fixed-satellite services) with the proviso that "the use of (this band) by the broadcasting-satellite service is limited to domestic and regional systems for community reception of

educational television programming and public service information."

11.7-12.2 GHz Band. This band was allocated to the broadcasting-satellite service and the fixed-satellite service on a primary shared basis (with mobile service on a secondary shared basis). However, because the Commission was unable to determine at this time how the broadcasting-satellite service and the fixed-satellite service would share this band, no specific rules for sharing were adopted, but, a footnote was included which originally would permit the authorization of systems in either service on a case-by-case basis. Subsequently, because of objections raised by the broadcasting industry, this footnote was amended in November 1973 to provide for the authorization of systems only in the fixed-satellite service on a case-by-case basis.

41-43 GHz and 84-86 GHz Bands. These bands were allocated on an exclusive basis to the broadcasting-satellite service.

CITIZENS RADIO SERVICE

The following frequencies are available for assignment to the Citizens Radio Service:

Base and Mobile (in MHz)	Mobile (in MHz)
462.550	467.550
462.575	467.575
462.600	467.600
462.625	467.625
462.650	467.650
462.675	467.675
462.700	467.700
462.725	467.725

Signaling and Control (in MHz)

72.08	72.24	72.40	72.96
72.16	72.32	72.64	

Mobile Stations (in MHz)

26.965	27.035	27.115	27.185
26.975	27.055	27.125	27.205
26.985	27.065	27.135	27.215
27.005	27.075	27.155	27.225
27.015	27.085	27.165	27.255
27.025	27.105	27.175	

Note—All Citizen frequencies are shared by other services. For details see Section 95 of the Commission's Rules. These rules and allocations are presently under review by the FCC.

SUMMARY OF FREQUENCIES ALLOCATED TO THE BROADCAST SERVICES

<i>Frequency or Band</i>	<i>Use</i>	<i>Exclusive to Broadcast Service</i>
535-1605 kHz	107 AM Channels	Yes
1606-1646 kHz	3 Remote Pickup B/c Channels	Yes
25.87-26.47 MHz	26 Remote Pickup B/c Channels	Yes
54-72 MHz	TV Channels 2-4	Yes
76-88 MHz	TV Channels 5 & 6	Yes
88-92 MHz	20 Noncommercial FM Channels	Yes
92-108 MHz	80 Commercial FM Channels	Yes—except in Hawaii & Alaska
152.87-153.35 MHz	9 Remote Pickup B/c Channels	No—shared with Industrial Services which have first priority of use.
160.89-161.37 MHz	9 Remote Pickup B/c Channels	For assignment in Puerto Rico & the Virgin Islands. Shared with Land Transportation Radio Service.
161.64-161.76 MHz	5 Remote Pickup B/c Channels	Yes
166.25 MHz 170.15 MHz	2 Remote Pickup B/c Channels	No—Government stations operating on these two frequencies must be protected.
174-216 MHz	TV Channels 7-13	Yes
450-451 MHz 455-456 MHz	20 Remote Pickup B/c Channels	Yes
470-890 MHz	TV Channels 14-83	No—some geographical sharing with Land Mobile Service.
947.0-951.5 MHz	10 Aural STL & Intercity Relay Channels	Yes
1990-2110 MHz	7 TV Pickup/STL/Intercity Relay Channels	Yes
2450-2500 MHz	3 TV Pickup/STL/Intercity	No—must accept interference from I-S-M services. Also used by Fixed and Mobile Services.
2500-2690 MHz	Broadcasting-Satellite	No—shared with Fixed Instructional TV
6875-7125 MHz	10 TV Pickup/STL/Intercity Relay Channels	Yes
11700-12200 MHz	Broadcasting-Satellite	No—shared with Land Mobile and Aeronautical
12700-13250 MHz	22 TV Pickup/STL/Intercity Relay Channels	No—shared with Community Antenna Relay Service.
17700-19300 MHz	TV Pickup/STL/Intercity Relay Channels	
19400-19700 MHz	TV Pickup/STL/Intercity Relay Channels	
27525-31300 MHz	TV Pickup/STL/Intercity Relay Channels	
38600-40000 MHz	TV Pickup/STL/Intercity Relay Channels	
40000-41000 MHz	Broadcasting-Satellite	Yes
84000-86000 MHz	Broadcasting-Satellite	Yes

