

**FEDERAL COMMUNICATIONS COMMISSION**

WASHINGTON, D.C.

**PUBLIC RELEASE**

(March 13, 1939)

The Federal Communications Commission issued today a report covering the allocation of frequencies throughout the radio spectrum from 30,000 to 300,000 kilocycles. The Commission also made public the table of allocations to the specific services.

In addition to announcing various changes in the allocation to these specific services, the report, by its terms, accomplishes the following:

1. Extends the outstanding instruments of authorization for frequencies above 60,000 kilocycles, except those operating in the broadcast service (television, facsimile, relay, high-frequency and experimental broadcast) to October 1, 1939.
2. Provides that applications for renewal which are due to be filed on August 1, 1939 shall specify frequencies in accordance with the new allocation.
3. Provides that applicants for new instruments of authorization after the effective date of this order (April 13, 1939) shall request frequencies in accordance with the new table of allocations.

*Broadcasting*

The allocation of frequencies above 30,000 kilocycles vitally affects several important broadcast services; namely, television, facsimile, relay, high frequency and experimental broadcast.

The action taken by the Commission today with respect to television is in general accord with the action taken on October 13, 1937, in that the same 19 bands are reserved for television; however, three of the bands, namely, 162,000-168,000 kc, 210,000-216,000 kc, and 264,000-270,000 kc, may be used also for general or specific research and experimentation in the radio art along lines which are not specifically directed toward any established service. These stations will be required to vacate these bands if operation thereon results in interference to any television station.

The Commission believes that in order to permit television to be inaugurated on a nationwide basis a minimum of 19 channels should be reserved below 300 megacycles. This does not mean that the minimum number of channels allocated by this order will eventually provide channels for a completely competitive nationwide service. Undoubtedly additional channels above 300 megacycles or some rearrangement of the present plan will be necessary at a later date.

As previously stated, the action taken by the Commission is merely one step toward the development of the television service. The ques-

tion of proper standards of design and operation are now being studied and will receive appropriate action with the least possible delay. All outstanding authorizations for television service are experimental.

In the band 41,000-44,000 kc 75 channels are made available for assignment to aural broadcasting and facsimile broadcasting stations. Twenty-five of these channels have already been allocated to non-commercial educational broadcast stations. The revised order does not change the existing broadcast allocation in this band nor does it change the allocation to broadcasting on frequencies below 41,000 kc.

Order 19 originally provided for broadcasting in the band 142,000-144,000 kc. In order to provide frequencies for the aviation service, it was necessary to shift broadcasting to the band 116,000-118,000 kc which was formerly tentatively assigned to amateurs.

Frequencies will be provided in each of the broadcast bands above 40,000 kc for experimentation in frequency modulation as well as amplitude modulation in order that the relative merits of the two types of modulation may be properly evaluated by the Commission at an early date. It is anticipated that as a result of such experimentation proper standards will be eventually developed.

The action of the Commission in revising Order 19 provides a total of 12 channels for broadcasting service, such as, for example, relay broadcasting, in the frequency band 132,000-140,000 kc. These channels are in substantial accord with the original allocation.

#### *Police Service*

The police service has been allocated 8 channels between 132,000-140,000 kc to supplement the frequencies which have previously been allocated to this service within the band 30,000-40,000 kc. At the present time there is only a small number of police stations operating experimentally above 100 megacycles.

Municipal and county governments as in the past will be required to cooperate to the fullest extent and coordinate their needs for radiocommunication service in order that interference may be minimized. These frequencies will be maintained experimentally until such time as developments may determine which manner they may be best used by this service.

#### *Aviation Service*

In order to provide additional frequencies for the aviation service, which is essentially a safety service, and may not be served by any other method of communication, the frequency band 140,000-143,880 kilocycles has been allocated to this service. Many of the present problems which confront the aviation industry through its employment of medium frequencies may be solved through the use of the ultra-high frequencies. These frequencies are of utmost importance to the aviation service in that they are comparatively free from atmospheric interference and electrical disturbances, which render

communication on medium frequencies impossible at times. Because of the natural limitations of these frequencies in their transmission and reception range, duplication of use of a given frequency will be possible at intervals of about 500 miles.

The frequency band 129,000-132,000 kilocycles remains unchanged and will be available for airport traffic control. Six airport frequencies separated by approximately 500 kilocycles will be available for use at various airports throughout the country. Where there are several airports in the same locality, such as New York, the use of a separate and distinct frequency may be authorized. The intervening guard bands are provided in order to avoid interference and thus give the maximum degree of safety possible.

#### *Fixed Service*

The fixed service has been allocated 14 channels in the band 132,000-140,000 kilocycles. In view of the decided and extensive demand for frequencies for the various classes of service which by their very nature are dependent on radiocommunication rather than wire lines, it is only possible to provide frequencies for the fixed service for use in areas where wire facilities are not available, or, due to circuitous wire routing or emergency circumstances, the use of radio may be found justified. Consequently, a limited number of frequencies have been made available for fixed service.

#### *Experimental Service*

The experimental service has been allocated, in addition to the frequencies previously assigned, the shared use of these frequencies allocated to the special services. These additional channels which are interspersed throughout the frequency range 30,000-40,000 kilocycles and 132,000-140,000 kilocycles are primarily for general experimentation which is not directed specifically to any established service.

In addition, the order provides that all frequencies between 129,000 and 144,000 kilocycles are also available for assignment on an experimental basis to stations engaged in the development of a specific service in accordance with the rules and regulations governing that service. For example, should a municipality desire to experiment in the police service on frequencies above 130 megacycles, the frequencies allocated to the police service would be used.

There are also made available to the experimental service three bands of frequencies which have been allocated primarily for television broadcasting. These bands are separated approximately 50 megacycles apart, commencing with the band 162,000 kilocycles. Frequencies within these bands are available on a temporary basis only for general or specific research and experimentation in the development of the radio art along lines which are not specifically directed toward any established service. The holder of any general experimental instrument of authorization for any frequency or frequencies within these bands must vacate such frequency or frequencies if interference results to the television service. The assign-

ments to experimental stations will be made upon the approximate 0.1% channeling system.

#### *Relay Press Service*

The term "relay press" station has been adopted by the Commission since Order 19 was first promulgated. Frequencies above 30,000 kc. formerly designated as "mobile press" are now designated "relay press." A relay press station is limited to the transmission news for publication, or orders, instructions or inquiries concerning such news to be published by the licensee and other publishers of the same news, or to be disseminated by the news association with which the licensee is regularly affiliated. Licenses for relay press stations are granted for communication to or from points where other communication facilities are not available. The frequencies provided in the revised order for relay press stations fall within the bands 30,000-40,000 and 132,000-140,000 kc.

#### *Coastal and Ship Harbor*

The allocations to coastal and ship harbor stations have not been changed except to reduce the allocation by one channel which was necessary to fill the needs of broadcasting and aviation. These stations are used for the purpose of providing a short range harbor service similar to that now authorized in the frequency bands 2100-2200 kc and 2500-2600 kc.

#### *Special Emergency*

Except for the deletion of one of the original frequencies contemplated in Order 19, the revised order maintains the existing allocation to special emergency stations. Special emergency stations are covered by the rules and regulations governing the emergency service. A license for this class of station is issued only to an organization established for relief purposes in emergencies and which has a disaster communication plan, or to persons having establishments in remote locations which cannot be reached by other means of communication, or to public utilities.

#### *Marine Fire*

The previous allocation to this service remains unchanged and is for the purpose of rendering communication service to fireboats similar to that now authorized by the existing rules and regulations of the Commission.

#### *Special Services*

The frequencies which have been allocated to special services have been made available for use by experimental stations for experimentation and research in the development of the radio art. The use by both services will be on a shared basis and it will be necessary that the holders of instruments of authorization for either service to cooperate to the end that interference may be reduced to a minimum.

## FEDERAL COMMUNICATIONS COMMISSION

## EXTRACTS FROM FREQUENCY ALLOCATIONS

## PART II

(30,000-300,000 Kilocycles, Inclusive)

*Rule 229.* Subject to the foregoing provisions, the center frequency will be designed as follows:<sup>1</sup>

Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
30,020.....	Government.	32,300.....	Government.
060.....	Do.	340.....	Do.
100.....	Do.	380.....	Do.
140.....	Do.	420.....	Do.
180.....	Do.	460.....	Do.
220.....	Do.	500.....	Do.
260.....	Do.	540.....	Do.
300.....	Do.	580.....	Do.
340.....	Do.	620.....	Do.
380.....	Do.	660.....	Do.
420.....	Do.	700.....	Do.
460.....	Do.	740.....	Do.
500.....	Do.	780.....	Do.
540.....	Coastal and Ship Harbor.	820.....	Do.
580.....	Police.	860.....	Do.
620.....	Geophysical and Motion Picture.	900.....	Do.
660.....	Experimental.	940.....	Do.
700.....	Police.	980.....	Do.
740.....	Fixed.	33,020.....	Relay Press.
780.....	Do.	060.....	Special Emergency.
820.....	Relay Broadcast.	100.....	Police.
860.....	Relay Press.	140.....	Fixed.
900.....	Government.	180.....	Do.
940.....	Forestry.	220.....	Police.
980.....	Police.	260.....	Relay Press.
31,020.....	Special Services & Experimental.	300.....	Government.
060.....	Geophysical & Motion Picture.	340.....	Experimental.
100.....	Police.	380.....	Relay Broadcast.
140.....	Experimental.	420.....	Aviation.
180.....	Special Services & Experimental.	460.....	Special Services & Experimental.
220.....	Relay Broadcast.	500.....	Police.
260.....	Coastal and Ship Harbor.	540.....	Geophysical and Motion Picture.
300.....	Government.	580.....	Relay Press.
340.....	Forestry.	600.....	Fixed. <sup>2</sup>
380.....	Fixed.	620.....	Special Services & Experimental.
420.....	Do.	660.....	Aviation.
460.....	Special Emergency.	700.....	Government.
500.....	Police.	740.....	Relay Broadcast.
540.....	Special Services & Experimental.	780.....	Police.
580.....	Forestry.	820.....	Special Emergency.
620.....	Relay Broadcast.	860.....	Fixed.
660.....	Coastal and Ship Harbor.	900.....	Do.
700.....	Government.	940.....	Police.
740.....	Special Emergency.	980.....	Relay Press.
780.....	Police.	34,020.....	Government.
820.....	Fixed.	060.....	Do.
860.....	Do.	100.....	Do.
900.....	Police.	140.....	Do.
940.....	Forestry.	180.....	Do.
980.....	Relay Press.	220.....	Do.
32,020.....	Government.	260.....	Do.
060.....	Do.	300.....	Do.
100.....	Do.	340.....	Do.
140.....	Do.	380.....	Do.
180.....	Do.	420.....	Do.
220.....	Do.	460.....	Do.
260.....	Do.	500.....	Do.

See footnotes at end of table.

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Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
34,540.....	Government.	37,580.....	Coastal and Ship Harbor.
580.....	Do.	620.....	Relay Broadcast.
620.....	Do.	660.....	Intership.
660.....	Do.	700.....	Government.
700.....	Do.	740.....	Marine Fire.
740.....	Do.	780.....	Police.
780.....	Do.	820.....	Special Emergency.
820.....	Do.	860.....	Aviation.
860.....	Do.	900.....	Police.
900.....	Do.	940.....	Coastal and Ship Harbor.
940.....	Do.	980.....	Relay Broadcast.
980.....	Do.	38,000.....	Fixed. <sup>2</sup>
35,020.....	Relay Broadcast.	320.....	Government.
060.....	Experimental.	060.....	Do.
100.....	Police.	100.....	Do.
140.....	Special Emergency.	140.....	Do.
180.....	Relay Press.	180.....	Do.
200.....	Fixed. <sup>2</sup>	220.....	Do.
220.....	Police.	260.....	Do.
260.....	Relay Broadcast.	300.....	Do.
300.....	Government.	340.....	Do.
340.....	Coastal and Ship Harbor.	380.....	Do.
380.....	Fixed.	420.....	Do.
420.....	Do.	460.....	Do.
460.....	Special Services & Experimental.	500.....	Do.
500.....	Police.	540.....	Do.
540.....	Geophysical and Motion Picture.	580.....	Do.
580.....	Marine Fire.	620.....	Do.
620.....	Relay Broadcast.	660.....	Do.
660.....	Coastal and Ship Harbor.	700.....	Do.
700.....	Government.	740.....	Do.
740.....	Forestry.	780.....	Do.
780.....	Police.	820.....	Do.
820.....	Relay Broadcast.	860.....	Do.
860.....	Intership.	900.....	Do.
900.....	Police.	940.....	Do.
940.....	Forestry.	980.....	Do.
980.....	Relay Press.	39,020.....	Relay Press.
36,000.....	Fixed. <sup>2</sup>	060.....	Aviation.
020.....	Government.	100.....	Police.
060.....	Do.	140.....	Special Services & Experimental.
100.....	Do.	180.....	Police.
140.....	Do.	220.....	Coastal and Ship Harbor.
180.....	Do.	260.....	Relay Broadcast.
220.....	Do.	300.....	Government.
260.....	Do.	340.....	Special Emergency.
300.....	Do.	380.....	Police.
340.....	Do.	420.....	Forestry.
380.....	Do.	460.....	Experimental.
420.....	Do.	500.....	Police.
460.....	Do.	540.....	Special Services & Experimental.
500.....	Do.	580.....	Coastal and Ship Harbor.
540.....	Do.	600.....	Fixed. <sup>2</sup>
580.....	Do.	620.....	Relay Broadcast.
620.....	Do.	660.....	Special Emergency.
660.....	Do.	700.....	Government.
700.....	Do.	740.....	Forestry.
740.....	Do.	780.....	Police.
780.....	Do.	820.....	Relay Broadcast.
820.....	Do.	860.....	Special Emergency.
860.....	Do.	900.....	Police.
900.....	Do.	940.....	Forestry.
940.....	Do.	980.....	Relay Press.
980.....	Do.	40,020.....	Government.
37,020.....	Relay Broadcast.	060.....	Do.
060.....	Special Services & Experimental.	100.....	Do.
100.....	Police.	140.....	Do.
140.....	Special Services & Experimental.	180.....	Do.
180.....	Special Emergency.	220.....	Do.
220.....	Police.	260.....	Do.
260.....	Coastal and Ship Harbor.	300.....	Do.
300.....	Government.	340.....	Do.
340.....	Relay Broadcast.	380.....	Do.
380.....	Police.	420.....	Do.
400.....	Fixed. <sup>2</sup>	460.....	Do.
420.....	Relay Press.	500.....	Do.
460.....	Relay Press.	540.....	Do.
500.....	Police.	580.....	Do.
540.....	Experimental.	620.....	Do.

See footnotes at end of table.

Frequency (Kilocycles)	Allocation	Frequency (Kilocycles)	Allocation
40,600.....	Government.	43,740.....	Broadcast.
700.....	D.	780.....	D.
740.....	D.	820.....	D.
780.....	D.	860.....	D.
820.....	D.	900.....	D.
860.....	D.	940.....	D.
900.....	D.	980.....	D.
940.....	D.	44,000.....	Television Broadcast.
980.....	D.	50,000.....	Fixed 3
41,000.....	Fixed 2	46,200.....	D.
020.....	Broadcast.	47,200.....	D.
060.....	D.	48,400.....	D.
100.....	D.	49,500.....	D.
140.....	D.	50,000.....	Television Broadcast.
180.....	D.	50,000.....	Amateur.
220.....	D.	56,000.....	Government.
260.....	D.	60,000.....	D.
300.....	D.	60,020.....	D.
340.....	D.	680.....	D.
380.....	D.	100.....	D.
420.....	D.	140.....	D.
460.....	D.	180.....	D.
500.....	D.	220.....	D.
540.....	D.	260.....	D.
580.....	D.	300.....	D.
620.....	D.	340.....	D.
660.....	D.	380.....	D.
700.....	D.	420.....	D.
740.....	D.	460.....	D.
780.....	D.	500.....	D.
820.....	D.	540.....	D.
860.....	D.	580.....	D.
900.....	D.	620.....	D.
940.....	D.	660.....	D.
980.....	D.	700.....	D.
43,020.....	Fixed 2	740.....	D.
000.....	Broadcast.	780.....	D.
040.....	D.	820.....	D.
080.....	D.	860.....	D.
120.....	D.	900.....	D.
160.....	D.	940.....	D.
200.....	D.	980.....	D.
240.....	D.	100.....	D.
280.....	D.	140.....	D.
320.....	D.	180.....	D.
360.....	D.	260.....	D.
400.....	D.	300.....	D.
440.....	D.	340.....	D.
480.....	D.	380.....	D.
520.....	D.	420.....	D.
560.....	D.	460.....	D.
600.....	D.	500.....	D.
640.....	D.	540.....	D.
680.....	D.	580.....	D.
720.....	D.	620.....	D.
760.....	D.	660.....	D.
800.....	D.	700.....	D.
840.....	D.	740.....	D.
880.....	D.	780.....	D.
920.....	D.	820.....	D.
960.....	D.	860.....	D.
1000.....	D.	900.....	D.
43,020.....	Fixed 2	940.....	D.
000.....	Broadcast.	980.....	D.
040.....	D.	100.....	D.
080.....	D.	140.....	D.
120.....	D.	180.....	D.
160.....	D.	260.....	D.
200.....	D.	300.....	D.
240.....	D.	340.....	D.
280.....	D.	380.....	D.
320.....	D.	420.....	D.
360.....	D.	460.....	D.
400.....	D.	500.....	D.
440.....	D.	540.....	D.
480.....	D.	580.....	D.
520.....	D.	620.....	D.
560.....	D.	660.....	D.
600.....	D.	700.....	D.
640.....	D.	740.....	D.
680.....	D.	780.....	D.
720.....	D.	820.....	D.
760.....	D.	860.....	D.
800.....	D.	900.....	D.
840.....	D.	940.....	D.
880.....	D.	980.....	D.
920.....	D.	1000.....	D.
960.....	D.	83,060.....	D.

See footnotes at end of table.

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Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
63,100	Government.	73,560	Government.
140	Do.	640	Do.
180	Do.	700	Do.
220	Do.	720	Do.
300	Do.	800	Do.
340	Do.	880	Do.
380	Do.	900	Do.
460	Do.	960	Do.
500	Do.	74,040	Do.
540	Do.	100	Do.
580	Do.	120	Do.
620	Do.	200	Do.
660	Do.	280	Do.
700	Do.	300	Do.
740	Do.	360	Do.
780	Do.	440	Do.
800	Do.	500	Do.
940	Do.	520	Do.
64,020	Do.	74,600 to 75,400	Do.
100	Do.	480	Do.
140	Do.	500	Do.
180	Do.	560	Do.
200	Do.	640	Do.
260	Do.	700	Do.
300	Do.	720	Do.
340	Do.	800	Do.
380	Do.	880	Do.
420	Do.	900	Do.
500	Do.	960	Do.
540	Do.	76,040	Do.
580	Do.	100	Do.
660	Do.	120	Do.
700	Do.	200	Do.
740	Do.	280	Do.
820	Do.	300	Do.
900	Do.	360	Do.
940	Do.	500	Do.
980	Do.	520	Do.
65,060	Do.	600	Do.
100	Do.	680	Do.
140	Do.	700	Do.
220	Do.	800	Do.
200	Do.	900	Do.
340	Do.	920	Do.
380	Do.	77,000	Do.
460	Do.	080	Do.
540	Do.	100	Do.
620	Do.	240	Do.
700	Do.	300	Do.
740	Do.	320	Do.
780	Do.	400	Do.
820	Do.	480	Do.
860	Do.	500	Do.
900	Do.	560	Do.
940	Do.	640	Do.
66,000	Television Broadcast.	700	Do.
72,000	Government.	720	Do.
040	Do.	800	Do.
100	Do.	880	Do.
120	Do.	900	Do.
200	Do.	78,000	Television Broadcast.
280	Do.	84,000	Do.
300	Do.	84,000	Do.
500	Do.	90,000	Do.
520	Do.	90,100	Government.
600	Do.	200	Do.
680	Do.	300	Do.
700	Do.	400	Do.
800	Do.	500	Do.
900	Do.	600	Do.
920	Do.	800	Do.
73,000	Do.	900	Do.
080	Do.	91,000	Do.
100	Do.	200	Do.
200	Do.	300	Do.
300	Do.	400	Do.
320	Do.	500	Do.
400	Do.	600	Do.
480	Do.	700	Do.
500	Do.	800	Do.

See footnotes at end of table.



Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
91,900.....	Government.	111,500.....	Government.
92,000.....	Do.	600.....	Do.
100.....	Do.	700.....	Do.
200.....	Do.	800.....	Do.
300.....	Do.	900.....	Do.
400.....	Do.	112,000}	Amateur.
500.....	Do.	116,000}	
600.....	Do.	116,110.....	Broadcast.
700.....	Do.	230.....	Do.
800.....	Do.	350.....	Do.
900.....	Do.	470.....	Do.
93,000.....	Do.	590.....	Do.
100.....	Do.	710.....	Do.
200.....	Do.	830.....	Do.
300.....	Do.	950.....	Do.
400.....	Do.	117,070.....	Do.
500.....	Do.	190.....	Do.
600.....	Do.	310.....	Do.
700.....	Do.	430.....	Do.
800.....	Do.	550.....	Do.
900.....	Do.	670.....	Do.
94,000.....	Do.	790.....	Do.
100.....	Do.	910.....	Do.
200.....	Do.	118,100.....	Government.
300.....	Do.	300.....	Do.
400.....	Do.	500.....	Do.
500.....	Do.	700.....	Do.
600.....	Do.	900.....	Do.
700.....	Do.	119,000.....	Do.
800.....	Do.	100.....	Do.
900.....	Do.	300.....	Do.
95,000.....	Do.	500.....	Do.
100.....	Do.	700.....	Do.
200.....	Do.	900.....	Do.
300.....	Do.	120,000.....	Do.
400.....	Do.	100.....	Do.
500.....	Do.	300.....	Do.
600.....	Do.	500.....	Do.
700.....	Do.	700.....	Do.
800.....	Do.	900.....	Do.
900.....	Do.	121,000.....	Do.
96,000}	Television Broadcast.	300.....	Do.
102,000}		500.....	Do.
102,000}	Do.	700.....	Do.
108,000}		900.....	Do.
108,100.....	Government.	122,000.....	Do.
200.....	Do.	100.....	Do.
300.....	Do.	300.....	Do.
400.....	Do.	500.....	Do.
500.....	Do.	700.....	Do.
600.....	Do.	900.....	Do.
700.....	Do.	123,000}	Do.
800.....	Do.	126,000}	
900.....	Do.	126,100.....	Government (Airport traffic con-
109,000.....	Do.	200.....	trol).
100.....	Do.	300.....	Do.
200.....	Do.	400.....	Do.
300.....	Do.	500.....	Do.
400.....	Do.	600.....	Do.
500.....	Do.	700.....	Do.
600.....	Do.	800.....	Do.
700.....	Do.	900.....	Do.
800.....	Do.	127,000.....	Do.
900.....	Do.	100.....	Do.
110,000.....	Do.	300.....	Do.
100.....	Do.	500.....	Do.
200.....	Do.	700.....	Do.
300.....	Do.	900.....	Do.
400.....	Do.	128,100.....	Do.
500.....	Do.	300.....	Do.
600.....	Do.	500.....	Do.
700.....	Do.	700.....	Do.
800.....	Do.	900.....	Do.
900.....	Do.	129,060.....	Guard Band.
111,000.....	Do.	180.....	Do.
100.....	Do.	300.....	Aviation (Airport traffic control).
200.....	Do.	420.....	Guard Band.
300.....	Do.	540.....	Do.
400.....	Do.		

See footnotes at end of table.

Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
129,660	Guard Band.	140,660	Aviation.
780	Aviation (Airport traffic control).	800	Do.
900	Guard Band.	940	Do.
130,020	Do.	141,080	Do.
160	Do.	220	Do.
300	Aviation (Airport traffic control).	360	Do.
440	Guard Band.	500	Do.
580	Do.	640	Do.
720	Do.	780	Do.
860	Aviation (Airport traffic control).	920	Do.
131,000	Guard Band.	142,060	Do.
140	Do.	200	Do.
280	Do.	340	Do.
420	Aviation (Airport traffic control).	480	Do.
560	Guard Band.	620	Do.
700	Do.	760	Do.
840	Aviation (Airport traffic control).	900	Do.
980	Guard Band.	143,040	Do.
132,120	Fixed.	180	Do.
260	Broadcast.	320	Do.
400	Special Services & Experimental.	460	Do.
540	Coastal and Ship Harbor.	600	Do.
680	Experimental.	740	Do.
820	Police.	880	Do.
960	Broadcast.	144,000	Government.
133,100	Do.	220	Do.
240	Fixed.	360	Do.
380	Special Services & Experimental.	500	Do.
520	Police.	640	Do.
660	Special Emergency.	780	Do.
800	Fixed.	920	Do.
940	Do.	145,060	Do.
134,060	Broadcast.	200	Do.
220	Relay Press.	340	Do.
360	Experimental.	480	Do.
500	Police.	620	Do.
640	Fixed.	760	Do.
780	Broadcast.	900	Do.
920	Do.	146,040	Do.
135,060	Police.	180	Do.
200	Fixed.	320	Do.
340	Special Services & Experimental.	460	Do.
480	Broadcast.	600	Do.
620	Special Services & Experimental.	740	Do.
760	Broadcast.	880	Do.
900	Relay Press.	147,020	Do.
136,040	Fixed.	160	Do.
180	Police.	300	Do.
320	Fixed.	440	Do.
460	Special Emergency.	580	Do.
600	Fixed.	720	Do.
740	Broadcast.	860	Do.
880	Do.	148,000	Do.
137,020	Fixed.	140	Do.
160	Coastal and Ship Harbor.	280	Do.
300	Police.	420	Do.
440	Special Services & Experimental.	560	Do.
580	Marine Fire.	700	Do.
720	Fixed.	840	Do.
860	Special Services & Experimental.	980	Do.
138,000	Relay Press.	149,120	Do.
140	Experimental.	260	Do.
280	Fixed.	400	Do.
420	Police.	540	Do.
560	Broadcast.	680	Do.
700	Do.	820	Do.
840	Special Services & Experimental.	960	Do.
980	Fixed.	150,120	Do.
139,120	Police.	280	Do.
260	Special Emergency.	440	Do.
400	Fixed.	600	Do.
540	Special Services & Experimental.	760	Do.
680	Relay Press.	920	Do.
820	Fixed.	151,060	Do.
960	Experimental.	240	Do.
140,100	Aviation.	400	Do.
240	Do.	560	Do.
380	Do.	720	Do.
520	Do.	880	Do.

See footnotes at end of table.

Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
152,040	Government.	176,800	Government.
200	Do.	980	Do.
360	Do.	177,160	Do.
520	Do.	340	Do.
680	Do.	520	Do.
840	Do.	700	Do.
153,000	Do.	880	Do.
150	Do.	178,000	Do.
320	Do.	240	Do.
480	Do.	420	Do.
640	Do.	600	Do.
800	Do.	780	Do.
960	Do.	960	Do.
154,120	Do.	179,140	Do.
280	Do.	320	Do.
440	Do.	500	Do.
600	Do.	680	Do.
760	Do.	860	Do.
920	Do.	180,000	Television Broadcast.
155,080	Do.	186,000	Television Broadcast.
240	Do.	186,000	Television Broadcast.
400	Do.	192,000	Government
560	Do.	192,100	Do.
720	Do.	300	Do.
880	Do.	500	Do.
156,000	Do.	700	Do.
162,000	Television Broadcast.	900	Do.
162,000	Television Broadcast & Experimental. <sup>5</sup>	193,100	Do.
168,000	Do.	300	Do.
168,040	Government.	500	Do.
200	Do.	700	Do.
360	Do.	900	Do.
520	Do.	194,100	Do.
680	Do.	300	Do.
840	Do.	500	Do.
169,000	Do.	700	Do.
160	Do.	900	Do.
320	Do.	195,100	Do.
480	Do.	300	Do.
640	Do.	500	Do.
800	Do.	700	Do.
960	Do.	900	Do.
170,140	Do.	196,100	Do.
320	Do.	300	Do.
500	Do.	500	Do.
680	Do.	700	Do.
860	Do.	900	Do.
171,040	Do.	197,100	Do.
220	Do.	300	Do.
400	Do.	500	Do.
580	Do.	700	Do.
760	Do.	900	Do.
940	Do.	198,100	Do.
172,120	Do.	300	Do.
300	Do.	500	Do.
480	Do.	700	Do.
660	Do.	900	Do.
840	Do.	199,100	Do.
173,020	Do.	300	Do.
200	Do.	500	Do.
380	Do.	700	Do.
560	Do.	900	Do.
740	Do.	200,100	Do.
920	Do.	300	Do.
174,100	Do.	500	Do.
280	Do.	700	Do.
460	Do.	900	Do.
640	Do.	201,100	Do.
820	Do.	300	Do.
175,000	Do.	500	Do.
180	Do.	700	Do.
360	Do.	900	Do.
540	Do.	202,100	Do.
720	Do.	300	Do.
900	Do.	500	Do.
176,080	Do.	700	Do.
260	Do.	900	Do.
440	Do.	203,100	Do.
620	Do.	300	Do.

See footnotes at end of table.

Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
281,600-----	Government.	296,250-----	Government.
880-----	Do.	550-----	Do.
282,000)	Television Broadcast.	850-----	Do.
288,000)		297,150-----	Do.
288,000)		450-----	Do.
294,000)	Do.	750-----	Do.
294,150-----	Government.	298,050-----	Do.
450-----	Do.	350-----	Do.
750-----	Do.	650-----	Do.
295,050-----	Do.	950-----	Do.
350-----	Do.	299,250-----	Do.
650-----	Do.	550-----	Do.
950-----	Do.	850-----	Do.

<sup>1</sup> Allocations are for information purposes only. For more detailed information regarding restrictions on the use of frequencies, consult chapter of the Rules and Regulations of this Commission dealing with the service to which the frequency is allocated.

<sup>2</sup> Available for low power fixed service in Hawaii only.

<sup>3</sup> Existing authorization for low power fixed service in the Territory of Hawaii to remain unchanged for the present.

<sup>4</sup> All frequencies between 129,000 and 144,000 kc are also available for assignment to stations in the Experimental Service in accordance with the Rules and Regulations governing that service, however, all such Instruments of Authorization will be limited to experimentation in the specific service for which the frequencies are allocated herein.

<sup>5</sup> Frequencies within this band are available on a temporary basis only for general or specific research and experimentation of the radio art along lines which are not specifically directed toward any established service. The holder of any instrument of authorization for any frequency or frequencies in this band will be required to vacate such frequency or frequencies if operation thereon results in interference to any television station authorized to use the band. The frequencies for experimental stations begin at 162,080 kc and are available by steps of 160 kc ending with 167,840 kilocycles.

<sup>6</sup> Frequencies within this band are available on a temporary basis only for general or specific research and experimentation of the radio art along lines which are not specifically directed toward any established service. The holder of any instrument of authorization for any frequency or frequencies in this band will be required to vacate such frequency or frequencies if operation thereon results in interference to any television station authorized to use the band. The frequencies for experimental stations begin at 210,110 kc and are available by steps of 220 kc ending with 215,830 kilocycles.

<sup>7</sup> Frequencies within this band are available on a temporary basis only for general or specific research and experimentation of the radio art along lines which are not specifically directed toward any established service. The holder of any instrument of authorization for any frequency or frequencies in this band will be required to vacate such frequency or frequencies if operation thereon results in interference to any television station authorized to use the band. The frequencies for experimental stations begin at 264,130 kc and are available by steps of 260 kc ending with 269,350 kc.

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Frequency (kilocycles)	Allocation	Frequency (kilocycles)	Allocation
203,500	Government.	249,480	Government.
700	Do.	720	Do.
900	Do.	860	Do.
204,000	Television Broadcast.	250,220	Do.
210,000	Television Broadcast and Experi-	480	Do.
210,000	mental. <sup>6</sup>	740	Do.
216,000	Government.	251,000	Do.
216,110	Do.	260	Do.
330	Do.	520	Do.
550	Do.	780	Do.
770	Do.	252,040	Do.
990	Do.	300	Do.
217,210	Do.	560	Do.
430	Do.	820	Do.
650	Do.	253,080	Do.
870	Do.	340	Do.
218,090	Do.	600	Do.
310	Do.	860	Do.
530	Do.	254,120	Do.
750	Do.	380	Do.
970	Do.	640	Do.
219,190	Do.	900	Do.
410	Do.	255,160	Do.
630	Do.	420	Do.
850	Do.	680	Do.
220,070	Do.	940	Do.
290	Do.	256,200	Do.
510	Do.	460	Do.
730	Do.	720	Do.
950	Do.	980	Do.
221,170	Do.	257,240	Do.
390	Do.	500	Do.
610	Do.	760	Do.
830	Do.	258,000	Television Broadcast.
222,050	Do.	264,000	Television Broadcast and
270	Do.	264,000	Experimental. <sup>7</sup>
490	Do.	270,000	Government.
710	Do.	270,140	Do.
930	Do.	420	Do.
223,150	Do.	700	Do.
370	Do.	980	Do.
590	Do.	271,260	Do.
810	Do.	540	Do.
224,000	Amateur.	820	Do.
230,000	Government.	272,100	Do.
120	Do.	380	Do.
360	Do.	660	Do.
600	Do.	940	Do.
840	Do.	273,220	Do.
231,080	Do.	500	Do.
320	Do.	780	Do.
560	Do.	274,060	Do.
800	Do.	340	Do.
232,040	Do.	620	Do.
280	Do.	900	Do.
520	Do.	275,180	Do.
760	Do.	460	Do.
233,000	Do.	740	Do.
240	Do.	276,020	Do.
480	Do.	300	Do.
720	Do.	580	Do.
234,000	Television Broadcast.	860	Do.
240,000	Television Broadcast.	277,140	Do.
240,000	Television Broadcast.	420	Do.
246,000	Government.	700	Do.
246,120	Do.	980	Do.
360	Do.	278,260	Do.
600	Do.	540	Do.
840	Do.	820	Do.
247,080	Do.	279,100	Do.
320	Do.	380	Do.
560	Do.	660	Do.
800	Do.	940	Do.
248,040	Do.	280,020	Do.
280	Do.	300	Do.
520	Do.	580	Do.
760	Do.	860	Do.
249,000	Do.	281,040	Do.
240	Do.	320	Do.

See footnotes at end of table.