

Inter-American Radio Conference Reaches Final Agreement Frequencies of Many Stations Would Be Shifted

The following is the text (unofficial) of the North American Regional Broadcasting Agreement signed at Havana, Cuba, December 13, 1937:

C.I.R./Doc. 56

Habana, December 10, 1937

NORTH AMERICAN REGIONAL BROADCASTING AGREEMENT

concluded among the following Governments:

Canada
Cuba
Dominican Republic
Haiti
Mexico
United States of America

The undersigned, plenipotentiaries of the Governments listed above, having met in conference at Habana, Cuba, have, in common agreement and subject to ratification, concluded the following Agreement.

I

PURPOSE AND SCOPE OF THIS AGREEMENT

1. *Purpose of Agreement.* The purpose of this Agreement is to regulate and establish principles covering the use of the standard broadcast band in the North American Region so that each country may make the most effective use thereof with the minimum technical interference between broadcast stations.

2. *North American Region.* The North American Region (hereinafter referred to as "Region") for the purpose of this Agreement shall be deemed to include and to consist of the following countries: Canada, Cuba, Dominican Republic, Haiti, Mexico, Newfoundland, and United States of America.

3. *Standard broadcast band.* The standard broadcast band shall be deemed to be the band of frequencies extending from 550 to 1600 kc, both inclusive, both 550 kc and 1600 kc being the carrier frequencies of broad-

casting channels as hereinafter defined. The Governments agree, subject to the provisions of Article 7 of the General Radio Regulations annexed to the International Telecommunications Convention, Madrid, 1932, that this band of frequencies shall be allocated exclusively to broadcasting in the Region.

4. *Sovereign right to use channels.* The sovereign right of all countries, parties to this Agreement, to the use of every channel in the standard broadcast band is recognized. The Governments recognize, however, that until technical developments reach a state permitting the elimination of radio interference of international character, a regional arrangement between them is necessary in order to promote standardization and to minimize interference.

5. *Regional character of Agreement.* The Governments recognize that this Agreement, and each provision thereof, is a regional arrangement within the meaning of, and authorized by the International Telecommunications Convention and the General Radio Regulations annexed thereto.

II

TECHNICAL

A. DEFINITIONS

1. *Broadcast station.* A station the emissions of which are primarily intended to be received by the general public.

2. *Broadcast channels—550 to 1600 kc.* A broadcast channel is a band of frequencies ten (10) kc in width, with the carrier frequency at the center. Channels shall be designated by their assigned carrier frequencies. Carrier frequencies assigned to broadcast stations shall begin at 550 kc and be in successive steps of 10 kc. No inter-

IN THIS ISSUE

	Page
Inter-American Radio Conference Reaches Final Agreement	2399
Cuba to Move Swiftly to Effectuate Broadcast Agreement..	2413
Court of Appeals Affirms F. C. C. Decisions.....	2413
Bacon Radio Resolution.....	2414
Power Increase Recommended for WMAZ.....	2414
Federal Trade Commission Action.....	2414
Federal Communications Commission Action.....	2416

mediate frequency shall be assigned as the carrier frequency of any broadcast station.

3. *Service areas.*

(a) *Primary service area.* The primary service area of a broadcast station is the area in which the ground wave is not subject to objectionable interference or objectionable fading.

(b) *Secondary service area.* The secondary service area of a broadcast station is the area served by the sky wave and not subject to objectionable interference. The signal is subject to intermittent variations in intensity.

4. *Dominant stations.* A "dominant" station is a Class I station, as hereinafter defined, operating on a clear channel.

5. *Secondary station.* A "secondary" station is any station except a Class I station operating on a clear channel.

6. *Objectionable interference.* Objectionable interference is the degree of interference produced when, at a specified boundary or field intensity contour with respect to the desired station, the field intensity of an undesired station (or the root-mean-square value of field intensities of two or more stations on the same frequency) exceeds for ten (10) per cent or more of the time the values hereinafter set forth in this Agreement.

7. *Power.* The power of a radio transmitter is the power supplied to the antenna. The power in the antenna of a modulated-wave transmitter shall be expressed in two numbers, one indicating the power of the carrier frequency supplied to the antenna, and the other the actual maximum percentage of modulation.

8. *Spurious radiation.* A spurious radiation from a transmitter is any radiation outside the frequency band of emission normal for the type of transmission employed, including any harmonic modulation products, key clicks, parasitic oscillations and other transient effects.

9. *English, French and Spanish equivalents.* It is agreed that, as used in this Agreement, the French and Spanish words below set forth are respectively the equivalent of, and mean the same as, the English terms opposite which they appear:

English	French	Spanish
Clear channel	Frequence libre	Canal despejado
Objectionable interference	Brouillage nuisible	Interferencia objetable

B. CLASSES OF CHANNELS AND ALLOCATION THEREOF

1. *Three classes.* The 106 channels in the standard broadcast band are divided into three principal classes: clear, regional and local.

2. *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.

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

4. *Local channel.* A local channel is one on which several stations may operate with powers not in excess of 250 watts. The primary service area of a station operating on any such channel may be limited, as a consequence of interference, to a given field intensity contour.

5. *Number of channels of each class.* The number of channels of each class shall be as follows:

Clear channels.....	59
Regional channels.....	41
Local channels.....	6
	<hr/>
	106

6. *Allocation of specific channels to each class.* The channels are allocated to the several classes as follows:

Clear channels. The following channels are designated as clear channels: 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 940, 990, 1000, 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1120, 1130, 1140, 1160, 1170, 1180, 1190, 1200, 1210, 1220, 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, and 1580.

Regional channels. The following channels are designated as regional channels: 550, 560, 570, 580, 590, 600, 610, 620, 630, 790, 910, 920, 930, 950, 960, 970, 980, 1150, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1350, 1360, 1370, 1380, 1390, 1410, 1420, 1430, 1440, 1460, 1470, 1480, 1590, 1600.

Local channels. The following channels are designated as local channels: 1230, 1240, 1340, 1400, 1450, and 1490 kc.

7. *Use of regional and local channels by countries.* All countries may use all regional and all local channels, subject to the power limitations and standards for prevention of objectionable interference set forth in this Agreement.

8. *Priority of use of clear channels by countries.*

(a) The clear channels are assigned for priority of use by Class I and II stations in the several countries in accordance with the table set forth in Appendix I.

(b) Each such channel shall be used by the country or countries to which it is thus assigned in a manner conforming to the best engineering practice with due regard to the service to be rendered by the dominant stations operating thereon, as set forth

elsewhere in this Agreement. If, for one year within the term of this Agreement, a country fails to make any use of a clear channel assigned to it, the channel shall be considered open for use by the other countries, parties to this Agreement, pursuant to such arrangement as may be agreed upon by their respective administrations and without any necessity for revision of this Agreement.

(c) No country to which a clear channel has been thus assigned shall permit, or agree to permit, any other country to use such channel in a manner not in conformity with this Agreement without first giving sixty days^a advance notice of its intention so to do to all other countries, parties to this Agreement. If during this period of sixty days^a any other country shall present objections to such proposed use of the channel, the country to which the clear channel has been assigned shall not permit, or agree to permit, such proposed use until the difference presented by the objection has been amicably resolved.

(d) If within the period of this Agreement the country to which a clear channel has been assigned shall have made use of the channel but not in the manner above prescribed or not to the extent required by the provisions of this Agreement, such country shall be considered as having relinquished that portion of the rights which it has not used and at the expiration of this Agreement the other countries party thereto shall have the right, if they see fit, to withdraw the unused privileges from such country and to reassign them to any or all of the other interested countries.

C. CLASSES OF STATIONS AND USE OF THE SEVERAL CLASSES OF CHANNELS

1. *Classes of stations.* Broadcast stations are divided into four principal classes, to be designated Class I, Class II, Class III, and Class IV, respectively.

2. *Definitions of classes.* The four classes of broadcast stations are defined as follows:

Class I: 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. Class I stations are subdivided into two classes:

Class I-A: A Class I station which operates with power of 50 kw or more and which has its primary service area, within the limits of the country in which the station is located, free from objectionable interference from other stations on the same and adjacent channels, and its secondary service area, within the same limits, free from objectionable interference from stations on the same channel, in accordance with the engineering standards hereinafter set forth.

Class I-B: A Class I station which operates with power of not less than 10 kw or more than 50 kw and which has its primary service area free from objectionable interference from other stations on the same and adjacent channels and its secondary service area free from objectionable interference from stations on the same channel, in accordance with the engineering standards hereinafter set forth.

(a) When two Class I-B stations on the same channel are separated by a distance of 2800 miles or more, neither station shall be required to install a directional antenna.

(b) When two Class I-B stations on the same channel are separated by a distance of more than 1800 miles and less than 2800 miles, it will, in the absence of proof to the contrary, be assumed that each station is free of objectionable interference caused by the other and neither shall be required to install directional antennas or take other precautions to avoid such interference. In case the existence of objectionable interference is proved, the governments concerned will consult with each other regarding the desirability and practicality of installation of directional antennas or the taking of other precautions to eliminate the interference and will determine by special arrangement the measures, if any, to be taken.

(c) When two Class I-B stations on the same channel are separated by a distance less than 1800 miles, it will, in the absence of proof to the contrary, be assumed that the installation of directional antennas or the taking of other precautions to avoid interference is necessary, and the governments concerned will consult with each other and will take such measures as may be agreed upon between them to the end that the objectionable interference may be reduced or eliminated.

Class II: A "secondary" station which operates on a clear channel and is designed to render service over a primary service area which, depending on geographical location and power used, may be relatively large, but which is limited by and subject to such interference as may be received from Class I stations. A station of this class shall operate with power of not less than 0.25 kw or more than 50 kw. Whenever necessary a Class II station shall use a directional antenna or other means to avoid interference, in accordance with the engineering standards hereinafter set forth, with Class I stations and with other Class II stations.

Class III: A station which operates on a regional channel and is designed to render service primarily to a metropolitan district and the rural area contained therein and contiguous thereto. Class III stations are subdivided into two classes:

^a Calendar days.

Class III-A: A Class III station which operates with power not less than one kilowatt or more than five kilowatts and the service area of which is subject to interference in accordance with the engineering standards hereinafter set forth.

Class III-B: A Class III station which operates with a power not less than 0.5 kw or more than 1 kw night and 5 kw daytime and the service area of which is subject to interference in accord with the engineering standards hereinafter set forth.

Class IV: A station using 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 0.1 kw or more than 0.25 kw and its service area is subject to interference in accord with the engineering standards hereinafter set forth.

3. *Change of class.* If a station or stations in Class III-B located in any country can, through the use of directional antennas or otherwise, so reduce the interference caused or received by such station or stations to the field contour to which interference to stations in Class III-A is allowed, such station or stations shall automatically be classified and included in Class III-A and shall thereafter be so recognized and treated by the Administrations of all countries within the Region.

4. *Use of clear channels.*

(a) In principle and subject only to the exception hereinafter set forth, Class I stations shall be assigned only to clear channels.

(b) Class II stations may be assigned to clear channels only on condition that objectionable interference will not be caused to any Class I stations. Where any country has priority of use of a clear channel for any Class I-A station, no other country shall assign any Class II station to that channel for night time operation (from sunset to sunrise at the location of the Class II station) unless such Class II station is located not less than 650 miles from the nearest border of the country in which the Class I-A station is located; provided, however, that where an assignment for a Class II station is specifically stated in Appendix I, such assignment shall be deemed as authorized under the limitations therein set forth.

5. *Use of regional channels.*

(a) In general only Class III-A and Class III-B stations shall be assigned to regional channels.

(b) On condition that interference be not caused to any Class III-A or Class III-B station, and subject to such interference as may be received from Class III-A or Class III-B stations, Class IV stations may be assigned to regional channels.

(c) Because of their geographical location with respect to the North American continent, special con-

sideration will be given to the use by Cuba, the Dominican Republic, Haiti and Newfoundland of stations of Classes I and II assigned to certain regional channels under certain conditions, with respect to power and precautions to avoid objectionable interference as set forth in Appendix VII.

6. *Use of local channels.* Only Class IV stations shall be assigned to local channels.

D. SERVICE AND INTERFERENCE

1. *Satisfactory signal.* It is recognized that, in the absence of interference from other stations and in regions where the natural electrical noise level is not abnormally high, a signal of 100 microvolts per meter constitutes a usable signal in rural and sparsely settled areas but that, because of the higher electrical noise levels in more thickly populated communities, greater field intensities (ranging as high as 25 millivolts or more in cities) are necessary to render satisfactory service. It is further recognized that it is not possible to accord protection to stations from objectionable interference over the entire areas over which their signals are or may be above the electrical noise level, particularly at night, and that it is necessary to specify boundaries or contours at or within which stations are protected from objectionable interference from other stations.

2. *Areas protected from objectionable interference.* The boundaries or contours at and within which the several classes of stations shall be protected from objectionable interference are as set forth in Appendix II. No station, however, need be protected from objectionable interference at any point outside the boundaries of the country in which such station is located.

With respect to the root-mean-square values of interfering field intensities referred to herein, it shall be understood to apply in determining the interference between existing stations and no station thereafter assigned the channel shall increase the root-mean-square value of the interfering field intensity above the maxima specified in the attached tables.

3. *Objectionable interference on the same channel.* Objectionable interference shall be deemed to exist to a station when, at the boundary or field intensity contour specified in Appendix II with respect to the class to which the station belongs, the field intensity of an interfering station (or the root-mean-square value of the field intensities of two or more interfering stations) operating on the same channel, exceeds for ten (10) percent or more of the time the value of the permissible interfering signal set forth opposite such class in Appendix II.

4. *Interference to dominant clear channel stations.* A station shall be considered as not capable of causing objectionable interference to a Class I clear channel station on the same frequency when it is separated from the domi-

nant clear channel station by a difference of 70 degrees or more of longitude.

5. *Objectionable interference on adjacent channels.* It is recognized, in principle, that objectionable interference may be caused to a desired station when, at or within the specified contours of a desired station, the field intensity of the ground wave of an undesired station operating on an adjacent channel (or the root-mean-square value of the field intensities of two or more such undesired stations operating on the same adjacent channel) exceeds a value determined by the following ratio:

<i>Separation between channels</i>	<i>Minimum permissible ratio of desired to undesired signals</i>
10 kc.	1 to 0.5
20 kc.	1 to 10
30 kc.	1 to 50

For convenient reference, the maximum permissible values of interfering signals on such adjacent channels at specified contours are set forth in Appendix III, Table I.

6. *Application of standards to existing stations.*

(a) For the purpose of estimating objectionable interference, all stations (other than those of Class II) shall be assumed to use the maximum power permitted to their respective classes. In this connection, the power of Class I-A stations shall be considered to be 50 kw or the actual power, if higher.

(b) After this agreement has been placed in operation a station thereafter assigned a channel already assigned to other stations shall not be considered as preventing existing stations from increasing their power to the maximum allowed their class, even though such power increase may limit the newly assigned station to a field intensity contour of higher value than that permitted its class.

7. *Frequency stability.* The operating frequency of each broadcast station shall be maintained to within 50 cycles of the assigned frequency until January 1, 1939, and thereafter the frequency of each new station or each station where a new transmitter is installed shall be maintained within 20 cycles of the assigned frequency, and after January 1, 1942, the frequency of all stations shall be maintained within 20 cycles of the assigned frequency.

8. *Spurious radiation.* The Governments shall endeavor to reduce and, if possible, eliminate spurious radiations from broadcast stations. Such radiations shall be reduced in all cases until they are not of sufficient intensity to cause interference outside the frequency band required for the type of emission employed. With respect to type A-3 emissions (radio-telephony) the transmitter should not be modulated in excess of its modulation capability to the extent that interfering spurious radiations occur, and, with respect to amplitude modulation, the operating percentage of modulation should not be less

than seventy-five (75) percent on peaks of frequent recurrence. Means should be employed to insure that the transmitter is not modulated in excess of its modulation capability.

E. DETERMINATION OF PRESENCE OF OBJECTIONABLE INTERFERENCE.

1. *Antenna performance.* For the purpose of calculating the presence and the degree of objectionable interference, stations of the several classes shall be assumed to produce effective field, corrected for absorption, for one kilowatt of input power to the antenna, as follows:

<i>Class of Station</i>	<i>At One Mile</i>	<i>At One Kilometer</i>
I	225 mv/m	362 mv/m
II and III	175 mv/m	282 mv/m
IV	150 mv/m	241 mv/m

In case a directional antenna is employed, the interfering signal of a broadcasting station will vary in different directions. To determine the interference in any direction, in the absence of actual interference measurements, the horizontal and vertical field intensity patterns of the directional antenna must be calculated and by comparing the appropriate vectors in the horizontal or vertical pattern with that of a nondirectional with the same effective field, the interfering signal toward any other station can be expressed in terms of kilowatts. This rating in kilowatts shall be applied in the use of mileage separation tables or in computing distances from the propagation curves or tables.

2. *Power.* The power of a station shall, for the purposes of notifications required by this Agreement, be determined in one of the following manners:

(a) By taking the product of the square of the antenna current and the antenna resistance (antenna input power).

(b) By determination of the station's effective field intensity, corrected for absorption, by making sufficient field intensity measurements on at least eight radials as nearly equally spaced as practicable and by relating the field intensity thus determined to the effective field intensity of a station having the antenna efficiency stipulated above for its class.

3. *Methods of determining the presence of objectionable interference—General.* The existence or absence of objectionable interference from stations on the same or adjacent channels shall be determined by one of the following methods:

(a) By actual measurements contained in the method hereinafter prescribed;
or, with the mutual consent of the countries concerned:

(b) By reference to the propagation curves in Appendices IV and V, or

(c) By reference to the distance tables set forth in Appendix VI.

4. *Actual proof of existence or absence of objectionable interference.* The existence or absence of objectionable interference may be proved by field intensity measurements or recordings made with suitable apparatus, duly calibrated, by Government engineers or other engineers as may be mutually acceptable to the Governments concerned. Such field intensity measurements shall be made in the manner and for the periods of time mutually agreed upon by the Governments concerned.

The contracting Governments agree to facilitate the making of the measurements by requiring the stations involved to remain silent or operate in the manner deemed necessary, and at such times as not to interrupt regular schedules.

5. *Proof based on propagation curves and distance tables.*

(a) *Sky wave curves.* In computing the distance to the 50 percent skywave field intensity contour of a Class I station of a given power, and also in computing the 10 percent skywave field intensity of an alleged interfering station, of any class and given power, at a specified distance, use may be made of the appropriate graphs set forth in Appendix V, entitled "Average Sky Wave Field Intensity Corresponding to the Second Hour after Sunset in the Recording Station, 100 Millivolt per Meter at One Mile (161 at one kilometer)".

(b) *Ground wave curves.* The distance to any specified ground wave field intensity contour may be determined from appropriate ground wave curves plotted for the frequency under consideration and the conductivity and dielectric constant of the earth between the station and desired contour. The frequency and the conductivity of the earth must be considered in every case and where the distance is great due allowance must be made for loss due to curvature of the earth. A family of curves is necessary for this purpose. A graph for a conductivity of 10^{-13} is set forth in Appendix IV, entitled "Ground Wave Field vs. Distance for One Kilowatt Radiated From Short Antenna". Three frequencies in the standard broadcast band are given. For other frequencies and soil conditions (conductivity and dielectric constant) other curves are required. A conductivity of 10^{-13} is considered average and is used throughout in determining the ground wave value for computing the mileage separation tables.

(c) *Distance tables.* Table I shows the required day separation in miles between broadcast stations on the same channel. Table II gives the required

distance in miles from the boundary of a country in which a Class I-A station is located for the daytime operation of a Class II station on the same channel in another country. Table III gives the required separation in miles between broadcast stations on adjacent channels during both daytime and nighttime. Table IV gives the required night separation in miles between broadcast stations operating on the same channel. The assumed conditions of operation are given in Appendix VI.

The tables are based upon the use of nondirectional antennas but, in case a directional antenna is employed at a particular station, it will be necessary to consider the radiation distribution of the directional antenna involved and to modify the mileage separation accordingly. The night separation tables for stations on the same frequency are computed from the skywave curve given in Appendix V. These curves are based on extensive measurements of the skywave produced by broadcasting stations and shall be considered as accurate in all cases unless proof to the contrary is available as set out in Section E 4. The mileage separation tables for the same channel during daytime and for adjacent channels day and night are computed from the groundwave curve in Appendix IV. Tables apply only in case the frequency is 1000 kc and the assumed soil conductivity and dielectric constant prevail. Since these values vary in every case the tables for daytime and adjacent channel separation cannot be used except as a general guide. In any case under consideration an estimate of the mileage separation required may be made from the operating frequency and known or assumed soil conditions. To determine the interference accurately, measurements must be made in accordance with Section E 4 on the frequency under consideration or on another frequency and from the curves the values may be determined for the desired frequency.

F. MISCELLANEOUS.

1. *Engineering standards.* The engineering standards set forth in this Agreement are subject to revision when justified by technical advances in the art, with the mutual consent of the Governments parties to this Agreement.

Attachments:

- | | |
|----------|--|
| Appendix | I—Priority of use of clear channels for Class I and II stations |
| " | II—Protected service and interference |
| " | III—Adjacent channel interference |
| " | IV—Ground wave graphs |
| " | V—Skywave graphs |
| " | VI—Mileage separation tables |
| " | VII—Engineering requirements for use of regional channels by Class II stations |

III

NOTIFICATION AND EFFECT THEREOF

1. *Initial notification.*

Each Government shall, as soon as possible after ratification of this Agreement, and in any event not later than 180 days prior to the effective date thereof, transmit to the other Governments

(a) A complete list of all broadcast stations actually in operation in its country in the standard broadcast band both as of the date of the signing of this Agreement and as of the date of transmitting said list, showing with respect to each station its call signal, location, frequency, power, and antenna characteristics, together with all changes authorized to be made with respect to said stations on or before the effective date of this Agreement, and the classification claimed for each such station.

(b) A complete list of all changes authorized to be made with respect to said stations after the effective date of this Agreement, the dates on or before which such changes are to be consummated, and the classification claimed for each such station under this Agreement when the proposed change has been consummated.

(c) A complete list of all new broadcast stations authorized but not yet in operation, showing with respect to each such station its call signal, location, frequency, power and antenna characteristics, the date on or before which each such station shall commence operation, and the classification claimed for it under this Agreement.

(d) The Governments agree that prior to the effective date of this Agreement, they will, so far as possible, resolve all conflicts that may arise between them as a result of the foregoing initial listings, and that, notwithstanding some such conflicts may remain unresolved, they will cooperate to the end that there be no delay in putting the provisions of this Agreement into full force and effect on that date.

(e) In resolving conflicts in the use of clear channels, and in the listing of Class I and Class II stations, the provisions of this Agreement and particularly of Appendix I shall be controlling. In resolving conflicts in the use of regional and local channels, and in the listing of Class III and Class IV stations, priority of use shall be recognized in each country with respect to stations which at the time of signing of this Agreement are in actual operation, which in substance conform to the definitions of said classes as set forth in this Agreement, and with respect to which no substantial change is made or proposed; a change of frequency in order to conform to the designation of channels in this Agreement shall not be deemed a substantial change.

2. *Subsequent notifications.* After the effective date of this Agreement and throughout the period during which it shall remain in effect, each Government shall promptly notify the other Governments by registered letter of all further changes in existing broadcast stations and of all further new broadcast stations, together with similar information with regard to each such change or new station, and the proposed date on which each such change is to go into effect and on which each such new station is to actually commence operation.

3. *Effect of notification.* Each Government may, within 30 days of receiving notification of any proposed change in the assignment of an existing station or of the authorization of a new station in another country, notify the Government of the latter country of any objection it may have thereto under the terms of this Agreement.

4. *Conflict between notifications.* To be valid, notifications of changes in the assignments of existing stations, or of authorizations of new stations must be such that the assignments proposed therein are in accordance with this Agreement and are such as not to involve objectionable interference to existing stations in other countries, assigned and operating in accordance with this Agreement. As between two or more notifications of changes or authorizations of new stations proceeding from different countries, after the effective date of this Agreement, priority in the date of mailing of notification shall govern.

5. *Cessation of effect.*

(a) A notification of a proposed change in the assignment of an existing station or of an authorization of a new station shall cease to have any force and effect if, within one year of the date thereof such change shall not have been actually consummated or such new station shall not have actually commenced continuous operation.

(b) In special cases in which circumstances beyond the control of the Administration concerned have prevented the completion of the change or the construction of the new station, the term of the original notification may be extended for a period of six months.

6. *Bern Bureau.* The foregoing notifications shall be made independently of and in addition to those which, under current practice, are sent to the Bureau of the International Telecommunications Union.

IV

ARBITRATION

In case of disagreement between two or more contracting Governments concerning the execution of this Agreement the dispute, if it is not settled through diplomatic channels, shall be submitted to arbitration at the request of one of the Governments in disagreement. Unless the parties in disagreement agree to adopt a procedure already

established by treaties concluded between them for the settlement of international disputes, the procedure shall be that provided for in Article 15 of the International Telecommunications Convention of Madrid, 1932.

V

RATIFICATION, EXECUTION AND DENUNCIATION

1. *Ratification.* To be valid this Agreement must be ratified by Canada, Cuba, Mexico and the United States of America.

If and when three of said four countries shall have ratified and the fourth shall, through unavoidable circumstances, have been unable to ratify but shall have signified to those countries that have ratified its readiness, pending ratification and as an administrative measure, to put the provisions of this Agreement (including the contents of Appendix I) into effect in whole or in part, then such country, together with those countries which shall have ratified, may, by administrative agreement between them, fix a definite date on which they shall give effect to such provisions, which date shall preferably be one year from the date of such administrative agreement.

The ratification must be deposited, as soon as possible, through diplomatic channels, in the archives of the Government of Cuba. This same Government shall, through diplomatic channels, notify the other signatory Governments of the ratifications as soon as they are received.

2. *Effect of ratification.* This Agreement shall be valid only as between such countries as shall have ratified it.

3. *Execution.* The contracting Governments undertake to apply the provisions of this Agreement, and to take the steps necessary to enforce said provisions upon the private operating agencies recognized or authorized by them to establish and operate broadcast stations within their respective countries.

4. *Denunciation.* Each contracting Government shall have the right to denounce this Agreement by a notification addressed, through diplomatic channels, to the Government of Cuba, and announced by that Government, through diplomatic channels, to all the other contracting Governments. This denunciation shall take effect at the expiration of the period of one year from the date on which the notification was received by the Government of Cuba. This effect shall apply only to the author of the denunciation. This Agreement shall remain in force for the other contracting Governments but only as between such Governments.

VI

EFFECTIVE DATE AND TERM OF THE AGREEMENT

1. Except for the provisions of Section 1 of Part III, Section 1 of Part V, and paragraph 3 of Table VI of

Appendix I annexed hereto (which provisions shall go into effect immediately upon this Agreement becoming valid), this Agreement shall become effective one year after the date it shall have been ratified by the fourth of those Governments whose ratification is requisite to the validity of this Agreement. The Governments will co-operate to the end that, wherever possible, the provisions of this Agreement shall be carried out in advance of said effective date.

2. This Agreement shall remain in effect for a period of five years after said effective date.

VII

ADHERENCE

This Agreement shall be open to adherence in the name of Newfoundland.

In witness whereof the respective plenipotentiaries have signed the Agreement in triplicate, one copy in English, one in Spanish, and one copy in French, each of which shall remain deposited in the archives of the Government of Cuba and a copy of each of which shall be forwarded to each Government.

Done at Habana, Cuba, December 13, 1937.

APPENDIX I

Under the provisions of Section II of this Agreement each country may use all the 106 channels when technical conditions with respect to interference to established stations are such as to render such use practicable. However, priority of use on specified clear channels is recognized for the following number of Class I and II stations in each country.

TABLE I

Canada	14
Cuba	9*
Dominican Republic	1
Haiti	1
Mexico	15
Newfoundland	2*
United States	63

* See Table V for special arrangements provided for Cuba and Newfoundland.

These stations and the conditions of their operation are as specified in Tables II, III, IV, V, VI, VII and VIII following herewith.

TABLE II

Class I-A Stations
(Canada, Cuba, and Mexico)

Frequency	Location of Stations
690	Quebec, Canada
730	Mexico, D. F.
740	Ontario, Canada
800	Sonora, Mexico
860	Ontario, Canada
900	Mexico, D. F.
990	Manitoba, Canada
1010	Alberta, Canada
1050	Nuevo Leon, Mexico
1220	Yucatan, Mexico
1540	Santa Clara, Cuba
1570	Nuevo Leon, Mexico
1580	Quebec, Canada

TABLE III
Class I-B Stations

Frequency	Location of Stations	Power Limitation (kw)	Requirements as to directional antennas
810	New York, U.S.A.	.....	None
810	California, U.S.A.	.....	To be determined
940	Quebec, Canada	5 kw. min. permissible	Determine from operation
940	Mexico, D.F.	.....	Determine from operation
1000	Jalisco, Mexico	20	To be determined
1000	Washington, U. S. A.	.....	To be determined
1000	Illinois, U. S. A.	.....	To be determined
1010	Habana, Cuba	.....	Determine from operation
1060	Mexico, D. F.	.....	To be determined
1060	Pennsylvania, U. S. A.	.....	To be determined
1070	Maritime Provinces, Canada	.....	None
1070	California, U. S. A.	.....	None
1080	Connecticut, U. S. A.	.....	To be determined
1080	Texas, U. S. A.	.....	To be determined
1090	Baja Calif., Mexico	.....	To be determined
1090	Maryland, U. S. A.	.....	To be determined
1090	Arkansas, U. S. A.	.....	To be determined
1110	North Carolina, U. S. A.	.....	To be determined
1110	Nebraska, U. S. A.	.....	To be determined
1130	British Columbia, Canada	5 kw. min. permissible	None
1130	New York-New Jersey, U. S. A.	.....	None
1140	Chihuahua, Mexico	.....	To be determined
1140	Virginia, U. S. A.	.....	To be determined
1170	Oregon, U. S. A.	.....	To be determined
1170	Oklahoma, U. S. A.	.....	To be determined
1170	West Virginia, U. S. A.	.....	To be determined
1190	Sinaloa, Mexico	.....	To be determined
1190	Indiana, U. S. A.	.....	To be determined
1550	Ontario, Canada	.....	Determine from operation
1550	Vera Cruz, Mexico	20	Determine from operation
1560	Habana, Cuba	.....	.....

TABLE IV
Class II Stations

Frequency	Location of Stations	Power Limitation (kw)	Requirements as to directional antennas
640	Newfoundland	.....	None
690	Kansas-Oklahoma, U. S. A.	.....	To be determined ^a
740	Calif., U. S. A.	.....	To be determined ^b
800	Ontario, Canada	5	To be determined
810	Tamaulipas (Tampico), Mexico	50	To be determined
900	Quebec, Canada	5	To be determined
990	Tennessee, U. S. A.	.....	To be determined ^c
1000	Oriente, Cuba	10	To be determined
1050	New York, U. S. A.	.....	To be determined
1060	Alberta, Canada	10	To be determined
1070	Alabama, U. S. A.	.....	To be determined
1080	Manitoba, Canada	15	To be determined
1080	Haiti	10	To be determined
1110	Mexico, D. F.	20	To be determined
1130	Louisiana, U. S. A.	.....	To be determined
1170	Dominican Republic	10	To be determined
1190	Habana, Cuba	15	To be determined

^a Permissible to increase field intensity above 25 uv/m (10% skywave) west of Minnesota on Canadian border.

^b Same as ^a except west of North Dakota.

^c Same as ^a except east of Minnesota. Also 650 miles from border requirement waived.

TABLE V
Class II Station* on Regional Channels
(Cuba and Newfoundland)

Frequency	Location of Stations	Maximum Power in kw.
560	Newfoundland	10
570	Santa Clara, Cuba	15
590	Habana, Cuba	15
630	Habana, Cuba	15
1270	Habana, Cuba	10

* These stations shall use directional antennas to prevent objectionable interference to the Class III stations on the channel in accordance with Appendix VII.

TABLE VI
Special Conditions Affecting the United States

The 24 Class I and II stations in the United States which use clear channels with other countries party to this Agreement are given in Tables III and IV.

The remaining 39 Class I and II stations of the United States will be assigned the following clear channels:

640	650	660	670	680	700	710	720	750
760	770	780	820	830	840	850	870	880
890	1020	1030	1040	1100	1120	1160	1180	1200
1210	1500	1510	1520	1530				

It is recognized that the United States must make extensive adjustments in the assignments of its existing stations in order to

make possible the carrying out of this Agreement, that these adjustments will require approximately a year, and that it is not possible for the United States at this time to specify on which of the said 32 channels it will have priority of use for Class I-A stations, Class I-B stations and Class II stations, respectively, nor the locations of such stations, power and other information with respect thereto. The United States may assign Class I-A stations to at least 25 of said channels. The United States agrees that ninety days before the effective date of this Agreement it will communicate this information to each of the other countries parties to this Agreement, and such information, when communicated, shall be considered part of this Agreement as if fully set forth herein.

Nothing stated in this Agreement shall be construed to preclude the United States of America from asserting, and enjoying recognition of, priority of use with reference to certain other Class II stations (not included in the 63 stations mentioned in Table I) which are now in actual operation in the band 640-1190 kcs. and which are known under the Regulations of the Federal Communications Commission as "limited time stations" and "daytime stations" (having hours of operation limited to sunset taken either at their respective locations or at the locations of the respective dominant stations on clear channels and in some cases including hours not actually used by said dominant stations) which stations may, so far as permitted by the terms of this Agreement and the

engineering standards herein set forth, be given assignments substantially equivalent to those they now enjoy.

TABLE VII

Special Conditions regarding the use of 1010 kc. by Cuba and Canada

With regard to the use of the clear channel of 1010 kc. by a Class I-A station in Canada, and by a Class I-B station in Cuba, both countries mutually agree that the interfering signal shall not exceed for 10 per cent of the time or more the value of 50 microvolts per meter at the following points of measurement: in Cuba at any point east of the province of Camaguey, and in Canada at any point west of the province of Manitoba.

TABLE VIII

Special conditions affecting Canada

Nothing stated in this Agreement shall be construed to preclude Canada from asserting priority of use with reference to certain Class III and IV stations now in operation in Canada on existing clear and regional channels which through this Agreement will become of a class of channel which may not permit their use by Class III and IV stations.

APPENDIX II

TABLE I

Protected Service Contours and Permissible Interference Signals for Broadcast Stations

Class of station	Class of channel used	Permissible power	Boundary or signal intensity contour of area protected from objectionable interference ^a		Permissible interfering signal ^b	
			Day	Night	Day	Night ^c
I A	Clear	50 kw or more	Boundary of country in which station is located		5 UV/M	25 UV/M ^d
I B	Clear	10 kw to 50 kw	100 UV/M	500 UV/M	5 UV/M	25 UV/M
II	Clear ^d	0.25 kw to 50 kw	500 UV/M ^e	(50% sky wave) 2500 UV/M ^e	25 UV/M ^e	125 UV/M ^e
III A	Regional	1 kw to 5 kw	500 UV/M	(Ground wave) 2500 UV/M	25 UV/M	125 UV/M
III B	Regional	0.5 kw to 1 kw	500 UV/M	(Ground wave) 4000 UV/M	25 UV/M	200 UV/M
IV	Local	0.1 kw to 0.25 kw	500 UV/M	(Ground wave) 4000 UV/M	25 UV/M	200 UV/M

^a In accordance with other provisions in this Agreement this freedom of interference does not apply outside the boundaries of the country in which the station is located.

^b From other stations on same channel only. For adjacent channels see Appendix III, Table I.

^c Sky wave field intensity exceeded for 10% of the time.

^d No Class II station shall be assigned to the same channel as a Class I A station for nighttime operation (from sunset to sunrise) less than 650 miles of the nearest border of the country in which the Class I A station is located.

^e These values are with respect to interference from all stations except Class I, which stations may cause interference to a field intensity contour of higher value. However, it is recommended that Class II stations be so located that the interference received from Class I stations will not exceed these values. If the Class II stations are limited by Class I stations to higher values, then such values shall be the standard established with respect to interference from all other classes of stations.

APPENDIX III

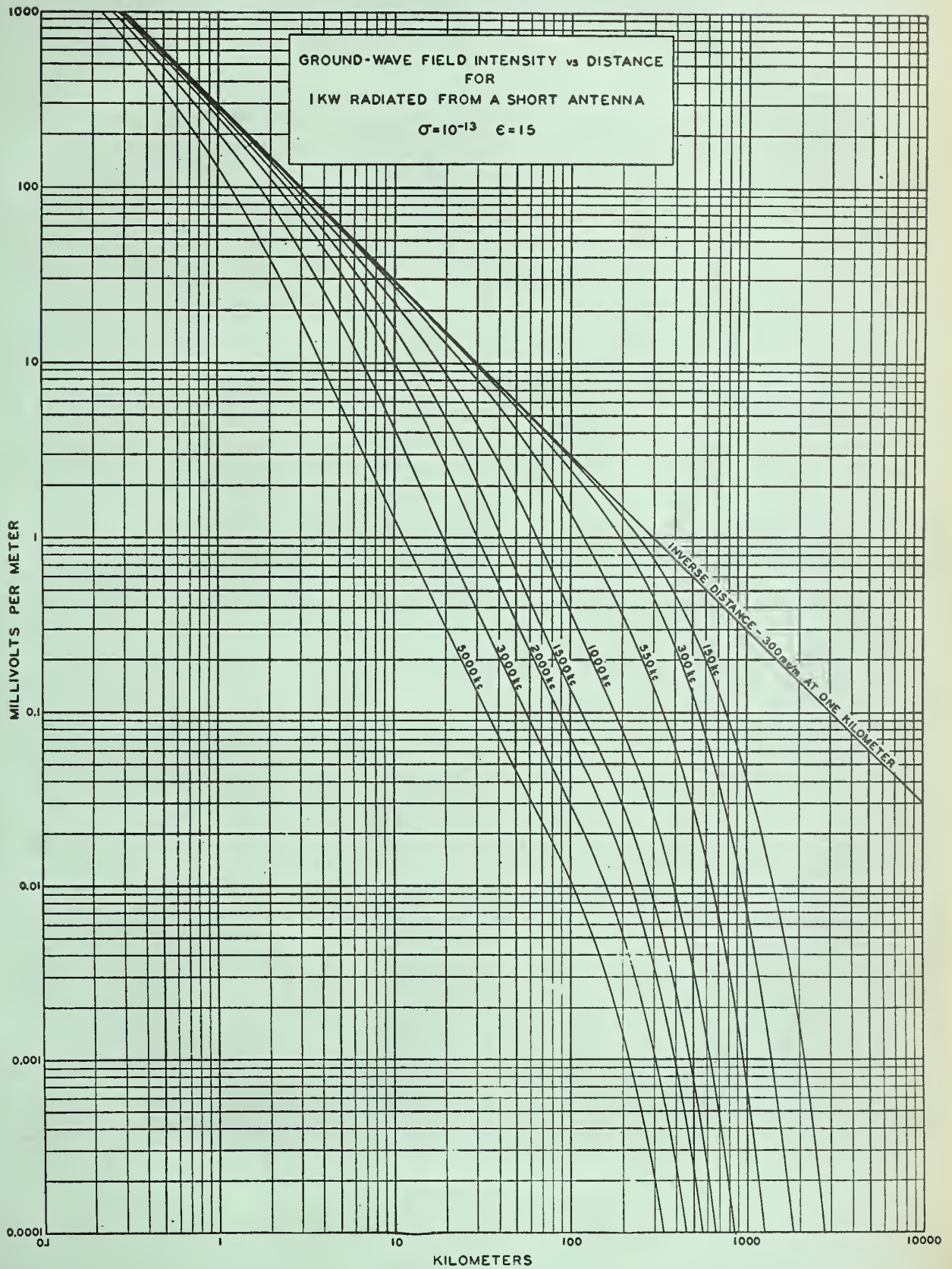
TABLE I

Adjacent Channel Interference

<i>Channel separation between desired and undesired stations</i>	<i>Maximum ground wave field intensity of undesired station</i>
10 kc.	0.25 mv/m
20 kc.	5.0 mv/m
30 kc.	25.0 mv/m

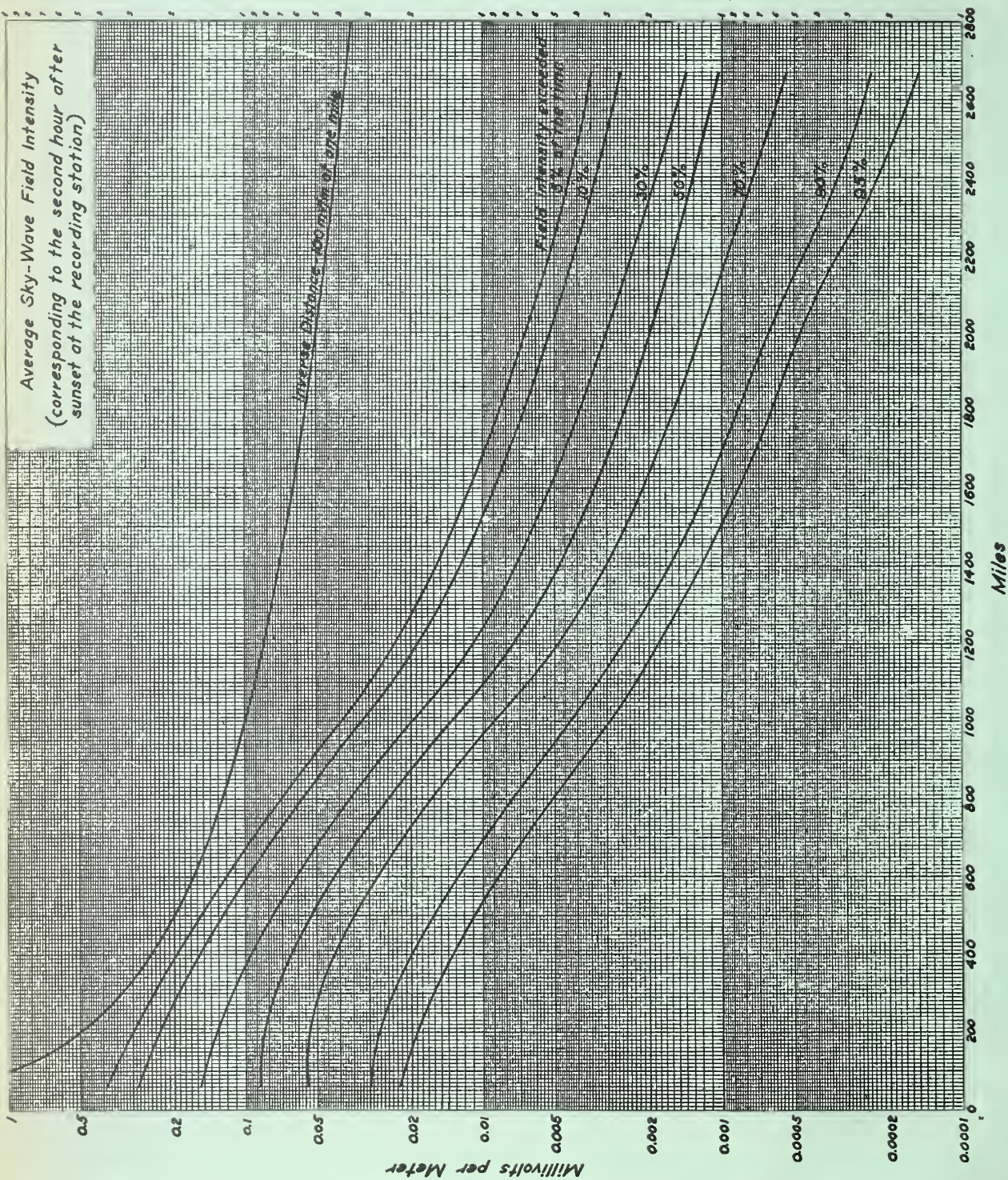
The undesired ground wave signal shall be measured at or within the 0.5 mv/m ground wave contour of the desired station. These values apply to all classes of stations both day and night and are based on ground waves only. No adjacent channel interference is considered on the basis of an interfering sky wave.

APPENDIX IV



APPENDIX V

Average Sky-Wave Field Intensity
(corresponding to the second hour after
sunset at the recording station)



APPENDIX VI

Mileage Separation Tables

The required separations between broadcasting stations as tabulated below are based upon the following conditions:

1. The use of nondirectional antennas.
2. Antenna efficiencies (in mv/m at one mile for one kilowatt).
Class I—225 mv/m.
Class II and III—175 mv/m.
Class IV—150 mv/m.
3. Frequency, 1000 kc.
4. Soil conductivity, $s = 10^{-13}$.

5. Soil dielectric constant, $e = 15$.
6. Groundwave transmission as shown on chart in Appendix IV.
7. Skywave transmission as shown on chart in Appendix V.
8. Protection to service areas as shown in Appendix II, Table I.
9. Ratio of desired to undesired signal:

Channel Separation	Ratio of Desired to Undesired
Same frequency	20:1
10 kc.	2:1
20 kc.	1:10
30 kc.	1:50

TABLE I

Required Day Separation in Miles Between Broadcast Stations on the Same Channel

Class and Power	Class IV			Classes II and III			Class I			Class I			Class I		
	100w	250w	0.25kw	0.5kw	1kw	5kw	10kw	25kw	50kw	10kw	25kw	50kw	100kw	250kw	500kw
Class IV															
100 w	143	165	172	192	213	265	285	310	335	390	417	437	462	486	513
250 w	165	173	180	200	221	273	293	318	343	415	442	462	487	511	538
Classes II and III															
0.25 kw	172	180	183	203	224	276	296	321	346	418	446	465	490	514	541
0.5 kw	192	200	203	210	231	283	303	328	353	446	473	493	518	542	569
1 kw	213	221	224	231	239	291	311	336	361	467	494	514	539	563	590
5 kw	265	273	276	283	291	313	333	358	383	520	547	567	592	616	643
10 kw	285	293	296	303	311	333	345	370	395	540	567	587	612	636	663
25 kw	310	318	321	328	336	358	370	389	414	565	592	612	637	661	688
50 kw	335	343	346	353	361	383	395	414	430	587	614	634	639	683	710
Class I															
10 kw	390	415	418	446	467	520	540	565	587	556	585	605	620	655	682
25 kw	417	442	446	473	494	547	567	592	614	585	612	632	657	682	709
50 kw	437	462	465	493	514	567	587	612	634	605	632	652	677	702	729
100 kw	462	487	490	518	539	592	612	637	659	628	657	677	697	727	754
250 kw	486	511	514	542	563	616	636	661	683	655	682	702	727	751	778
500 kw	513	538	541	569	590	643	663	688	710	682	709	729	754	778	805

TABLE II

Required Distance in Miles from the Boundary of a Country in which a Class I-A Station is Located for Daytime Operation of a Class II on the Same Channel

Power of Station	0.25 kw	0.5 kw	1 kw	Class II 5 kw	10 kw	25 kw	50 kw
Miles from boundary	237	261	282	335	355	380	402

TABLE III

Required Day and Night Separation in Miles Between Broadcast Stations on Adjacent Channels

Class & Power	Class IV						Classes II and III						Class I					
	0.1kw			0.25kw			0.25kw			0.5kw			1kw			5kw		
	10kc	20kc	30kc	10kc	20kc	30kc	10kc	20kc	30kc	10kc	20kc	30kc	10kc	20kc	30kc	10kc	20kc	30kc
Class IV																		
0.1 kw	73	37	32	82	45	40	86	47	42	94	55	50	105	63	58	133	84	79
0.25kw	82	45	40	90	48	41	94	50	43	102	58	51	113	66	59	141	87	80
Classes II & III																		
0.25kw	86	47	42	94	50	43	96	51	43	104	59	51	115	67	59	143	88	80
0.5 kw	94	55	50	102	58	51	104	59	51	112	62	52	123	70	60	151	91	81
1 kw	105	63	58	113	66	59	115	67	59	123	70	60	131	73	62	159	94	83
5 kw	133	84	79	141	87	80	143	88	80	151	91	81	159	94	83	180	104	87
10 kw	149	98	93	157	101	94	159	102	94	167	105	95	175	108	97	196	118	101
25 kw	172	115	110	180	118	111	182	119	111	190	122	112	198	125	114	219	135	118
50 kw	190	131	126	198	134	127	200	135	127	208	138	128	216	141	130	237	151	134
Class I																		
10 kw	162	107	102	170	110	103	172	111	103	180	114	104	188	117	106	209	127	110
25 kw	183	126	121	191	129	122	193	130	122	201	133	123	209	136	125	230	146	129
50 kw	203	144	139	211	147	140	213	148	140	221	151	141	229	154	143	250	164	147
500 kw	277	211	206	285	214	207	287	215	207	295	218	208	303	221	210	324	231	214

TABLE III (Continued)

Required Day and Night Separation in Miles Between Broadcast Stations on Adjacent Channels

Class & Power	Class II						Class I											
	10kc	25 kw	30kc	10kc	50 kw	30kc	10kc	10 kw	30kc	10kc	25 kw	30kc	10kc	50 kw	30kc	10kc	500 kw	30kc
Class IV																		
0.1 kw	172	115	110	190	131	126	162	107	102	183	126	121	203	144	139	277	211	206
0.25kw	180	118	111	198	134	127	170	110	103	191	129	122	211	147	140	285	214	207
Classes II & III																		
0.25kw	182	119	111	200	135	127	172	111	103	193	130	122	213	148	140	287	215	207
0.5 kw	190	122	112	208	138	128	180	114	104	201	133	123	221	151	141	295	218	208
1 kw	198	125	114	216	141	130	188	117	106	209	136	125	229	154	143	303	221	210
5 kw	219	135	118	237	151	134	209	127	110	230	146	129	250	164	147	324	231	214
10 kw	233	140	121	251	156	137	223	132	113	244	151	132	264	169	150	338	236	217
25 kw	250	149	125	268	165	141	242	145	123	261	160	136	281	178	154	355	245	221
50 kw	268	165	141	284	172	145	260	161	139	279	163	144	297	185	158	371	252	225
Class I																		
10 kw	242	145	123	260	161	139	232	137	115	253	156	134	273	174	152	347	241	219
25 kw	261	160	136	279	168	144	253	156	134	272	163	139	292	181	157	366	248	224
50 kw	281	178	154	297	185	158	273	174	152	292	181	157	310	190	161	384	257	227
500 kw	355	245	221	371	252	225	347	241	219	366	248	224	384	257	227	451	297	247

TABLE IV

Required Night Separation in Miles Between Broadcast Stations on the Same Channels

The following tables indicate the mileage protection each class must give all other classes.

Class I-A Class I-A Not required to protect Class II stations on same channel at night.

TABLE IV A

Class I-B	Class I-B	Must protect other stations as shown below.	Class I-B	Class I-B	Class I-B
Class I-B	5 kw	10 kw	25 kw	50 kw	
10 kw			2665	3010	3280
25 kw			3010	3243	3500
50 kw			3280	3500	3660

TABLE IV B

Class II—Must Protect Other Classes as Shown Below

Class II	Class II Stations					Class I-B Stations					Class I-A Stations Distance from nearest border of country in which Class I-A Station is located
	.25kw	.5kw	1kw	5kw	10kw	25kw	50kw	10kw	25kw	50kw	
.25kw	451	602	732	1018	1136	1271	1529	1378	1610	1760	1038
.5 kw	602	606	736	1022	1140	1275	1533	1508	1735	1890	1180
1. kw	732	736	739	1025	1143	1280	1535	1658	1885	2040	1335
5. kw	1018	1022	1025	1039	1157	1292	1547	2165	2395	2550	1830
10. kw	1136	1140	1143	1157	1162	1298	1553	2450	2680	2830	2122
25. kw	1271	1275	1280	1292	1298	1310	1560	2880	3120	3260	2575
50. kw	1529	1533	1535	1547	1553	1560	1570	3090	3330	3480	2730

TABLE IV C

Class III-A^a Must protect other classes as shown below.

Class III-A	Class III-A	Class III-B
1 kw	5 kw	.5 kw
1 kw	739	1025
5 kw	1025	1039

^a See Appendix VII for protection Class III stations should give Class II stations on regional channels.

TABLE IV D

Class III B^b. Must protect other classes as shown below.

Class III B	Class III A	Class III B
1 kw	5 kw	.5 kw
.5 kw	735	1020
1. kw	739	1025

^b See note ^a page 7.

TABLE IV E

Class IV—Must protect other classes as shown below.

Class IV	Class III A	Class III B	Class IV
1 kw	5 kw	.5 kw	10 kw
.1 kw	300	300	Daytime separation determines
.25 kw	395	407	Daytime separation determines

TABLE IV F

Distance Class II Stations must be from Class IA and IB Stations to obtain recommended protection to Class II Station (2.5mv/m ground wave contour).

Class II (°)	10kw.	25kw.	50kw.	500kw.
.25 kw	1248	1462	1520	2767
.5 kw	1252	1470	1523	2771
1. kw	1256	1473	1528	2775
5. kw	1270	1484	1541	2789
10. kw	1275	1490	1546	2793
25. kw	1285	1498	1743	2803
50. kw	1293	1510	1750	2812

Note (°): Must use directional antenna to protect dominant station or stations with these separations.

TABLE IV G

Distance Class IV Stations must be from Class III-A and III-B Station to obtain recommended protection to Class IV Station (4.0 mv/m ground wave contour).

Class IV Power	Class III-A or III-B
.5	1.0
.10	377
.25	381

APPENDIX VII

Engineering Requirements for the Use of Regional Channels by Class II Station under the Provisions of Section C 5 c

A Class II station assigned to a regional channel in accordance with Section C 5 c shall use a directional antenna or other means to limit the interfering signal within the protected service area of any Class III station on the channel to the value set forth in Appendix II, Table I. The interfering signal in case of projected operation shall be determined from the characteristics of the antenna and appropriate curve in Appendix V. In case of actual operation the interfering signal shall be determined by the method described in Section E 4.

Class III stations, operating on a channel to which a Class II station is assigned, should limit the interference to the Class II station in conformity with the provisions of Appendix II, Table I.

CUBA TO MOVE SWIFTLY TO EFFECTUATE BROADCAST AGREEMENT

Reliable information received from Havana indicates that Cuba will move swiftly to effectuate the provisions contained in the North American Regional Broadcasting agreement. It is expected that an order will be promulgated within 30 days making the allocations described in the agreement; and that the Order will become effective probably not later than April, 1938.

COURT OF APPEALS AFFIRMS F. C. C. DECISIONS

Five decisions of the Federal Communications Commission were upheld last week by the United States Court of Appeals for the District of Columbia. The major issues determined were that (1) the Commission is entitled to have complete and correct information furnished in the original application for license; (2) the Commission is required to furnish a brief factual statement of its reasons for granting or denying an application simultaneously with entering of the order; and (3) a radio station is not a public utility and therefore is not entitled to priority in the area over a new applicant for a station license.

1. The Commission granted to the Utah Broadcasting Company a license for a new station at Salt Lake City, denied two applications of the Great Western Broadcasting Association, Inc., for stations at Provo and Logan, Utah, and also denied the Intermountain Broadcasting Corporation a permit for a new station at Salt Lake City.

The Court said that the Communications Act of 1934 contemplates that the applicant shall establish those qualifications for a broadcasting license which would make its grant serve the public interest, and this presupposes a frank, candid, and honest disclosure of the facts as to its qualifications deemed by the Commission essential to enable the Commission to act within its powers. The Court observed that at the hearing it had been developed that the Intermountain and not the Great Western was the real party in interest in the applications for stations at Provo and Logan and that answers in the application to the contrary were misleading.

With regard to the application of Intermountain for a station at Salt Lake City and its opposition to the grant-

ing of the new station to the Utah Broadcasting Company, the Court said the objection of the Intermountain to the grant was based on the theory that Salt Lake City now enjoys all the broadcasting that the area is entitled to or needs. The Court states that such an objection might just as well be made by a stranger to the record, and that it could hardly be supposed that the interest of a stranger would support an appeal from an order granting a permit for a new station. The Court also said that had the Intermountain claimed that its financial or economic interests would be adversely affected by the grant the case would have been a different one for "... we are by no means in agreement with the contention frequently urged upon us that the evidence showing economic injury to an existing station is too vague and uncertain a subject to furnish proper grounds of contest. On the contrary we think it is a necessary part of the problem submitted to the Commission in the application for broadcasting facilities."

2. In the appeal of the Missouri Broadcasting Corporation from the grant by the Commission of a new station to the Star-Times Publishing Company at St. Louis and denial of the Missouri application for similar facilities, the Court affirmed the decision of the Federal Communications Commission. The Court held, however, that the Commission must state the reasons for its grant or denial of the license to advise the defeated party of the respects in which he failed to bring himself within the terms of the Act and to enable him to determine whether an appeal should or should not be taken. In the instant case the Court found that as the Missouri Broadcasting Corporation was apprised of the reasons for the Commission's decision during the consideration of its motion for rehearing "the failure of the Commission, therefore, to file any statement of the grounds of decision simultaneously with the order, was harmless error . . ."

3. The Pulitzer Publishing Company, operators of a time-sharing station in St. Louis and licensee since 1922, intervened in the hearing of the Star-Times Company for a new station in St. Louis. Pulitzer has previously applied for unlimited hours of operation. Pulitzer appealed from the grant to the Star-Times on the principal ground that an established station as a public utility is entitled to priority of consideration over an application for the establishing of a new station and that a new utility should not be allowed to enter the field until an old established utility is given an opportunity to extend its service. The Court overruled this contention and affirmed the action of the Commission. The Court asserted that it had never said that a radio broadcasting station was a public utility in the sense that a railroad is a public utility. It further stated that the power of Congress has not yet been extended to authorize the fixing of rates or establishing rules requiring the licensee to serve alike the entire public in the use of its facilities; nor has Congress assumed the right

to limit the profits on the basis of its investment or otherwise. The Court also says that the licensee of a station chooses its own advertisers and its own programs and generally speaking the only requirement for a renewal of its license is that it has not failed to function and will not fail to function in the public interest. The Court held "that the Commission as a matter of positive duty is not required to give the owner of an existing station priority to enlarge or extend its facilities because alone of the primacy of its grant. Instead the test should be . . . the character and quality of service—having due regard in the distribution on this basis to the equities of existing stations. And to this we may add that the requirement goes no farther than . . . that where the effect of granting an application for a new license will be to destroy the ability of the holder of the old license to carry on in the public interest the application should be denied."

Attorneys in the above cases were: Paul M. Segal, George S. Smith and Harry P. Warner represented the Great Western Broadcasting Association, Inc., The Inter-mountain Broadcasting Corporation and the Pulitzer Publishing Company; H. H. Shinnick and James W. Gum represented the Utah Broadcasting Company; Louis G. Caldwell, Percy H. Russell, Jr., and Donald C. Beelar represented the Missouri Broadcasting Corporation; and Paul D. P. Spearman and Alan B. David represented the Star-Times Publishing Company. Hampson Gary, George B. Porter, Fanny Neyman, Andrew G. Healy, and Frank U. Fletcher represented the Commission.

BACON RADIO RESOLUTION

Representative Bacon, of New York, has introduced a resolution (H. Res. 365) to investigate radio in all of its phases. The resolution, which has been referred to the House Committee on Rules, is identical with the White resolution in the Senate which is now pending in that body.

POWER INCREASE RECOMMENDED FOR WMAZ

Broadcasting station WMAZ, Macon, Ga., applied to the Federal Communications Commission to increase its power from 1,000 watts to 1,000 watts and 5,000 watts L.S. The station operates on 1180 kilocycles with limited time and asks no change except in power.

Examiner Melvin H. Dalberg in Report No. I-543 recommended that the application be granted. He states that "it is believed that a definite need has been shown for the type of additional daytime service which is sought to be rendered in the area proposed to be served." It is further stated by the Examiner that "the increase in power for daytime service sought herein would enable the applicant to render service of an improved nature to residents in the outlying areas from Macon, Ga., which appear to be dependent upon this station for programs designed specifically to meet their needs."

FEDERAL TRADE COMMISSION ACTION

Complaints

The Federal Trade Commission has alleged unfair methods of competition in complaints issued against the following firms. The respondents will be given an opportunity to show cause why cease and desist orders should not be issued against them.

No. 3281. Alleging unfair competition in the sale of women's dresses, a complaint has been issued against **Jane Engel, Inc.**, Madison Ave. and 79th St., New York, a retailer, and **Kallman & Morris, Inc.**, 530 Seventh Ave., New York, a dress manufacturer.

Acting cooperatively, the respondent retailer and manufacturer are alleged to have advertised dresses made by the manufacturer and purchased by Jane Engel, Inc., for resale, in such manner as to serve as a representation that they were silk dresses. Such allegations were misleading, according to the complaint, because the dresses were made of material other than silk. The dresses so advertised were represented as Silk Jersey, bearing a label reading Original Kalmour Gown, which, according to the complaint, is a trade name of Kallman & Morris, Inc.

No. 3282. Misuse of the word "silk" in advertising women's undergarments is alleged in a complaint issued against **Joe Liebowitz**, 1007 Chandler Ave., Linden, N. J.

Labels bearing the words "100% Pure Silk" allegedly were attached by Liebowitz to certain garments manufactured and sold by him, when, according to the complaint, the products so designated were not made from pure silk but were predominatingly or to a substantial degree composed of weighting material which was not silk.

Stipulations

The Commission has entered into the following stipulations:

No. 01949. **Institute for Physical Development, Inc.**, 49 East 21st St., New York, trading as **Hercules Exercises**, will discontinue advertising that its muscle-building training course will enable one to develop big muscles or a strong, husky body, unless such claim is clearly and directly limited to persons who would be benefited thereby, and that the course sells for half price or that the sale price is a special offer.

No. 01950. **Reliable Laboratories, Inc.**, 311 West Tigras Ave., Albuquerque, N. Mex., will cease advertising that Burneze is a specific cure for burns, stops pain caused by burns and insect bites, prevents infection, and causes most burns to heal without leaving a scar. The respondent corporation will desist from use of the word "Laboratories" as a part of its trade name until it actually owns or operates a laboratory.

No. 01951. **Leto H. Smith, San Antonio, Tex.**, trading as **Leto Remedy Company**, agrees to stop representing that Leto's Pyorrhea Remedy is a competent treatment for pyorrhea, bleeding gums and trench mouth; that it is always guaranteed, and that reliable dentists often report the successful use of the preparation in treating their worst cases. The respondent will discontinue use of the word "pyorrhea" as part of the trade name for his product.

No. 01952. **The Glessner Company, Findlay, Ohio**, operating under the trade name of **Sofskin Company**, will stop advertising that its Sofskin Creme is recommended by 12,000 beauticians, unless this fact is established by competent evidence; that Sofskin will bring beauty to all hands and skin and covers more skin surface than any other hand cream or hand lotion, and is a competent treatment or effective remedy in treating rough or red hands.

No. 01953. **H. H. Wulff, Davenport, Iowa**, trading as **The Tri-City Service**, agrees to cease representing that the treatments described in his book "Why Your Feet Hurt" will cure all foot troubles, including fallen arches, bunions, and heel pains, and that it will inform the reader how to have capable, painless or tireless feet. The respondent also will refrain from advertising that his booklet "Hundreds of Best Markets for Your Photographs", will enable one to earn \$10 to \$50 a week.

No. 01954. **T. E. Botkin, Piqua, Ohio**, trading as **Ar-Be Products Company**, will stop representing that Vitamin Perles constitute a potent tonic and are recommended as a stimulant for weak glands or nerves; that five drops or any amount of the preparation each day is sufficient to prevent degeneration of certain glands; that Ar-Be Tablets stimulate the digestive organs or assist

in normalizing the system, and that Vitamin E is widely used by doctors, in the treatment of cases of impaired vigor, sluggish glands and mental or physical fatigue.

No. 01955. International Secret Service Institute, 68 Hudson St., Hoboken, N. J., under a stipulation entered into, will cease certain false and misleading representations in advertising and selling a correspondence course of instruction in secret service work and crime detection.

Representations to be discontinued are that the course will qualify a student for a position with the United States Secret Service, and that the respondent company operates the only institution offering a practical course of study in scientific crime detection and secret service work; that one studying the course cannot fail to graduate as a practical detective and secret service agent; that the instruction given includes a discussion of every problem likely to confront a detective, and that the course will qualify anyone for a position as a special agent of the Department of Justice or as a "G-man", or will make one eligible for examination by the United States Civil Service Commission.

No. 01956. Cosmo Carrano, New Haven, Conn., in the sale of **D. M. C. Vegetable Pills**, stipulates that he will discontinue representing directly or by reasonable implication that his preparation is an abortifacient. He will stop advertising that **D. M. C. Pills** will build up health and strength in muscles, enable one to know the joy of perfect health, and that the product is used or recommended by doctors and nurses and is prepared according to any United States Pharmacopoeia formula. The respondent trades as **Oceanview Medical Products, Oceanview Specialty Company** and **D. M. C. Products**.

No. 01957. Carter Drug Company, Carlisle, Pa., will cease advertising that its preparation designated **Mustar-Spice** is an adequate remedy in the treatment of colds and will stop a cold and allay fever; that it will prevent and relieve muscular aches or pains unless limited to superficial minor aches or pains, and that it is one of the most penetrating and effective home remedies for many common ailments.

No. 01958. Feminine Products, Inc., 53 Park Place, New York, selling a deodorant called **Arid**, will stop representing that the preparation ends odor unless in direct connection with this claim it is clearly indicated that such effect as the product may have will be temporary. The respondent company agrees to cease asserting that the product cannot irritate the skin or cause itching.

No. 01959. A stipulation to discontinue certain misleading representations in advertising has been entered into by **L. H. Baer, L. Babineaux and David Babineaux, Rayne, La.,** operating under the firm names of **Louisiana Frog Company** and **American Frog Industries**, and engaged in the sale of breeder frogs.

The respondents agree to stop asserting that any article is free when the payment of money or the rendering of a service is required, or when the price of the article is included in the purchase price of other articles.

They stipulate also that they will cease advertising that any offer is limited to a definite period of time unless all offers to purchase under the terms of the offer received after the expiration thereof, are refused.

No. 01960. D. Del Vecchio, 1434 Florida Ave., N. E., Washington, D. C., trading as **Peoples Hardware Stores**, agrees to stop advertising that the respondent's paint products are sold at factory prices, or from factory to consumer, and to cease otherwise representing that such preparations are manufactured by him.

No. 01961. Health Research Foundation, Ann Arbor, Mich., agrees to discontinue asserting in advertising matter that use of **Vimm Tablets** prevents headache, colds, fever, anemia, skin eruptions and nervousness and promotes general health; that the preparation provides essentials in diet and promotes growth in children, and that it is the "startling new" food. The respondent company stipulates that it will refrain from using the words "Research Foundation" in its corporate or trade name until the scope of its activities shall justify the use of such words.

No. 01962. The Adlerika Company, 98 South Wabasha St., St. Paul, Minn., in the sale of a medicinal preparation designated **Adlerika**, will cease representing that use of the product is indicated in cases of chronic constipation and conquers all ordinary cases of constipation; that it removes from the system poisonous waste matter that causes gas, headache, nervousness and indigestion; that it will help in keeping women's skin lovely and free from blemishes, unless this claim is limited to blemishes or bad complexion caused by internal conditions, and that it may be taken regularly without any harmful effect, or that other similar products contain harmful drugs or ingredients.

No. 2102. J. W. Kellogg, 801 N. Sangamon St., Chicago, manufacturing and packaging a product for use as a bandage and selling it under either of the trade names **Quick Bandages** or **Sealtex**, stipulates that he will stop employing the word "sterilized" as descriptive of products which are not sterile, and will cease advertising such articles in a manner implying that they are sterilized and continue to remain sterile and free from bacteria after they have been packaged and while contained in their original package, when such is not a fact. Kellogg also agrees to discontinue representing that his bandage is of such porosity, except when stretched, as to permit enough air to penetrate it to cause sores to heal faster, when such is not a fact.

No. 2103. Von Allmen Preserving Company, Inc., 34th and Bank Sts., Louisville, Ky., engaged in the manufacture and sale of preserves and pickles, has entered into a stipulation to discontinue misbranding apple butter.

The respondent company agrees to cease using on labels or in advertising matter the words "pure apple butter" to describe a product which contains less than 43 per cent of water soluble solids, and to stop employing the words "apple butter" alone or with "pure" so as to imply that the product is in fact apple butter, that is to say, a product which contains not less than 43 per cent water soluble solids, when such is not a fact.

No. 2104. United Laboratories, Inc., Euclid Ave. at Ivanhoe St., Cleveland, distributing plastic rock flooring, roofing material, water-proofing and damp-proofing materials, and paints and varnishes, stipulates that it will cease advertising to the effect that the respondent corporation is a group of laboratories organized and equipped to test, approve and certify every type of maintenance product that is produced; that it has a force of 300 men or employs a "board of consulting engineers" whose duty is to pass on various alleged tests; that tests have been made by, or that its personnel has been connected with, **United Laboratories, Inc.**, over a long period of time, or that the respondent corporation is a maintenance research organization whose recommendations are unbiased, when such are not the facts.

The stipulation points out that the respondent corporation has maintained only one laboratory; that it has not been capable of performing the amount of testing allegedly done, and that its total force has been approximately 160 men, among whom has been one chemist, employed in the company's one laboratory. Many of the tests of products referred to were made by the companies from which the respondent corporation purchased, and such tests were signed by officers or employees of such companies who were named by the respondent corporation as members of its "board of consulting engineers", according to the stipulation.

No. 2105. Lacy Products Corporation, 15 Aberdeen St., Chicago, manufacturing and selling fudge warmers and hot cups, has entered into a stipulation to discontinue anonymously distributing incomplete copies of proceedings of the Commission, the effect of which is to create the impression that the Government is advising the trade with respect to alleged unlawful or unfair practices on the part of a competitor.

The competitor of **Lacy Products Corporation** referred to in the stipulation is **Helmco, Inc., 844 West Jackson Boulevard, Chicago,** formerly known as **H. E. Lacy Manufacturing Company**. The products sold by the two companies are designed for heating liquid mixtures of chocolate and other ingredients used in making candy and soda fountain drinks.

Cease and Desist Orders

The Commission has issued the following cease and desist orders:

No. 2554. Certain unfair methods of competition are prohibited in an order to cease and desist entered against **J. C. Hickson & Co., 207 East Flagler St., Miami, Fla.,** grower and distributor of citrus fruit.

The order directs the respondent company to discontinue representing in advertisements, on labels or otherwise that certain citrus fruit it sells is produced in Florida's Indian River Valley and that it owns and operates a fruit grove or warehouse in that section, unless and until such are the facts. The company also is ordered to cease representing by figures placed on a container that the number of pieces of fruit in such container is greater than the number actually packed therein.

No. 3195. Confectioners Trading Corporation, 380 Throop Ave., Brooklyn, N. Y., has been served with an order to cease and desist from certain unfair methods of competition in the sale of candy.

Among the practices prohibited are sale and distribution to dealers of candy so packed and assembled that sales to the public may be made by means of a lottery, gaming device or gift enterprise.

No. 3237. Two New York concerns, **Form Maid Coat Company, Inc.**, 545 Eighth Ave., manufacturer of women's cloth coats, and **Walter-Lewis & Co., Inc.**, 450 Seventh Ave., distributor of fabrics, have been ordered to cease and desist from misrepresenting the nature, character or quality of certain products they sell in interstate commerce.

The coats in question were manufactured by the Form Maid company from a fabric it purchased from Walter-Lewis & Co., Inc., which, according to the findings, supplied labels, bearing the words "Genuine Camel's Hair" and the picture of a camel, to be attached, and which were attached, to the finished garments. Findings are that the coats so labeled and the fabric from which they were made contained only a negligible amount of camel's hair or wool, the principal constituent parts of the fabric being rayon, wool and cotton warp.

FEDERAL COMMUNICATIONS COMMISSION ACTION

Hearing Calendar

The following broadcast hearings are scheduled at the Commission for the week beginning Monday, December 20:

Monday, December 20

HEARING BEFORE AN EXAMINER (Broadcast)

NEW—Colonial Broadcasters, Inc., Savannah, Ga.—C. P., 1310 ke., 100 watts, unlimited time.
NEW—Seaboard Broadcasting Corp., Savannah, Ga.—C. P., 1310 ke., 100 watts, 250 watts LS, unlimited.

FURTHER HEARING BEFORE AN EXAMINER (Broadcast)

NEW—First Baptist Church, Pontiac, Mich.—Authority to transmit programs to Station CKLW, Windsor, Ontario, Canada.

Tuesday, December 21

HEARING BEFORE AN EXAMINER (Broadcast)

WKBZ—Karl L. Ashbacker, Muskegon, Mich.—Voluntary assignment of license to Ashbacker Radio Corp.; 1500 ke., 100 watts, 250 watts LS, unlimited.

Applications Granted

NEW—Indianapolis Power & Light Co., Mobile (area Marion County, Ind.).—Granted C. P. for new relay broadcast station, frequencies 1646, 2090, 2190 and 2830 ke., 40 watts.
NEW—Indianapolis Power & Light Co., Mobile (area Marion County, Ind.).—Granted C. P. for new relay broadcast station, frequencies 1646, 2090, 2190 and 2830 ke., 40 watts.
NEW—Topeka Broadcasting Assn., Inc., Mobile (area Topeka, Kans.).—Granted C. P. for new relay station, frequencies 31100, 34600, 37600 and 40600 ke., 10 watts. Also granted license covering same.
NEW—Topeka Broadcasting Assn., Inc., Mobile (area Topeka, Kans.).—Granted C. P. and license for new relay station, frequencies 39700, 39900, 40800 and 41400 ke., experimentally, 2 watts.
NEW—Topeka Broadcasting Assn., Inc., Mobile (area Topeka, Kans.).—Granted C. P. and license for new relay broadcast station, frequencies 38900, 39100, 39300 and 39500 ke., 10 watts.
NEW—Fountain of Youth Properties, Inc., Mobile (area St. Augustine, Fla.).—Granted C. P. for new relay station, frequencies 29700, 39900, 40800 and 41400 ke., on an experimental basis, 10 watts.

NEW—City of New York, Department of Plant and Structures, Mobile (area New York City).—Granted C. P. for new relay station, frequencies 399000, 450000, 600000 and 750000 ke., on an experimental basis, power 8.5 watts.
W9XSB—South Bend Tribune, Mobile (South Bend, Ind.).—Granted C. P. to make changes in equipment and increase power to 3.5 watts. Also granted license to cover same.
W3XGS (formerly assigned W3XGT)—Keystone Broadcasting Corp., Mobile (Harrisburg, Pa.).—Granted reinstatement of two applications for C. P.'s for new relay broadcast stations under call letters W3XGS and W3XGT; frequencies 31100, 34600, 37600 and 40600 ke., 50 watts.
W6XNL—Charleston Broadcasting Co., Mobile (Charleston, W. Va.).—Granted modification of C. P. to change equipment and reduce power to 2 watts in a relay broadcast station. Also granted license to cover C. P. as modified.
W2XAX—Columbia Broadcasting System, Inc., New York City.—Granted modification of C. P. to extend completion date from 12-16-37 to 6-16-38.
WEAN—The Yankee Network, Inc., Providence, R. I.—Granted modification of C. P. for installation of W.E. 355 E-1 equipment. Also granted license to cover C. P. and modifications thereof.
WGRM—P. K. Ewing, Grenada, Miss.—Granted license to cover C. P. and modifications thereof authorizing a new station to operate on 1210 ke., 100 watts, unlimited time.
WRNL—WLBG, Inc., Richmond, Va.—Granted license to cover C. P. and modifications thereof authorizing move of station from Petersburg, Va., to Richmond, and erect new transmitter; 880 ke., 500 watts, daytime only.
WDGY—George W. Young, Minneapolis, Minn.—Granted license to cover C. P. and modifications thereof authorizing a new transmitter.
KIT—Carl E. Haymond, Yakima, Wash.—Granted license to cover C. P. and modifications thereof authorizing new antenna; change in frequency from 1310 ke. to 1250 ke.; increase in power from 100 watts, 250 watts LS, to 250 watts night, 500 watts LS, unlimited time.
WOLS—O. Lee Stone, Florence, S. C.—Granted license to cover C. P. and modifications thereof authorizing new station to operate on 1200 ke., 100 watts, daytime only.
KELA—Central Broadcasting Corp., Centralia, Wash.—Granted license to cover C. P. and modifications thereof authorizing new station to operate on 1440 ke., 500 watts, unlimited time.
KAAC—Columbia Broadcasting System, Inc., Mobile, New York City.—Granted license to cover C. P. for relay broadcast station, frequencies 1646, 2090, 2190 and 2830 ke., 50 watts.
WBNT—WBNS, Inc., Columbus, Ohio.—Granted license to cover C. P. for relay broadcast station, frequencies 1646, 2090, 2190 and 2830 ke., 175 watts.
W9XXM-W9XXZ—Indianapolis Power & Light Co., Mobile, Indianapolis.—Granted license to cover C. P. for two relay broadcast stations, frequencies 31100, 34600, 37600 and 40600 ke., experimentally, 40 watts power.
W4XFJ—Miami Broadcasting Co., Miami, Fla., Mobile.—Granted license to cover C. P. for relay broadcast station, frequencies 31100, 34600, 37600, 40600 ke., on an experimental basis, 15 watts power.
W2XOY—General Electric Co., Albany, N. Y.—Granted license to cover C. P. for new high frequency broadcast station on an experimental basis, frequencies 31600, 35600, 38600 and 41600 ke., 150 watts.
W3XGN—Berks Broadcasting Co., Reading, Pa., Mobile.—Granted license to cover C. P. for new relay broadcast station, frequencies 31100, 34600, 37600 and 40600 ke., 1 watt power.
W3XHU—Pennsylvania Broadcasting Co., Philadelphia, Pa., Mobile.—Granted license to cover C. P. for new relay broadcast station, frequencies 31100, 34600, 37600 and 40600 ke., 10 watts power.
W9XXT—KCMO Broadcasting Co., Kansas City, Mo., Mobile.—Granted license to cover C. P. for relay broadcast station, frequencies 100000, 260000, 300000 and 500000 ke., on an experimental basis, 5 watts.
KFAM—The Times Publishing Co., St. Cloud, Minn.—Granted modification of C. P. approving transmitter and studio sites, installation of vertical radiator and changes in authorized equipment.
WTOL—The Community Broadcasting Co., Toledo, Ohio.—Granted modification of C. P. approving transmitter and studio sites, changes in authorized equipment, and installation of vertical radiator.

WNBM—National Broadcasting Co., Inc., New York City, Mobile.—Granted modification of license to use A1 and A2 emission in addition to A3 emission now authorized.

KVOS—The Ardmoreite Publishing Co., Inc., Ardmore, Okla.—Granted C. P. to install new equipment and increase day power to 250 watts.

Set for Hearing

NEW—Mollin Investment Co., Huntington Park, Calif.—C. P. to erect a new station to operate on 1160 kc., 100 watts, daytime only. Exact transmitter and studio sites to be determined with Commission's approval.

NEW—King-Trendle Broadcasting Co., Grand Rapids, Mich.—C. P. for a new station to operate on 1010 kc., 250 watts, unlimited time, exact site to be determined with Commission's approval.

WPRC—Puerto Rico Advertising Co., Mayaguez, P. R.—C. P. (amended) to request installation of new equipment; make changes in antenna; change frequency from 1370 kc. to 780 kc.; and increase power and time of operation from 100 watts night, 250 watts day, specified hours, to 1 KW night, 2½ KW day, unlimited time. Site to be approved.

WGCM—WGCM, Inc., Mississippi City, Miss.—C. P. to install a new vertical radiator and move station to Mobile, Ala., exact transmitter and studio sites to be determined with Commission's approval.

KRMC—Roberts-MacNab Co. (Arthur L. Roberts, R. B. MacNab, and A. J. Breitbach, Gen. Mgr.), Jamestown, N. Dak.—C. P. to move transmitter site locally; install new equipment; change frequency from 1370 kc. to 900 kc.; increase power from 100 watts night, 250 watts day, to 500 watts night, 1 KW day; exact transmitter site to be determined with Commission's approval.

WIND—Johnson-Kennedy Radio Corp., Gary, Ind.—C. P. to make changes in directional antenna system for night-time operation and increase night power from 1 to 5 KW.

WRBL—WRBL Radio Station, Inc., Columbus, Ga.—Modification of C. P. (already in hearing docket) amended to request move of transmitter site 1¼ miles; make changes in authorized equipment; install directional antenna system for night-time operation; change frequency from 1200 kc. to 1330 kc.; and increase power from 100 watts night, 250 watts day, to 1 KW, unlimited time.

Miscellaneous

NEW—Dr. William States Jacobs, Houston, Tex.—Denied applicant's petition for enlargement of time for oral argument from one-half hour to one and one-half hours in re application now scheduled for oral argument on January 20, 1938, involving C. P. for new station to use 1220 kc., 1 KW, unlimited time.

NEW—Summit Radio Corp., Akron, Ohio.—Upon request of exceptors, dismissed exceptions filed by the Summit County Industrial Council and the Local Unions of United Rubber Workers of America to Ex. Rept. No. 1-476, which involves an application of Summit Radio Corp. for C. P. to erect a new station to use 1530 kc., 1 KW, unlimited time.

Renewal of Licenses

The following stations were granted renewal of licenses for the regular period:

KAWM, Gallup, N. Mex.; KEUB, Price, Utah; KGAR, Tucson, Ariz.; KNOW, Austin, Tex.; WBLK, Clarksburg, W. Va.; WCNW, Brooklyn, N. Y.; WKBZ, Muskegon, Mich.; WSYB, Rutland, Vt. WBCM—Bay Broadcasting Co., Inc., Bay City, Mich.—Granted renewal of license for the period ending May 1, 1938.

KHUB—Anna Atkinson, Executrix, Watsonville, Calif.—Granted renewal of license for the period ending June 1, 1938.

WBBL—Grace Covenant Presbyterian Church, Richmond, Va.—Granted renewal of license for the period ending June 1, 1938.

WFTC—Jonas Weiland, Kinston, N. C.—Granted renewal of license for the period ending June 1, 1938.

The following applications for renewal of experimental relay broadcast station licenses were granted for the period ending December 1, 1938:

W9XPY, American Broadcasting Corp. of Ky.; W9XPZ, American Broadcasting Corp. of Ky.; W4XES, C. G. Hill, Geo. D. Walker, Susan H. Walker; W9XJ1, KLZ Broadcasting Co.; W6XB, Salt River Valley Broadcasting Co.; W1XLV, The WATR Co.,

Inc.; W9XPT and W9XPX, Woodmen of the World Life Ins. Society; W3XEW, WTAR Radio Corp.

W1XLU—The Travelers Broadcasting Service Corp., Mobile.—Granted renewal of experimental relay broadcast station license for the period ending December 1, 1938.

APPLICATIONS RECEIVED

First Zone

WTIC—The Travelers Broadcasting Service Corp., Hartford, 1040 Conn.—Extension of special experimental authorization to change frequency from 1060 kc. to 1040 kc., hours of operation from share WBAL to simultaneous operation with KRLD (unlimited), for period 2-1-38 to 8-1-38.

WBAL—The WBAL Broadcasting Co., Baltimore, Md.—Extension 1060 of special experimental authorization to operate simultaneously with KTHS on 1060 kc. from 6 a. m. to local sunset at Hot Springs, Ark., operate from local sunset at Hot Springs, Ark., to 9 p. m., EST, on 1060 kc., and synchronously with WJZ on 760 kc., with 2½ KW power, using directional antenna, from 9 p. m., EST, for period 2-1-38 to 8-1-38.

WSAL—Frank M. Stearns, Salisbury, Md.—License to cover construction permit (B1-P-1613) as modified for a new station.

WATR—The WATR Co., Inc., Waterbury, Conn.—Construction 1290 permit to move transmitter from 47 Grand Street, Waterbury, Conn., to 71 Grand Street, Waterbury, Conn.

WBRK—Harold Thomas, Pittsfield, Mass.—Modification of construction permit (B1-P-1275) for a new station, requesting changes in authorized equipment, approval of vertical antenna, approval of transmitter site at East and Newell Streets, Pittsfield, Mass. Amended to give studio site as 8 Bank Row, Pittsfield, Mass., and make changes in requested equipment.

WNBC—State Broadcasting Corp., New Britain, Conn.—Modification 1380 of construction permit (B2-P-1055) requesting changes in directional antenna and approval of transmitter site at Cedar Street, Newington, Conn. Amended to make changes in directional antenna for day and night use.

WQDM—E. J. Regan and F. Arthur Bostwick, d/b as Regan & 1390 Bostwick, St. Albans, Vt.—Voluntary assignment of license from E. J. Regan and F. Arthur Bostwick, d/b as Regan & Bostwick, to F. Arthur Bostwick.

W1XXM—The Yankee Network, Inc., Quincy, Mass.—License to cover construction permit (B1-PHB-48) for move of facsimile broadcast station from Quincy, Mass., to Sargents Purchase, N. H.

Second Zone

KYW—Westinghouse Electric & Manufacturing Co., Philadelphia, 1020 Pa.—Construction permit to install a new transmitter, make changes in directional antenna for day and night use, and increase power from 10 KW to 50 KW.

WLVA—Lynchburg Broadcasting Corp., Lynchburg, Va.—Construction 1390 permit to change frequency from 1200 kc. to 1390 kc.; make changes in equipment; increase power from 100 watts night, 250 watts day, to 500 watts; install directional antenna for night use and move transmitter from near Lynchburg, Va., to U. S. Highway 29, near Lynchburg, Va. Amended to make changes in equipment and directional antenna; change requested power from 500 watts to 1 KW; change transmitter site to River Road, near Lynchburg, Va., and studio to Allied Arts Bldg., Lynchburg, Va.

NEW—Reading Broadcasting Co., area of Reading, Pa.—Construction permit for a new experimental relay broadcast station to be operated on 31100, 34600, 37600, 40600 kc., 100 watts.

Third Zone

WCOC—Mississippi Broadcasting Co., Inc., Meridian, Miss.—880 Modification of construction permit (B3-P-1434) as modified to extend completion date from 1-10-38 to 3-10-38.

WRBL—WRBL Radio Station, Inc., Columbus, Ga.—Modification 1200 of license to change name from WRBL Radio Station, Inc., to The Columbus Broadcasting Co., Inc.

WPAX—H. Wimpy, Thomasville, Ga.—Construction permit to 1210 make changes in equipment, change power from 100 watts to 100 watts night, 250 watts day, and change hours of operation from daytime to unlimited time.

KRBA—Red Lands Broadcasting Assn. (Ben T. Wilson, Pres.), 1310 Lufkin, Tex.—Modification of construction permit (B3-P-1341) to make changes in authorized equipment; for ap-

proval of vertical antenna; approval of transmitter site at ½ mile north on Highway 35, Lufkin, Tex., and change studio from Angolina Hotel, S. First St. and Shepherd, Lufkin, Tex., to ½ mile north on Highway 35, Lufkin, Tex.

NEW—Jonas Weiland, Goldsboro, N. C.—Construction permit for 1500 a new station to be operated on 1500 kc., 100 watts, daytime.

NEW—Virgil V. Evans, d/b as The Voice of South Carolina, 2012 Spartanburg, S. C.—Construction permit for a new facsimile station to be operated on 2012 kc., 250 watts.

W5XD—A. H. Belo Corporation, Grapevine, Tex.—License to cover construction permit (B3-PHB-27) for a new high frequency broadcast station.

NEW—Columbia Broadcasting System, Inc., area of Charlotte, N. C.—License to cover construction permit (B3-PRY-78) for a new relay broadcast station.

W4XBW—WDOD Broadcasting Corp., Chattanooga, Tenn.—Modification of license to operate transmitter by remote control.

Fourth Zone

KFEQ—KFEQ, Inc., St. Joseph, Mo.—Modification of construction permit (B4-P-1690) as modified for new vertical antenna and move of transmitter, requesting extension of completion date from 1-9-38 to 3-9-38.

WJBL—Commodore Broadcasting, Inc., Decatur, Ill.—License to 1200 cover construction permit (B4-P-1859) for new vertical antenna and move of transmitter.

KVOX—KVOX Broadcasting Co., Moorhead, Minn.—License to 1310 cover construction permit (B4-P-324) as modified, for a new station.

KSCJ—Perkins Brothers Co. (The Sioux City Journal), Sioux 1330 City, Iowa.—Authority to determine operating power by direct measurement of antenna.

WGRC—North Side Broadcasting Corp., New Albany, Ind.—In- 1370 voluntary transfer of control of corporation from Arthur L. Harris to Charles Lee Harris, 900 shares common stock.

WCC—Tri-City Broadcasting Co., Davenport, Iowa.—Construc- 1390 tion permit to make changes in vertical antenna; change frequency from 1370 kc. to 1390 kc., and change power from 100 watts night, 250 watts day, to 250 watts day and night.

NEW—Banks of Wabash, Inc., area of Vigo County, Ind.—Con- struction permit for a new relay broadcast station to be operated on 31100, 34500, 37600, 40600 kc., 35 watts.

Fifth Zone

KHQ—Louis Wasmer, Inc., Spokane, Wash.—Authority to deter- 590 mine operating power by direct measurement of antenna.

KTFI—Radio Broadcasting Corp., Twin Falls, Idaho.—Extension 1240 of special experimental authorization to operate with power of 1 KW night for period from 1-1-38 to 3-1-38, pending completion of tower.

KGGC—Golden Gate Broadcasting Co. (Robert J. Craig), San 1420 Francisco, Calif.—Modification of construction permit (B5-P-1725) for new antenna and move of transmitter, requesting extension of commencement and completion dates from 6-27-37 and 12-27-37, respectively, to 12-27-37 and 6-27-38.

KRKO—Lee E. Mudgett, Everett, Wash.—Construction permit to 1420 change frequency from 1370 kc. to 1420 kc.; install a new transmitter and vertical antenna; increase power from 50 watts to 100 watts night, 250 watts day; change hours of operation from share KEEN to unlimited time; and move transmitter from 2814 Rucker Avenue, Everett, Wash., to site to be determined, Everett, Wash.