

**District 8**

J. B. Conley, WOWO, Fort Wayne, Ind.

**District 9**

James F. Kyler, WCLO, Janesville, Wisc.

**District 10**

Sam H. Bennett, KMBC, Kansas City, Mo.

**District 11**

Thomas G. Gavin, WMFG, Hibbing, Minn.

**District 12**

Clark A. Luther, KFH, Wichita, Kans.

**District 13**

Jack Keasler, WOAI, San Antonio, Texas.

**District 14**

W. E. Wagstaff, KDYL, Salt Lake City, Utah.

**District 15**

Wilt Gunzendorfer, KSRO, Santa Rosa, Calif.

**District 16**

Charles A. Storke, KTMS, Santa Barbara, Calif.

**District 17**

W. B. Stuht, KOMO-KJR, Seattle, Wash.

**Sales Managers Executive Committee**

Chairman—John M. Outler, Jr., WSB, Atlanta, Ga.

Small Stations: Dietrich Dirks, KTRI, Sioux City, Ia.

Medium Stations: William Malo, WDRC, Hartford, Conn.

Large Stations: Frank R. Bowes, WBZ, Boston, Mass.

CBS: Arthur Hull Hayes CBS, New York, N. Y.

MBS: Donald D. Davis, WHB, Kansas City, Mo.

NBC: George H. Frey, NBC, New York, N. Y.

**Retail Promotion Committee**

Consultant—Sheldon B. Coons, New York, N. Y.

Chairman—Paul W. Morency, WTIC, Hartford, Conn.

Robert E. Bausman, WISH, Indianapolis, Ind.

Gene L. Cagle, KFJZ, Fort Worth, Texas.

William Crawford, WOR, New York, N. Y.

Dietrich Dirks, KTRI, Sioux City, Ia.

John Esau, KTUL, Tulsa, Okla.

Sherman D. Gregory, WEAf, New York, N. Y.

Kenneth K. Hackathorn, WHK-WCLE, Cleveland, Ohio.

Arthur Hull Hayes, WABC, New York, N. Y.

Walter Johnson, WTIC, Hartford, Conn.

C. L. McCarthy, KQW, San Jose, Calif.

John M. Outler, Jr., WSB, Atlanta, Ga.

Oliver Runchey, KOL, Seattle, Wash.

**Wage and Hour Committee**

Chairman—C. T. Lucy, WRVA, Richmond, Va.

Quincy A. Brackett, WSPR, Springfield, Mass.

Norris L. O'Neil, WSJS, Winston-Salem, N. C.

A. K. Redmond, WHP, Harrisburg, Pa.

James B. Rock, KDKA, Pittsburgh, Pa.

# LEGAL—LEGISLATIVE ACTIVITIES

*By Russell P. Place*  
*NAB Counsel*

OUTSTANDING among the problems dealt with by the NAB in 1942 was the Sanders Bill in Congress to amend the Communications Act of 1934 and the attempt by the International Allied Printing Trades Council to saddle broadcasters with a discriminatory time-sales tax. Also of importance to broadcasters was the retention of the average-earnings basis for computing the Excess Profits Tax. Still pending on the Congressional front is Executive Resolution "E" for adherence to the International Copyright Convention; although vigorously opposed by the NAB and all others interested in copyright, the State Department is persistently advocating adherence to the Convention and the problem is still before the industry. A host of knotty problems grew out of the war effort. Highlighted among these were matters involving priorities, selective service and rationing of tires and gasoline. Subsequent to the declaration of war the Code Committee promptly tackled the question of the handling of war news.

## **Communications Act Amendment**

Properly to report the activities and concerns of the Legal Department for 1942, it is desirable to begin with the promulgation by the FCC of the Chain Broadcasting Regulations on May 2, 1941, just prior to the St. Louis Convention. Stemming therefrom were the introduction of a resolution (S. Res. 113) by Senator Wallace White of Maine calling for an investigation by the Senate of the effect of the regulations and for amendment of the Communications Act, and the introduction of bills by Representative Sanders of Louisiana (H. R. 5497) and Senator White (S. 1806) to amend the Communications Act.

At St. Louis, the NAB membership voted unanimously to support the White resolution and seek amendment of the Communications Act of 1934. Pursuant to that vote Neville Miller, President, testified before the Senate Interstate Commerce Committee in favor of adoption of the resolution. Hearings, which were well attended by broadcasters, lasted nearly three weeks and were recessed on June 20 subject to the call of the Chair. They have not been resumed. Hearings on Senator White's bill have not been scheduled.

Early in September, in pursuance of the mandate of the resolution adopted by the Convention, NAB sought hearings on the Sanders bill in the House. An analysis of both the Sanders and White bills was prepared and promptly circulated to the membership. The House Committee on Interstate and Foreign Commerce scheduled hearings on the Sanders bill to begin April 14, and ended July 1, 1942. First witnesses to testify were the representatives of the Federal Communications Bar Association.

They were followed by the appearance of Mr. Miller who testified in support of the proposed changes in administrative organization, procedure and judicial review as advocated by the Federal Communications Bar Association. In addition, NAB proposed three amendments: (1) to provide for declaratory rulings on administrative action; (2) to prohibit the imposition by the Commission of unauthorized penalties and sanctions; and (3) to enact the language of the Sanders Brothers case prohibiting government supervisory control of programs, of business management and of policy of radio stations.

Although the bill died with the 77th Congress, the reported testimony will remain as an expression of the views of various interests and should be of great value to the Committee if the bill or a similar one is introduced in the next Congress.

## **Radio Time-Sales Tax**

In April, 1942, again advocating a discriminatory tax on radio time sales, Mr. John B. Haggerty, representing the International Allied Printing Trades Council, appeared before the Ways and Means Committee. On April 17, Mr. Alvord appeared for NAB in opposition. The IBEW supported the NAB by filing a statement in opposition to the tax. Later, the NAB filed a memorandum in opposition to the tax with the Senate Finance Committee. The tax was not enacted in the Revenue Act of 1942.

## **Int'l Copyright Convention**

There is still pending before the Senate of the United States Executive Resolution "E," the adoption of which by the Senate would result in making the United States a party to the International Copy-

right Convention without prior revision of our own law. The adoption of this resolution has been consistently opposed by the NAB and entry into the Convention during war times would have more than normally disastrous results to broadcasting because a very large volume of the great European musical works of the past fifty years, now in the public domain, would thereby become wholly unavailable for broadcasting use.

### **Liquor Advertising**

In March Representative Rankin (D-Miss.) introduced a bill (H. R. 6785) to prohibit the advertising of alcoholic beverages over the radio. Like the Johnson Bill (S. 517) for the same purpose, re-introduced at the second session, it died without hearings having been held. NAB is opposed to such legislation.

### **State Legislation**

In the closing days of the 1941 session of the Florida Legislature a bill was enacted purporting to abolish any asserted common law rights to collect royalties on the recorded performances embodied in phonograph records and electrical transcriptions once they are sold in commerce for use in Florida. Florida also amended its libel law by giving a radio station the right to require the submission of written script 24 hours before the time of broadcast; such submission of the script frees the station from liability for any libelous or slanderous utterances broadcast which were not contained in the script.

In 1942 Legislatures of eight states met in regular session. In Kentucky two bills to ban the sale of alcoholic beverages advertised over the radio died in their respective branches. NAB cooperated with Kentucky broadcasters in their efforts to defeat these bills. Mississippi enacted an anti-sabotage law with particular reference to communications facilities. NAB Legislative Contacts in the various states have been most cooperative at all times.

In New York the activities of the New York State Legislative Committee led to the passage of two measures beneficial to radio. An NAB-sponsored bill, permitting a corporation engaged in broadcasting to prohibit or restrict the transferability of its stock to aliens, is now on the Governor's desk. A new child labor law was amended, at the request of the NAB, to permit children under 16 to participate in broadcasting for not more than two hours a week where the performance is of a non-professional character and occurs outside school hours, and to authorize the granting of permission by the proper authorities for professional

appearances of children in series of radio performances.

### **Litigation**

The power of the FCC to issue subpoenas in an investigation seeking information applicable to the legislative standards set up in the Communications Act was upheld on January 26, 1942, by the United States Court of Appeals for the District of Columbia in the Stahlman case. The court negated the Commission's authority to require witnesses whom it summons to bare their records, relevant or irrelevant, in the hope that something will turn up, or to invade the privacy protected by the Fourth Amendment. The court flatly stated that the Commission has no power to ban ownership of radio stations by newspapers as such.

On February 20, 1942, the United States District Court for the Southern District of New York ruled against the networks in their suit against the Government. The decision was not on the merits of the case—the powers of the FCC—but on the question of the court's jurisdiction. The court, however, stayed operation of the network regulations, and on March 9, CBS and NBC appealed to the United States Supreme Court, which ruled in favor of the networks. In the fall of 1942, the statutory three-judge court in New York, without taking evidence, decided on the merits in favor of the FCC. The networks appealed again to the Supreme Court, and argument will be heard early in 1943. Meanwhile, operation of the "network regulations" is stayed.

The Supreme Court on April 6, 1942, affirmed the power of the United States Court of Appeals for the District of Columbia to stay orders of the FCC pending determination of appeals to that court from Commission orders. The question was raised on certification by a divided Court of Appeals after Scripps-Howard Radio, Inc., licensee of Station WCOP, had appealed from the Commission's denial of its petition to vacate an order granting, without hearing, Station WCOL a CP for change of frequency and increase of power.

### **Code Committee**

Since the first of the year the Code Committee has met four times. Notable in its work was the promulgation of recommendations with reference to news broadcasts in war time, made in collaboration with other elements of the industry and government officials, and its assistance in clarifying the application of the Code to the purchase of time by the Cooperative League of the U.S.A.

# NAB WAR ACTIVITIES

*By Arthur Stringer*

*NAB Director of Promotion and Secretary, NAB War Committee*

SEASONED and toughened by a year of wartime service the broadcast industry is adjusted for even greater responsibilities during 1943. These may be expected to increase with the size of our fighting forces, with combat participation and with our changing economy.

Ability to meet larger responsibilities successfully depends largely on three factors. The first one is the ability of the industry to solve its own complex operating problems. Factors two and three, which never before have had to be considered by broadcasters, are: (2) release by government of materials for the manufacture of tubes and component parts for the maintenance of transmitting facilities as well as home radios; and (3) the recruiting and training of replacement personnel for station operation and repair of home radios after parts have been provided. All this is a formidable undertaking necessitating, for success, the cooperation of all branches of the radio industry and of several government agencies.

## Man-Power Problem

During 1942 the NAB department of promotion was concerned primarily with activities directly bearing on winning the war. The manpower problem was emphasized every day of the year, through the coordination of continuous recruiting campaigns for the Army, Navy, Marine Corps, Coast Guard and Civil Service. Response of stations was positive and productive. Quotas for the fighting forces were constantly maintained.

"Fundamentals of Radio," an educational course prepared by the NAB and conducted on and off campus by colleges and universities, exceeded eight hundred different classes by May. More than twenty-two thousand persons in forty-six states were under instruction at the end of the first quarter. Approximately fifteen thousand others were studying "Fundamentals" in the fourth quarter. Graduates went to the armed forces, Civil Service, to broadcasting and manufacturing.

These figures are but partial indication of the widespread influence of the course outline, "Fundamentals of Radio,"

as prepared by NAB. Sales figures of 100,000 copies of a text book, written especially for the course, are more enlightening. In addition other texts in other classes were used in connection with the NAB course outline. Consequently, the NAB course outline was instrumental in the acquisition of technical radio knowledge by many other persons not included among the 100,000 using the volume, "Fundamentals of Radio." Army Signal Corps and the Navy requested NAB to increase this radio technician training program immediately after Pearl Harbor. Of its own volition NAB had launched the program the previous August.

## Civilian Defense Aid

The department, in cooperation with broadcast stations, assisted the Office of Civilian Defense in the distribution of 10,000,000 forty-eight page booklets, "What Can I Do," and the Civil Aeronautics Administration in its non-combat flying training program.

Broadcasters sold war bonds and stamps by the millions and influenced their purchase by the billions. Radio was the backbone of the Treasury's campaign.

## "Swap Bulletin"

Since stations must be kept on the air, if programs are to reach and influence people, a "Swap Bulletin" was launched June 6, on behalf of the NAB Engineering Committee. Usually published weekly, "Swap Bulletin" contains items which stations wish to buy and surplus items which they are willing to sell in order to help other stations stay on the air. According to letters the parts and supplies advertised have kept many stations operating.

The wide variety of tasks performed directly for the war effort is indicated by the tabulation on pages 286 and 287 of this volume. Figures show the number of programs and announcements of *local* origination for the six months ending with October, 1942. Not included is the large volume of programs and announcements, of network origination, in support of the war effort.

# LISTENER ACTIVITY

EACH year NAB has endeavored to broaden and strengthen the relations of the broadcasting industry with the listening public. During 1940-41 Dorothy Lewis, vice-president of the Radio Council on Children's Programs undertook, under NAB auspices, a nationwide survey. The principal objective was to gather helpful information on radio programs for children from broadcasters and interested organizations of listeners. In addition, Mrs. Lewis cooperated with leaders of local and area groups in strengthening existing Radio Councils and in organizing new ones. On her return from her first nationwide tour, NAB published Mrs. Lewis' report, "Broadcasting to the Youth of America." Over 30,000 copies of this publication have been distributed. No reprint is contemplated for reasons which will hereafter appear.

Early in 1942 it was decided to enlarge the scope of this activity and Mrs. Lewis, at her request, agreed to serve on a volunteer basis, as Coordinator of Listener Activity. The Radio Council of Greater Cleveland, through its President, Mrs. Walter V. Magee, cooperated with Mrs. Lewis in arranging constructive sessions in connection with NAB's 21st Annual Convention at Cleveland. Outstanding speakers addressed an audience composed of broadcasters and listeners. These sessions marked a significant step toward more understanding relations between the broadcasters and the listeners.

## Work of Radio Councils

In the fall of 1942 Mrs. Lewis made her second swing 'round the circuit, visiting many states and several provinces in Canada. As a result, new Radio Councils are springing up in many areas from New England to California. Interest has been aroused in Canada as well. These Radio Councils are active in the issuance of accredited lists of good listening; making local studies and surveys; setting up war coordinating committees to relieve pressure on local broadcasters and listening post committees on war news; and appointing Peabody Award Committees; and promotion and publicity committees. They also handle the job of reaching all participating organizations with programs about their

American system of radio, and help to increase newspaper cooperation and better listings. Radio Education Committees expedite the equipment of schools, establish radio divisions in state and local Departments of Education and try to interest teachers in using radio as a teaching aid. Children's Program Committees help to promote current local children's programs and assist in the creation of new ones through cooperation of schools, libraries, and local little theater groups. Regional Directors of Listener Activity for NAB have been appointed in various sections of the country. These representatives have been chosen from club and civic groups to promote better understanding of radio in their districts. Close contact is maintained with most national women's organizations through their presidents and radio chairmen.

## Radio in Education

In addition to her work with the councils, Mrs. Lewis has cooperated with schools and colleges by addressing classes and in organizing listener groups, and encouraging the establishment of courses of study bringing about more effective use of radio as an aid to education, etc. Complete reports covering the many phases of these activities are now in process of preparation—one on children's programs, and the other a "Handbook for Radio Chairmen." They will replace the prior publication, "Broadcasting to the Youth of America."

Another activity undertaken in connection with the Listener Activity phase of the NAB, has been the organization of the Association of Women Directors. This organization embraces the women in all of the NAB stations who have charge of women's programs. Ruth Chilton, WSYR, Syracuse, is president of the Association. There are over 300 stations represented in membership, in every district and nearly all of the states. A quarterly bulletin, covering wartime activities and matters of interest to these directors will be issued. From time to time releases of interesting material will be made from national organizations and government bureaus.

# THE NAB CODE

**C**ONTINUED public approval of the Code and the adoption by the Code Compliance Committee of principles for the handling of war news highlighted the year 1942. Misunderstanding between the Cooperative League of the U. S. A. and certain stations as to the purchase of time by the League was cleared up with the Committee's assistance. In his message to the 1942 annual convention NAB President Neville Miller stated:

*"The past year saw the industry once again take the leadership in solving some of our problems by means of self regulation. Not only did the Code Committee continue actively the work of interpreting the Code, but with the coming of the war, new principles were outlined for the handling of war news which met with the approval of both the industry and the public. Realizing that government as a rule undertakes no services or regulation unless private agencies have proved themselves incapable or unwilling, the industry has wisely adopted a policy to continue its activities in the field of self regulation. New phases of the war will undoubtedly bring new problems. I am sure with the continued cooperation of the broadcasters we shall solve them."*

## Children's Programs

Programs designed specifically for children reach impressionable minds and influence social attitudes, aptitudes and approaches and, therefore, they require the closest supervision of broadcasters in the selection and control of material, characterization and plot.

This does not mean that the vigor and vitality common to a child's imagination and love of adventure should be removed. It does mean that programs should be based upon sound social concepts and presented with a superior degree of craftsmanship; that these programs should reflect respect for parents, adult authority, law and order, clean living, high morals, fair play and honorable behavior. Such programs must not contain sequences involving horror or torture or use of the supernatural or superstitious or any other material which might reasonably be regarded as likely to over-stimulate the child listener, or be prejudicial to sound character development. No advertising appeal which would encourage activities of a dangerous social nature will be permitted.

To establish acceptable and improving standards for children's programs, the National Association of Broadcasters will continuously engage in studies and consultations with parent and child study groups. The results of these studies will be made available for application to all children's programs.

## Controversial Public Issues

As part of their public service, networks and stations shall provide time for the presentation of public questions including those of controversial nature. Such time shall be allotted with due regard to all the other elements of balanced program schedules and to the degree of public interest in the questions to be presented. Broadcasters shall use their best efforts to allot such time with fairness to all elements in a given controversy.

Time for the presentation of controversial issues shall not be sold, except for political broadcasts. There are three fundamental reasons for this refusal to sell time for public discussion and, in its stead, providing time for it without charge. First, it is a public duty of broadcasters to bring such discussion to the radio audience regardless of the willingness of others to



pay for it. Second, should time be sold for the discussion of controversial issues, it would have to be sold, in fairness, to all with the ability and desire to buy at any given time. Consequently, all possibility of regulating the amount of discussion on the air in proportion to other elements of properly balanced programming or of allotting the available periods with due regard to listener interest in the topics to be discussed would be surrendered. Third, and by far the most important, should time be sold for the discussion of controversial public issues and for the propagation of the views of individuals or groups, a powerful public forum would inevitably gravitate almost wholly into the hands of those with the greater means to buy it.

The political broadcasts excepted above are any broadcasts in connection with a political campaign in behalf of or against the candidacy of a legally qualified candidate for nomination or election to public office, or in behalf of or against a public proposal which is subject to ballot. This exception is made because at certain times the contending parties want to use and are entitled to use more time than broadcasters could possibly afford to give away.

Nothing in the prohibition against selling time for the presentation of controversial public issues shall be interpreted as barring sponsorship of the public forum type of program when such a program is regularly presented as a series of fair-sided discussions of public issues and when control of the fairness of the program rests wholly with the broadcasting station or network.

#### **Educational Broadcasting**

While all radio programs possess some educative values, broadcasters nevertheless desire to be of assistance in helping toward more specific educational efforts, and will continue to use their time and facilities to that end and, in cooperation with appropriate groups, will continue their search for improving applications of radio as an educational adjunct.

#### **News**

News shall be presented with fairness and accuracy and the broadcasting station or network shall satisfy itself that the arrangements made for obtaining news insure this result. Since the number of broadcasting channels is limited, news broadcasts shall not be editorial. This means that news shall not be selected for the purpose of furthering or hindering either side of any controversial public issue nor shall it be colored by the opinions or desires of the station or network management, the editor or others engaged in its preparation or the person actually delivering it over the air, or, in the case of sponsored news broadcasts, the advertiser.

The fundamental purpose of news dissemination in a democracy is to enable people to know what is happening and to understand the meaning of events so that they may form their own conclusions and, therefore, nothing in the foregoing shall be understood as preventing news broadcasters from analyzing and elucidating news so long as such analysis and elucidation are free of bias.

News commentators as well as all other newscasters shall be governed by these provisions.

#### **Religious Broadcasts**

Radio, which reaches men of all creeds and races simultaneously, may not be used to convey attacks upon another's race or religion. Rather it

should be the purpose of the religious broadcast to promote the spiritual harmony and understanding of mankind and to administer broadly to the varied religious needs of the community.

### **Commercial Programs and Length of Commercial Copy**

Acceptance of programs and announcements shall be limited to products and services offered by individuals and firms engaged in legitimate commerce; whose products, services, radio advertising, testimonials and other statements, comply with pertinent legal requirements, fair trade practices and acceptable standards of good taste.

Brief handling of commercial copy is recommended procedure.

Member stations shall hold the length of commercial copy, including that devoted to contests and offers, to the following number of minutes and seconds:

#### *Daytime*

Five-minute programs .....	2:00
*Five-minute news programs.....	1:45
Ten-minute programs .....	2:30
Fifteen-minute programs .....	3:15
Twenty-five-minute programs .....	4:15
Thirty-minute programs .....	4:30
Sixty-minute programs .....	9:00

#### *Night-time*

Five-minute programs .....	1:45
*Five-minute news programs.....	1:30
Ten-minute programs .....	2:00
Fifteen-minute programs .....	2:30
Twenty-five-minute programs .....	2:45
Thirty-minute programs .....	3:00
Sixty-minute programs .....	6:00

#### *Exceptions:*

The above limitations do not apply to participation programs, announcement programs, "musical clocks," shoppers' guides and local programs falling within these general classifications.

Because of the varying economic and social conditions throughout the United States, members of the NAB shall have the right to present to the NAB for special ruling local situations which in the opinion of the member may justify exceptions to the above prescribed limitations.

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\* Further restriction by individual stations is recommended.



**Recommendations of the NAB Code Committee for the Handling of News Programs in Wartime (Adopted February 6, 1942)**

Radio listeners are anxious news listeners today. On each broadcast they eagerly await the word of happenings all over the world. Consequently, broadcasters have a deep responsibility in giving out this news in a manner which will satisfy the eagerness of the listener without resorting to production techniques that dramatize or excite situations. The use of commercial copy should conform to this objective pattern of simplicity in presentation and calmness in manner. In order to achieve this, we suggest the following:

- a. The opening commercial identification should be as short as possible. Get into the news rapidly without attempting to make the listener take a solid commercial first.
- b. Clever "lead-ins", use of a few teaser news items before the commercial, promises of an "exclusive item" after the commercial—all such advertising technique will defeat the aim of broadcasting under present conditions. Therefore, the practice should not be employed.
- c. Great care should be exercised in the placement of the so-called "middle commercial". It should come after the body of news has been given. This position therefore will vary with the contents of the news in each radio edition. In some routines used by some stations it will come after a roundup of official communiques; or after a combination of international and national news items; or after a commentators' resume and comment on these stories. The placement will of course be determined by the individual method used by each station in the presentation of its news. But the position given it should be based on the determination to give the listener the outstanding news in a well-rounded pattern before the insertion of the commercial.
- d. Whenever the commercial is inserted, the broadcaster should be extremely cautious about its content in relation to the news which precedes. For example, under the present circumstances it is bad taste to insert advertising copy immediately following a story of a great disaster or catastrophe. Some method should be used to separate the two. Here are some suggestions of various methods:
  1. Use of a short sports or general news item before going into a commercial.
  2. Some stations may be able to use two voices, with the news voice pausing a second or two and bringing in the commercial with an introduction.
  3. When same announcer is used, in addition to the pause, he should identify the succeeding talk as a "message from the sponsor", or some identifying lead-in.

*The Commercials:*

- a. Broadcasters should insist that all commercials adhere to the standards of good taste.
- b. "Scare copy" or copy based on "fear of what will happen" should be avoided.
- c. Any attempt to write into the commercial accepted "news phrases";

- such as “flash,” “bulletin,” “headlines from,” “good news for,” “to-day all over the world,” etcetera must be halted.
- d. The use of transcribed jingles, musical introductions to commercials, sound effects, etcetera should be discouraged. If a broadcaster accepts such, then a news item of sports or human interest—*definitely not a war or peril item*—should precede their use. They then should be placed close to the end of the news broadcast in order not to interrupt the news pattern.
  - e. Commercials should not contain copy praising the sponsor for bringing the news or commending the client for bringing it “first” —“or at great expense”—“or through the resourcefulness of.”
  - f. All copy should conform to the general theme of news broadcasting outlined above in the interests of eliminating the causes of criticism. Hence the copy theme, the use of verbiage should be in keeping with calmness in delivery and good taste in approach.
  - g. *The manner of presentation:*
    - a. All production techniques which foster excitement should be abandoned. This would mean the avoidance of dramatization, sound effects and attention compellers.
    - b. All announcers and commentators must deliver with calmness and restraint. Shouters, dramatists and announcers who use a “heavy sell” should conform in microphone manner to the new spirit of news broadcasting.
    - c. The use of infection etcetera, to suggest the importance or the “exclusivity” of an item of news would violate the spirit of the new pattern.

#### *Suggestions:*

It has been suggested that the present method of identifying sponsors of news broadcasts be adjusted so as to eliminate the use of “through the courtesy of”; “is made possible by”; “is brought to you by.”

In order to do this, perhaps the following method could be adopted,—“a daily service of the XZZ Company,” or “a service of the XZZ Company,” or conclude the news with a service announcement such as defense bond, army, navy or marine enlistment, man power announcements, etcetera and then follow with a tag line commercial killing direct reference to “*sponsorship*,” “*courtesy*,” etcetera.

Network or station should reserve to itself the right on an appropriate occasion to refuse a middle commercial, or to insist upon its coming later in the program, when its use earlier interrupts a continuing description of a single situation. For example, if ten minutes of a fifteen minute news broadcast were devoted to the Roberts Report, the news of that report should not be interrupted by a commercial. Similarly, should some transcendental situation take up the entire news, the sponsor’s middle message should not be permitted at all.

Sponsorship of individual and sporadic news bulletins which results in single news items or two or three brief news items reaching the audience under commercial sponsorship should not be permitted.

Such as—sponsorship of a news bulletin in a station break announcement.

Any changes in present standard news broadcasting practices required in order to institute the foregoing standards should be made promptly.



# ORGANIZATIONS

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### Acoustical Society of America

120 S. LaSalle St., Chicago, Ill.  
Randolph 8460

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#### FUNCTIONS

The purpose of the society is to increase and diffuse the knowledge of acoustics and promote its practical applications.

### Actors' Equity Association

45 W. 47th St., New York, N. Y.  
BRYant 9-3550

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San Francisco: Theodore Hale, 26 O'Farrell Street.  
Chicago: Frank Dare, 720 Bittersweet Place.

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330 West 42nd St., New York, N. Y.  
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General Counsel.....Charles E. Murphy

#### DIRECTORS

Elon G. Borton, La Salle Extension University; Fred O. Bohen, Meredith Publishing Co.; Joe M. Dawson, Tracy-Locke-Dawson, Inc.; Herbert E. Fiske, Outdoor Advertising Association of America, Inc.; Mabel G. Flanley, The Borden Co.; Paul Garrett, General Motors Corp.; William A. Hart, E. I. duPont de Nemours & Co.; Ray Maxwell, Missouri Pacific Lines; Merrill C. Meigs, Chicago Herald-American; D. C. Murray, Fortune Magazine; Henry Obermeyer, Consolidated Edison Co.; John H. Platt, Kraft Cheese Co.; Allen T. Preyer, Vick Chemical Co.; William C. Savage, Cincinnati Post; Dorothy Shaver, Lord & Taylor; C. Joseph Snyder, James A. Welch, The Crowell-Collier Publishing Co.

#### WAR ADVERTISING COMMITTEE

Allan T. Preyer, Vick Chemical Co., Chairman; Eric Zimmerman, Railway & Industrial Engraving Co., Vice-Chairman; Beatrice Adams, Gardner Advertising Co.; Paul Bolton, Division of Defense Transportation; H. H. Caswell, W. F. Young, Inc.; Ken R. Dyke, Office of War Information; Herbert E. Fisk, Outdoor Advertising Assn. of America, Inc.; Mabel G. Flanley, The Borden Co.; K. E. Kellenberger, Union Switch & Signal Co.; Forbes McKay, Progressive Farmer-Ruralist Co.; D. C. Murray, Fortune Magazine; Tom Nokes, Johnstown Poster Advertising Co.; E. A. Sheridan, Office of Civilian Defense.

#### FUNCTIONS

To provide a common forum and a central medium for cooperative effort on behalf of all individuals and groups interested in advertising.

To elevate the standards of advertising practice and to combat any unfair competitive methods in its sale.

To help increase the effectiveness of advertising as an instrument of distribution, with its resulting benefits to business and the general public.

To determine and disseminate more accurate knowledge of the functions of advertising in business, and its social and economic values.

To aid in raising the standards of education and training for advertising practitioners.

### Advertising Research Foundation

330 West 42nd St., New York, N. Y.  
LOngacre 3-1454

#### OFFICERS

Chairman.....Harold B. Thomas  
Treasurer.....John Benson  
Secretary.....Paul B. West

### Agricultural Marketing Service—

#### Radio Section

Washington, D. C.  
Republic 4142—Extension 6373

#### OFFICERS

Chief.....Elwyn J. Rowell  
Senior Radio Specialist.....Bernard W. Molohon

Associate Radio Specialist.....Beulah Rodgers  
 Assistant Radio Specialist.....Lucile Cohan

#### BRANCH OFFICERS

BOSTON: 408 Atlantic Ave.; Charles E. Esbach, Director.

CHICAGO: 5 So. Wabash Ave.; Don E. Rogers, Regional Chief; Lance G. Hooks, Radio Specialist.

ATLANTA: Western Union Bldg.; Harry Carr, Regional Chief.

NEW YORK: 150 Broadway; Millard Faught, Regional Chief; Donald G. Lerch, Assoc. Radio Specialist.

SAN FRANCISCO: 821 Market St. E.; H. Spoor, Regional Chief.

DENVER: Room 420, 1536 Walton St.; A. M. Trachman, Regional Chief.

DALLAS: 425 Wilson Bldg.; Meno Schoenbach, Regional Chief.

DES MOINES: 700 Old Colony Bldg.; Joe M. Graham, Acting Regional Chief.

#### FUNCTIONS AND ACTIVITIES

The function of this Government agency is the preparation and presentation of broadcasts and broadcast material for use on network, regional and local programs; programs are prepared and presented on grades and standards, on School Lunch, School Milk programs, Stamp Plan, and all phases of Lend-Lease activities in connection with foods; issues "Radio Roundup on Food", a weekly backgrounds bulletin for Home Economist Editors at radio stations. In addition, this Section supervises remote control programs devoted to market news presented over more than 25 stations, and broadcasts information to homemakers presented over 75 stations; and is providing market reports direct to radio stations and through press associations covering leading markets for all important crops and livestock.

### American Assn. of Adv. Agencies (AAAA)

420 Lexington Ave., New York, N. Y.  
 LExington 2-7980

#### OFFICERS

Chairman of Board.....William Reydel  
 President.....John Benson  
 Managing Director.....Frederic R. Gamble  
 Vice-President.....Thomas D'A. Brophy  
 Secretary.....J. J. Hartigan  
 Treasurer.....E. DeWitt Hill  
 Director of Service.....L. W. MacKenzie  
 Counsel.....McKercher & Link

#### FUNCTIONS

The American Association of Advertising Agencies was formed in 1917 by the amalgamation of the New England, New York, Philadelphia, Southern and Western Advertising Agency Associations—to promote the interests and raise the standards of advertising and of the advertising agency business.

It welcomes to membership any advertising agency qualified to aid in this purpose by reason of its ability to serve the cause of advertising, its financial soundness and its demonstrated desire to adhere to sound and ethical business practices.

The aims of the Association are partly ethical and partly economic. It is a professional body and also a trade association. It aims to raise standards, to improve technique, to ascertain values, to safeguard relations, and to cooperate with other organized effort in related fields.

One of the major aims of the Association is to keep advertising agency practice on a high level, in order that it may be most useful to the advertiser, most helpful to the publisher and respected by business men.

Early in its career the Association adopted for the guidance of its members two official statements. One is entitled "Agency Service Standards," in which agency service is defined, so that advertisers and publishers may know what to expect and agencies may know what should be required of them, thus discouraging the incompetent and encouraging those equipped to render effective service.

The other statement, entitled "Standards of Practice," deals with agency relations with media, clients and the public, with fair and ethical agency competition, and other professional ethics.

### American Bar Association (Standing Committee on Communications)

Office of the Chairman: 921 Tower Bldg.  
 Washington, D. C.  
 Phone District 2141

#### COMMITTEE

Chairman.....Herbert M. Bingham  
 Committeeman.....Edwin M. Borchard  
 Committeeman.....Kenneth F. Burgess  
 Committeeman.....Howard L. Kern  
 Committeeman.....David H. Cannon

#### FUNCTIONS

The Committee is authorized to consider and report on all questions pertaining to laws and treaties governing the transmission of intelligence through the application of electrical energy or other use of electricity, whether by wire or wireless.

### American Communications Association (C. I. O.)

10 Bridge St., New York, N. Y.  
 BOWling Green 9-3005

#### OFFICERS

President.....James P. Selly  
 Vice-President.....Dominick Panza  
 Vice-President.....Harry A. Morgan  
 Vice-President.....O. M. Salisbury  
 Secretary-Treasurer.....Josephine Timms

### American Council on Education

744 Jackson Place, Washington, D. C.  
 NAtional 5691

#### EXECUTIVE OFFICERS

President.....George F. Zook  
 Vice-President.....C. S. Marsh  
 Assistant to President.....Donald J. Shank  
 Chief Accountant.....Grace R. Ontrich

#### FUNCTIONS

This Council's purpose is to advance American education through comprehensive voluntary, cooperative action on the part of educational associations, organizations and institutions, through the promotion, initiation and administration of systematic studies, cooperative experiments, and conferences.

### American Federation of Musicians

1450 Broadway, New York, N. Y.  
 PEnnsylvania 6-2545

#### OFFICERS

President.....James C. Petrillo  
 Vice-President.....Charles L. Bagley  
 Financial Secretary-Treasurer.....Harry E. Brenton  
 Secretary.....Leo Cluesman

#### EXECUTIVE COMMITTEE

A. Rex Riccardi, Chauncey A. Weaver, J. W. Parks, Walter M. Murdoch, Oscar F. Hild.

### American Federation of Radio Artists (AFRA)

2 West 45th St., New York, N. Y.  
 VAnderbilt 6-1810

#### NATIONAL OFFICERS

President.....Lawrence Tibbett  
 Vice-President.....Jean Hersholt  
 Vice-President.....Virginia Payne  
 Vice-President.....Ben Grauer  
 Vice-President.....Kenneth Carpenter  
 Vice-President.....William P. Adams  
 National Executive Secretary.....Emily Holt  
 Associate Secretary & Treasurer.....George Heller  
 Recording Secretary.....Alex McKee  
 Counsel.....Paul N. Turner  
 Associate Counsel.....Henry Jaffe

#### BOARD OF DIRECTORS

Wm. P. Adams, Ben Alexander, Edward Arnold, Gunnar Back, Norman Barry, Hal Berger, Theodore Bliss, Truc Boardman, Nellie Booth, William Brandt, John Brown, Alan Bunce, Eddie Cantor, Kenneth Carpenter, Lon Clark, Clayton Collyer, Ted de Corsia, William T. Days, Jr., Verna Felton, Thomas Freebairn-Smith, Ben Grauer, George Heller, Jean Hersholt, Fred Howard, John B. Hughes, Raymond Jones, Carleton Kadell, Phil Lord, Ted Maxwell, Alex McKee, Paul Nettinga, Richard

## • • • ORGANIZATIONS • • •

Osgood, Arnold Moss, Virginia Payne, Vincent Pelletier, Minerva Pious, Walter Preston, Alan Reed, Kenneth Roberts, Anne Seymour, Del Sharbutt, Wayne Short, Lawrence Tibbett, Lucille Wall, Lewis Wareham, Ned Weaver, Tudor Williams.

### BRANCH OFFICES

Chicago Local—540 North Michigan Avenue, Chicago, Ill.; Raymond Jones, Executive Secretary; Phone, Superior 6517.

Los Angeles Local—6331 Hollywood Boulevard, Hollywood, Calif.; I. B. Kornblum, Executive Secretary; Phone, Hillside, 5121.

San Francisco Local—26 O'Farrell Street, San Francisco, California; Phone, Sutter 3196, San Francisco, California.

Cincinnati Local—Box 14, Cincinnati, Ohio.

Montreal Local—1126 St. Catherine St., West Montreal, Canada.

Detroit Local—717 Penobscott Bldg., Detroit, Mich.

St. Louis Local—4317 Lindell Blvd., St. Louis, Mo.

Miami Local—Box 85, Miami, Fla.

Denver Local—4231 West 32nd St., Denver, Colo.

Racine Local—804 Hamilton St., Racine, Wisc.

Cleveland Local—11418 Bellflower Rd., Cleveland, Ohio.

Washington Local—P. O. Box No. 269, Washington, D. C.

Portland Local—P. O. Box No. 263, Portland, Ore.

Dallas Local—P. O. Box 2181, Dallas, Texas.

Other locals located in Des Moines, Ia.; Philadelphia, Pa.; Pittsburgh, Pa.; Schenectady, N. Y.; Boston, Mass.; Birmingham, Ala.; Shreveport, La.; Charlotte, N. C.; Rochester, N. Y.; Baltimore, Md.; San Diego, Calif.; Fresno, Calif.; Lawrence, Mass.; Grand Rapids, Mich.

## American Guild of Musical Artists, Inc. (A. F. L.)

2 West 45th St., New York, N. Y.  
Murray Hill 2-5644

### OFFICERS

President.....Lawrence Tibbett  
First Vice-President.....Jascha Heifetz  
Second Vice-President.....Richard Bonelli  
Third Vice-President.....Margaret Speaks  
Fourth Vice-President.....Jose Iturbi  
Fifth Vice-President.....Howard Hanson  
Recording Secretary.....Elizabeth Hoepfel  
Treasurer.....Frank Chapman  
Executive Secretary.....Blanche Witherspoon  
Counsel.....Henry Jaffe

### BOARD OF GOVERNORS

Paul Althouse, Arthur Anderson, Zlatko Balokovic, Ruth Breton, John Brownlee, George Cehanovsky, Amy El'erman, Eva Gauthier, Coc Glade, Walter Golde, Herbert Graf, John Gurney, Roland Guerard, Edward Harris, Julius Huehn, Edwin Hughes, Sascha Jacobsen, Frederick Jagel, Arthur Kent, Alexander Kipnis, Arthur Mahoney, James Melton, Lanny Ross, Alexander Smallens, Georgia Standing, Kerstin Thorborg, Armand Tokatyan.

### BRANCH OFFICES

Hollywood: 7046 Hollywood Blvd.—Phone, Hollywood 7311; Chicago: 540 N. Michigan Blvd.—Phone, Superior 6517.

### FUNCTIONS

AGMA is a union whose purpose is to bargain collectively on behalf of its members and to deal with employers, contractors, managers, impresarios, agents and others whose activities affect its members. AGMA is a branch of the AAAA and is a sister union of the American Federation of Radio Artists.

## American Marketing Association

Address individual officers

### OFFICERS

President.....Albert Haring  
(Indiana University)  
1st Vice-President.....Wroe Alderson  
(Curtis Publishing Co.)

2nd Vice-President.....Philip Salisbury  
(Sales Management)

Treasurer.....Howard Whipple Green  
(Real Property Inv. of Metro Cleveland)

Secretary.....Ross M. Cunningham  
(Massachusetts Institute of Technology)

Editor-in-Chief, Journal of Marketing.....Reavis Cox  
(War Production Board)

Business Manager, Journal of Marketing, Robert N. King  
(Batten, Barton, Durstine & Osborn)

### DIRECTORS

Everett R. Smith, Macfadden Publications, Inc.; Lyman Hill, Servel Corp.; Henry E. Erdman; Virgil Reed, War Production Board.

### FUNCTIONS

American Marketing Association is an organization for the study of marketing research.

## American Newspaper Publishers Association

370 Lexington Ave., New York, N. Y.  
CAledonia 5-2000

### OFFICERS

President.....Walter M. Dear  
Vice-President.....Linwood I. Noyes  
Secretary.....Norman Chandler  
Treasurer.....W. G. Chandler  
General Manager.....Cranston Williams

### FUNCTIONS

To foster and protect the business and business interests of daily newspapers.

## American Radio Relay League, Inc.

38 LaSalle Road, West Hartford, Conn.  
Hartford 3-6269

### OFFICERS

President.....George W. Bailey  
Vice-President.....Charles E. Blalack  
Managing Secretary.....Kenneth B. Warner  
Treasurer.....David H. Houghton  
Acting Communications Manager.....George Hart

### FUNCTIONS

The American Radio Relay League is a non-commercial association of radio amateurs, bonded for the promotion of interest in amateur radio communication and experimentation, for the relaying of messages by radio, for the advancement of the radio art and of the public welfare, for the representation of the amateur in legislative matters, and for the maintenance of fraternalism and a high standard of conduct. The League publishes QST, a publication devoted solely to amateur radio, issued monthly. It also publishes The Radio Amateur's Handbook annually and other publications.

## American Society of Composers, Authors and Publishers

30 Rockefeller Plaza, New York, N. Y.  
Columbus 5-7464

### OFFICERS

President.....Deems Taylor  
Vice-President.....Gustave Schirmer  
Vice-President.....Oscar Hammerstein  
Secretary.....George W. Meyer  
Treasurer.....Max Dreyfus  
Assistant Secretary.....J. J. Breeman  
Assistant Treasurer.....Irving Caesar  
General Manager.....John C. Paine

### BOARD OF DIRECTORS

Fred E. Ahlert, Louis Bernstein, J. J. Bregman, Saul Bornstein, Gene Buck, Irving Caesar, J. J. Robbins, John O'Connor, Max Dreyfus, L. Wolfe Gilbert, Donald Gray, Roy Henderson, R. F. Murray, Geoffrey O'Hara, Richard Rodgers, Walter Fischer, Oscar Hammerstein II, Otto A. Harbach, Geo. W. Meyer, Jack Mills, Gustave Schirmer, Oley Speaks, Herman Starr, Deems Taylor.

## ADMINISTRATIVE OFFICERS

General Manager..... John G. Paine  
 Assistant General Manager..... Herman Greenberg  
 Comptroller..... George A. Hoffman  
 Director of Public & Customer Relations  
 Robert L. Murray

## DIVISION SUPERVISORS

**Western District**  
 6331 Hollywood Blvd., Hollywood, Calif.  
 Supervisor..... Robert J. Powers  
**Mid-Western District**  
 7 South Dearborn St., Chicago, Ill.  
 Supervisor..... John C. Wooden  
**Southern District**  
 607-11 First National Bldg., Atlanta, Ga.  
 Supervisor..... I. T. Cohen  
**Eastern District**  
 30 Rockefeller Plaza, New York, N. Y.  
 Supervisor..... F. C. Edman

## DISTRICT MANAGERS

**Western**  
 Larry Shes, 414 Guaranty Bldg., 6331 Hollywood Blvd., Hollywood, Calif.  
 Herman Kenin, 911 Public Service Bldg., Portland, Ore.  
 Harry G. Ferguson, 1101-2 Security Bldg., Denver, Colo.  
 H. A. Levinson, Room 422, 111 Sutter Bldg., San Francisco, Calif.  
**Mid-Western**  
 Martin Meltzer, 730 Des Moines Bldg., Des Moines, Ia.  
 Richard I. Davis, 1907 Continental Bldg., 3615 Olive St., St. Louis, Mo.  
 E. A. Sherwood, 1515 Midland Bldg., 101 Prospect Ave., N. W., Cleveland, Ohio.  
 E. W. Peterson, 912 Northwestern Bank Bldg., Minneapolis, Minn.  
 Messrs. Grosner & Burak, 782-4 Penobscot Bldg., Detroit, Mich.  
**Southern**  
 Stanley Shepard, 603 Hibernia Bank Bldg., New Orleans, La.  
 Samuel Feldman, 3910-11 Carew Tower, Cincinnati, Ohio.  
 P. O. Alexander, 1613-14 Tower Petroleum Bldg., 1903 Elm St., Dallas, Texas.  
 I. E. Pittle, 503 Liberty Life Bldg., Charlotte, N. C.  
 David Nelson, 607 First National Bank Bldg., Atlanta, Ga.  
**Eastern**  
 Samuel Berkett, 44 School St., Boston, Mass.  
 Arthur L. Rothkranz, 1616 Baltimore Trust Bldg., Baltimore, Md.  
 H. A. Brown, 1638 Lincoln Liberty Bldg., Philadelphia, Pa.  
 William J. O'Brien, 509 Grant Bldg., Pittsburgh Pa.  
 Lawrence B. Schlums, 1140 Lincoln Alliance Bldg., Rochester, N. Y.  
 Aaron Kane, National Newark Bldg., 744 Broad St., Newark, N. J.

## FUNCTIONS

ASCAP licenses public performance for profit of music copyrighted by its members and the members of many similar societies located in foreign countries.

## American Standards Association's War Committee on Replacement Parts for Civilian Radio

29 West 39th St., New York, N. Y.  
 Phone, Pennsylvania 6-7284

## MEMBERS

O. H. Caldwell, Radio Retailing Today, Chairman;  
 John Borst, John F. Rider, Publisher, Inc.; M. M. Brandon, Underwriters' Laboratories; J. D. Filgate, Hazeltine Service Corp.; Earl A. Graham, OPA; Frank A. McIntosh, Radio Branch, WPB; Samuel Weisbroth, WPB, Alternate; G. Montjoy, RCA License Laboratories; M. J. Schinke, Stewart-Warner Corp.; P. R. Butler, General Electric Co., Alternate; K. S. Geiges, WPB; Dr. P. C. Agnew, American Standards Association; S. L. Chertog, American Standards Association, Secretary.

## FUNCTIONS

This committee was organized at the request of the Office of Price Administration and War Production

Board to undertake a program of standardization and simplification of radio replacement parts.

## American Television Society

Headquarters: 1140 Broadway, New York, N. Y.  
 CAledonia 5-7430  
 Meeting Place: Hotel Woodstock, New York, N. Y.

## OFFICERS

President..... Norman D. Waters  
 Vice-President..... Don McClure  
 Treasurer..... Robert Champlain  
 Secretary..... Kay Reynolds

## DIRECTORS

David O. Alber, Halsey V. Barrett, William Caro, Don McClure, Robert Champlain, Olga Lee, Kay Reynolds, George Wallace, Norman D. Waters.

## COMMITTEES

Defense: I. A. Hirschmann, Chairman  
 Production: Thomas H. Hutchinson, Chairman  
 Script: Don McClure, Chairman  
 Talent: Olga Lee, Chairman  
 Motion Pictures: S. S. Liggett, Chairman  
 Research: C. Matthew Dessner, Chairman  
 Library: Charles H. Whitebrook, Chairman  
 Education: J. Raymond Hutchinson, Chairman  
 Publications: George Wallace, Chairman  
 Public Relations: David O. Alber, Chairman  
 Social: Vivian Fletcher, Chairman  
 Membership: Halsey V. Barrett

## FUNCTIONS

American Television Society is a non-profit society organized to foster the study, understanding and appreciation of television as a cultural, educational, entertainment and advertising medium. It provides its members with an intelligence center and clearing house for information pertaining to television and its development; a forum for the exchange of ideas and discussion of mutual problems relating to or affecting television; a television library; special meetings for the dissemination of television information; the opportunity to view and study television technique.

## Associated Actors and Artistes of America

45 West 47th St., New York, N. Y.  
 Phone: BRyant 9-3550

## OFFICERS

President-Executive Director..... Frank Gillmore  
 Executive Secretary..... Paul Dullzeli  
 1st Vice-President..... Jean Greenfield  
 2nd Vice-President..... Kenneth Thomson  
 Treasurer..... Ruth Richmond  
 Counsel..... Paul N. Turner

## FUNCTIONS

Associated Actors and Artistes of America, generally known as the Four A's, holds the international charter from American Federation of Labor covering theatrical entertainers. Actors' Equity, American Federation of Radio Artistes, Screen Actors Guild, Chorus Equity, American Guild of Variety Artists, American Guild of Musical Artists, etc., are granted charters via Four A's.

## International Brotherhood of Electrical Workers

1200 Fifteenth St., N.W., Washington, D. C.  
 District 3764

## OFFICERS

International President..... Ed J. Brown  
 International Secretary..... G. M. Bugniazet

## FUNCTIONS

The International Brotherhood of Electrical Workers is an affiliate of the American Federation of Labor having jurisdiction over radio operators, technicians, and engineers in radio broadcasting. Local Unions of radio broadcast technicians are now established in 56 cities in the United States, and approximately 300 standard commercial broadcast stations have agreements with IBEW.

## • • • ORGANIZATIONS • • •

### Association for Education By Radio

228 N. La Salle St., Chicago, Ill.  
Dearborn 7801

#### OFFICERS

President.....Major Harold W. Kent  
First Vice-President.....William D. Boutwell  
Second Vice-President.....I. Keith Tyler  
Treasurer.....Robert L. Hudson  
Secretary.....Elizabeth Goudy

#### COMMITTEE CHAIRMEN

Kay Lardie, Membership; Mike Hanna, College Broadcasting; Elizabeth Goudy, Publications; Ronnie Lowdermilk, Equipment; John Gunstream, Program; Erik Barnouw, Script; Dorothy Johnson, Business Education; Vanett Lawlor, Music; Gordon Hubbel, Consumer Education; Donald Cherry, Transcription; Holland Roberts, Research; Kathryn Matchett, High School Workshop; Muriel Greer, Television.

### Assn. of Canadian Advertisers, Inc.

85 Richmond St., West, Toronto, Ont.  
Adelaide 9774

#### OFFICERS

President.....P. K. Abramson  
(The Borden Co., Ltd.)  
Vice-President.....J. W. Moore  
(Maple Leaf Milling Co., Ltd.)  
Vice-President.....J. E. Mason  
(Canada Dry Ginger Ale, Ltd.)  
Vice-President.....R. L. Sperber  
(Sterling Products, Ltd.)  
Vice-President.....H. E. Stephenson  
(Canada Starch Co., Ltd.)  
Treasurer.....W. O. H. James  
(The Dominion Bank)  
Secretary-Manager.....Athol McQuarrie

#### DIRECTORS

D. E. Bankart, Northern Electric Co. Ltd.; George Bertram, Swift Canadian Co. Ltd.; Robert E. Jones, General Foods, Ltd.; L. E. Phenner, Canadian Cellulose Products Co. Ltd.; Neil B. Powler, Howard Smith Paper Mills Ltd.; Syd R. Skelton, Goodyear Tire & Rubber Co. of Canada Ltd.; Lee Trenholm, Underwood Elliott Fisher Ltd.; A. Usher, RCA Victor Co. Ltd.; S. H. Young, Christie, Brown & Co. Ltd.

#### FUNCTIONS

This association was incorporated in March 1917. For 28 years the Association of Canadian Advertisers has functioned as an organization of Canadian companies devoted to the interests and promotion of good advertising.

### Assn. of National Advertisers, Inc.

330 West 42nd St., New York, N. Y.  
BRyant 9-6330

#### OFFICERS

Chairman of Board.....Charles G. Mortimer, Jr.  
(General Food Sales Corp.)  
Vice-Chairman.....Carleton Healy  
(Hiram Walker, Inc.)  
Vice-Chairman.....C. C. Carr  
(Aluminum Company of America)  
President.....Paul B. West  
Treasurer.....Robert B. Brown  
(Bristol-Myers Co.)  
Secretary.....G. S. McMillan

#### DIRECTORS

Robert V. Beucus, Andrew Jergens Co.; Albert Brown, The Best Foods, Inc.; Robert B. Brown, The Bristol-Myers Co.; A. O. Buckingham, Cluett, Peabody & Co.; Paul S. Ellison, Sylvania Electric Products, Inc.; W. A. Hart, E. I. du Pont de Nemours & Co.; M. H. Leister, Sun Oil Co.; J. P. Miller, Pet Milk Sales Co.; H. W. Roden, Harold H. Clapp, Inc.; H. M. Warren, National Carbon Co.

#### FUNCTIONS

The Association of National Advertisers is composed of the leading companies of the United States who use advertising. Its function is to represent them and further their interests as buyers of advertising.

### Association of Radio News Analysts

100 E. 82nd St., New York, N. Y.  
BUtterfield 8-5398

President.....H. V. Kaltenborn  
Vice-President.....Raymond Gram Swing  
Secretary-Treasurer.....Quincy Howe

#### FUNCTIONS

Membership consists of experienced news analysts devoting a major part of their time to radio work and not voicing their own commercials. The Association's function is to improve quality and standards of radio news analysts.

### Association of Radio Transcription Producers of Hollywood, Inc.

Hollywood Blvd. at Cosmo, Hollywood, Calif.  
Hollywood 3545

#### OFFICERS

President.....Gerald King  
Secretary.....C. P. MacGregor  
Treasurer.....J. Messer  
General Counsel.....John J. Wilson

#### DIRECTORS

Gerald King, C. P. MacGregor, A. Schrader.

#### FUNCTIONS

This organization is a cooperative trade association of companies active in the transcription business in Hollywood. Membership is composed of: Allied Phonograph & Record Co.; Radio Transcription Co. of America, Ltd.; C. P. MacGregor Sound Studios; Ray Morgan & Co.; Standard Radio; Field Bros.; Edward Sloman Productions, Ltd. Note: Association is inactive at the present time.

### Australian Broadcasting Commission

264 Pitt St., Sydney, N. S. W., Australia  
Phone M6991

Chairman.....William J. Cleary  
Vice-Chairman.....Edward C. Rigby  
Acting General Manager.....T. W. Bearup

#### FUNCTIONS

The Australian Broadcasting Commission provides the programs of the Australian National Broadcasting service which emanate from the National stations in each state. The transmitters are linked in a National network and a National Alternative network. The Commission is also responsible for Australian Short-Wave services and also publishes a journal. (Editor's Note: Inasmuch as wartime conditions make rapid communication impossible, changes may have taken place since this listing was received.)

### Authors' Guild

6 E. 39th St., New York, N. Y.  
MUrray Hill 5-6930

#### OFFICERS

President.....Carl Carmer  
Vice-President.....Manuel Komroff  
Secretary.....Helen Hull

#### COUNCIL

Louis Adamic, Franklin P. Adams, Frederick Lewis Allen, Helen Christine Bennett, Van Wyck Brooks, Ben Lucien Burman, Elmer Davis, Bernard DeVoto, Mignon Eberhart, Walter D. Edmonds, Henry Pratt Fairchild, C. S. Forester, Maurice Hindus, Fannie Hurst, Inez Haynes Irwin, Will Irwin, Christopher La Farge, Lewis E. Lawes, Denis Tilden Lynch, Martha Ostenso, Fredrick C. Painton, Henry F. Pringle, Carl Sandburg, Oscar Schisgall, Rex T. Stout, James Thurber, Margaret Widdemer, Thyra Samter Winslow, Arthur Leo Zagat.



## Authors' League

6 E. 39th St., New York, N. Y.  
Murray Hill 5-6930

### OFFICERS

President.....Howard Lindsay  
Vice-President.....Henry F. Pringle  
Secretary.....Kenneth Webb  
Treasurer.....Arthur Schwartz

### COUNCIL

Louis Adamic, Forrest Barnes, Stephen Vincent Benet, Irving Berlin, True Boardman, Elaine Sterne Carrington, Hector Cheigny, Marc Connelly, Norman L. Corwin, Russel Crouse, Elmer Davis, Merrill Denison, Paul Franklin, Frances Goodrich, Moss Hart, Philo Higley, Inez Haynes Irwin, Will Irwin, Sidney Kingsley, Fred Kross, John Howard Lawson, Denis Tilden Lynch, Albert Maltz, William Brown Meloney, Kenyon Nicholson, Nathaniel Peffer, Arthur Richman, Orin Tovorov, Oscar Schisgall, Lyman Beecher Stowe, A. E. Thomas, George Roosen, John Vandercook, Rita Weiman, Stanley Young.

### FUNCTIONS

The Authors' League of America, Inc., is the national organization of authors, dramatists, screen writers and radio writers. It was organized in 1912 in order to procure adequate copyright legislation, both international and domestic; to protect the rights and property of all those who create copy-rightable material of whatever kind or nature; to advise and assist all such in business matters relating to the disposal of their productions and to obtain for them prompt remuneration therefor; to disseminate information among them as to their just rights and remedies. Its membership is approximately 4,200.

## BMI Canada, Ltd.

2100 Victory Bldg., Toronto, Ont.  
Elgin 5623

### OFFICERS

President.....Neville Miller  
Vice-President.....M. E. Tompkins  
Vice-President.....Harry Sedgwick  
Vice-President.....Joseph Sedgwick  
Vice-President.....Glen Bannerman  
Secretary-Treasurer.....T. Arthur Evans

### FUNCTIONS

BMI Canada, Ltd., was organized to buy and publish original music, to coordinate and license performing rights of music published under its own imprint and of music in the catalogs of affiliated publishers and performing right societies and to provide equal opportunity of recognition for all writers and composers.

## Board of War Communications

Chairman's Office: c-o Federal Communications Commission, Washington, D. C.

### PERSONNEL

James Lawrence Fly, Chairman, Federal Communications Commission; Major General Dawson Olmstead, Chief Signal Officer, of U. S. Army; Captain Carl F. Holden, Director of Naval Communications; Breckenridge Long, Assistant Secretary of State in charge of the Division of International Communications; Herbert E. Gaston, Assistant Secretary of Treasury in charge of Treasury Enforcement Activities; Commander R. J. Mauerman, U. S. Coast Guard.

### COMMITTEES

Alternates: E. K. Jett, Chief Engineer, Federal Communications Commission; Brigadier General Frank E. Stoner, Chief, Army Communications Branch; Captain Thomas B. Inglis, Assistant Director of Naval Communications; Francis C. de Wolf, Principal Divisional Assistant of the Division of International Communications; Captain E. M. Webster, Chief of Communications of the U. S. Coast Guard.

Coordinating: E. K. Jett, Chief Engineer of the Federal Communication Commission, Chairman; Francis C. De Wolf, Department of State; Major W. T. Guest, Department of War; Lt. Commander Franz O. Willenbucher, Department of Navy; Captain E. M. Webster, Chief of Communications, U. S. Coast Guard.

Law: Charles R. Denny, General Counsel of Federal Communications Commission, Chairman; Colonel Conrad E. Snow, Chief, Legal Branch, Office of the Chief Signal Officer, Department of War; John E. Shea, Department of Treasury; Commander Franz O. Willenbucher, Department of Navy; Raymond T. Yingling, Department of State.

Labor Advisory: Robert J. Watt, Chairman; Paul E. Griffith, Secretary.

Industry Advisory: Walter S. Gifford, Chairman; Dr. C. B. Joliffe, Secretary.

Priorities Planning: Lt. Colonel Lyle D. Wise, Chairman; George J. Dempsey, Secretary.

Amateur Radio: George W. Bailey, Chairman; E. M. Webster, Secretary.

Aviation Communications: R. O. Smith, Chairman; Ford Studebaker, Secretary.

Cable: C. Mills, Chairman; Benedict P. Cottone, Secretary.

Domestic Broadcasting: Neville Miller, Chairman; A. D. Ring, Secretary.

Interdepartment Radio Advisory: Dr. P. H. Dellinger, Chairman; Commissioner T. A. M. Craven, Vice Chairman; P. F. Siling, Secretary; L. R. Brady, Assistant Secretary.

International Broadcasting: Walter C. Evans, Chairman; P. F. Siling, Secretary.

Radio Communications: E. M. Webster, Chairman; F. M. Ryan, Secretary.

Communications Liaison for Civilian Defense: Wm. N. Krebs, Chairman; Herbert A. Friede, Secretary.

Priorities Liaison: Lt. Commander R. H. Griffin, Chairman; Gerald C. Gross, Secretary.

Telegraph: E. R. Shute, Chairman; Wm. J. Norfleet, Secretary.

Telephone: Z. Z. Hugus, Chairman; Clyde S. Bailey, Secretary.

State and Municipal Facilities: Captain Donald S. Leonard, Chairman; G. E. Nielson, Secretary.

## Broadcast Music, Inc. (BMI)

580 Fifth Ave., New York, N. Y.  
Pennsylvania 6-5466

### OFFICERS

President.....Neville Miller  
Vice-President-General Manager.....M. E. Tompkins  
Vice-President-General Counsel.....Sydney M. Kaye  
Vice-President.....Carl Haverlin  
Treasurer.....C. E. Lawrence

### DIRECTORS

Neville Miller, National Association of Broadcasters; Walter Damm, WTMJ; John Elmer, WCBM; Frank K. White, Columbia Broadcasting System; William Hedges, National Broadcasting Co.; Paul Morency, WTIC; Leonard Kapner, WCAE.

### BRANCH OFFICES

1549 North Vine St., Hollywood, Calif.  
Executive-in-Charge.....Harry Engel

54 West Randolph St., Chicago, Ill.  
Executive-in-Charge.....James Cairns

### FUNCTIONS

The functions of BMI are: (1) To buy and publish original music; (2) to coordinate and license the performing rights to music published under its own imprint and of music in the catalogs of affiliated publishers and performing rights societies; (3) to provide equal opportunity of recognition for all writers and composers.

## Canadian Assn. of Broadcasters

2100 Victory Bldg., Toronto, Ont.  
Canada  
Elgin 5623

### OFFICERS

President-General Manager.....Glen Bannerman  
Chairman of the Board.....Harry Sedgwick  
Vice-Chairman of the Board.....George C. Chandler  
General Counsel.....Joseph Sedgwick  
Secretary-Treasurer.....T. Arthur Evans

## ORGANIZATIONS

### DIRECTORS

Harry Sedgwick, CFRB, Toronto; J. N. Thivierge, CHRC, Quebec; E. T. Sandell, CKTB, St. Catharines; George Chandler, CJOR, Vancouver; J. W. B. Browne, CKOV, Kelowna; J. A. Cooke, CKGB, Timmins; Phil LaLonde, CKAC, Montreal; A. A. Murphy, CFQC, Saskatoon; N. Nathanson, CJCJ, Sydney; K. S. Rogers, CFCY, Charlottetown; H. R. Carson, CFAC, Calgary.

### FUNCTIONS

The Canadian Association of Broadcasters is a trade association comprising 62 privately owned radio stations.

### Canadian Performing Right Soc., Ltd.

1003 Royal Bank Bldg., Toronto, Canada

#### OFFICERS

President-Managing Director... H. T. Jamieson, F.C.A

#### BOARD OF DIRECTORS

Gene Buck, Louis Bernstein, John G. Paine, Ralph Hawkes, Holmes Maddock, H. T. Jamieson.

#### FUNCTIONS

This organization was formed for the protection of Canadian performing rights and the licensing of public performance of music.

### Catholic Actors Guild of America, Inc.

Hotel Astor, New York, N. Y.  
Circle 6-5566

#### OFFICERS

President.....Gene Buck  
Vice-President.....Hugh O'Connell  
Honorary Vice-Presidents:  
Bing Crosby, Dan Healy, Pat O'Brien, Donald Brian  
Chaplain-Treasurer.....Rev. John F. White  
Recording Secretary.....Don Gautier  
Counsel.....Hon. Alfred J. Talley  
Historian.....Lida Kane  
Executive Secretary.....George Buck  
Chairman of Executive Board.....John A. Bado  
Social Secretary (Theatrical).....Jane Hoy  
Social Secretary (Non-Theatrical)  
Mrs. Cornelius J. Gallagher

#### FUNCTIONS

The Catholic Actors Guild is a charitable, benevolent and social organization for the people of the theatre, screen and radio, non-sectarian in scope.

### Catholic Writers Guild of America

128 W. 71st St., New York, N. Y.  
ENdicott 2-0412

#### OFFICERS

President.....Joseph Avery Durkin  
1st Vice-President.....Edwin P. Kilroe  
2nd Vice-President.....Richard Reid  
3rd Vice-President.....Charles Moran  
Treasurer.....Clarence E. Heller  
Financial Secretary.....Eleanor M. Tucker  
Corresponding Secretary.....Bernadette A. Forrest  
Counsel.....Henry N. Steinert  
Spiritual Director.....Rev. John B. Kelly  
Honorary President.....Most Rev. Francis Joseph Spellman

#### BOARD OF GOVERNORS

Thomas E. Woodlock, Very Rev. Fulton J. Sheen, Eugene A. Colligan, Victor Ridder, Elizabeth Jordan, James O'Shaughnessy, Kathleen Norris, Rev. Hugh Morley, Katherine Edgerly, Margaret Marshall, Nick Kenny, Mrs. Philip Brennan, Nicholas Farley, Kenton Kilmer.

### Clear Channel Broadcasting Service

919 Shoreman Bldg., Washington, D. C.  
REpublic 3306

#### OFFICERS

Chairman.....Edwin W. Craig  
Director.....Allan B. Miller  
Treasurer.....Harold Hough  
Counsel.....Louis G. Caldwell

#### FUNCTIONS

The function of the Clear Channel Broadcasting Service is to foster the interests of independently-owned clear channel standard broadcast stations in matters of engineering, allocation, national and international, to the end of preserving and improving radio reception to rural and sparsely settled areas and to cities and towns having no stations of their own.

### Committee on Consumer Relations In Advertising, Inc.

420 Lexington Ave., New York, N. Y.  
MUrray Hill 5-7367

#### OFFICERS

Chairman.....John Benson  
Executive Director.....Kenneth Dameron

#### FUNCTIONS

This committee engages in research in the economics of advertising and the economics of consumption; provides a meeting place where consumers and advertisers can discuss mutual problems; provides consultation service for advertising agencies and other interested in management problems arising from consumer movements.

### The Dramatists' Guild

6 E. 39th St., New York, N. Y.  
MUrray Hill 5-6930

#### OFFICERS

President.....Elmer Rice  
Vice-President.....George S. Kaufman  
Secretary.....Richard Rodgers

#### COUNCIL

George Abbott, Robert Ardrey, Philip Barry, Clare Boothe, Edward Childs Carpenter, Patricia Collin, Marc Connelly, Rachel Crothers, Russel Crouse, Owen Davis, Howard Dietz, Philip Dunning, Dorothy Fields, Rose Franken, Frances Goodrich, Paul Green, Lorenz Hart, Lillian Hellman, Arthur Kober, Melvin Levy, Howard Lindsay, Eugene O'Neill, Arthur Richman, Arthur Schwartz, Robert E. Sherwood, George Sklar, Lulu Vollmer, Kurt Weill, Victor Wolfson.

#### FUNCTIONS

The Dramatists' Guild is one of the guilds of the Authors' League of America, Inc. The guild is primarily a protective organization for playwrights.

### Federal Radio Education Committee (FREC)

Room 3355 South Interior Bldg., Washington, D. C.  
REpublic 1820, Extension 2280

#### OFFICERS

Chairman.....J. W. Studebaker  
Vice-Chairman.....C. F. Klinefelter  
Secretary-Editor.....Gertrude G. Broderick  
Assistant to the Chairman.....W. D. Boutwell  
Director, Script & Transcription Exchange,  
R. L. Lowdermilk

#### EXECUTIVE COMMITTEE

John W. Studebaker, U. S. Commissioner of Education; eGeorge P. Adair, Federal Communications Commission; Lyman Bryson, Columbia Broadcasting System; John Elmer, Baltimore Broadcasting Corp.; Willard E. Givens, National Education Assn.; Rev. George Johnson, National Catholic Welfare Conference; Harold B. McCarty, Station WHA; Neville Miller, National Association of Broadcasters; Levering Tyson, Muhlenberg College; Judith C. Waller, National Broadcasting Co.

## FUNCTIONS

The Federal Radio Education Committee was appointed in 1935 by the Federal Communications Commission with the recommendation at that time that the broadcasters, on one hand, and the educators, on the other, would combine forces which would: (1) eliminate controversy and misunderstanding between groups of educators and between the industry and educators; (2) promote actual cooperative arrangements between educators and broadcasters on national, regional and local bases. Publications to date include Script Exchange Catalog, Forums on the Air, College Radio Workshop, The School Radio Sound System, Glossary of Radio Terms, "Americans All—Immigrants All," a supplementary teaching aid in the use of recordings of program series of the same name, the FREC Service Bulletin, and many others.

## Federal Trade Commission

Constitution Ave. at 6th St., N.W., Washington, D.C.  
National 8206

### PERSONNEL

Chairman.....Garland S. Ferguson  
Commissioner.....Charles H. March  
Commissioner.....Ewin L. Davis  
Commissioner.....William A. Ayres  
Commissioner.....Robert E. Freer  
Secretary.....Otis B. Johnson  
Chief Counsel.....Wm. T. Kelley  
Chief Examiner.....James A. Horton  
Chief Economist.....Col. William H. England  
Director, Radio & Periodical Division.....P. B. Morehouse  
Assistant Director, Radio & Periodical Division.....William F. Davidson

### FUNCTIONS

The Federal Trade Commission is a Governmental agency whose object is to prevent unfair methods of competition and unfair and deceptive acts and practices in commerce. For a description of the actual procedure and work of this body see articles appearing in other sections of this volume.

## Financial Advertisers Association

231 S. La Salle St., Chicago, Ill.  
State 5547

### OFFICERS

President.....L. E. Rownsend  
(Bank of America)  
First Vice-President.....Lewis F. Gordon  
(Citizens & Southern National Bank)  
Second Vice-President.....J. Lowell Lafferty  
(Fort Worth National Bank)  
Third Vice-President.....Dale Brown  
(National City Bank)  
Treasurer.....Fred W. Mathison  
(National Security Bank)  
Executive Vice-President.....Preston E. Reed

## Federal Communications Bar Assn.

National Press Bldg., Washington, D. C.

### OFFICERS

President.....Eugene O. Sykes  
First Vice-President.....Paul M. Segal  
Second Vice-President.....Eliot C. Lovett  
Secretary.....Reed T. Rollo  
Treasurer.....John M. Littlepage

### FUNCTIONS

To promote the proper administration of the Communications Act of 1934 and related acts, to uphold the honor of practice before the Federal Communications Commission, and to encourage cordial intercourse among the practitioners. It issues a monthly publication, the Federal Communications Bar Journal, which is devoted to matters of interest pertaining to communications law.

## Federal Council of the Churches of Christ in America, Department of National Religious Radio

297 Fourth Ave., New York, N. Y.  
GRamercy 5-3475

### OFFICERS

Executive Secretary.....Frank C. Goodman  
Assistant Executive.....Ethel A. Rich  
Secretary.....Wesley B. Goodman

### FUNCTIONS

The Department of National Religious Radio was organized in 1923 to promote the effective use of broadcasting in the field of religion. With a membership including representatives of the major protestant groups, the organization arranges and produces eight non-sectarian religious radio programs each week, as well as special programs, over national networks.

## Fifth Advertising Agency Group

734 Union Commerce Bldg., Cleveland, Ohio  
Main 5194

### OFFICERS

President.....Lee E. Donnelley  
Vice-President.....Norman Lewis  
Secretary-Treasurer.....Melvin F. Hall

### BRANCH OFFICES

Membership in this organization includes advertising agencies in the following cities: Albany, N. Y.; Buffalo, N. Y.; Cincinnati, Ohio; Cleveland, Ohio; Des Moines, Iowa; Detroit, Mich.; Jacksonville, Fla.; Los Angeles, Calif.; Nashville, Tenn.; New York, N. Y.; Oakland, Calif.; Philadelphia, Pa.; Pittsburgh, Pa.; Richmond, Va.; San Francisco, Calif.; Salt Lake City, Utah; St. Louis, Mo.

### FUNCTIONS

This organization is a cooperative group of independently owned advertising agencies using identical standards of agency procedure and acting as branch offices in the interest of each member.

## F M Broadcasters, Inc. (FMBI)

Office of the President: 333 W. State St., Milwaukee, Wis.  
Office of the Secretary-Treasurer: 21 Brookline Ave., Boston, Mass.

### OFFICERS

President.....Walter J. Damm  
Vice-President.....Theodore C. Streibert  
Secretary-Treasurer.....Robert T. Bartley

### DIRECTORS

John Shepard, 3rd, John V. L. Hogan, Paul W. Morency, Carl Meyers, Ray H. Manson, Jack deWitt, Jr., Franklin M. Doolittle, Walter J. Damm, Theodore C. Streibert.

### FUNCTIONS

FMBI is a non-profit association of FM boosters founded to see that frequency modulation advances in a coordinated logical manner: to guarantee that its interests are furthered and protected and to represent the FM industry in Washington; to provide an advisory service for its membership stations; to offer liaison between broadcasters and manufacturers interpreting the problems of each; to conduct a program of promotion and publicity aimed at stimulating public interest, and to provide a competent and accurate service for the truthful dissemination of information concerning FM. Membership includes individuals and companies who have an FM station, a construction permit or an application on file with the FCC for one.

## Georgia Association of Broadcasters

C/o Radio Station WMAZ, Macon, Ga.  
Phone 3131

### OFFICERS

President....."Red" Cross  
(WMAZ, Macon)  
Vice-President.....Ray Ringson  
(WRDW, Augusta)  
Secretary-Treasurer.....Allie V. Williams  
(WMAZ, Macon)

# ORGANIZATIONS

## DIRECTORS

E. K. Cargill, WMAZ, Macon: Jack Williams, WAYX, Waycross; Leonard Reinsch, WSB, Atlanta.

## FUNCTIONS

The Georgia Association of Broadcasters is a regional trade association of 19 Georgia broadcasting stations.

## Hollywood Radio Producers Club

614 Equitable Building  
Hollywood, Calif.

## OFFICERS

President ..... Carroll O'Meara  
Secretary-Treasurer ..... John Swallow  
Chaplain ..... Murray Bolen  
Sergeant-at-Arms ..... Captain Charles Vanda,  
Captain Tom McKnight

## FUNCTIONS

This organization of active producers of TC shows and executives of networks and advertising agencies hold regular luncheon meetings to foster good fellowship.

## Hollywood Victory Committee For Stage, Screen and Radio

5504 Hollywood Blvd., Hollywood, Calif.  
Phone, GL-6111

## OFFICERS

Chairman ..... Fred W. Beeton  
Vice-Chairman ..... Kenneth Thomson  
Treasurer ..... Bert Allenberg  
Secretary ..... Jack Lawrence  
Assistant Secretary ..... Howard Strickling  
Chairman of Hollywood Talent Committee ..... Charles K. Feldman  
Chairman of Actors' Committee ..... Clark Gable

## REPRESENTATIVES

Actors Equity Association ..... I. B. Kornblum  
American Federation of Radio Artists ..... True Boardman  
Artists-Managers Guild

Bert Allenberg, Charles K. Feldman

## FUNCTIONS

This committee was formed as a means of coordinating the requests for "free talent" and as a means of offering protection to the actors, the studios and the radio networks in Hollywood, so far as authentication of requests is concerned, and so far as accurate check as to the officialdom of the sources of requests for "free talent." This body is charged with the approval or rejection of all requests for "free talent" in Hollywood. All requests for "free talent" whether to studios, organizations of individual stars, are to be referred to this committee for action.

A sub-committee, the Hollywood Talent Committee, is charged, after the main committee has approved a request officially, with the coordination of the various industry elements involved in fulfilling the request.

## Institute of Radio Engineers, Inc.

330 West 42nd St., New York, N. Y.  
Medallion 3-5661

## OFFICERS

President ..... Dr. L. P. Wheeler  
Secretary ..... Harold P. Westman

## FUNCTIONS

The Institute of Radio Engineers is a professional organization of engineers in radio and allied fields. It publishes a magazine entitled "Proceeding of the I. R. E." and conducts meetings in New York and various other cities in the United States, Canada, and Argentina.

## Intercollegiate Broadcasting System, Inc.

507 Fifth Ave., New York, N. Y.  
Vanderbilt 6-6075

## OFFICERS

President ..... George Abraham

Technical Manager ..... David W. Borst  
Business Manager ..... Louis M. Bloch  
Secretary ..... Naomi Ross Fine

## BRANCH OFFICE

Sacandaga Road, Schenectady, N. Y.  
Technical Manager ..... David W. Borst

## FUNCTIONS

Intercollegiate Broadcasting system is a non-profit association of college campus radio stations and has as its purpose the furtherance of education, entertainment and goodwill among its members. The IBS maintains for the benefit of its members program, business and technical departments. Member stations include the following: University of Alabama, Antioch College, Brown University, Barnard College, Columbia University, University of Connecticut, Cornell University, Georgetown University, Hamilton College, Harvard University, Haverford College, Knox College, University of Maryland, Massachusetts State College, Ohio University, Ohio State University, Pembroke College, Princeton University, Rhode Island State College, St. Edwards University, Swarthmore College, Union College, Wellesley College, Wesleyan University, Williams College, and Yale University.

## Interdepartment Radio Advisory Committee (IRAC)

Chairman's Office: Federal Communications Commission, Washington, D. C.

## OFFICERS

Chairman ..... Dr. J. H. Dellinger  
Vice-Chairman ..... T. A. M. Craven  
Secretary ..... P. F. Siling  
Assistant Secretary ..... L. R. Brady

## MEMBERS

Department of Agriculture ..... E. W. Loveridge  
Department of Commerce ..... Dr. J. H. Dellinger  
Federal Communications Commission ..... T. A. M. Craven  
Department of Interior ..... S. L. Windes  
Department of Justice ..... T. D. Quinn  
Maritime Commission ..... D. S. Brierly  
Department of Navy ..... Lt. Comdr. Paul D. Miles  
Post Office Department ..... Roy M. Martin  
Department of State ..... Thomas Burke  
Department of Treasury ..... Capt. E. M. Webster  
Department of War ..... Lt. Col. A. G. Simson

## ALTERNATE MEMBERS

Department of Agriculture ..... C. C. Averill  
Department of Commerce ..... L. H. Simon  
Federal Communications Commission ..... P. F. Siling  
Post Office Department ..... Charles M. Knobbe  
Department of Justice ..... H. J. Walls  
Department of State ..... Francis C. de Wolf  
Department of Treasury ..... Commander C. H. Peterson  
Department of War ..... Major William E. Plummer

## FUNCTIONS

This committee, composed of representative officials from the various government departments and agencies is charged with advising the President in regard to the assignment of frequencies to government station or classes of station. Little of the committee's work is divulged for public information because of its nature (e.g. National Defense), which is confidential.

## International Short Wave Club

923 Vine Street, East Liverpool, Ohio  
Phone, 3546-W

## OFFICERS

President & Editor ..... Arthur J. Green  
Board of Advisors ..... Joseph B. Sessions  
Board of Advisors ..... Jacob N. Kleimans  
Board of Advisors ..... Charles H. Schroeder  
European Representative ..... Arthur E. Bear

## BRANCH OFFICES

New York Chapter: Jacob N. Kleimans, Sec.; London (England) Chapter: Arthur E. Bear, Sec.; Manchester (England) Chapter: Officers to be elected monthly; Brighton (England) Chapter: John Bennett, Sec.; Guernsey (England) Chapter: F. S. LaPavoux, Sec. (Note: The English Chapters have temporarily suspended operations.)

## FUNCTIONS

The purpose of the organization is to gather information, helpful hints, station schedules, etc., and send this to members of the organization. The club has members in 141 countries and possessions that act as news reporters.

(Editor's Note: The International Short Wave Club has suspended activity for the duration.)

## The Lambs

130 W. 44th St., New York, N. Y.  
BRyant 9-8020

### OFFICERS

Shepherd J. . . . . Fred Waring  
Boy . . . . . Raymond Feck  
Corresponding Secretary . . . . . Bobby Clark  
Recording Secretary . . . . . Jack Whiting  
Treasurer . . . . . Ralph Trier  
Librarian . . . . . John Golden  
Assistant Secretary . . . . . T. H. Druitt

### MEMBERS OF THE COUNCIL

Kenneth Webb, Martin Gilen, James E. Meighan, Earl Benham, Edward C. Lilley, John McManus, Percy Moore, Edwin Burke, Dr. M. Saye Taylor, M. D. Stauffer, William P. Adams, Hal Christensen, Walter N. Greaza, Thomas Jefferson Miley, Tex O'Rourke.

LIFE DIRECTORS: R. H. Burnside, A. O. Brown, Frank Crummit, William Gaxton.

## Market Research Council

### OFFICERS

President . . . . . Elmo Roper  
(Elmo Roper)  
Vice-President . . . . . D. B. Lucas  
(New York University)  
Secretary-Treasurer . . . . . Ray Robinson  
(Crowell-Collier Publishing Co.)

### EXECUTIVE COMMITTEE

Elmo Roper, D. B. Lucas, Ray Robinson, John L. Bogert, Will S. Johnson.

### FUNCTIONS

This organization is a small informal group (limited membership) of leading market research men interested in general market research who meet monthly for a discussion of mutual problems.

## Minnesota Radio Council

1001 Hennepin Ave., Minneapolis, Minn.  
Phone, MA 2571

### OFFICERS

President . . . . . Miss Ruth Rosholt  
First Vice-President . . . . . Dr. Raymond J. Chadwick  
Second Vice-President . . . . . Miss Katharine Kohler  
Recording Secretary . . . . . Mrs. Arthur P. Peterson  
Corresponding Secretary . . . . . Mrs. W. H. MacNeil  
Treasurer . . . . . Miss Marguerite Breen  
BRANCH OFFICES: Duluth, St. Cloud, Winona, Abet Lea.

### FUNCTIONS

The Minnesota Radio Council aims to coordinate and cooperate with women's organizations, schools, religious groups and other educational institutions with radio programs. The Council plans to establish standards for the guidance of those concerned with the planning and production of radio programs; publicize approved radio shows; collect and distribute information concerning the reaction of listeners to all types of radio programs.

## Music Publishers' Protective Association, Inc.

45 Rockefeller Plaza, New York, N. Y.  
Circle 6-3084

### OFFICERS

Chairman of the Board . . . . . Walter G. Douglas  
President . . . . . Lester Santly  
Vice-President . . . . . Jack Mills  
Secretary . . . . . J. J. Bregman  
Treasurer . . . . . Richard F. Murray  
General Manager . . . . . Harry Fox

## Nat'l Assn. of Broadcast Engineers

1509 N. Vine St., Hollywood, Calif.  
GRanite 7273

### OFFICERS

President . . . . . James H. Brown  
Vice-President . . . . . Frank C. Schnepfer  
Secretary-Treasurer . . . . . Thor E. LaCroix

### FUNCTIONS

The NABE is an independent national labor organization representing radio broadcasting engineers and technicians exclusively. Chapters are located throughout the country.

## National Association of Broadcasters

Normandy Bldg., 1627 "K" Street, N. W.,  
Washington, D. C.  
National 2080

### OFFICERS

President . . . . . Neville Miller  
Assistant to President-Acting  
Secretary-Treasurer . . . . . C. E. Arney, Jr.  
General Counsel . . . . . Russell P. Place  
Director of Labor Relations . . . . . Joseph L. Miller  
Director of Broadcast Advertising . . . . . Lewis H. Avery  
Director of Research . . . . . Paul F. Peter  
Director of Engineering . . . . . Howard S. Frazier  
Director of Promotion . . . . . Arthur C. Stringer  
Auditor . . . . . Everett E. Revercomb  
Coordinator of Listener Activities . . . . . Mrs. Dorothy Lewis

### BOARD OF DIRECTORS

District  
1—Paul Morency, WTIC, Hartford, Conn.  
2—Kolin Hager, WGY, Schenectady, N. Y.  
Paul W. Kesten, CBS, New York, N. Y. (network director.)  
3—Isaac D. Levy, WCAU, Philadelphia, Pa.  
4—G. Richard Shafto, WIS, Columbia, S. C.  
Frank M. Russell, Washington, D. C. (network director.)  
Don S. Elias, WWNC, Asheville, N. C. (director-at-large)  
5—Frank King, WMBR, Jacksonville, Fla.  
James W. Woodruff, Jr., WRBL, Columbus, Ga. (director-at-large)  
6—Hcyt B. Wooten, WREC, Memphis, Tenn.  
Edwin W. Craig, WSM, Memphis, Tenn.  
7—J. H. Ryan, WSPD, Toledo, Ohio  
8—John E. Fetzer, WKZO, Kalamazoo, Mich.  
9—Edgar L. Bill, WMBD, Georgia, Ill.  
10—John J. Gillin, Jr., WOW, Omaha, Nebr.  
J. O. Maland, Des Moines, Ia.  
11—E. L. Hayek, KATE, Albert Lea, Minn.  
12—William B. Way, KVOO, Tulsa, Okla.  
Herbert Hollister, KANS, Wichita, Kans. (director-at-large)  
13—Kern Tips, KPRC, Houston, Tex.  
14—Ed Yocum, KGHL, Billings, Mont.  
Eugene P. O'Fallon, KFEL, Denver, Colo. (director-at-large)  
15—Arthur Westlund, KRE, Berkeley, Calif.  
16—Calvin J. Smith, KFAC, Los Angeles, Calif.  
17—Harry R. Spence, KXRO, Aberdeen, Wash.

### EXECUTIVE COMMITTEE

Neville Miller, Paul W. Morency, James D. Shouse, Don S. Elias, John J. Gillin, Jr., John Elmer, O. L. Taylor.

## National Assn. of Performing Artists

630 Fifth Ave., New York, N. Y.  
Circle 7-8194

### OFFICERS

President . . . . . James J. Walker  
First Vice-President . . . . . Fred Waring  
Vice-President . . . . . Meyer Davis  
Vice-President . . . . . Paul Whiteman  
Vice-President . . . . . Al Jolson  
Secretary . . . . . Frank Crumit  
Treasurer . . . . . Don Voorhees  
General Counsel . . . . . Maurice J. Speiser

### BOARD OF DIRECTORS

Fred Waring, Chairman; Connie Boswell, Noel Coward, Bing Crosby, Frank Crumit, Meyer Davis, Mary



## ORGANIZATIONS

Garden, Benny Goodman, Jascha Heifetz, Lewis James, Al Joison, Arthur W. Levy, Guy Lombardo, John McCormack, Grace Moore, Ray Noble, Walter O'Keefe, Dick Powell, Fritz Reiner, Jacob Rosenberg, Fabien Sevitky, Nathaniel Shilkret, Lawrence Tibbett, Rudy Vallee, Don Voorhees, James J. Walker, Paul White-man, Victor Young, Efrem Zimbalist.

### FUNCTIONS

The object of the Association is to protect the recordings of its members and the prevention of their unauthorized use primarily by broadcast stations, coin-operated machines, etc.

### National Better Business Bureau, Inc.

405 Lexington Ave., New York, N. Y.  
Murray Hill 6-3535

#### OFFICERS

President.....R. P. Clayberger  
Vice-President.....Phillips Wyman  
Secretary.....Warren C. Agry  
Treasurer.....John L. Anderson  
General Manager.....Edward L. Greene

#### FUNCTIONS

This organization assists the public, advertisers and publishers to avoid false and deceptive advertising. It cooperate with law enforcement agencies in this work.

### Nat'l Assn. Educational Broadcasters

Exec. Sec'y., Radio Station WILL, Univ. of Illinois, Urbana, Illinois

#### OFFICERS

Acting President.....Gilbert D. Williams  
(WBAA, West Lafayette, Ind.)  
Treasurer.....W. I. Griffith  
(WOL, Ames, Iowa)  
Executive Secretary.....Frank Schooley  
(WILL, Urbana, Illinois)

#### FUNCTIONS

To further the interests of educational broadcasting stations and educators broadcasting over commercial stations.

### National Independent Broadcasters

#### (NIB)

Chairman's Office: 730 Fifth Ave., New York, N. Y.  
Washington Office: Edmonds Bldg., 917 Fifteenth St., N.W., Washington, D. C.  
Phone, Republic 3607

#### OFFICERS

Chairman, Board of Directors.....Harold A. Lafount  
President.....George B. Storer  
Vice-President.....L. B. Wilson  
Secretary-Treasurer.....Lloyd C. Thomas  
General Counsel.....Andrew W. Bennett  
Managing Director.....Edwin M. Spence

#### DIRECTORS

Harold A. Lafount, Chairman of the Board; Ralph L. Atlass, WJJD, Chicago, Ill.; S. A. Cislcr, WGRC, Louisville, Ky.; Edward Codel, WPAT, Paterson, N. J.; E. B. Craney, KGIR, Butte, Mont.; A. J. Fletcher, WRAL, Raleigh, N. C.; Thompson Guernsey, WLBZ, Bangor, Me.; James F. Hopkins, WJBK, Detroit, Mich.; C. J. Lanphier, WEM?, Milwaukee, Wisc.; Martin L. Leich, WBOW, Terre Haute, Ind.; Ben Ludv, WIBW, Topeka, Kans.; Glenn Marshall, Jr., WFOY, St. Augustine, Fla.; E. C. Reineke, WDAY, Fargo, N. D.; L. M. Sepaugh, WSLI, Jackson, Miss.; Edwin M. Spence, WWDC, Washington, D. C.; George B. Storer, The Fort Industry Co.; Lloyd C. Thomas, KGEW, Kearney, Nebr.; Arthur Westlund, KRE, Berkeley, Calif.; L. B. Wilson, WCKY, Cincinnati, Ohio.

#### FUNCTIONS

This association was organized and is operated by independently owned and operated stations, as distinguished from national networks and stations owned or managed by national networks, to meet the need of special representation for such independently owned stations in handling the problems and activities peculiar

to them as a group. All broadcast stations are eligible for membership except stations owned or managed by national networks.

### National Industrial Advertisers Association, Inc.

100 E. Ohio St., Chicago, Ill.  
Superior 8140

#### OFFICERS

President.....Herbert V. Mergready  
(Magnus Chemical Co.)  
Vice-President.....Robert J. Barbour  
(Bakelite Corporation)  
Vice-President.....Allan P. Colby  
(National Supply Co.)  
Vice-President.....Wilmer S. Cordes  
(American Steel & Wire Co.)  
Vice-President.....John A. M. Galilee  
(Canadian Westinghouse Co., Ltd.)  
Vice-President.....Harry A. Keene  
(Grinnell Company, Inc.)  
Vice-President.....Frederic I. Lacksen  
(The Hays Corp.)  
Vice-President.....Anthony Neher  
(Century Electric Co.)  
Vice-President.....H. S. Schuler  
(Westinghouse Electric & Mfg. Co.)  
Secretary-Treasurer.....Arnold Andrews  
(Bucyrus-Erie Company)  
Past President.....R. P. Dodds  
(Truscon Steel Company)  
Headquarters Secretary.....Mildred R. Webster

#### DIRECTORS

C. M. Buchanan, Van Sant, Dugdale & Co., Baltimore, Md.; M. J. Donahue, Anchor Post Fence Co., Baltimore, Md.; K. R. Sutherland, Sutherland-Abbott, Boston, Mass.; James H. Watson, S. D. Watson Co., Boston, Mass.; W. Lane Witt, Crane Co., Chicago, Ill.; Blaine G. Wiley, All-Steel-Equip Co., Aurora, Ill.; Wm. E. McFee, American Rolling Mill Co., Middletown, Ohio; Theodore Brown, Perry-Brown, Inc., Middletown, Ohio; Ernest C. Roberts, The Clark Controller Co., Cleveland, Ohio; C. B. Cook, The Ellwell-Parker Electric Co., Cleveland, Ohio; J. X. Farrar, The Jeffrey Mfg. Co., Columbus, Ohio; Charles E. Brown, Denison Engineering Co., Columbus, Ohio; Bruce Morse, Square D Co., Detroit, Mich.

John A. Marshall, Wolverine Tube Co., Detroit, Mich.; Harold A. Quinlan, Spencer W. Curtiss, Inc., Indianapolis, Ind.; J. A. Delo, Continental Steel Corp., Kokoma, Ind.; R. Calvert Haws, Western Precipitation Corp., Los Angeles, Calif.; Don Mack, Weber Showcase & Fixture Co., Los Angeles, Calif.; Frank W. Pensinger, Landis Tool Co., Waynesboro, Pa.; Terry Mitchell, Frick Co., Waynesboro, Pa.; Walter E. Schutz, Delta Manufacturing Co., Milwaukee, Wis.; E. J. Goes, Koehring Co., Milwaukee, Wis.

Lowell H. Swenson, Wm. Bros. Boiler & Mfg. Co., Minneapolis, Minn.; Roy H. Smallwood, Wm. H. Ziegler Co., Minneapolis, Minn.; A. P. Darcel, Crane, Ltd., Montreal, Canada; W. A. Bates, Steel Co. of Canada, Ltd., Montreal, Canada; John Coakley, Thomas A. Edison, Inc., West Orange, N. J.; Samuel E. Gold, Lignum-Vitae Corp., 96-100 Boyd Ave., Jersey City, N. J.; C. M. Neighbors, Babcock & Wilcox Co., New York, N. Y.; E. Scott Pattison, C. M. Bassford Co., New York, N. Y.; A. O. Witt, Schramm, Inc., West Chester, Pa.; J. S. McCullough, Yale & Towne Mfg. Co., Philadelphia, Pa.; C. E. Herington, Mechanite Research Institute of America, Inc., Pittsburgh, Pa.; Harold S. Downing, Walker & Downing, Pittsburgh, Pa.

Walter A. Bowe, Carrier Corp., Syracuse, N. Y.; Wallace W. Lockwood, Taylor Instrument Companies, Rochester, N. Y.; M.R. Crossman, Cramer-Krasselt Co., Milwaukee, Wis.; Walter Hagstrom, Mattison Machine Works, Rockford, Ill.; Gordon W. Monfort, Caterpillar Tractor Co., San Leandro, Calif.; W. H. Wilde, The McCarty Co., San Francisco, Calif.; Charles W. Bolan, Carter Carburetor Corp., St. Louis, Mo.; O. R. French, Oakleigh R. French & Associates,

St. Louis, Mo.; T. K. Almroth, Owen-Illinois Glass Co., Toledo, Ohio; Ben C. Gardner, The DeVilbiss Co., Toledo, Ohio.

L. B. Hicks, Canadian Electric Co., Ltd., Toronto, Canada; Donald McCrimmon, C. A. Dunham Co., Toronto, Canada; G. M. Fletcher, The Stanley Works, New Britain, Conn.; H. E. Merrill, General Electric Co., Bridgeport, Conn.; William S. Miller, The General Fireproofing Co., Youngstown, Ohio; A. M. Wearstler, Wearstler Advertising, Inc., Youngstown, Ohio; Fred B. Holcomb, National Automatic Tool Co., Richmond, Ind.; Alan A. Ballantyne, Novo Engine Co., Lansing, Mich.

#### FUNCTIONS

This organization is a trade association devoting its efforts exclusively to the advancement of industrial advertising and marketing technique and practice.

### Nat'l Television System Committee

#### PERSONNEL

Chairman	Dr. W. R. G. Baker (General Electric Co.)
Secretary	Virgil M. Graham (Sylvania Electric Products, Inc.)
Committeeman	Dr. Ralph Bown (Bell Telephone Labs., Inc.)
Committeeman	Leonard H. Hole
Alternate	Dr. P. C. Goldmark (Columbia Broadcasting System, Inc.)
Committeeman	Allen B. DuMont
Alternate	Dr. T. T. Goldsmith (Allen B. DuMont Laboratories, Inc.)
Committeeman	B. R. Cummings
Alternate	Madison Cawein (Farnsworth Television & Radio Corp.)
Committeeman	Dr. E. F. W. Alexander
Alternate	I. J. Kaar (General Electric Co.)
Committeeman	Daniel E. Harnett
Alternate	W. A. MacDonald (Hazeltine Service Corporation)
Committeeman	Albert I. Lodwick
Alternate	A. F. Murray (Hughes Tool Company)
Committeeman	Dr. Alfred N. Goldsmith
Alternate	H. A. Wheeler (Institute of Radio Engineers)
Committeeman	J. V. L. Hogan
Alternate	L. C. Smeby (National Association of Broadcasters)
Committeeman	David B. Smith
Alternate	F. J. Bingley (Philco Corporation)
Committeeman	Dr. R. H. Manson
Alternate	Dr. G. R. Town (Stromberg-Carlson Telephone Mfg. Co.)
Committeeman	Paul Raibourn (Television Productions, Inc.)
Committeeman	John R. Howland
Alternate	J. E. Brown (Zenith Radio Corporation)
Committeeman	E. W. Engstrom
Alternate	Dr. C. B. Jolliffe (RCA Manufacturing Co.)
Committeeman	D. C. Little (Westinghouse Elec. & Mfg. Co.)
<b>COMMITTEE CHAIRMEN</b>	
Committee on Synchronization	D. B. Smith
Committee on Color Television	Dr. P. C. Goldmark
Committee on Monitoring	Dr. T. T. Goldsmith, Jr.
Committee on Visual Sideband	C. A. Priest

### National Variety Artists, Inc.

225 W. 46th St., New York, N. Y.  
Columbus 5-2638

#### OFFICERS

President	Louis Handin
First Vice-President	Joe Verdi
Second Vice-President	Lester Rose
Treasurer	Frank O'Connell
Recording Secretary	Rosa Crouch

#### DIRECTORS

Charles Preston, Juliet Heath, Joe Ross, George Crowley, Leon E. Bendon, Vic Christie, Bert Spencer, Joe Woods, Wilbur Wolf

#### FUNCTIONS

The function of National Variety Artists, Inc., is to promote Americanism and fraternal and welfare activities among the members of the theatrical profession.

### Nebraska Broadcasters Association

Secretary's Office: c/o WJAG, Norfolk, Nebr.  
Phone: 432

#### OFFICERS

President	Jud Woods (KFOR, Lincoln)
Vice-President	L. L. Hilliard (KGKY, Scottsbluff)
Secretary-Treasurer	Art Thomas (WJAG, Norfolk)

#### DIRECTORS

W. I. LeBarron, KGKF, North Platte; Vernon H. Smith, KOWH, Omaha; John J. Gillin, Jr., WOW, Omaha.

#### MEMBER STATIONS

KFAB, Lincoln; KFOR, Lincoln; KGKY, Scottsbluff, KGKF, North Platte; KMMJ, Grand Island; KOWH, Omaha; KOIL, Omaha; WJAG, Norfolk; WOW, Omaha; KBON, Omaha.

### Network Affiliates, Inc.

Munsey Bldg., Washington, D. C.

#### OFFICERS

President	Eugene C. Pulliam (WIRE, Indianapolis, Ind.)
Vice-President	Hulbert Taft, Jr. (WKRC, Cincinnati, O.)
Secretary-Treasurer	William J. Scripps (WWJ, Detroit, Mich.)

#### DIRECTORS

Ed Crane, KGIR, Butte, Mont.; W. J. Scripps, WWJ, Detroit, Mich.; Eugene C. Pulliam, WIRE, Indianapolis, Ind.; Ronald Woodyard, WING, Dayton, O.; Luther L. Hill, KRNT, Des Moines, Ia.; H. J. Brennan, KGKY, Pittsburgh, Pa.; Hoyt Wooten, WREC, Memphis, Tenn.; John A. Kennedy, WCHS, Charleston, W. Va.; Edgar Bill, WMBD, Peoria, Ill.; Donald Davis, WHB, Kansas City, Mo.; Hulbert Taft, Jr., WKRC, Cincinnati, O.; Leonard H. Kapner, WCAE, Pittsburgh, Pa.

#### BRANCH OFFICES

Indianapolis: Claypool Hotel; Phone, Riley 1541; Eugene C. Pulliam, President.  
Detroit: 626 West Lafayette Blvd., Phone Randolph 2000; William J. Scripps, Secretary-Treasurer.

#### FUNCTIONS

All independently owned network affiliates are eligible to membership in Network Affiliates, Inc. Clear channel stations and purely local stations are not eligible for membership. The principal object of the association is to promote and protect the American system of broadcasting as it now functions and to oppose the establishment of super-power stations in the United States. It also serves as a mutual clearing house for network affiliate stations in their relations with the network company, ASCAP, BMI and with the FCC.

### New Jersey Broadcasters' Association

C/o John C. Bird  
WCAP, Asbury Park, N. J.  
Phone: Asbury Park 1911

#### OFFICERS

President	A. Harry Zoog (WTTM, Trenton)
Vice-President	I. R. Rosenhaus (WAAT, Newark)
Vice-President	O. L. Maxey (WSNJ, Bridgeton)
Secretary-Treasurer	John C. Bird (WCAP, Asbury Park)

#### EXECUTIVE BOARD

A. Harry Zoog, O. L. Maxey, John C. Bird, WCAP, Asbury Park, George S. McGinley, WTTM, Trenton; A. B. Schillin, WAAT, Jersey City.

### Newspaper Radio Committee

370 Lexington Ave., New York, N. Y.  
Lexington 2-8497

#### OFFICERS

Chairman	Harold V. Hough
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## • • • ORGANIZATIONS • • •

Vice-Chairman ..... Walter J. Damm  
Treasurer ..... Dean Fitzner

### FUNCTIONS

Newspaper Radio Committee was organized by publishers of newspapers owning broadcast stations to present before the FCC their defense against FCC Order No. 79 issued March 20, 1941.

### North Carolina Assn. of Broadcasters

President's Office: C/o WSTP, Salisbury, N. C.

#### OFFICERS

President ..... Bryce P. Beard  
(WSTP, Salisbury)  
Vice-President ..... Jerry Winters  
(WGBR, Goldsboro)  
Treasurer ..... A. E. Joscelyn  
(WBT, Charlotte)  
Secretary ..... Nathan Frank  
(WCBT, Roanoke Rapids)

### FUNCTIONS

This association coordinates the activities of all member stations in connection with problems in which they have a mutual interest.

### Northern California Broadcasters Association

c/o C. L. McCarthy, Secretary  
KQW San Francisco Studios  
140 Jessie St., San Francisco, Calif.

#### OFFICERS

President ..... Arthur Westlund  
(KRE, Berkeley)  
Secretary-Treasurer ..... C. L. McCarthy  
(KQW, San Jose)

### FUNCTIONS

The Northern California Broadcasters Assn. is an informal organization established to discuss and work out problems common to the broadcasting stations in the territory.

### Ohio Association of Broadcasters

33 N. High St., Columbus, Ohio  
Phone, MA 4581

#### OFFICERS

President ..... Carl Everson  
(WHKC, Columbus)  
Vice-President ..... Robert T. Mason  
(WMRN, Marion)  
Secretary-Treasurer ..... Laben T. Smith  
(WCOL, Columbus)

### Oregon State Broadcasters' Assn.

c/o Lee Bishop, President  
KMED, Medford, Ore.

#### OFFICERS

President ..... Lee Bishop  
(KMED, Medford)  
Vice-President ..... Arden Pangborn  
(KGW-KEX, Portland)  
Secretary-Treasurer ..... Frank Loggan  
(KBND, Bend)  
Board Members ..... Frank Hill, Henry Swartwood, Jr.

### FUNCTIONS

Membership roster of this organization includes all broadcasting stations in Oregon, including state and municipal stations. Purpose is to be of mutual assistance in commercial, management and technical problems by exchange of information and group action if needed.

### Pacific Advertising Association

337 Monadnock Building  
San Francisco, Calif.  
Phone: GARfield 6868

#### OFFICERS

President ..... Lawrence Lane  
(Sunset Magazine)

Senior Vice-President ..... Marion Nelson  
(Gillham Advertising Agency)  
Secretary-Treasurer ..... Carl J. Eastman  
(N. W. Ayer & Son)  
Vice-President-at-Large ..... Ruth Callahan  
(Calif. Parent-Teacher Magazine)  
V-P District 1 ..... George Weber  
(Mac Wilkins & Cole Advtg. Agency)  
V-P District 2 ..... Walter Wagstaff  
(Radio Station KDYL)  
V-P District 3 ..... Arlyn Cole  
(Mac Wilkins & Cole Advtg. Agency)  
V-P District 4 ..... Howard Willoughby  
(Foster & Kleiser Co.)  
V-P District 5 ..... I. N. Shun  
(Advertising Counselors, Inc.)  
Past President ..... Don Belding  
Chairman, Finance Division ..... Walter J. Held  
(Standard Oil Co.)  
Chairman, Club Service Division ..... Elliott C. Hensel  
(Business Counselor)  
Chairman, Advancement of Business Division  
..... Walter W. R. May  
(Portland General Electric Co.)  
Chairman, Pacific Advertising Commission  
..... George W. Kleiser, Sr.  
(Foster & Kleiser Co.)  
Chairman, Senior Advisory Committee  
..... Robert L. Philippi  
(Union Oil Company)  
Chairman, Junior Executive Committee ..... Jerry Crollard  
(Sunset Outdoor Adv. Co.)

### FUNCTIONS

This Association is composed of 22 advertising clubs in 11 western states and of contributing members to the association's advancement of business and "Advertisers for Victory" program.

### Pennsylvania Broadcasters Assn.

P. O. Box 11, Harrisburg, Pa.

#### OFFICERS

President ..... Clair R. McCollough  
(WGAL, Lancaster)  
Vice-President ..... Clifford Chafey  
(WEEU, Reading)  
Secretary ..... C. G. Moss  
(WKBO, Harrisburg)  
Treasurer ..... Dr. Leon Levy  
(WCAU, Philadelphia)

#### DIRECTORS

H. Kenneth Brennen, WJAS, Pittsburgh; George E. Joy, WRAC, Williamsport; Arthur Simon, WPEN, Philadelphia.

### FUNCTIONS

This organization is a mutual association of the broadcasting stations of Pennsylvania, formed for the purpose of conducting business negotiations concerning matters of interest to the radio broadcasting stations of the state. Its membership is active on the part of practically every station in the state.

### Professional Music Men, Inc.

1270 Sixth Ave., New York, N. Y.  
COLUMbus 5-7362

#### OFFICERS

President ..... Rocco Vocco  
First Vice-President ..... Joseph Santly  
Second Vice-President ..... Charles Warren  
Third Vice-President ..... Phil Kornheiser  
Treasurer ..... Irving Tanz  
Financial Secretary ..... Michael L. Schloss  
Recording Secretary ..... Louis E. Schwartz  
Sergeant-at-Arms ..... David Kent  
Executive Director ..... Bob Miller

#### BRANCH OFFICES

19 S. La Salle St., Chicago, Ill.  
Regional Director ..... Morton Schaefer  
1509 N. Vine Street, Hollywood, Calif.  
Regional Director ..... Allan Ross  
36 East Fifth Street, Cincinnati, Ohio

Regional Director ..... Danny Engel  
 433 Little Building, Boston, Mass.  
 Regional Director ..... Charles Goldberg  
 316 Porter St., Philadelphia, Pa.  
 Regional Director ..... David Blum

## The Radio Club of America, Inc.

11 W. 42nd St., New York, N. Y.  
 Longacre 5-6622

### OFFICERS

President ..... Paul Ware  
 Vice-President ..... Charles E. Dean  
 Recording Secretary ..... Lucius E. Packard  
 Corresponding Secretary ..... C. James Morelock  
 Treasurer ..... J. J. Stantley

### FUNCTIONS

Object of the club is the promotion of cooperation among those interested in scientific investigation and amateur operation in the art of radio communication. Meetings are held monthly from September through June at Columbia University. Proceedings are published approximately six times a year (see listing under publications contained in this volume).

## Radio Correspondents' Association

United States Capitol, Washington, D. C.  
 National 3120, Extension 1410

### OFFICERS

President ..... Fred W. Morrison  
 Vice-President ..... Eric Seward  
 Secretary ..... Francis W. Tully  
 Treasurer ..... Earl Godwin  
 Ex-Officio Member, Executive Committee  
 H. R. Baukhage

### FUNCTIONS

This is an organization of radio news reporters and correspondents in the National Capitol, gathering daily news for dissemination through the medium of radio. It controls the membership of the Senate and House radio galleries and is vested with complete responsibility for any radio representatives who attend news conferences at the White House as well as providing facilities for radio news men at national political conventions.

## Radio Council—WBEZ

### Chicago Public Schools

228 N. La Salle St., Chicago, Ill.  
 Dearborn 7801

### OFFICERS

Superintendent of Schools ..... Dr. William H. Johnson  
 Acting Director ..... George Jennings  
 Engineer ..... E. H. Anderson

### EXECUTIVE COMMITTEE OF SCHOOL BROADCAST CONFERENCE

Harold W. Kent, Chairman; Judith Waller, National Broadcasting Co.; Lavinia Schwartz, Columbia Broadcasting System; George Jennings, Director of Conference; Harriet Hester, WLS, Chicago; Al Hollender, WJJD-WIND, Chicago; David Heffernan, Cook County Schools; William Drips, The Blue Network.

### FUNCTIONS

The Radio Council operates a non-commercial educational FM station and is producing group, primarily interested in in-school broadcasts for Chicago schools. It also produces many out-of-school programs over local stations and publishes literature in this connection. It also conducts the annual School Broadcast Conference which is primarily interested in showing ways in which to use radio programs in the classroom; public service programs for community organizations; adult education.

## Radio Directors Guild

The Berkshire  
 21 East 52nd St., New York, N. Y.  
 PLaza 3-5800, Extension 206

### OFFICERS

President ..... Earle L. McGill  
 Vice-President and Chairman, Membership  
 Committee ..... Jerry Devine  
 Treasurer ..... Robert L. Shayon  
 Secretary ..... John Macdonnell  
 Chairman, War Activities Committee ..... Phil Cohan  
 Past President ..... George J. Zachary  
 Past Vice-President ..... Edward A. Byron

### COUNCIL

Earle L. McGill, Jerry Devine, Robert L. Shayon,  
 John Macdonnell, Phil Cohan, William M. Sweets,  
 Roger Bower, Theodora Yates, Harold McGee, John  
 Loveton.

## Radio Executives Club of New York

400 Madison Ave., New York, N. Y.

### OFFICERS

President ..... Thomas H. Lynch  
 Vice-President ..... Linnea Nelson  
 Secretary ..... Bevo Middleton  
 Treasurer ..... Peggy Stone

### FUNCTIONS

The major functions of the Radio Executives Club are: (1) to promote and encourage the use of radio broadcasting as an advertising medium; (2) to create a lasting fraternity of persons engaged in the business of radio; (3) to promote a better understanding of radio broadcasting and its attending problems; (4) to maintain a central bureau of employment for members of the club; (5) to provide a common meeting place for all persons engaged in the business of radio. Meetings are held weekly from October to May and membership is open to anyone engaged in the business of radio, subject to approval of the membership committee.

## Radio Manufacturers Association

1317 F Street, N. W., Washington, D. C.  
 National 4901

### OFFICERS

President ..... Paul V. Galvin  
 (Galvin Manufacturing Corp.)  
 Executive Vice-President-General Manager  
 Bond Geddes  
 Vice-President ..... Ray H. Manson  
 (Stromberg-Carlson Tel. Mfg. Co.)  
 Vice-President ..... M. F. Balcom  
 (Sylvania Electric Products, Inc.)  
 Vice-President ..... G. W. Henyan  
 (General Electric Company)  
 Vice-President ..... James P. Quam  
 (Quam-Nichols Co.)  
 Vice-President ..... Ray E. Sparrow  
 (P. R. Mallory & Co., Inc.)  
 Treasurer ..... Leslie Muter  
 (The Muter Co.)  
 General Counsel ..... John W. Van Allen  
 (Buffalo, N. Y.)

### DIRECTORS

P. S. Billings, Belmont Radio Corp.; Octave Blake, Cornell-Dubilier Electric Corp.; H. C. Bonfig, RCA Manufacturing Co., Inc.; James T. Buckley, Philco Corp.; James C. Daley, Jefferson Electric Co.; Paul V. Galvin, Galvin Mfg. Corp.; W. P. Hillard, Bendix Radio; J. J. Kahn, Standard Transformer Corp.; E. A. Nicholas, Farnsworth Television & Radio Corp.; H. E. Osmon, Centralab; James P. Quam, Quam-Nichols Co.; David T. Schultz, Raytheon Production Corp.; Ernest Searing, International Resistance Co.; Ray F. Sparrow, P. R. Mallory & Co., Inc.

## Radio Manufacturers Assn. of Canada

159 Bay St., Toronto, Ont., Canada  
 Adelaide 1531

### OFFICERS

President ..... E. C. Grimley  
 Vice-President ..... L. A. Young  
 Executive Secretary ..... W. W. Richardson  
 Chairman of Engineering Committee ..... C. J. Irwin

### FUNCTIONS

This association is a non-profit and co-operative organization founded in 1926 to promote the interests of the radio manufacturing industry in Canada.

## Radio Script & Transcription Exchange, Federal Radio Education Committee

U. S. Office of Education, Washington, D. C.  
 Republic 1820, Extension 2225

### OFFICERS

Director ..... R. R. Lowdermilk

## • • • ORGANIZATIONS • • •

### FUNCTIONS

The exchange is designed to promote more effective local broadcasting by educational and civic organizations and radio stations by serving as a clearing house for selected educational radio scripts, transcriptions and production aids, and as a source of all kinds of information pertaining to the field of educational radio.

### The Radio Writers' Guild of the Authors' League of America, Inc.

6 E. 39th Street, New York, N. Y.  
MUrray Hill 5-6930

#### OFFICERS

National President ..... Paul Franklin  
Vice-President, Eastern Region ..... John Vandercook  
Vice-President, Middle Western Region

George Roosen  
Vice-President, Western Region ..... Arch Oboler  
Executive Secretary, Eastern Region ..... Luise Silcox  
Assistant Secretary, Mid-western Region

Pauline Hopkins  
Assistant Secretary, Western Region ..... Pauline Lauber

#### BRANCH OFFICES

Hollywood: 1655 N. Cherokee Ave.  
Chicago: Room 443 Allerton Hotel

#### EASTERN REGIONAL COUNCIL

Erik Barnouw, Norman Corwin, Knowles Entriokin,  
Stuart Hawkins, Harry R. Herrmann, J. T. W. Martin,  
Richard McDonagh, Addy Richton, William L. Shirer,  
Kenneth Webb, Peter Lyon.

#### FUNCTIONS

The Guild is one of the Guilds of The Authors' League of America, Inc. The Guild is primarily a protective organization for writers in the radio field.

### Rocky Mountain Radio Council, Inc.

21 East 18th Ave., Denver, Colo.  
KEystone 5306

#### OFFICERS

President ..... C. B. Hershey  
Secretary ..... William M. Spackman  
Treasurer ..... E. A. Conway, S. J.  
Director ..... Robert B. Hudson

#### EXECUTIVE COMMITTEE

A. Helen Anderson, Ben M. Cherrington, H. M. Crain, Robert L. Stearns, Malcolm G. Weyer.

#### FUNCTIONS

The Rocky Mountain Radio Council is a non-profit corporation of 29 organizations formed to give professional aid to educational organizations in planning, preparing and producing their radio broadcasts. In 1942 it produced 374 programs for 34 organizations, which were re-broadcast 1,762 times from 19 commercial radio stations in the Rocky Mountain region. Recording studio facilities available for commercial work.

### SESAC, Inc.

113 W. 42nd St., New York, N. Y.  
BRyant 9-3223

#### OFFICERS

President ..... Paul Heinecke

#### FUNCTIONS

Licensing use of copyrighted music.

### Society of Jewish Composers, Publishers and Song Writers

152 W. 42nd St., New York, N. Y.  
LONgacre 5-9124

#### OFFICERS

President ..... Sholom Secunda  
Vice-President ..... Rev. Pinchus Jassinowsky  
Treasurer ..... Alexander Olshanetsky  
Secretary ..... Henry Lefkowitz  
General Manager ..... Salom J. Perlmutter  
Counsel ..... A. Edward Masters

#### FUNCTIONS

This association licenses public performance rights of music copyrighted by its members and on which

they collect royalties. Association owns approximately 95 percent of the Jewish compositions.

### Society of Motion Picture Engineers

Hotel Pennsylvania, New York, N. Y.  
PENnsylvania 6-0620

#### OFFICERS

President ..... Herbert Griffin  
Past President ..... Emery Huse  
Executive Vice-President ..... Loren L. Ryder  
Engineering Vice-President ..... D. E. Hyndman  
Editorial Vice-President ..... A. C. Downes  
Financial Vice-President ..... A. S. Dickinson  
Convention Vice-President ..... W. C. Kunzmann  
Secretary ..... E. Allen Williford  
Treasurer ..... M. R. Boyer

#### GOVERNORS

Frank E. Carlson, H. D. Bradbury, Alfred N. Goldsmith, A. M. Gundelfinger, C. W. Handley, Edward M. Honan, John A. Maurer, H. W. Moyses, William A. Mueller, H. W. Remersheid, J. H. Spray, R. O. Strock.

#### FUNCTIONS

In addition to its motion picture activities, this association is actively interested in television. It publishes a monthly organ in which various subjects are discussed by men in the industry.

### Song Writers' Protective Association (SPA)

1250 Sixth Ave., New York, N. Y.  
COLUMbus 5-3758

#### OFFICERS

President ..... Sigmund Romberg  
Vice-President ..... Stanley Adams  
Second Vice-President ..... Ira Gershwin  
Secretary ..... Charles Tobias  
Treasurer ..... Abel Baer  
Counsel ..... John Schulman  
Executive Secretary ..... Sayre Marder  
West Coast Representative ..... L. Wolfe Gilbert

#### FUNCTIONS

Song Writers' Protective Association aims to foster the interests of all persons engaged in writing musical compositions. By cooperative effort it seeks to eliminate inequitable conditions and harmful practices and to assist members when disputes arise over enforcement of contracts or the collection of royalties.

### Southern California Broadcasters' Association, Inc.

6121 Sunset Blvd., Los Angeles, Calif.  
HOLLYwood 1212

#### OFFICERS

President ..... Lawrence W. McDowell  
(KFOX, Long Beach)  
Vice-President ..... Duke Hancock  
(KGFI, Los Angeles)  
Secretary-Treasurer ..... Harry Maizlish  
(KFWB, Los Angeles)

#### FUNCTIONS

Membership of the Southern California Broadcasters' Association is composed of 29 southern California stations, represented in each case by its manager or senior executive. Monthly meetings are devoted to discussion of industry problems, such as ASCAP, BMI, labor, engineering, code of ethics, agency recognition, coordination with governmental agencies, civic activities, etc.

### Sports Broadcasters Association (New York Chapter)

c/o Dave Driscoll, 1440 Broadway, New York, N. Y.  
PENnsylvania 6-8600

#### OFFICERS

President ..... Ted Husing  
Vice-President ..... Stan Lomax

## • • • ORGANIZATIONS • • •

Vice-President ..... Bill Stern  
Treasurer ..... Bert Lee  
Secretary ..... Dave Driscoll

### FUNCTIONS

It is the object of the Sports Broadcasters Association to promote the standard of the profession of sports broadcasting among its members and to disseminate sports information to its members through a regular weekly luncheon. Membership is restricted to any male person who is actively engaged in the profession of sports broadcasting whether as an announcer, commentator or writer.

### Twenty Year Club

9 Garden Place, Brooklyn, N. Y.  
MAin 4-3434  
Founder ..... H. V. Kaltenborn

### FUNCTIONS

The Twenty Year Club is an Honor Roll of men and women who have been associated with radio for twenty years. There are no dues, fees, officers, regular meetings or other obligations. A year-book is published annually.

### United States Department of Interior—Radio Section

Interior Department Radio Studios, Washington, D. C.  
Republic 1820

### PERSONNEL

Director ..... Shannon Allen  
Chief Script Writer ..... Louis J. Hazam  
Chief Engineer ..... Robert C. Chapman

### FUNCTIONS

The Radio Section of the Interior Department reports the functions and services of the offices and bureaus of the Department using all forms of radio and transcription production; serves all agencies of the Federal government through its studios and transcription production facilities.

### Radio Sub-Committee, War Activities Committee, Motion Picture Industry—Hollywood Branch

5504 Hollywood Blvd., Hollywood, Calif.  
Phone, GL 6111.

### MEMBERS

Daniel Danker, J. Walter Thompson Co.; William Forbes, Columbia Broadcasting System; Don Gilman, National Broadcasting Co.; Donald W. Thornburgh, Columbia Broadcasting System.

### FUNCTIONS

This sub-committee assists the War Activities Committee-Motion Picture Industry-Hollywood Branch in radio matters in coordinating production. The main committee is the official production body to whom all requests for governmental and private agencies should go.

### Washington State Association of Broadcasters

207 East Market St., Aberdeen, Wash.  
Aberdeen 4098

### OFFICERS

President ..... Harry R. Spence  
(KXRO, Aberdeen)  
Vice-President ..... Rogan Jones  
(KVOS, Bellingham)  
Secretary-Treasurer ..... Robert Priebe  
(KRSC, Seattle)

### FUNCTIONS

The Washington State Association of Broadcasters is an organization formed for the mutual protection, the exchange of commercial ideas and the education of its members in matters pertaining to radio.

### Western Association of Broadcasters

C/o Radio Station CFRN, 109 C.P.R. Bldg.,  
Edmonton, Alberta, Canada  
Telephone 22101

### OFFICERS

President ..... G. R. A. Rice  
(CFRN, Edmonton, Alberta)

### DIRECTORS

Alberta: Cecil Berry, CFGP, Grande Prairie, B. C.; M. V. Chestnut, CJVI, Victoria, Manitoba; Roy Wright, CFAR, Flin Flon, Saskatchewan; Carson Buchanan, CHAB, Moose Jaw.

### CANADIAN ASSOCIATION OF BROADCASTERS

### DELEGATES

A. A. Murphy, CFQC, Saskatoon, Sask.; George Chandler, CJOR, Vancouver, B. C.; H. R. Carson, CFAC, Calgary, Alta.; G. R. A. Rice, CFRN, Edmonton.

### FUNCTIONS

Western Association of Broadcasters is a regional trade association of broadcasting stations in Manitoba, Saskatchewan, Alberta and British Columbia, closely affiliated with the Canadian Association of Broadcasters. It is virtually a western division of the latter organization, as all members are in both associations.

### Wisconsin League of Radio Stations

c o WNBH, La Crosse, Wisc.  
La Crosse 450

### OFFICERS

President ..... James F. Kyler  
Treasurer ..... Hiram Born  
Secretary ..... Ed Cunniff

### Woman's National Radio Committee

113 West 57th St., New York, N. Y.  
Circle 7-4110

### OFFICERS

Chairman ..... Mme. Yolanda Mero-Irion  
Vice-Chairman ..... Mrs. D. Leigh Colvin  
Second Vice-Chairman ..... Mrs. Marion M. Miller  
Secretary ..... Miss Helen Havener  
Treasurer ..... Mrs. M. D. Jackson  
Executive Secretary ..... Mrs. Rosalie Wolf  
Members-At-Large ..... Mrs. Sidonie M. Gruenberg,  
Mrs. Samuel Kubie, Mrs. Mary F. Larkin, Mrs.  
Marion M. Miller, Mrs. Emory Ross, Mrs. Stanley Woodard.

### FUNCTIONS

This committee has for its purpose to raise the standard of radio programs for adults, young people and children by: (1) retaining on the air the finer type of program; (2) removing objectionable features; (3) improving advertising content of broadcasts; (4) encouraging the production and presentation of more fine programs, worthwhile from the educational, cultural and entertainment viewpoint.

### Writers' War Board

122 E. 42nd St., New York, N. Y.  
MUrray Hill 3-6805

### OFFICERS

Chairman ..... Rex Stout

### EXECUTIVE BOARD

Franklin P. Adams, Sidney Buchman, Pearl S. Buck, Henry Fisk Carlton, Carl Carmer, Russel Crouse, Clifton Fadiman, Paul Gallico, Jack Goodman, Rita Halle Kleeman, Robert J. Landry, Margaret Leech, John P. Marquand, William L. Shirer, Luise Silcox.

### FUNCTIONS

The Writers' War Board serves as liaison between the writers of America and government agencies wishing to obtain written work that will directly, or indirectly, help to win the war; and to place with the proper government department ideas or pieces of writing which have been submitted by writers to the Board and approved by them.

# NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS

*As of January 1, 1943*

<i>Call Letters</i>	<i>Institutions</i>	<i>Address</i>	<i>Director</i>
KFJM	Univ. of N. Dakota	Grand Forks, N. D.	D. R. Jenkins
KFKU	Univ. of Kansas	Lawrence, Kansas	Harold G. Ingham
KOAC	Oregon State College	Corvallis, Oregon	Allen Miller
KUSD	Univ. of S. Dakota	Vermillion, S. D.	G. R. Bauer
KWLC	Luther College	Decorah, Ia.	Karl Hanson
KWSC	State College of Wash.	Pullman, Wash.	Kenneth E. Yeend
WBAA	Purdue University	Lafayette, Ind.	Gilbert D. Williams
WBEZ	Chicago Radio Council	Chicago, Ill.	George Jennings
WCAL	St. Olaf College	Northfield, Minn.	M. C. Jensen
WCAT	S. Dakota School of Mines	Rapid City, S. D.	C. M. Rowe
WHCU	Cornell University	Ithaca, N. Y.	Michael R. Hanna
WHA	Univ. of Wisconsin	Madison, Wis.	H. B. McCarty
WHAZ	Rensselaer Poly.	Troy, New York	W. J. Williams
WILL	Univ. of Illinois	Urbana, Ill.	Jos. F. Wright
WNAD	Oklahoma University	Norman, Okla.	
WNYC	City of New York, Municipal Broadcasting System	New York, N. Y.	M. S. Novik
WOI	Iowa State College	Ames, Iowa	W. I. Griffith
WOSU	Ohio State University	Columbus, Ohio	R. C. Higgy
WRUF	Univ. of Florida	Gainesville, Fla.	Garland Powell
WSAJ	Grove City College	Grove City, Pa.	H. W. Harmon
WSUI	State Univ. of Iowa	Iowa City, Iowa	Carl Menzer
WRUL & WRUW	World Wide Broadcasting Foundation	Boston, Mass.	Walter S. Lemmon
	Cleveland College	Cleveland, Ohio	Gazella P. Shepherd (Mrs.)
	University of Kentucky	Lexington, Ky.	Elmer G. Sulzer
	University of Michigan	Ann Arbor, Mich.	Waldo Abbot
	Syracuse University	Syracuse, N. Y.	Kenneth G. Bartlett
	Western State Teachers College	Kalamazoo, Mich.	Wallace L. Garneau
	Indiana University	Bloomington, Ind.	Lee Norvelle
	Oklahoma Baptist University	Shawnee, Okla.	Ralph E. Matthews



# HEALTH EDUCATION VIA RADIO

*By David Resnick*

*Public Health Education Consultant*

ONE of the most important contributions which broadcasting is making in the field of adult education is the splendid cooperation of stations and networks with local and national health organizations; but medical and health groups, as well as the radio industry, have only scratched the surface in the use of "public service" radio programs for health education. At the present time, the trend seems to be, more and more, away from the scheduling of talks by doctors and more in the direction of dramatizations. In addition, the health agencies have found much success with such techniques as the interview, symposium, panel discussion and round table.

Radio is not only a powerful medium which can be increasingly useful for public health education, but it is also a scientific development that helps to conserve eyesight. In a number of large cities, boards of education and radio stations jointly plan broadcasts for school children, and one of the greatest benefits of these programs is the eye rest periods which they afford. This is of particular value to the boys and girls with seriously defective vision who are enrolled in the hundreds of "sight-saving classes" which are to be found now in public schools throughout the country. For the visually handicapped as well as the blind, of course, the radio has been the greatest of all boons. It has opened for them the doors to the rest of the world. Entertainment, lectures, news, and a general enrichment of life are available throughout the day and evening by a mere turn of the dial.

## **Early Beginning**

The first broadcast dealing with health seems to have been a talk sponsored by the American Society for the Control of Cancer over a station in Denver, Colo., in November, 1921. One month later, the United States Public Health Service sponsored a broadcast from the Navy radio station at Anacostia, D. C.; and the month after that, the American Red

Cross started a weekly series of health broadcasts over a Boston station. One of the early experiments in the use of radio for health education was undertaken by the New York State Department of Health which continues to be a leader in this field. Its weekly dramatizations under the title "Health Hunters" have been used for many years by some twenty or twenty-five stations throughout the State of New York.

## **Professional Groups**

The American Medical Association, one of the outstanding organizations in the medical or public health field, is completely sold on the importance of radio, and has sponsored many fine programs since it started broadcasting in 1923. For the past half dozen years, the A.M.A. has cooperated with the National Broadcasting Company in presenting a serialized story dramatizing the life of a fictitious, young and newly married physician named "Dr. Tom Riggs" which is scheduled weekly under the title "Doctors at Work." In addition, the A.M.A. arranges for broadcasts of round-table discussions, interviews, and talks during its annual conventions; and it maintains an extensive library of scripts for local medical societies.

## **American Dental Association**

The American Dental Association, for many years, has been taking advantage of the opportunities afforded by broadcasting. Incidentally, an interesting comment is made by Dr. Lon W. Morrey, director of the Bureau of Public Relations of the Dental Association, who says: "We feel that the radio, as a builder of public opinion and good will, has many advantages; it reaches audiences quickly and presents our health message in exactly the same form in which it is prepared. The same message furnished to newspaper editors usually receives many editorial changes before it is published."



Under the able guidance of Dr. Iago Galdston, Executive Secretary of its Medical Information Bureau, the New York Academy of Medicine conducts an extensive program of public education through radio. It sponsors a series of weekly talks over the Columbia Broadcasting System and another weekly series is sponsored over WNYC, the municipal broadcasting station in New York City. The Academy, in cooperation with the New York Tuberculosis and Health Association, also negotiates for time with other local stations and then allocates these periods to a great variety of health agencies. Broadcasting in various foreign languages, as well as in English, is also employed extensively by the New York City Health Department.

### Need of Professionalism

Networks and individual stations throughout the country have been generous in granting time on the air to medical and public health organizations; unfortunately, however, radio techniques have not been used to the best advantage for most of these radio programs. The health field needs to develop radio script writers and producers like Norman Corwin and Arch Oboler. In this way, it would not only acquire and hold large audiences, but it would also get across much more effectively through dramatic presentations the tremendously interesting and important material which is to be found in the work of health agencies. The American Medical Association, through its romantic story of the fictitious "Dr. Tom Riggs," has demonstrated that an engrossing serial can be broadcast with dignity; and each script emphasizes a few important health facts.

Dr. W. W. Bauer, who directs the splendid health education activities of the A.M.A., has suggested that in local communities the health agencies should unite in sponsoring a series of broadcasts. This is being done in some of the larger cities by assigning to each organization several periods for fifteen-minute talks; but these talks often deal with subjects that have no connection with each other, and usually there is no general theme for the whole series. One of the solutions to this problem of finding a common theme or common denominator for a series of local broadcasts is that adopted by the Chicago

Council of Social Agencies which sponsors "The Story of Constance Worth," a weekly serial over WBBM, the CBS outlet in Chicago. In the course of dramatizing the life of these fictitious social worker, the activities of various health and welfare agencies in the city are brought into the story. Her job as a social worker usually requires that "Constance Worth" visit a different organization each week, and in this way the community health and welfare problems are woven together with the romantic episodes in this young woman's life.

### Balance Needed

There are some dangers in the use of dramatizations for health broadcasts. A poor script, an amateur cast or an inexperienced director, may produce a program that can do more harm than good. The dramatic form necessitates the use of music, sound effects, experienced radio techniques, and genuine talent—all of which cost money. Another danger is the possibility that the program may have a lot of entertainment but very little health education; it takes thought and judgment to balance the two.

### Use of Transcriptions

During the past few years, some of the larger national health organizations have produced—with the aid of professional script writers, directors and casts—some first rate electrical transcriptions of health dramas. The fact that program directors of radio stations welcome such recordings is indicated by the recent experience of the National Society for the Prevention of Blindness and the Nursing Council on National Defense, each of which has sponsored recordings of dramatized programs. The prevention of blindness transcriptions were scheduled by 350 stations and the programs of the Nursing Council were used by nearly 500 stations. These recordings were scheduled principally on late afternoon or evening hours; and it is estimated that they reached a total of more than 17,000,000 listeners.

The radio industry has been a generous and cooperative friend of the medical and public health organizations in the United States. There is hardly a better cause to which broadcasting could devote its "public service" programs than the advancement of health.



# FCC LIST OF NON-COMMERCIAL EDUCATIONAL BROADCAST STATIONS

Licensee and Location	Call Letters	Frequency (Kc)	Power
Board of Education of Buffalo, Buffalo, N. Y. ....	WCAH	42900	1000 w
Board of Education of San Francisco, Unified School District, San Fran- cisco, Calif. ....	KALW	42100	1000 w
Board of Education, City of Chicago, Chicago, Ill. ....	WBEZ	42500	1000 w (CP only)
University of Illinois Urbana, Ill. ....	WIUC	42900	250 w
University of Kentucky, Beattyville, Ky. ....	WBKY	42900	100 w
Board of Education, City of New York, Brooklyn, N. Y. ....	WNYE	42100	1000 w (CP only)
Cleveland City Board of Education, (Charles H. Lake, Superintendent) Cleveland, Ohio ....	WBOE	42500	1000 w

## FCC REGULATIONS

The term "non-commercial educational broadcast station" means a station licensed to an organized non-profit educational agency for the advancement of its educational work and for the transmission of educational and entertainment programs to the general public.

### Operation and Service

The operation of, and the service furnished by, non-commercial educational broadcast stations shall be governed by the following regulations:

(a) A non-commercial educational broadcast station will be licensed only to an organized non-profit educational agency and upon a showing that the station will be used for the advancement of the agency's educational program particularly with regard to use in an educational system consisting of several units.

(b) Each station may transmit programs directed to specific schools in the system for use in connection with the regular courses as well as routine and administrative material pertaining to the school system and may transmit educational and entertainment programs to the general public.

(c) Each station shall furnish a non-profit and non-commercial broadcast service. No sponsored or commercial program shall be transmitted nor shall commercial announcements of any character be made. A station shall not transmit the programs of other classes of broadcast stations unless all commercial announcements and commercial references in the continuity are eliminated.

### Power Requirements

The operating power of non-commercial education broadcast stations shall be not less than 100 watts or greater than 1000 watts unless a definite need for greater power is shown.

The transmitter of each non-commercial educational broadcast station shall be equipped with automatic frequency control apparatus so designed and constructed that it is capable of maintaining the operating frequency within plus or minus 0.01 percent of the assigned frequency.

Non-commercial educational broadcast stations are not required to operate on any definite schedule or minimum hours.

The transmitting equipment, installation, and operation as well as the location of the transmitter shall be in conformity with the requirements of good engineering practice as released from time to time by the Commission.

### Frequencies Allotted

The following frequencies are allotted for assignment to non-commercial educational broadcast stations:

42,100 kc.	42,300 kc.
42,500	42,700
42,900	

Stations serving the same area will not be assigned adjacent frequencies.

Frequency modulation shall be employed exclusively unless it is shown that there is a special need for the use of amplitude modulation.

Only one frequency will be assigned to a station.



TELEVISION  
.  
FREQUENCY  
MODULATION

.  
*Facsimile*

.  
*Developmental Broadcasting*

.  
*ST Broadcasting*



TELEVISION  
IS IMPORTANT  
IN THE WAR EFFORT

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ITS COMING  
POSSIBILITIES  
ARE TREMENDOUS

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FOR TELEVISION  
DEVELOPMENTS  
READ  
RADIO DAILY  
REGULARLY

# TELEVISION AFTER THE WAR

By Orrin E. Dunlap, Jr.

*Author of "The Future of Television"*

TELEVISION is one of the main factors in planning a post-war formula for the radio industry. There is every indication, based upon television's pre-war scientific development and program service, that the new art will qualify to give the radio industry added impetus after the war.

Those who watched television before war brought on the dim-out, and who now couple their appreciation of its performance with imagination of what wartime research will do to improve it, are highly confident of its great future.

## Science and Industry

To see how science and industry can become allied in a new service to the public, it is only necessary to go back to the end of World War I. It was then that the radiophone, made possible by the electron tube and development of associated devices such as the microphone, revealed that speech on the air was as practical as dots and dashes. Science in wartime had equipped wireless with a tongue. It began to talk and sing. When the war was over, and radio was mustered out of service, ways and means were sought for the radiophone to perform useful service in peace. Broadcasting to the public resulted, and out of it grew a great post-war industry, both in manufacturing and programming. In 1920, America was ready for such a service as broadcasting, and by its preliminary performances radio proved it was ready to serve and to fit with the demands and tempo of the times.

Radio men dreamed of the radiophone, at least as far back as 1910, when DeForest took his radiophone transmitter backstage at the Metropolitan Opera House and put on a broadcast by Caruso and others. In 1916, David Sarnoff envisaged public broadcasting. He suggested development of a "Radio Music Box," and outlined the possibility of its becoming a household utility. Marconi, in 1914, predicted transatlantic telephony would soon be possible across a "talk-bridge" invisibly spanning the Atlantic. Similarly, radio men have dreamed of television, fully aware that sight was the next logical step, as speech was to wireless telegraphy.

The wireless key, the microphone, and now the Iconoscope as the radio "eye," follow in logical sequence. Each step has been more intricate. To combine

sound and sight introduced a complexity that challenged the ingenuity of man. Pre-war television disclosed that success had been achieved through such scientists as Dr. V. K. Zworykin of RCA Laboratories, who invented the Iconoscope as the "eye" of the radio camera and developed the Kinescope as the "eye" of the receiving set.

Television awaits post-war economics. Today both science and economics are engaged in the all-out effort to help win the war. Until victory is won, science and business cannot meet in conference with the showmen to roll up the curtain on what promises to become one of the greatest shows on earth. But let there be no doubt that television will be on the post-war starting mark as a new industry, in much the same way that broadcasting was in 1920. With its electronic "eyes" sharpened in sensitivity by wartime research, radio will enable the broadcasters to offer the public an entirely new post-war show—one of double appeal for the ear and for the eye. Television will do for sound broadcasting what sound did for the silent film.

## Logical Development

When radio manufacturing of broadcast receivers for civilian use ended in the Spring of 1942, it concluded an era in radio. It ended a cycle in American life when people were content to be entertained by radio sound, while the eye as "the window to the brain" was neglected. Television promises to change that situation.

A backward glance at American industrial history suggests a number of parallels. How could the horse and buggy days have been considered so lively when the horseless carriage was beginning to sputter? How could the kerosene lamp have seemed so bright when the convenient electric lamp was but a faint glow? How could the telegraph and cable have seemed so miraculous and fast with wireless in the offing.

How could broadcasting go on forever without sight with television ready to put optics on the radio? The answer is it couldn't go on and on without progressing to the next logical step—sight. The bugles that sound the end of World War II will sound the rise of the curtain on a new and spectacular show in radio—TELEVISION.

# TELEVISION

## BROADCASTING STATIONS

*As of January 1, 1943*

*The term "television broadcast station" means a station licensed for the transmission of transient visual images of moving or fixed objects for simultaneous reception and reproduction by the general public.*

### COMMERCIAL

<i>Licensee and Location</i>	<i>Call Letters</i>	<i>Frequency (kc)</i>	<i>ESR (Effective Signal Radiated)</i>	
Balaban & Katz Corp. Chicago, Ill. ....	WBKB	60000-66000	800	(CP only)
Columbia Broadcasting System, Inc. New York, N. Y. ....	WCBW	60000-66000	1000 2400	(CP only)
Don Lee Broadcasting System Hollywood, Calif. ....	KTSL	50000-56000	5600	(CP only)
Allen B. DuMont Laboratories, Inc. New York, N. Y. ....	WABD	78000-84000	950	(CP only)
General Electric Co. Schenectady, N. Y. .... Transmitter: New Scotland, N. Y.	WRGB	66000-72000	3100	
The Journal Co. Milwaukee, Wisc. ....	WMJT	66000-72000	1200	(CP only)
National Broadcasting Co. New York, N. Y. ....	WNBT	50000-56000	1800	
Philco Radio & Television Corp. Philadelphia, Pa. ....	WPTZ	66000-72000	1000	(CP only; but operating by special authority)
Zenith Radio Corp. Chicago, Ill. ....	WTZR	50000-56000	1270	(CP only)

### Pending Commercial Applications

<i>Applicant and Location</i>	<i>Call Letters</i>	<i>Frequency (kc)</i>	<i>ESR (Effective Signal Radiated)</i>
Hughes Production Division of Hughes Tool Co. San Francisco, Calif. ....	----	60000-66000	740
Hughes Productions Division of Hughes Tool Co. Los Angeles, Calif. ....	----	60000-66000	500
WCAU Broadcasting Co. Philadelphia, Pa. ....	----	84000-90000	1128

# TELEVISION STATIONS

## EXPERIMENTAL

Licensee and Location	Call Letters	Frequency (kc)	POWER	
			Visual	Aural
Balaban & Katz Corp. Chicago, Ill. ....	W9XBK	60000-66000	1000 w	1000 w (CP only)
Balaban & Katz Corp. Portable-area of Chicago, Ill. ....	W9XBT	204000-216000 (Television Relay Station with W9XBK)	40 w	
Balaban & Katz Corp. Portable-area of Chicago, Ill. ....	W9XBB	384000-396000 television relay station with W9XBK)	10 w	(CP only,
Balaban & Katz Corp. Chicago, Ill. ....	W9XPR	384000-396000	10 w	
Columbia Broadcasting System New York, N. Y. ....	W2XAB	60000-66000	7500 w	7500 w
Columbia Broadcasting System, Inc. Portable-area of New York, N. Y. ....	W2XCB	346000-358000 television relay station with W2XAB)	25 w (peak)	(CP only
The Crosley Corp. Cincinnati, Ohio ....	W8XCT	50000-56000	1000 w	1000 w (CP only)
Allen B. DuMont Laboratories, Inc. Passaic, N. J. ....	W2XVT	78000-84000	50 w	50 w
Allen B. DuMont Laboratories, Inc. New York, N. Y. ....	W2XWV	78000-84000	1000 w	1000 w
Allen B. DuMont Laboratories, Inc. Portable-area of New York, N. Y. ....	W10XKT	258000-270000 (Television relay station with W2XVT)	50 w	
Allen B. DuMont Laboratories, Inc. Washington, D. C. ....	W3XWT	50000-56000	1000 w	1000 w (CP only)
General Electric Co. New Scotland, N. Y. ....	W2XI	162000-168000 (Television relay station with WRGB)	50 w	
General Electric Co. Schenectady, N. Y. ....	W2XGE	162000-168000 (CP only, television relay station with	60 w	50 w
Kansas State College of Agriculture and Applied Science Manhattan, Kans. ....	W9XAK	50000-56000	100 w	100 w (CP only)
Metropolitan Television, Inc. New York, N. Y. ....	W2MT	162000-168000	250 w	250 w (CP only)
Don Lee Broadcasting System Los Angeles, Calif. ....	W6XAO	50000-56000	1000 w	150 w
Don Lee Broadcasting System Portable-area of Los Angeles, Calif. ....	W6XDU	318000-330000 (CP 50 w, special television relay sta- tion with W6XAO)	6.5 w	

# • • • TELEVISION STATIONS • • •

Licensee and Location	Call Letters	Frequency (kc)	POWER	
			Visual	Aural
National Broadcasting Co., Inc. Portable—Camden, N. J. and New York, N. Y. ....	W2XBT	162000-168000 (Television relay station with WNBT)	400 w	
National Broadcasting Co., Inc. Portable-area of New York. ....	W2XBU	282000-294000 (Television relay station with WNBT)	15 w	
Philco Radio & Television Corp. Philadelphia, Pa. ....	W3XE	66000-72000	10000 w	10000 w
Philco Radio & Television Corp. Philadelphia, Pa. ....	W3XP	230000-242000 (Television relay station with WPTZ)	15 w (CP 125 Watts)	
Philco Radio & Television Corp. Portable-area of Philadelphia, Pa. ....	W3XPR	230000-242000 Television relay station with WPTZ	60 w (peak)	
Philco Radio & Television Corp. Portable-Mobile Area of Philadelphia, Pa. ....	W3XPA	230000-242000 (CP only, television relay station with WPTZ)	15 w	
Philco Radio & Television Corp. Philadelphia ....	W3XPC	230000-242000 (CP only, television relay station with WPTZ)	15 w	
Purdue University West Lafayette, Ind. ....	W9XG	66000-72000	750 w	750 w (CP only)
RCA Mfg. Co., Inc. (Portable) Bldg. No. 8 of Camden Plant, Camden, N. J. ....	W3XAD	321000-327000	500 w	500 w
RCA Mfg. Co., Inc. Camden, N. J. ....	W3XEP	84000-90000	30000 w	30000 w
State University of Iowa Iowa City, Iowa ....	W9XUI	50000-56000 210000-216000	100 w	
Television Productions, Inc. Los Angeles, Calif. ....	W6XLA	204000-216000 (CP only, television relay station with W6XYZ)	800 w	
Television Productions, Inc. Los Angeles, Calif. ....	W6XYZ	78000-84000	1000 w	1000 w (CP only)
Zenith Radio Corp. Chicago, Ill. ....	W9XZV	50000-56000	1000 w	1000 w



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# FCC REGULATIONS REGARDING BROADCAST STATIONS FOR TELEVISION AND FACSIMILE

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*As of January 1, 1943*

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*The term "visual broadcast service" means a service rendered by stations broadcasting images for general public reception. There are two classes of stations recognized in the visual broadcast service, namely: Television broadcast stations and Facsimile broadcast stations.*

## COMMERCIAL TELEVISION BROADCAST STATIONS

### Definitions

"Television broadcast station" means a station licensed for the transmission of transient visual images of moving or fixed objects for simultaneous reception and reproduction by the general public<sup>1</sup>.

"Television broadcast band" means the bands of frequencies allocated for television broadcast stations.

"Television channel" means a band of frequencies 6,000 kilocycles wide and which may be designated by channel numbers as in section on channel assignments in these rules or by the extreme lower and upper frequencies.

"Television transmission standards" means the standards which determine the characteristics of the television signal as radiated by a television broadcast station.

"Standard television signal" means a television signal conforming with the television transmission standards set forth in the Standards of Good Engineering Practice for television stations.

"Television transmitter" means the radio transmitter or transmitters for the transmission of both visual and aural signals.

"Visual transmitter" means the radio equipment for the transmission of the visual signal only.

"Aural transmitter" means the radio equipment for the transmission of the aural signal only.

"Visual transmitter power" means the peak power output when transmitting a standard television signal.

"Service area" means the area in which the signal is not subject to objectionable interference or objectionable

fading. (Television broadcast stations are considered to have only one service area; for determination of such area see *Standards of Good Engineering Practice for Television Broadcast Stations*.)

"Main studio" as to any television broadcast station means the studio from which the majority of the local programs originate, or from which a majority of the station identification announcements are made.

### Allocation of Facilities

*Basis for license.*—Television broadcast stations will be licensed on the basis of the effective signal radiated (ESR) from the visual transmitter in accordance with the following:

ESR is equal to the square root of the power times the antenna field gain times the height of the antenna above the surrounding area. The power is measured in kilowatts, the gain in voltage ratio, the antenna height in feet above surrounding area.

*Time of operation.*—Television broadcast stations will be licensed only for unlimited time operation.

*Showing required.*—Authorization for a new television broadcast station or increase in facilities of an existing station will be issued only after a satisfactory showing has been made in regard to the following matters:

(a) That the service area and population which the applicant proposes to serve are computed in accordance with the Standards of Good Engineering Practice for Television Broadcast Stations. (The service area shall be consistent with and serve adequately the city or community proposed to serve in keeping with technical feasibility of coverage. The application shall be accomplished by an analysis of the computation of the

<sup>1</sup>The transmission of synchronized sound (aural broadcast) is considered to be an essential phase of television broadcast and one license will authorize both visual and aural broadcasts.

service area as set forth in the application. No application for construction permit for a new station or change in service area of an existing station will be accepted unless a definite site, details of proposed antenna and other data required by the application form are supplied.)

(b) That objectionable interference will not be caused to existing stations or that if interference will be caused the need for the proposed service outweighs the need for the service which will be lost by reason of such interference.

(c) That the proposed station will not suffer interference to such an extent that its service would be reduced to an unsatisfactory degree. (For determining objectionable interference, see *Standards of Good Engineering Practice for Television Broadcast Stations*.)

(d) That the technical equipment proposed, the location of the transmitter, and other technical phases of operation comply with the regulations governing the same, and the requirements of good engineering practice. (See technical regulations herein and *Standards of Good Engineering Practice for Television Broadcast Stations*.)

(e) That the applicant is financially qualified to construct and operate the proposed station.

(f) That the applicant has available adequate sources of program material for the rendition of satisfactory television broadcast service.

(g) That the proposed assignment will tend to effect a fair, efficient, and equitable distribution of radio service among the several states and communities.

(h) That the applicant is legally qualified, is of good character, and possesses other qualifications sufficient to provide a satisfactory public service.

(i) That the facilities sought are subject to assignment as requested under existing international agreements and the Rules and Regulations of the Commission.

(j) That the public interest, convenience, and necessity will be served through the operation under the proposed assignment.

**Channel assignments.**—The channels or frequency bands set forth below are available for assignment to television broadcast stations.

(a) Channel

No.	
1	50,000- 56,000 kc
2	60,000- 66,000 kc
3	66,000- 72,000 kc
4	78,000- 84,000 kc
5	84,000- 90,000 kc
6	96,000-102,000 kc
7	102,000-108,000 kc

8	162,000-168,000 kc
9	180,000-186,000 kc
10	186,000-192,000 kc
11	204,000-210,000 kc
12	210,000-216,000 kc
13	230,000-236,000 kc
14	236,000-242,000 kc
15	258,000-264,000 kc
16	264,000-270,000 kc
17	282,000-288,000 kc
18	288,000-294,000 kc

(b) Stations serving the same area will not be assigned channels adjacent in frequency.

(c) One channel only will be assigned to a television broadcast station.

**Experimental operation.**—Television broadcast stations may conduct technical experimentation directed to the improvement of technical phases of operation and for such purposes may utilize a signal other than the standard television signal subject to the following conditions:

(a) That the licensee complies with the provisions of these rules with regard to the minimum number of hours of transmission with a standard television signal.

(b) That no transmissions are radiated outside of the authorized channel and subject to the condition that no interference is caused to the transmissions of a standard television signal by other television broadcast stations.

(c) If objectionable interference would result from the simultaneous operation of a television broadcast station operating experimentally and an experimental broadcast station, the licensees shall make arrangements for operation to avoid interference.

(d) No charges either direct or indirect shall be made by the licensee of a television broadcast station for the production or transmission of programs when conducting technical experimentation.

**Multiple ownership.**—No person (including all persons under common control)<sup>2</sup> shall, directly or indirectly, own, operate, or control more than one television broadcast station, except upon a showing (1) that such ownership, operation, or control would foster competition among television broadcast stations or provide a television broadcast service distinct and separate from existing services, and (2) that such ownership, operation or control would not result in the concentration of control of television broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity; *Provided, however*, That no person (including all persons under common control), shall directly or indirectly, own, operate, or control more

<sup>2</sup> The word "control," as used herein, is not limited to majority stock ownership, but includes actual working control in whatever manner exercised.

than one television broadcast station that would serve substantially the same service area; and *provided, further*, That the Commission will regard the ownership, operation, or control of more than three television broadcast stations as constituting a concentration of control of television broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity.

**Normal license period.**—All television broadcast station licenses shall be issued so as to expire at the hour of 3 a.m., Eastern Standard Time, and will be issued for a normal license period of one year, expiring February 1.

### Equipment

**Maximum rated power; how determined.**—(a) The maximum rated carrier power of standard television transmitters shall be the same as the manufacturer's rating of the equipment.

(b) The maximum rated carrier power of composite television transmitters shall be the sum of the applicable commercial ratings of the vacuum tubes employed in the last radio stage.

**Maximum power rating and operating power.**—The Commission will authorize the installation of a television transmitter having maximum power rating equal to the operating output power in accordance with the table set out in the section of these rules titled "Basis for License."

**Monitors.**—The licensee of each television broadcast station shall operate at the transmitter:

(a) A frequency monitor independent of the frequency control of the transmitter. The monitor shall meet the requirements set forth in the Standards of Good Engineering Practice for Television Broadcast Stations;

(b) A modulation monitor to determine that the radiated television signal complies with the television transmission standards set forth in the Standards of Good Engineering Practice for Television Broadcast Stations.

**Required transmitter performance.**—The external performance of television broadcast transmitters shall be capable of radiating a standard television signal meeting the minimum requirements prescribed by the Commission contained in the Standards of Good Engineering Practice. The transmitters shall be wired and shielded in accordance with the good engineering practice and shall be provided with safety features in accordance with the specifications of Article 810 of the current National Electrical Code as approved by the American Standards Association.

**Indicating instruments.**—The operating output power of television broadcast stations shall be measured by instruments having an acceptable accuracy.

**Auxiliary and duplicate transmitters.**—The provisions of the rules governing standard and high frequency broadcast stations shall also govern the use of auxiliary and duplicate transmitters for television broadcast stations

**Changes in equipment and antenna system.**—(a) No changes in equipment shall be made.

(1) That would result in emission of signals outside of the authorized television channel.

(2) That would result in the external performance of the transmitter being in disagreement with that prescribed by the Commission in the Standards of Good Engineering Practice provided that for experimental transmissions equipment changes may be made which would not render the transmitters incapable of radiating a standard television signal for the required minimum number of hours. (See section titled "Minimum Operating Schedule.")

(b) Specific authority<sup>3</sup> is required for a change in any of the following:

(1) Increase in the maximum power rating of the transmitter.

(2) Replacement of the transmitter as a whole.

(3) Location of the transmitter antenna.

(4) Antenna system, including transmission line, which would result in a measurable change in service area or which would affect the determination of the operating power by the direct method. If any change is made in the antenna system or any change made which may affect the antenna system, the method of determining operating power shall be changed immediately to the indirect method.

(5) Relocation of main studio if new location is outside of the borders of the city, state, District of Columbia, territory, or possession.

(6) Operating output power delivered to the antenna.

(c) Specific authority,<sup>4</sup> upon filing informal request therefor, is required for the following change in equipment and antenna:

(1) Indicating instruments installed to measure the antenna current or transmission line, except by an instrument of the

<sup>3</sup> Formal application required. See Standards of Good Engineering practice for Television Broadcast Stations for specific application form.

<sup>4</sup> Informal application by letter may be made.

same type, maximum scale reading and accuracy.

(2) Minor changes in the antenna system or transmission line which would not result in an increase of service area.

(3) Changes in the location of the main studio except as provided for in subsection (b) (5).

(d) Other changes, except as above provided for in this section or in Standards of Good Engineering Practice for Television Broadcast Stations prescribed by the Commission may be made at any time without the authority of the Commission, provided that the Commission shall be promptly notified thereof, and such changes shall be shown in the next application for renewal of license.

*Operating output power; how determined.*—The operating output power, and the requirements for maintenance thereof, of each television broadcast station shall be determined by the Standards of Good Engineering Practice for Television Broadcast Stations.

## Operation

*Minimum operating schedule.*—(a) The licensee of each television broadcast station shall maintain a regular program operating schedule transmitting a standard television signal for a total of 4 hours per week.

(b) The aural transmitter of a television broadcast station shall not be operated separately from the visual transmitter except for experimental or test purposes, and for purposes incidental to or connected with the operation of the visual transmitter.

*Station identification.*—(a) A licensee of a television broadcast station shall make station identification announcement, aurally and visually, (call letters and location), at the beginning and ending of each time of operation and during operation on the hour.

(b) Identification announcements during operation need not be made when to make such announcement would interrupt a single consecutive speech, play, or any type of production. In such cases the identification announcement shall be made at the first interruption of the entertainment continuity and at the conclusion thereof.

*Motion picture film.*—All motion picture film employed in the broadcasts of a television broadcast station must be briefly described as such either at the beginning of the program in which such film is used, or immediately prior to the broadcast of the film. Where the film broadcast is of more than 15 minutes

duration, it shall also be briefly described as such either at the end of the program or immediately following the broadcast of the film.

*Logs.*—The licensee of each television broadcast station shall maintain program and operating logs and shall require entries to be made as follows:

(a) Program log.

(1) Entry of the time each station identification is made.

(2) Entry briefly describing each program broadcast under the heading 'outside pickup,' 'studio production,' and motion picture film,' or combination thereof.

(3) Entry showing that each sponsored program has been announced as sponsored, paid for or furnished by the sponsor.

(4) Entry showing name of each sponsor and commodity advertised.

(b) Operating log (when transmitting a standard television signal).

(1) Entry of the time the station begins to supply power to the antenna and the time it stops.

(2) Entry of the time the program begins and ends.

(3) Entry of each interruption to the carrier waves, cause and duration.

(4) Entry of the following each thirty minutes:

i) Operating constants of the last radio stages.

ii) Frequency monitor readings.

(c) Log of experimental operation when transmitting other than a standard television signal.

(1) Entry of the time the station begins to supply power to the antenna and the time it stops.

(2) Short description of the broadcast made and its technical purpose.

*Logs; retention of.*—Logs of a television broadcast station shall be retained by the licensee for a period of 2 years, except when required to be retained for a longer period in accordance with the provisions of section 2.51 (FCC General Rules and Regulations; in this volume see Rules and Regulations regarding production by Radio Broadcast stations).

## Broadcasts by Candidates for Public Office

The provisions of sections on political broadcasts of the Rules and Regulations Governing Standard and High Frequency Broadcast Stations shall also govern television broadcast stations.

## EXPERIMENTAL TELEVISION BROADCAST STATIONS

The term "experimental television broadcast station" means a station licensed for experimental transmission of transient visual images of moving or fixed objects for simultaneous reception and reproduction by the general public. The transmission of the synchronized sound (aural broadcast) is considered an essential phase of television broadcasting and one license will authorize both visual and aural broadcast as herein set forth.

Under these rules for experimental television broadcast stations, the Commission will authorize experimental television relay broadcast stations for transmitting from points where suitable wire facilities are not available, programs for broadcast by one or more television broadcast stations. Such authorization will be granted only to the licensee of a television broadcast station.

A license for an experimental television broadcast station will be issued for the purpose of carrying on research and experimentation for the advancement of television broadcasting which may include tests of equipment, training of personnel, and experimental programs as are necessary for the experimentation.

### Licensing Requirements

A license for a television broadcast station will be issued only after a satisfactory showing has been made in regard to the following:

1. That the applicant has a definite program of research and experimentation in the technical phases of television broadcasting, which indicates reasonable promise of substantial contributions to the developments of the television art.

2. That upon the authorization of the proposed station the applicant can and will proceed immediately with its program of research and experimentation.

3. That the transmission of signals by radio is essential to the proposed program of research and experimentation.

4. That the program of research and experimentation will be conducted by qualified personnel.

5. That the applicant is legally, financially, technically, and otherwise qualified to carry forward the program.

6. That the public interest, convenience or necessity will be served through the operation of the proposed station.

### Charges

No charges either direct or indirect shall be made by the licensee of an ex-

perimental television station for the production or transmission of either aural or visual programs transmitted by such station except that this section shall not apply to the transmission of commercial programs by an experimental television relay broadcast station for retransmission by a television broadcast station.

### Announcements

A licensee of a television broadcast station shall make station identification announcement aurally and visually (call letters and location) at the beginning and ending of each time of operation and during operation on the hour.

At the time station identification announcements are made, there shall be added the following:

*This is a special television broadcast made by authority of the Federal Communications Commission for experimental purposes.*

### Operating Requirements

Each licensee of a television broadcast station shall diligently prosecute its program of research from the time its station is authorized.

Each licensee of a television station will from time to time make such changes in its operation as may be directed by the Commission for the purpose of promoting worthwhile experimentation and improvement in the art of television broadcasting.

### Frequency Assignment

(a) The following groups of channels are available for assignment to television broadcast stations licensed experimentally:

Group A		Group B	
Channel		Channel	
No. 1	50,000-56,000 kc	No. 8	162,000-168,000 kc
2	60,000-66,000	9	180,000-186,000
3	66,000-72,000	10	186,000-192,000
4	78,000-84,000	11	204,000-210,000
5	84,000-90,000	12	210,000-216,000
6	96,000-102,000	13	230,000-236,000
7	102,000-108,000	14	236,000-242,000
Group C		15	258,000-264,000
Any 6000 kc band		16	264,000-270,000
above 300,000 kc		17	282,000-288,000
excluding band		18	288,000-294,000
400,000-401,000 kc.			

No experimental television broadcast station will be authorized to use more than one channel in Group A except for good cause shown. Both aural and visual carriers with side bands for modulation



are authorized but no emission shall result outside the authorized channel.

No persons (including all persons under common control) shall control directly or indirectly, two or more experimental television broadcast stations (other than television relay broadcast stations) unless a showing is made that the character of the programs of research require a licensing of two or more separate stations.

A license for an experimental television broadcast station will be issued only on the condition that no objectionable interference will result from the transmissions of the station to the regular program transmissions of television broadcast stations. It shall at all times be the duty of the licensee of an experimental television broadcast station to ascertain that no interference will result from the transmissions of its station. With regard to interference with the transmissions of an experimental television broadcast station or the experimental or test transmissions of a television broadcast station, the licensees shall make arrangements for operations to avoid interference.

Channels in Groups B and C may be assigned to experimental television stations to serve auxiliary purposes such as television relay stations. No mobile or portable station will be licensed for the purpose of transmitting television programs to the public directly.

### **Power**

The operating power of a television station shall be adequate for but not in

excess of that necessary to carry forward the program of research and in no case in excess of the power specified in its license.

### **Reports**

A report shall be filed with each application for renewal of station license which shall include a statement of each of the following:

1. Number of hours operated.
2. Full data on research and experimentation conducted including the type of transmitting and studio equipment used and their mode of operation.
3. Data on expense of research and operation during the period covered.
4. Power employed, field intensity measurements and visual and aural observations and the types of instruments and receivers utilized to determine the service area of the station and the efficiency of respective types of transmissions.
5. Estimated degree of public participation in reception, and the results of public observation as to the effectiveness of types of transmission.
6. Conclusions, tentative and final.
7. Program for further developments in television broadcasting.
8. All developments and major changes in equipment.
9. Any other pertinent developments.

Special or progress reports shall be submitted from time to time as the Commission shall direct.

## **— FACSIMILE BROADCAST STATIONS —**

The term "facsimile broadcast station" means a station licensed to transmit images of still objects for record reception by the general public.

A license for a facsimile broadcast station will be issued only after a satisfactory showing has been made in regard to the following, among others:

1. That the applicant has a program of research and experimentation which indicates reasonable promise of substantial contribution to the development of the facsimile broadcast service.
2. That sufficient facsimile recorders will be distributed to accomplish the experimental program proposed.
3. That the program of research and experimentation will be conducted by qualified engineers.
4. That the applicant is legally and financially qualified and possesses ade-

quate technical facilities to carry forward the program.

5. That the public interest, convenience and/or necessity will be served through the operation of the proposed station.

### **Conditions of Licensing**

(a) A licensee of a facsimile broadcast station shall not make any charge, directly or indirectly, for the transmission of programs.

(b) No licensee of any standard broadcast station or network shall make any additional charge, directly or indirectly, for the transmission of some phase of the programs by a facsimile broadcast station, nor shall commercial accounts be solicited by any licensee of a standard broadcast station or network, or others acting in their behalf, upon representa-

tion that images concerning that commercial program will be transmitted by a facsimile station.

### Frequencies Allotted

a. The following groups of frequencies are allocated for assignment to facsimile broadcast stations which will be licensed experimentally only:

<i>Group A</i>	<i>Group B</i>	<i>Group C</i>
25,025 kc	43,540 kc	Any frequency above 300,000 kc excluding band 401,000 kc.
25,050	43,580	
25,075	43,620	
25,100	43,660	
25,125	43,700	
25,150	43,740	
25,175	43,780	
25,200	43,820	
25,225	43,860	
25,250	43,900	
	43,940	

b. Other broadcast or experimental frequencies may be assigned for the operation of facsimile broadcast stations on an experimental basis provided a sufficient need therefor is shown and no interference will be caused to established radio stations.

c. One frequency only will be assigned to a facsimile station from the Groups in subsection (a) of these rules. More than one frequency may be assigned under provisions of subsections (b) of these rules if a need therefor is shown.

d. Each applicant shall specify the maximum modulating frequencies proposed to be employed.

e. The operating frequency of a facsimile broadcast station shall be main-

tained in accordance with the frequency tolerance of 0.05 per cent or less as required, provided, however, where a lesser tolerance is necessary to prevent interference, the Commission will specify the tolerance.

f. A facsimile broadcast station authorized to operate on frequencies regularly allocated to other stations or services shall be required to abide by all rules governing the stations regularly operating thereon, which are applicable to facsimile broadcast stations and are not in conflict with other FCC rules which apply to all stations generally.

### Power Limitations

The operating power of a facsimile broadcast station shall not be in excess of that necessary to carry forward the program of research, provided, however, not more than 1000 watts will be authorized on a frequency in Group A. The operating power may be maintained at the maximum rating or less, as the conditions of operation may require.

A supplemental report shall be filed with and made a part of each application for renewal of license and shall include statements of the following:

1. Number of hours operated for transmission of facsimile programs.
2. Comprehensive report of research and experimentation conducted.
3. Conclusions and program for further developments of the facsimile broadcast service.
4. All developments and major changes in equipment.
5. Any other pertinent developments.

# FACSIMILE BROADCAST STATIONS

<i>Licensee and Location</i>	<i>Call Letters</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>	<i>Emission</i>
Courier-Journal & Louisville Times Co. N. E. of Eastwood, Ky.....	W9XWT	25250	500	A3 & A4
WBNS, Inc. Columbus, Ohio .....	W8XUM	25200	100	A4
WOKO, Inc. Albany, N. Y.....	W2XWE	25050	500	A3 & A4



# HIGH FREQUENCY—FREQUENCY MODULATION BROADCAST STATIONS

*The term "high frequency broadcast station" means a station licensed primarily for the transmission of radiotelephone emissions, intended to be received by the general public and operated on a channel in the high frequency broadcast band. Commercial high frequency broadcast stations must use frequency modulation.*

LOCATION	Call Letters	Licensee	Frequency Kilocycles	Service Area Sq. Mi
<b>COMMERCIAL*</b>				
Baton Rouge, La.....	W45RG	Baton Rouge Broadcasting Co.....	44500	8100
Binghamton, N. Y.....	W49BN	Wylie B. Jones Advertising Agency	44900	6500
Boston, Mass. ....	W67B	Westinghouse Radio Stations, Inc...	46700	6700
Boston, Mass. ....	W39B	The Yankee Network, Inc.....	43900	31000
Chicago, Ill.....	W67C	Columbia Broadcasting System, Inc.	46700	10800
Chicago, Ill. ....	W75C	Moody Bible Institute of Chicago...	47500	10800
Chicago, Ill. ....	W83C	WHFC, Inc. ....	48300	10800
Chicago, Ill.....	W59C	WGN, Inc. ....	45900	10800
Chicago, Ill.....	W47C	WJJD, Inc. ....	44700	10800
Chicago, Ill.....	W51C	Zenith Radio Corp.....	45100	10800
Columbus, Ohio ....	W45CM	WBNS, Inc. ....	44500	12400
Detroit, Mich. ....	W49D	John Lord Booth.....	44900	6800
Detroit, Mich. ....	W45D	The Evening News Association.....	44500	6800
Evansville, Ind. ....	W45V	Evansville On the Air, Inc.....	44500	8400
Fort Wayne, Ind.....	W49FW	Westinghouse Radio Stations, Inc...	44900	6100
Hartford, Conn. ....	W53H	Travelers Broadcasting Service Corp.	45300	6100
Hartford, Conn. ....	W65H	WDRC, Inc. ....	46500	6100
Kansas City, Mo.....	K49KC	Everett L. Dillard, d/b as Commercial Radio Equipment Co.	44900	4400
Los Angeles, Calif.....	K45LA	Don Lee Broadcasting System.....	44500	7000
Los Angeles, Calif.....	K61LA	Metro-Goldwyn-Mayer Studios, Inc.	46100	7000
Milwaukee, Wisc. ....	W55M	The Journal Co.....	44500	8500
Nashville, Tenn. ....	W47NV	National Life & Accident Insurance Co. ....	44700	16000
New York, N. Y.....	W71NY	Bamberger Broadcasting Service, Inc. ....	47100	8500
New York, N. Y.....	W35NY	City of New York Municipal Broadcasting System ....	43500	3900
New York, N. Y.....	W67NY	Columbia Broadcasting System, Inc.	46700	8500
New York, N. Y.....	W55NY	William G. H. Finch.....	45500	8500
New York, N. Y.....	W59NY	Interstate Broadcasting Co.....	45900	8500
New York, N. Y.....	W63NY	Marcus Loew Booking Agency.....	46300	8500

LOCATION	Letters Call	Licensee	Frequency Kilocycles	Service Area Sq. Mi.
New York, N. Y.....	W75NY	Metropolitan Television, Inc.....	47500	8500
New York, N. Y.....	W47NY	Muzak Radio Broadcasting Station..	44700	8500
Paxton, Mass. ....	W43B	The Yankee Network, Inc..... (Operating under Special Temporary Authorization)	44300	19000
Philadelphia, Pa. ....	W49PH	Pennsylvania Broadcasting Co.....	44900	9300
Philadelphia, Pa. ....	W81PH	Seaboard Radio Broadcasting Corp..	48100	9300
Philadelphia, Pa. ....	W69PH	WCAU Broadcasting Co.....	46900	9300
Philadelphia, Pa. ....	W53PH	WFIL Broadcasting Co.....	45300	9300
Philadelphia, Pa. ....	W57PH	Westinghouse Radio Stations, Inc...	45700	9300
Philadelphia, Pa. ....	W73PH	William Penn Broadcasting Co.....	47300	9300
Pittsburgh, Pa. ....	W47P	WWSW, Inc. ....	44700	8400
Pittsburgh, Pa. ....	W75P	Westinghouse Radio Stations, Inc...	47500	8400
Rochester, N. Y. ....	W51R	Stromberg Carlson Telephone Mfg. Co. ....	45100	3200
Salt Lake City, Utah.....	K47SL	Radio Service Corp. of Utah.....	44700	700
Schenectady, N. Y.....	W47A	Capitol Broadcasting Co.....	44700	6600
Schenectady, N. Y.....	W85A	General Electric Co.....	48500	6600
South Bend, Ind.....	W71SB	South Bend Tribune.....	47100	7100
Winston-Salem, N. C.....	W41MM	Gordon Gray ....	44100	69400

## PENDING APPLICATIONS

Superior, Wisc. ....	Head of Lakes Broadcasting Co.....	44500	2754
Rochester, N. Y.....	WHEC, Inc. ....	44700	3200
Worcester, Mass. ....	Worcester Telegram Publishing Co.	46100	10000

\* The stations in this list of commercial high frequency-frequency modulation broadcast stations are all licensed to operate under a construction permit except the following which have regular licenses: W45RG, Baton Rouge, La.; W51C, Chicago, Ill.; W45L, Evansville, Ind.; W49FW, Ft. Wayne, Ind.; W53H, Hartford, Conn.; W65H, Hartford, Conn.; W53M, Milwaukee, Wisc.; W47NT, Nashville, Tenn.; W75NY, New York, N. Y.; W69PH, Philadelphia, Pa.; W53PH, Philadelphia, Pa.; W47P, Pittsburgh, Pa.; W51R, Rochester, N. Y.; W85A, Schenectady.

## EXPERIMENTAL

Licensee and Location	Call Letters	Frequency Kilocycles	Power Watts
Edwin H. Armstrong, Alpine, N. J.....	*W2XMN	42800	40000
General Electric Co., New Scotland, N. Y.....	*W2XOY	43200	2500
Head of Lakes Broadcasting Co., Superior, Wisc....	*W9XYH	43000	1000
John V. L. Hogan, Long Island City, N. Y.....	*W2XQR	45900	1000
C. M. Jansky, Jr. and Stuart L. Bailey, d/b as Jansky & Bailey, Georgetown, D. C.....	*W3XO	43200	1000
KLZ Broadcasting Co., Denver, Colo.....	W9XLA	25400	100
National Broadcasting Co., New York, N. Y.....	*W2XWG	45100	1000
Westinghouse Radio Stations, Inc., East Springfield, Mass.....	*W1XSN	42600	1000
WHEC, Inc., Rochester, N. Y.....	*W8XAD	42600	1000
WKY Radiophone Co., Oklahoma City, Okla.....	W5XAU	26125	100
Worcester Telegram Publishing Co., Worcester, Mass. ....	*W1XTG	43400	1000

\* Operating under Special Temporary Authorization only.

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# FCC Regulations

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## Regarding High Frequency Broadcast Stations

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*As of January 1, 1943*

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*The term "high frequency broadcast station" means a station licensed primarily for the transmission of radiotelephone emissions intended to be received by the general public and operated on a channel in the High Frequency broadcast band. High frequency broadcast stations must use frequency modulation.*

### Definitions

**High Frequency Broadcast Band.** The term "high frequency broadcast band" means the band of frequencies extending from 43,000 to 50,000 kilocycles, both inclusive.

**Frequency Modulation.** The term "frequency modulation" means a system of modulation of a radio signal in which the frequency of the carrier wave is varied in accordance with the signal to be transmitted while the amplitude of the carrier remains constant.

**Center Frequency.** The term "center frequency" means the frequency of the carrier wave with no modulation. (With modulation the instantaneous operating frequency swings above and below the center frequency. The operating frequency with no modulation shall be the center frequency within the frequency tolerance).

**High Frequency Broadcast Channel.** The term "high frequency broadcast channel" means a band of frequencies 200 kilocycles wide and is designated by its center frequency. Channels for high frequency broadcast stations begin at 43,100 kilocycles and continue in successive steps of 200 kilocycles to and including the frequency of 49,900 kilocycles.

**Service Area.** The term "service area" of a high frequency broadcast station means the area in which the signal is not subject to objectionable interference or objectionable fading. (High frequency broadcast stations are considered to have only one service area; for determination of such area see *Standards of Good Engineering Practice for High Frequency Broadcast Stations.*)

**Antenna Field Gain.** The term "antenna field gain" of a high frequency broadcast antenna means the ratio of the effective free space field intensity produced at one mile in the horizontal plane expressed in millivolts per meter for 1 kilowatt antenna input power to 137.6.

**Free Space Field Intensity.** The term "free space field intensity" means the field intensity that would exist at a point in the absence of waves reflected from the earth or from reflecting objects.

**Frequency Swing.** The term "frequency swing" is used only with respect to frequency modulation and means the instantaneous departure of the carrier frequency from the center frequency resulting from modulation.

**Multiplex Transmission.** The term "multiplex transmission" means the simultaneous transmission of two or more signals by means of a common carrier wave. (Multiplex transmission as applied to high frequency broadcast stations means the transmission of facsimile or other aural signals in addition to the regular broadcast signals.)

**Percentage Modulation.** The term "percentage modulation" with respect to frequency modulation means the ratio of the actual frequency swing to the frequency swing required for 100 per cent modulation expressed in percentage. (For high frequency broadcast stations, a frequency swing of 75 kilocycles is standard for 100 per cent modulation.)

**Experimental Period.** The term "experimental period" means that period of time between 12 midnight and sunrise. This period may be used for experimental purposes in testing and maintaining apparatus by the licensee of any high fre-

quency broadcast station, on its assigned frequency and with its authorized power, provided no interference is caused to other stations maintaining a regular operating schedule within such period.

**Main Studio.** The term "main studio" means, as to any station, the studio from which the majority of its local programs originate and/or from which a majority of its station announcements are made of programs originating at remote points.

### Allocation of Facilities<sup>1</sup>

**Basis of Licensing High Frequency Broadcast Stations.** High frequency broadcast stations shall be licensed to serve a specified area in square miles. The contour bounding the service area and the radii of the contour shall be determined in accordance with the *Standards of Good Engineering Practice for High Frequency Broadcast Stations*.

### Service Areas (Definitions)

For the purpose of determining the areas to be served by high frequency broadcast stations, the following definitions apply:

(a) "Basic trade areas" and "limited trade areas" consist of areas the boundaries of which are determined by the Commission on the basis of showings made in applications as to retail trading areas or consumer trading areas and from government data<sup>2</sup>. Each basic trade area includes one "principal city." The boundaries of the basic trade areas are adjoining and the aggregate of all such areas is the total area of the United States. Each "limited trade area" includes one city. The boundaries of limited trade areas are not necessarily adjoining. Such areas may include portions of other limited trade areas and may extend into more than one basic trade area.

(b) "Principal city" means the largest city or the city or cities designated as "principal city" by the Commission, within a basic trade area. "City" means any city, town, or borough in a basic trade area except the principal city. Each "city" has a limited trade area.

<sup>1</sup>The rules relating to allocation of facilities are intended primarily for the information of applicants. Nothing contained in said rules shall be regarded as any recognition of any legal right on behalf of any person to a grant or denial of any application.

<sup>2</sup>There are several current and recognized authorities on retail trading areas or consumer trading areas from which the applicant may prepare its showing and to which the Commission will give consideration in making its determination.

(c) "Rural area" means all land area outside incorporated towns or cities with population greater than 2500 and where the density of population is less than 150 per square mile. Incorporated towns or cities with population from 2500 to 5000 without a high frequency broadcast station and not adjacent to larger cities may be considered rural area.

### Service Areas—Established

The Commission in considering applications for high frequency broadcast stations will establish service areas. Such stations will be licensed to serve areas having the following characteristics:

(a) An area comprising a limited trade area and a city. The station shall render good service to the city and its service area shall conform generally with the limited trade area.

(b) An area comprising a basic trade area and a principal city. The station shall render good service to the principal city and its service area shall conform generally with the basic trade area; *Provided, however*, That the station may be licensed to serve temporarily an area less than the basic trade area, subject to the following conditions: (1) that an applicant for authority to serve temporarily less than the basic trade area show substantial reason for relaxation of the requirement to serve the basic trade area and for specification of the proposed service area; (2) that the area to be served include as much of the basic trade area as reasonably may be required in the public interest to be served and in no event less than the principal city and the metropolitan district in which it is located; (3) that such an applicant show compliance with the section of these rules regarding similarity of service areas for all stations in the same established area except that such sections shall apply only in relation to other stations established under this proviso; (4) that the Commission may condition the granting of any application for renewal of license of such station upon the rendering of service by such station to an area conforming generally with the basic trade area.

(c) An area of at least 15,000 square miles comprising primarily a large rural area, and particularly that part of basic trade areas which cannot be served by stations assigned basic trade areas due to economical and technical limitations.

The service area may include one or more principal city or cities, provided that in rendering service to such cities, the service to rural areas which the station is designated to serve is not impaired. The transmitter of such a station shall be located in such a manner that the service area, (1) shall extend into two or more basic trade areas, (2) shall not conform generally with a basic trade area, and (3) shall not merely extend beyond a basic trade area.

(d) An area having substantially different characteristics (social, cultural, or economic) from those areas specified in subsections (a), (b) and (c) of this section where, by reason of special conditions, it is shown that a need (which cannot be supplied by a station serving areas under subsections (a), (b) or (c) of this section) for the proposed service both program and technical exists which makes the establishment of the service area in the public interest, convenience or necessity. The Commission will give particular consideration in this connection to competitive advantages which such stations would have over other stations established under other provisions.

(e) In case it is not economically and technically feasible for a station assigned a basic or limited trade area to serve substantially all such area, the Commission will establish the service area on the basis of conditions which obtain in the trade area.

(f) In case an applicant proposes a change in an established service area, the applicant shall make a full showing as to need for such change and the effect on other stations serving the area.

*Time of Operation.* All high frequency broadcast stations shall be licensed for unlimited time operation.

*Showing Required.* Authorization for a new high frequency broadcast station or increase in facilities of an existing station will be issued only after a satisfactory showing has been made in regard to the following matters:

(a) That the area which the applicant proposes to serve has the characteristics of an area described in subparagraphs (a), (b), or (c) of the section on *Service Areas* stated above.

(b) Where a service area has been established in which one or more existing high frequency broadcast stations are in operation, that the contours of any new station proposed to serve such area will compare with those of the existing station or stations as nearly as possible, or that the service area already established should be modified.

(c) That objectionable interference will not be caused to existing stations or that if interference will be caused the need for the proposed service outweigh the need for the service which will be lost by reason of such interference.

(d) That the proposed station will not suffer interference to such an extent that its service would be reduced to an unsatisfactory degree.

(e) That the technical equipment proposed, the location of the transmitter, and other technical phases of operation comply with the regulations governing the same, and the requirements of good engineering practice.

(f) That the applicant is financially qualified to construct and operate the proposed station; and, if the proposed station is to serve substantially the same area as an existing station, that applicant will be able to compete effectively with the existing station or stations.

(g) That the program service will include a portion of programs particularly adapted to a service utilizing the full fidelity capability of the system, as set forth in the Standards of Good Engineering Practice for High Frequency Broadcast Stations.

(h) That the proposed assignment will tend to effect a fair, efficient, and equitable distribution of radio service among the several states and communities.

(i) That the applicant is legally qualified, is of good character, and possesses other qualifications sufficient to provide a satisfactory public service.

(j) That the facilities sought are subject to assignment as requested under existing international agreements and the Rules and Regulations of the Commission.

(k) That the public interest, convenience, and necessity will be served through the operation under the proposed assignment.

## Channel Assignments

The channels set forth below with the indicated center frequencies are available for assignment to high frequency broadcast stations to serve the areas provided in the section on *Service Areas Established* stated above:

(a) An applicant for a station to serve an area specified in paragraphs (a) or (b) of that section to be located in a principal city or city which has a popu-

lation less than 25,000 (city only) shall apply for one of the following channels:

48900	49300	49500	49700
49100			49900

(b) An applicant for a station to serve an area specified in paragraph (a) or (b) of that section to be located in a principal city or city which has a population greater than 25,000 (city only) shall apply for one of the following channels:

44500	45700	46700	47900
44700	45900	46900	48100
44900	46100	47100	48300
45100	46300	47300	48500
45300	46500	47500	48700
45500		47700	

(c) An applicant for a station to serve primarily a large rural area, specified in paragraph (c) or an area specified in paragraph (d) of that section shall apply for one of the following channels:

43100	43500	43900	44300
43300	43700	44100	

(d) Notwithstanding the provisions of subsection (a) of this section, an applicant for a station to serve an area specified in section of these rules defining the establishment of "an area comprising a limited trade area and city," to be located in a city having a population greater than 25,000, in or adjacent to any metropolitan district having a population greater than 1,000,000, may apply for one of the following channels:

49100	49500	49900
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### Special Provisions Concerning Assignments

(a) Stations located in the same city shall have substantially the same service area.

(b) High frequency broadcast stations shall use frequency modulation exclusively.

(c) Stations serving a substantial part of the same area shall not be assigned adjacent channels.

(d) One channel only will be assigned to a station.

### Multiple Transmission

*Facsimile Broadcasting and Multiplex Transmission.* The Commission may

grant authority to a high frequency broadcast station for the multiplex transmission of facsimile and aural broadcast programs provided the facsimile transmission is incidental to the aural broadcast and does not either reduce the quality of or the frequency swing required for the transmission of the aural program. The frequency swing for the modulation of the aural program should be maintained at 75 kc and the facsimile signal added thereto. No transmission outside the authorized band of 200 kc shall result from such multiplex operation nor shall interference be caused to other stations operating on adjacent channels. The transmission of multiplex signals may also be authorized on an experimental basis in accordance with the standard broadcast station rule on special experimental authorizations.

*Proof of Performance Required.* Within one year of the date of first regular operation of a high frequency broadcast station, continuous field intensity records along several radials shall be submitted to the Commission which will establish the actual field contours, and from which operating constants required to deliver service to the area specified in the license are determined. The Commission may grant extensions of time upon showing of reasonable need therefor.

*Multiple Ownership.* (a) No person (including all persons under common control<sup>1</sup>) shall, directly or indirectly, own, operate, or control more than one high frequency broadcast station that would serve substantially the same service area as another high frequency broadcast station owned, operated, or controlled by such person.

(b) No person (including all persons under common control) shall, directly or indirectly, own, operate, or control more than one high frequency broadcast station, except upon a showing (1) that such ownership, operation, or control would foster competition among high frequency broadcast stations or provide a high frequency broadcasting service distinct and separate from existing services; and (2) that such ownership, operation, or control would not result in the concentration of control of high frequency broadcasting facilities in a manner inconsistent with public interest,

<sup>1</sup> The word "control" as used herein is not limited to majority stock ownership but includes actual working control in whatever manner exercised.

convenience, or necessity; *provided, however*, that the Commission will consider the ownership, operation, or control of more than six high frequency broadcast stations to constitute the concentration of control of high frequency broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity.

**Normal License Period.** All high frequency broadcast station licenses will be issued so as to expire at the hour of 3 a.m., Eastern Standard Time, and will be issued for a normal license period of one year, expiring as follows:

(a) For stations operating on the frequencies 48900, 49100, 49300, 49500, 49700, and 49900, April 1.

(b) For stations operating on the frequencies 44500, 44700, 44900, 45100, 45300, 45500, 45700, 45900, 46100, 46300, and 46500, May 1.

(c) For stations operating on the frequencies 46700, 46900, 47100, 47300, 47500, 47700, 47900, 48100, 48300, 48500, and 48700, June 1.

(d) For stations operating on the frequencies 43100, 43300, 43500, 43700, 43900, 44100, and 44300, July 1.

## Equipment

**Maximum Power Rating.** The Commission will not authorize the installation of a transmitter having a maximum rated power more than twice the operating power of the station.

**Maximum Rated Carrier Power; How Determined.** (a) The maximum rated carrier power of a standard transmitter shall be determined by the manufacturer's rating of the equipment.

(b) The maximum rated carried power of a composite transmitter shall be determined by the sum of the applicable commercial ratings of the vacuum tubes employed in the last radio stage.

**Frequency Monitor.** The licensee of each high frequency broadcast station shall have in operation at the transmitter a frequency monitor independent of the frequency control of the transmitter. It shall have a stability of 20 parts per million.

**Modulation Monitor.** The licensee of each high frequency broadcast station shall have in operation at the transmitter an approved modulation monitor.

**Required Transmitter Performance. (a)** The external performance of high frequency broadcast transmitters shall be within the minimum requirement pre-

scribed by the Commission contained in the Standards of Good Engineering Practice for High Frequency Broadcast Stations.

(b) The transmitter center frequency shall be controlled directly by automatic means which do not depend on inductances and capacities for inherent stability.

(c) The transmitter shall be wired and shielded in accordance with good engineering practice and shall be provided with safety features in accordance with the specifications of article 810 of the current National Electrical Code as approved by the American Standards Association.

**Indicating Instruments.** The direct plate circuit current and voltage shall be measured by instruments having an acceptable accuracy.

**Changes in Equipment and Antenna System.** Licensees of high frequency broadcast stations shall observe the following provisions with regard to change in equipment and antenna system:

(a) No changes in equipment shall be made:

1. That would result in the emission of signals outside of the authorized channel.

2. That would result in the external performance of the transmitter being in disagreement with that prescribed in the Standards of Good Engineering Practice for High Frequency Broadcast Stations.

(b) Specific authority, upon filing formal application<sup>1</sup> therefor, is required for a change in service area or for any of the following changes:

1. Changes involving an increase in the maximum power rating of the transmitter.

2. A replacement of the transmitter as a whole.

3. Change in the location of the transmitter antenna.

4. Change in antenna system, including transmission line, which would result in a measurable change in service or which would affect the determination of the operating power by direct method. If any change is made in the antenna system or any change made which may affect the antenna system, the method of determining operating power shall be changed immediately to the indirect method.

<sup>1</sup>See Standards of Good Engineering Practice for High Frequency Broadcast Stations for specific application form required.



5. Change in location of main studio to outside of the borders of the city, state, district, territory, or possession.

6. Change in the power delivered to the antenna.

(c) Specific authority, upon filing *informal* request therefor, is required for the following change in equipment and antenna:

1. Change in the indicating instruments installed to measure the antenna current or transmission line, direct place circuit voltage and the direct current of the last radio stage, except by instruments of the same type, maximum scale reading and accuracy.

2. Minor changes in the antenna system and/or transmission line which would not result in an increase of service area.

3. Changes in the location of the main studio except as provided for in subsection (b) 5, stated above.

(d) Other changes, except as above provided for in this section or in Standards of Good Engineering Practice for High Frequency Broadcast Stations prescribed by the Commission may be made at any time without the authority of the Commission, provided that the Commission shall be promptly notified thereof, and such changes shall be shown in the next application for renewal of license.

**Operating Power; How Determined.** The operating power, and the requirements for maintenance thereof, of each high frequency broadcast station shall be determined by the Standards of Good Engineering Practice for High Frequency Broadcast Stations.

**Modulation.** (a) The percentage of modulation of all stations shall be maintained as high as possible consistent with good quality of transmission and good broadcast practice and in no case less than 85 per cent on peaks of frequent recurrence during any selection which normally is transmitted at the highest level of the program under consideration.

**Frequency Tolerance.** The operating frequency without modulation of each broadcast station shall be maintained

within 2000 cycles of the assigned center frequency.

### Operation

*Minimum Operating Schedule; Service.*

(a) Except Sundays, the licensee of each high frequency broadcast station shall maintain a regular daily operating schedule which shall consist of at least three hours of operation during the period 6 a.m. to 6 p.m., local standard time, and three hours of operation during the period 6 p.m. to midnight, local standard time. In an emergency, however, when due to causes beyond the control of the licensee, it becomes impossible to continue operating, the station may cease operation for a period not to exceed ten days, provided that the Commission and the Inspector in Charge of the radio district in which the station is located shall be notified in writing immediately after the emergency develops.

(b) Such stations shall devote a minimum of one hour each day during the period 6 a.m. to 6 p.m., and one hour each day during the period 6 p.m. to midnight, to programs not duplicated simultaneously as primary service in the same area by a standard broadcast station or by any high frequency broadcast station. During said one hour periods, a service utilizing the full fidelity capability of the system, as set forth in the Standards of Good Engineering Practice for High Frequency Broadcast Stations, shall be rendered. However, the Commission may, upon request accompanied by a showing of reasons therefor, grant exemption from the foregoing requirements, in whole or in part, for periods not in excess of three months.

(c) In addition to the foregoing minimum requirements, the Commission will consider, in determining whether public interest, convenience, and necessity has been or will be served by the operation of the station, the extent to which the station has made or will make use of the facility to develop a distinct and separate service from that otherwise available in the service area.

# DEVELOPMENTAL BROADCAST STATIONS

*The term "developmental broadcast station" means a station licensed to carry on development and research for the advancement of broadcast services along lines other than those prescribed by other broadcast rules or a combination of closely related developments that can be better carried on under one license.*

Licensee and Location	Call Letters	Frequency (kc)	Power	Emission
Bell Telephone Labs., Inc. Whippany, N. J.....	W3XDD	530, 1340	50000 w	A3
Bell Telephone Labs., Inc. Whippany, N. J.....	W3XPY	43500, 49100	5000 w	Special
The Crosley Corp. Near Mason, Ohio.....	W8XO	700	100 kw-500-kw	A3
Midland Broadcasting Co., Kansas City, Mo.....	W9XER	46500	1500 w	Special
Muzak Corporation New York, N. Y.....	W2XMC	117650	1000 w	Special (C.P. only)
Natl. Broadcasting Co., Inc. Area of New York, N. Y....		1614, 2398, 3492.5, 4797.5, 6425, 9135, 12862.5, 17310, 23100, 30660, 31020, 31140, 31180, 31540, 33340, 33460, 33620, 35060, 35460, 37060, 37140, 37540, 39140, 39460, 39540, 116050, 116250, 116450, 116850, 117050, 117250, 117650, 118050, 118250, 118450, 118650, 118850, 156525, 156975, 157425, 157725, 158175, 159075, 160425, 161325, 161775, 162000-168000, 210000-216000, 264000-270000, 300000-400000, 401000 and above	25 w	A1, A-2, A3, A4, A5 & Spe- cial A5 on frequencies above 162000 kcs.
Natl. Broadcasting Co., Inc. Area of New York, N. Y....	W10XR	Same as above	100 w	A1, A2, A3, A4, A5 & Spe- cial A5 on frequencies above 162000 kcs.

# — FCC REGULATIONS REGARDING — DEVELOPMENTAL BROADCAST STATIONS

The term "developmental broadcast station" means a station licensed to carry on development and research for the advancement of broadcast services along lines other than those prescribed by other broadcast rules or a combination of closely related developments that can be better carried on under one license.

Licenses for developmental broadcast stations will be issued only after a satisfactory showing has been made in regard to the following, among others:

(1) That the applicant has a program of research and development which cannot be successfully carried on under any of the classes of broadcast stations already allocated, or is distinctive from those classes, or combination of closely related developments that involve different phases of broadcasting which can be pursued better under one license.

(2) That the program of research has reasonable promise of substantial contribution to the development of broadcasting, or is along lines not already thoroughly investigated.

(3) That the program of research and experimentation will be conducted by qualified persons.

(4) That the applicant is legally and financially qualified and possesses adequate technical facilities to carry forward the program.

(5) That the public interest, convenience, and necessity will be served through the operation of the proposed station.

A separate developmental broadcast station license will be issued for each major development proposed to be carried forward. When it is desired to carry on several independent developments, it will be necessary to make satisfactory showing and obtain a license for each.

A licensee of developmental broadcast stations shall broadcast programs when they are necessary to the experiments being conducted. No regular program service shall be broadcast unless specifically authorized by the license.

A licensee of a developmental broadcast station shall not make any charge, directly or indirectly, for the transmission of programs, but may transmit the

programs of a standard broadcast station or network including commercial programs, if the call letter designation when identifying the developmental broadcast station is given on its assigned frequency only and the statement is made over the developmental broadcast station that the program of a broadcast station or network (identify by call letters or name of network) is being broadcast in connection with the developmental work. In case of the rebroadcast of the program of any broadcast station, the FCC Regulation on rebroadcast applies.

## Frequency Allotted

The following frequencies are allocated for assignment to developmental broadcast stations:\*

2,396 } 1,614	12,855 }	12,862.5	37,140
2,400 } 2,398	12,870 }		37,540
			39,140
3,490 } 3,492.5	17,300 }	17,310	39,460
3,495 } 17,320 }			39,540
			116,050
4,795 } 23,100			116,250
4,800 } 4,797.5	30,660		116,450
	31,020		116,850
6,420 } 31,140			117,050
	31,180		117,250
6,430 } 6,425	31,540		117,650
	33,340		118,050
	33,460		118,250
9,130 } 33,620			118,450
	35,060		118,650
9,140 } 35,460			118,850
	37,060		156,525
			156,975
			157,425
			157,725
			158,175
			159,075
			160,425
			161,325
			161,775
			162,000-168,000
			210,000-216,000
			264,000-270,000
			300,000-400,000
			401,000 and above

A license will be issued for more than one of these frequencies upon a satisfactory showing that there is need therefor.

The frequencies suited to the purpose and in which there appears to be the least or no interference to established stations shall be selected.

In cases of important experimentation which cannot be conducted successfully on the frequencies allocated herein, the Commission may authorize developmental broadcast stations to operate on any

\* Also available for assignment to all other stations in the experimental service.

frequency allocated for broadcast stations or any frequencies allocated for other services under the jurisdiction of the Commission upon satisfactory showing that such frequencies can be used without causing interference to established services.

The operating frequency of a developmental broadcast station shall be maintained in accordance with the frequency tolerance of 0.05 per cent or less as required, provided, however, where lesser tolerance is necessary to prevent interference, the Commission will specify the tolerance.

The operating power of a developmental broadcast station shall not be in excess of that necessary to carry on the program of research. The operating power may be maintained at the maximum rating or less, as the conditions of operation may require.

### Supplemental Report

A supplemental report shall be filed

with and a part of each application for renewal of license and shall include statements of the following, among others:

1. The number of hours operated.
2. Comprehensive report on research and experiments conducted.
3. Conclusions and program for further development of the broadcast service.
4. All developments and major changes in equipment.
5. Any other pertinent developments.

A developmental broadcast station authorized to operate on frequencies regularly allocated to other stations or services, shall be required to abide by all rules governing the stations operating regularly thereon which are applicable to developmental broadcast and are not in conflict with rules of the Commission for stations in general or for rules for developmental broadcast stations.

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# ST BROADCAST STATIONS

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*The term "ST broadcast station" means a station used to transmit programs from the main studio to the transmitter of a high frequency or an international broadcast station.*

Licensee and Location	Call Letters	Frequency Kilocycles	Power Watts	Emission
Capitol Broadcasting Co. Schenectady, N. Y.....	W2XEO	331000	50	Special (CP only)
Columbia Broadcasting System, Inc. New York, N. Y.....	W2XYP	330400	25	Special
General Electric Co. Schenectady, N. Y.....	W2XBD	343600	25	Special (CP only)
Gordon Gray Winston-Salem, N. C.....	W4XGG	337000	25	Special (CP only)
The Journal Co. Milwaukee, Wisc. ....	W9XJC	331000	50	Special (CP only)
The Moody Bible Institute of Chicago Chicago, Ill. ....	W9XMB	333400	25	Special (CP only)
Radio Service Corp. of Utah Salt Lake City, Utah.....	W6XHC	331000	25	Special (CP only)

# RULES GOVERNING ST BROADCAST STATIONS

The term "ST" broadcast station" means a station used to transmit programs from the main studio to the transmitter of a high frequency broadcast station, or an international broadcast station.

An ST broadcast station will be licensed only to the licensee of a high frequency broadcast station or of an international broadcast station. Only one ST broadcast station will be authorized in connection with the license for any high frequency broadcast station. Not more than two ST broadcast stations will be authorized in connection with the license for any international broadcast station. Each such ST station shall be at a fixed location.

The license of an ST broadcast station authorizes the transmission of program material, including commercial programs, from the main studio to the transmitter of the high frequency broadcast station or international broadcast station in connection with which it is authorized.

## Frequency Assignment

The following frequencies are allocated for assignment to ST broadcast stations upon an experimental basis:

kc	kc	kc	kc	kc
330,400	333,400	335,800	338,200	340,600
331,000	334,000	336,400	338,800	341,200
331,600	334,600	337,000	339,400	341,800
332,200	335,200	337,600	340,000	342,400
332,800				343,000
				343,600

ST broadcast stations will be authorized to employ frequency modulation only.

The maximum frequency swing employed by ST broadcast stations shall not be in excess of 200 kilocycles.

The licensee of each ST broadcast station shall install and operate a directional antenna designed so that the gain in power toward the receiver shall be 10

(field gain 3.16) times the free space field from a doublet (137.6 mv/m for 1 kw at one mile). In all other directions 30° or more off the line to receiver, the power gain shall not exceed ¼ of the free space field gain from a doublet.

ST broadcast stations will be licensed with a power output not in excess of that necessary to render a satisfactory service.

The licensee of each ST broadcast station is required to conduct experimentation with regard to the following:

- (a) Design of equipment and power required to render a satisfactory service.
- (b) Design and adjustment of directional transmitting antennas.
- (c) Design and location of receiving antennas.


## Supplemental Report

A supplemental report shall be filed with and made a part of each application for renewal of application and shall include statements as to the following items:

- (a) Total hours of operation.
- (b) Continuity of service, causes and duration of any interruptions.
- (c) Power required to deliver satisfactory signal at receiver.
- (d) Data on design, adjustments and operation of directional receiving and transmitting antennas.
- (e) Interference to service resulting from other stations or other sources.
- (f) Cost of transmitter and receiver installation and expense of operation.
- (g) Overall fidelity of equipment, frequency and amplitude.

Each ST broadcast station shall announce its call letters at the beginning and end of each period of operation, and during operation, at least once every hour it either shall announce its call letters or shall make an announcement which will permit it to be identified.

<sup>1</sup> The abbreviation "ST" is derived from "studio-transmitter."



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The design ideas embodied in Westinghouse transmitters have gained them an enviable reputation among progressive radio stations throughout the country. Air-cooled tubes, fuseless protection, surge-proof metal rectifiers and simplified metal unit design are providing these stations with advantages that are particularly valuable at this time.

Today, the skills and abilities that created the economy, simplicity and operating reliability of these fine transmitters are engaged 100% in war production. Westinghouse radio manufacturing facilities are now building "walkie-talkies," radio locators, aircraft transmitters and many other types of radio apparatus required for war.

In addition, Westinghouse radio research talents are searching the field of electronics—finding new and better methods that will keep this equipment second to none.

From this, comes our blueprint for tomorrow.

Out of these developments veiled in military secrecy and the new discoveries yet to be found, will come peacetime contributions that will make Westinghouse radio apparatus finer than ever.

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## Westinghouse

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# ENGINEERING DEVELOPMENTS

*By Howard S. Frazier*  
*NAB Director of Engineering*

WAR came to our country without warning on December 7th, 1941. Within minutes, not weeks, days or hours, American broadcasting was on a wartime basis. A great industry, born in peacetime and without training or experience in the ways of war, found its true stature and became of age. The greatest system of mass communication the world has ever known was found ready and prepared to deliver the news and to cooperate with our armed forces. No one knew when or where the enemy might strike next. Many stations began operating on a twenty-four-hour, around-the-clock basis. NAB immediately created committees to cooperate with the national war agencies and other industry committees were organized and conferred with local military authorities all over the country. Emergency communications systems were set up to provide the means for making radio "blackouts" immediately effective. Vital transmitters, telephone circuits and power supplies were protected against sabotage.

## **Immediate Action**

No tooling-up period was needed. No appropriation bills were asked of Congress. Conversion to wartime operation was done so rapidly and so quietly that it was taken for granted. There are no four-minute speakers today as there were in the last war. There are no trains taking groups around the country to campaign. No time wasted by busy officials traveling with their messages to our people. All that today is being done by radio, under the American system of free radio operated by private enterprise. There are just as many campaigns, maybe more, campaigns of recruiting, for the sale of war bonds, salvage, rubber, and all the others with which you are so familiar.

During the year broadcast engineering executives have faced a great variety of problems in maintaining wartime operation, such as the shortage of technical personnel, the conservation of critical materials, priority regulations, the protection of plant against sabotage or enemy action, the maintenance of emergency facilities, and last, but not least, the servicing of civilian radio receivers. Unfortunately, the necessities of war and military secrecy make it impossible to outline many of our industry's present activities and future plans.

There have been few, if any, technical developments in the domestic broadcasting field during the past year. Engineering executives responsible for the technical operation of broadcast stations have found that wartime operating conditions required their full attention. Research and development facilities of the manufacturers, normally devoted to the technical advancement of broadcasting, have been converted to war activities. For these reasons this record of broadcast engineering might more fittingly be entitled, "What Broadcast Engineers Are Doing to Help Maintain Civilian Morale and Win the War."

## **Post-War Benefits**

Much of the research development now devoted to the war effort will eventually accrue to the benefit and progress of broadcasting after the war. Naturally, the exact nature of these developments is a military secret. It is believed the coming of peace will mark the beginning of an era of rapid technical advance.

Regulations of the Federal Communications Commission and the Board of War Communications have virtually frozen frequency assignments and the operating power of stations for the duration. Only under unusual circumstances will new construction or changes in existing licenses be authorized. During recent years, many new stations have been constructed and the technical facilities of existing stations vastly improved. Thus the coming of war has found the nation's broadcasting plant well prepared to serve the nation.

## **Frequency Modulation**

Frequency modulated broadcasting on high frequency channels, commonly referred to as FM, has emerged from the first year of the war a strong and husky child. Many new FM stations, in spite of priorities and labor shortages, have come on the air during the year. There has been little curtailment in the operating hours of existing stations. Although new FM receivers for civilian use were only manufactured during the first three months of the year, the number of FM listeners is still increasing as these receivers pass through the distribution channels to the radio audience.

## Board of War Communications

The Defense Communications Board has been renamed the Board of War Communications. The organization of the Board and the thirteen advisory committees, composed of government and industry representatives, remains unchanged. NAB is represented by President Neville Miller as chairman of the Domestic Broadcasting Committee and a member of the International Broadcasting Committee. The NAB director of engineering serves as alternate on both committees. Many engineers and executives of the broadcast industry are also devoting a considerable amount of time and work to the BWC in connection with their membership on the broadcast committees. The activities of the BWC and its advisory committees are confidential. Therefore, much of great benefit to the industry and the war effort must remain untold until the cessation of hostilities.

## Recording and Reproducing Standards

As broadcasting has developed, the problem of reproducing transcriptions with uniform results has become of much concern to broadcasting stations. Quite a number of different characteristics have been used by the various manufacturers of transcriptions, recording equipment and reproducing equipment. Most of these characteristics produce good results by themselves with the proper play back equalization. The NAB Engineering Committee sent a questionnaire on recording to all stations. Among other interesting data obtained was the fact that some stations use as high as ten different equalizers. The NAB Engineering Committee recommended to its Board of Directors that NAB coordinate the work of a committee to be formed for the purpose of establishing recording and reproducing standards. The Board of Directors approved of this procedure and early in June, 1941, Neville Miller, President of NAB, invited all companies interested in recording to a meeting to be held on June 26, 1941 in Detroit. Some twenty companies responded by sending representatives to the meeting. The Recording and Reproducing Standards Committee was formed at that time.

The members of the Committee have exhibited a splendid spirit of cooperation and many of them have devoted a considerable amount of time to the project. Several companies, who have standards of their own that produce excellent results, have in the interests of uniform standards, given and taken to the extent

that it will cost them a considerable amount of money to adhere to the standards. It is this spirit of splendid cooperation that has produced excellent results.

The Committee has completed the study of sixteen items for standardization, which were officially adopted by the NAB Board of Directors on March 20, 1942. Several items are still under study but due to other war activities probably no action will be taken until the cessation of hostilities. The NAB Engineering Department is encouraging the adoption and general use of the standards. Government agencies using recordings, the armed services, as well as commercial organizations, are cooperating splendidly with this effort.

## Television

Our first year of wartime radio came to an end with many of the nation's television stations still operating on regular program schedules. Restrictions on the manufacture of civilian television receivers and transmitting equipment will limit the expansion of the art for the duration. However operating experience gained during this period and military developments in television should get the new industry off to a good start with the coming of peace. This field will undoubtedly offer great employment opportunities to many of the new radio technicians, who are now getting valuable training and experience with our armed forces.

## Priorities and Conservation

Broadcast engineers are developing the "know how" of conservation. Transmitters have been readjusted to obtain the maximum life from vacuum tubes. Station personnel are repairing microphones, transcription reproducers, meters and other delicate devices. Broadcasters are exchanging surplus parts, tubes and materials through the NAB Swap Bulletin, a publication distributed to all domestic broadcasting stations, in an effort to reduce the requirements of the industry for new materials. At least one organization has been formed to handle the repairing of vacuum tubes for transmitters. Several of the tube manufacturers are also repairing tubes.

The Radio and Radar Division of WPB regulates the broadcaster's priority problems. Key personnel of the Civilian Radio Section were drawn from the broadcast industry and understand the broadcaster's needs and his importance to the war effort. Government and industry, working together, have conserved tons of critical materials without interruption or impairment of broadcasting service.

# WAR TIME RADIO PRODUCTION

By *Dr. Orestes H. Caldwell*  
*Editor, Radio Retailing Today*

IN a war that covers the whole face of the globe, radio and communications become vital. To supply these far-flung posts with adequate communication the radio industry has now laid down its peace-time work of civilian radio manufacture, and has expanded amazingly into war production.

Besides military radio receivers and transmitters for planes, tanks, surface ships, and submarines, and walkie-talkies and portables for field use, the factories which once made civilian radios are now turning out electronic detector devices, amplifiers, locaters, altimeters, depth gauges, telephones, teletypewriters, direction finders, public-address systems, anti-sabotage alarms, together with a flood of tubes and batteries.

During 1942, as the vast military radio program began to get underway, the radio and electronic output rose in value to a point between one and two billion dollars. High output was already underway by the end of the year. This tremendous new rate of production will be the yardstick for 1943, when war radio output may total several billions, reaching between fifteen and twenty times the former peacetime production of the radio industry.

Despite the curtailment of the manufacture of civilian sets, tubes and parts, the radio industry in 1942 has set a remarkable record as shown by the following estimates which, of course, do not include any war production figures.

## 1942 CIVILIAN RADIO SET AND TUBE SALES

*Source: Radio Retailing Today*

	<i>Number</i>	<i>Retail Value</i>
Total sets sold during 1942.....	4,400,000	\$154,000,000
Radio sets exported.....	500,000	17,500,000
Automobile radios.....	350,000	12,250,000
Home radios sold in U. S.....	3,550,000	124,250,000
Total tubes sold, U. S.....	87,700,000	96,000,000
Tubes, initial equipment.....	34,700,000	38,000,000
Tubes, replacements.....	53,000,000	58,000,000
Parts, supplies.....		70,000,000
Phonograph records.....	110,000,000	48,000,000

Note: In April, WPB ordered all civilian radio-set production stopped, and factories converted to war production. Total military radio production during 1942 is believed to be between one and two billion dollars.

## ANNUAL BILL OF U. S. FOR RADIO

*Source: Radio Retailing Today*

Sales of time by broadcasters, 1942.....	\$203,000,000
Talent costs.....	40,000,000
Electricity, batteries, etc. to operate 50,340,000 receivers.....	225,000,000
3,900,000 radios sold in 1942 at retail.....	136,500,000
53,000,000 replacement tubes.....	58,000,000
Radio parts, supplies, etc.....	70,000,000
Servicing radio sets.....	70,000,000
<b>Total</b> .....	<b>\$802,500,000</b>

## RADIO SETS IN USE

*Source: Radio Retailing Today*

	<i>Jan. 1, 1942</i>	<i>Dec. 1, 1942</i>
U. S. homes with radios.....	29,700,000	30,800,000
"Secondary" sets in above homes.....	15,000,000	16,660,000
Battery portables.....	2,800,000	3,130,000
Auto-radios.....	8,500,000	8,750,000
<b>Total sets in use, U. S.....</b>	<b>56,000,000</b>	<b>59,340,000</b>

# R.M.A. ALL OUT FOR VICTORY

By Bond Geddes

*Executive Vice-President, Radio Manufacturers Association*

THE record of accomplishment of the radio manufacturing industry is being written by American fighting men, in our bombs and other aircraft, our ships, our tanks and other arms throughout the world. Radio is the new and possibly decisive armament. Although radio's great contribution in the winning of the war, through new and secret apparatus, on sea and land, cannot be told until peace comes, never has there been such acute public consciousness of the part which radio is playing, both for the armed forces and civilian populations, at home and abroad. Its use in battle and for national and international information and understanding has given radio wide recognition, both as the new and powerful force in winning the war and also toward shaping of the peace which will come.

The part of the radio manufacturing industry in this "Victory" program is indicated by the delivery in 1942 of military radio apparatus estimated at \$2,250 million, or more than four times ordinary peacetime production of the industry—a record not surpassed by the automotive or any other industry which has been harnessed almost 100 per cent toward this "Victory" program. And in 1940 a military radio program estimated at \$4 billion is the delivery responsibility of radio manufacturers.

## Industry Objectives

Two present major objectives of the industry are the "on time" supply of this tremendous quantity of fighting radio, together with the utmost maintenance of public radio service—national and international—via broadcasting. Uncle Sam is now the No. 1 customer of the industry, but he also is the source of supply for transmitters and maintenance components of receiving sets. He is the principal source of supply for radio apparatus throughout the world.

Pearl Harbor found the radio industry already engaged, at that time, on "defense" contracts for military radio aggregating over \$600 million. Early transition, at the outbreak of war, from civilian to "all out" military radio production, was obvious. The first step came from the then Office of Production Management, in January, 1942, for a cut of 40 per cent in production of civilian radio receivers, and was soon followed by

the order on March 7 suspending all production of civilian receivers on April 22, with a few companies authorized to extend their production until the final set, "for the duration," came off the lines on June 7. Radio sets now are rapidly disappearing from the market, and there is no prospect for any substantial new production for the duration. This means that the primary problem for maintenance of public radio service relates to the supply of replacement tubes and parts for as many of the 57 million sets in the hands of the public as may be possible under war conditions. Also, the absorption of radio workers and service men by the armed services brings a related problem of vanishing manpower.

War controls over the industry, both in broadcasting and manufacture, have so spread that the facilities of the manufacturing industry and also the supplies of maintenance parts for civilian radio sets, as well as the distribution of the country's man and woman power, are now at the disposal of the Government and subject to its needs. Already there are shortages of replacement tubes, and, while the supply of other replacement parts for civilian radios is regarded as ample for another year, the Government holds the fundamental power of determining the future supply of maintenance parts and also the availability of manpower. The industry can assist but cannot determine such future Government policies, and while radio is regarded as "essential," with formal orders and regulations to that effect, still the final policies of providing sufficient materials for maintenance parts and adequate manpower for broadcasting and also for the servicing of U. S. receivers, remains fundamentally within the determination of Government agencies. Programs for future supplies of replacement tubes and parts are now being developed by several Government agencies and will be available to the extent of Government authorizations.

## RMA Co-operation

On both the war program and the problems of maintaining civilian radio service, the trade organization of the industry—the Radio Manufacturers Association—has been an agency working in closest co-operation with all Government departments. During last year the Asso-

ciation was placed on a war basis, revising its activities and membership services to the new war conditions. Its Priorities Committee, first headed by Paul V. Galvin of Chicago, now president of RMA, arranged last March with OPM and later with WPB for aluminum allocations for vital radio components. These allocations have been continued, and now the War Production Board, in its control of supplies and production, is preparing official programs for replacement tubes and parts. The standardization work of RMA has been shifted largely to the military effort. The RMA Engineering Department is engaged on standardization of military transmitters, receivers and electronic devices, while the standardization of parts has come largely un-

der the direct control of WPB. Official industry advisory committees are largely composed of RMA leaders.

Under war conditions, the solidarity of the industry and the value of services to its members are indicated by an increase of above 50 per cent in the membership of RMA, its trade organization. In its "all out" effort toward the winning of the war, the industry is not unmindful of the peace problems ahead, which will include rapid conversion—more quickly in the radio industry than in many others—to peacetime and broadened public services. The industry promises to be one of the principal industrial factors in providing new services and products when "Victory" becomes a reality.

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## Radio Manufacturers Association

*Officers and Executive Personnel—1942-1943*

**Headquarters: 1317 F. St., N.W., Washington, D. C.**

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### President

Paul V. Galvin, Galvin Manufacturing Corp., Chicago, Ill.

### Executive Vice-Pres.-General Mgr.

Bond Geddes, 1317 F St., N. W., Washington, D. C.

### Vice-Presidents

Ray H. Manson, Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.

M. F. Balcom, Sylvania Electric Products, Inc., Emporium, Pa.

G. W. Henyan, General Electric Co., Schenectady, N. Y.

Ray F. Sparrow, P. R. Mallory & Co., Indianapolis, Ind.

James P. Quam, Quam-Nichols Company, Chicago, Ill.

### Treasurer

Leslie F. Muter The Muter Company, Chicago, Illinois.

### Secretary

Bond Geddes, 1317 F Street, N. W., Washington, D. C.

### General Counsel

John W. Van Allen, Liberty Bank Building, Buffalo, New York.

### RMA BOARD OF DIRECTORS

#### Term Expiring 1943

P. S. Billings, Belmont Radio Corporation, Chicago, Illinois.

Octave Blake, Cornell-Dubilier Electric Corp., S. Plainfield, N. J.

H. C. Bonfig, RCA Manufacturing Co., Camden, New Jersey.

James T. Buckley, Philco Corporation, Philadelphia, Pa.

James C. Daley, Jefferson Electric Co., Bellwood, Ill.

Paul V. Galvin, Galvin Manufacturing Corporation, Chicago, Illinois.

W. P. Hilliard, Bendix Radio, Baltimore, Md.

J. J. Kahn, Standard Transformer Corp., Chicago, Ill.

E. A. Nicholas, Farnsworth Television & Radio Corp., Fort Wayne, Indiana.

H. E. Osmun, Centralab, Milwaukee, Wisc.

James P. Quam, Quam-Nichols Co., Chicago, Ill.

David T. Schultz, Raytheon Production Corporation, Newton, Massachusetts.



Ernest Searing, International Resistance Co., Philadelphia, Pa.  
Ray F. Sparrow, P. R. Mallory & Co., Indianapolis, Ind.

### **Term Expiring 1944**

E. Alschuler, Electrical Research Labs., Inc., Evanston, Illinois.  
W. R. G. Baker, General Electric Company, Bridgeport, Connecticut  
Roy Burlew, Ken-Rad Tube and Lamp Corporation, Owensboro, Kentucky  
A. H. Gardner, Colonial Radio Corporation, Buffalo, New York  
Ray H. Manson, Stromberg-Carlson Telephone Manufacturing Co., Rochester, New York.  
A. S. Wells, Wells-Gardner & Company, Chicago, Illinois.

### **Term Expiring 1945**

Ben Abrams, Emerson Radio & Phonograph Corporation, New York, N. Y.  
M. F. Balcom, Sylvania Electric Products, Inc., Emporium, Pa.  
R. C. Cosgrove, The Crosley Corporation, Cincinnati, Ohio.  
L. L. Kelsey, Stewart-Warner Corp., Chicago, Ill.  
J. J. Nance, Zenith Radio Corp., Chicago, Ill.  
G. W. Thompson, Noblitt-Sparks Industries, Inc., Columbus, Indiana.

### **RMA STANDING COMMITTEES**

#### **Executive Committee**

Paul V. Galvin, Chairman  
Ben Abrams  
W. R. G. Baker  
M. F. Balcom  
H. C. Bonfig  
James T. Buckley  
Ray H. Manson  
J. J. Nance  
James P. Quam  
Ray F. Sparrow  
Leslie F. Muter

#### **Credit Committee**

J. J. Kahn, Chairman, Standard Transformer Corp.  
Eastern Division:  
Henry Pope, Vice-Chairman, National Union Radio Corp.  
Western Division:  
E. R. Carlson, Vice-Chairman, Crowe Name Plate & Mfg. Co.

### **Engineering Department**

Dr. W. G. Baker, Director, General Electric Co.

Virgil M. Graham, Assistant Director, Sylvania Electric Products, Inc.

### **RMA DIVISIONS**

Sets: Ray H. Manson, Chairman  
Tubes: M. F. Balcom, Chairman  
Transmitter: G. W. Henyan, Chairman  
Parts: Ray F. Sparrow, Chairman  
Amplifier & Sound Equipment: James P. Quam, Chairman  
**Export Committee**  
W. A. Coogan, Chairman, Hygrade Sylvania Corp.  
**Legislative Committee**  
A. H. Gardner, Chairman, Colonial Radio Corporation  
**Membership Committee**  
Ernest Searing, Chairman, International Resistance Co.

#### **Traffic Committee**

O. J. Davies, Chairman, RCA Manufacturing Company, Inc.

### **RMA SPECIAL COMMITTEES**

#### **By-Laws and Organization Committee**

Leslie F. Muter, Chairman

#### **Replacement and Repair Parts Committee**

J. J. Kahn, Chairman

#### **Service Committee**

M. J. Schinke, Chairman

### **RMA Engineering Department**

Director: Dr. W. R. G. Baker, General Electric Co., Bridgeport, Conn.

Assistant Director: Virgil M. Graham, Sylvania Electric Products, Inc., Emporium, Pa.

RMA Data Bureau: L. C. F. Horle, 90 West St., New York, N. Y.

Military Standards Committee: Roger M. Wise, Sylvania Electric Products, Inc.; R. H. Fidler, Tung-Sol Lamp Works; J. J. Farrell, General Electric Co.; W. L. Webb, Bendix Radio; D. D. Israel, Emerson Radio & Phonograph Corp.; William Angus, General Electric Co.; H. H. Willis, Sperry Gyroscope Co.; D. G. Little, Westinghouse Electric & Mfg. Co.

Vacuum Tube Section: R. M. Wise, Chairman, Sylvania Electric Products, Inc.; R. H. Fidler, Vice-Chairman, Tung-Sol Lamp Works.



*Committees*

Receiving Tubes: Dr. P. T. Weeks, Chairman, Raytheon Production Co.

Cathode Ray Tubes: Dr. T. T. Goldsmith, Chairman, Allen B. DuMont Laboratories, Inc.

Transmitting Tubes: R. W. Larson, Chairman, General Electric Co.

*Sub-Committees*

Conventional High Vacuum Types: K. C. DeWalt, General Electric Co.

Gas Rectifiers, etc.: D. V. Edwards, Chairman, Electrons, Inc.

Velocity Modulation Tubes, etc.: W. T. Cooke, Chairman, Sperry Gyroscope Co.

UHF Receiving Tubes: Wallace James, Chairman, RCA Manufacturing Co.

UHF Magnetrons: Dr. J. B. Fisk, Chairman, Bell Telephone Laboratories.

Miscellaneous Tubes (Gaps, Switches, etc.): D. E. Marshall, Westinghouse Electric & Mfg. Co.

Transmitter Section: J. J. Farrell, Chairman, General Electric Co.; W. L. Webb, Vice-Chairman, Bendix Radio.

*Committees*

Fixed Station Transmitters: J. A. Hutchinson, Chairman, Westinghouse Electric & Mfg. Co.

Mobile Transmitters: Frank A. Gunther, Chairman, Radio Engineering Laboratories.

Field Transmitters: D. Mitchell, Chairman, Galvin Manufacturing Corp.

Air Borne Transmitters: M. M. Huckle, Chairman, RCA Manufacturing Co.

Marine Transmitters: E. F. Herzog, Chairman, General Electric Co.

Receiver Section: Dorman D. Israel, Chairman, Emerson Radio & Phonograph Corp.; William Angus, Vice-Chairman, General Electric Co.

*Committees*

Fixed Station Receivers: A. G. Manke, Chairman, General Electric Co.

Mobile Receivers: B. Ray Cummings, Chairman, Farnsworth Television & Radio Corp.

Field Receivers: G. E. Gustafson, Chairman, Zenith Radio Corp.

Air Borne Receivers: I. J. Kaar, Chairman, General Electric Co.

Marine Receivers: C. Gunther, Chairman, RCA Manufacturing Co.

Electronics Applications Section (Non-Communications): H. H. Willis, Chairman, Sperry Gyroscope Co.; D. G. Little, Vice-Chairman, Westinghouse Electric & Mfg. Co.

**NATIONAL TELEVISION SYSTEM COMMITTEE**

Dr. W. R. G. Baker, Chairman, General Electric Co.

Virgil M. Graham, Secretary, Sylvania Electric Products, Inc.

Dr. Ralph Bown, Bell Telephone Laboratories, Inc.

Leonard H. Hole, Columbia Broadcasting System, Inc.; Dr. P. C. Goldmark, Alternate.

Allen B. DuMont, Allen B. DuMont Laboratories, Inc.; Dr. T. T. Goldsmith, Alternate.

B. Ray Cummings, Farnsworth Television & Radio Corp.; Madison Cawein, Alternate.

Dr. E. F. W. Alexanderson, General Electric Co.; I. J. Kaar, Alternate.

Daniel E. Harnett, Hazeltine Service Corp.; W. A. MacDonald, Alternate.

Albert I. Lodwick, Hughes Tool Co.; A. F. Murray, Alternate.

Dr. Alfred N. Goldsmith, Institute of Radio Engineers; H. A. Wheeler, Alternate.

E. W. Engstrom, RCA Mfg. Co.; Dr. C. B. Jolliffe, Alternate.

D. G. Little, Westinghouse Electric & Mfg. Co.

J. V. L. Hogan, National Association of Broadcasters; L. C. Smeby, Alternate.

David B. Smith, Philco Corp.; F. J. Bingley, Alternate.

Dr. R. H. Manson, Stromberg-Carlson Telephone Mfg. Co.; Dr. G. R. Town, Alternate.

Paul Raibourn, Television Productions, Inc.

John R. Howland, Zenith Radio Corp.; J. E. Brown, Alternate.

# CHIEF ENGINEERS

## OF STATIONS IN UNITED STATES AND CANADA

AS OF JANUARY 1st, 1943

The "Win the War First" theme is readily apparent in comparing this year's listing of Radio Engineers with that of '42. The various branches of the armed forces and other government agencies have drawn heavily on personnel in this department particularly. A study would probably indicate that far more men have enlisted from station technical staffs than any other division of the business.

An unusual factor that the war provided is a strong sprinkling of female engineers in both large and small stations. Indications are that more and more feminine technicians will be trained and hired as the war continues.

### Alabama

Anniston, WHMA.....James Hudson  
Bessemer, WJLD.....Einer Larsen  
Birmingham,  
    WAPI.....Norman S. Hurley  
    WSGN.....Paul Cram  
Decatur, WMSL.....Calloway M. Callieott  
Huntsville, WBHP.....John Garrison  
Mobile,  
    WALA.....Raymond Hurley  
Montgomery,  
    WCOV.....W. D. Weatherly  
    WSPA.....Cliff Shelkofsky  
Selma, WHRB.....Edmund Jackson

### Arizona

Lowell, KSUN.....Earl Kirkman  
Phoenix,  
    KOY.....Robert Thompson  
    KPHO.....Louis Sublett  
    KTAR.....Harold Haughwout  
Prescott, KYCA.....John R. Quinn  
Safford, KGLU.....Herbert Hartman  
Tucson, KTUC.....Cliff Livingston  
Yuma, KYUM.....Leavenworth Wheeler

### Arkansas

Blythville, KLCN.....Bob Connor  
El Dorado, KELD.....Ewing Canaday  
Fort Smith, KFPW.....Bill Slates  
Helena, KFPA.....J. C. Warren  
Hot Springs National Park, KTHS.....J. C. Norman  
Little Rock,  
    KWFC.....Charles Greenley  
    KGHI.....K. P. Tracy  
    KLRA.....K. P. Tracy  
Siloam Springs, KCOA.....Ceell E. Smith  
Texarkana, KCMC.....Charles Mathis

### California

Bakersfield,  
    KERN.....Verne Shatto  
Beverly Hills, KMPC.....Lloyd Sigmon  
Chico, KHSL.....Emory P. Milburn  
Eureka, KIFM.....Alvor Olson, William R. Rambo

El Centro, KXO.....James Coin  
Fresno,

    KAJM.....John F. Seales  
    KFRE.....Sheldon Anderson  
    KMLJ.....William N. Wallace  
Hollywood, KMTR.....Pete Wilson  
Long Beach, KGER.....Jay Tapp  
Los Angeles,

    KECA.....H. L. Blatterman, Curtis W. Mason  
    KFAC.....H. W. Anderson  
    KFEL.....H. L. Blatterman, Curtis W. Mason  
    KFSG.....Myron Kluge  
    KFVD.....John A. Smithson  
    KPWB.....Harry Myers  
    KILJ.....Frank Kennedy  
    KNX.....Lester H. Bowman  
    KRRD.....Willis O. Freitag

Marysville, KMYC.....B. B. Ballard  
Merced, KYOS.....John E. Boren  
Modesto, KTRB.....Wayne Berthold  
Monterey, KDON.....Edward C. Duly  
Oakland,

    KLS.....Howard Faulkner  
    KLN.....Ros Smith  
    KROW.....C. E. Downey

Pasadena,

    KPAS.....John A. Smithson  
    RKWK.....Paul Spargo  
Redding, KVCV.....Pat O'Brien  
Riverside, KPRO.....R. H. McGaughey  
Sacramento,

    KFBK.....Stan Sronce  
    KROY.....Howard Martineau  
San Bernardino, KFXM.....Richard T. Sampson  
San Diego,

    KFMB.....Leslie G. Hewitt  
    KGB.....Vern Milton  
San Francisco,

    KFRC.....Jim McArdle  
    KGO.....T. B. Palmer  
    KPO.....T. B. Palmer  
    KSAN.....N. J. Patterson  
    KSPD.....Royal V. Howard  
    KYA.....Paul C. Schulz

San Jose, KQW.....W. C. Gilman  
San Luis Obispo, KVEC.....Earl Travis  
Santa Ana, KVOE.....Wallace S. Wiggins  
San Barbara,

    KDB.....William C. Buckley  
    KTMS.....Winfred Wilman  
Santa Rosa, KSRO.....Howard McCauley  
Stockton,

    KIDM.....Fred Ellors  
    KWG.....Lee Berryhill  
Visalia, KTKC.....Bert Williamson  
Watsonville, KHUB.....E. H. Calder

## Colorado

Colorado Springs, KVOR.....H. C. Strang  
Denver,  
KFEL.....Walter Selden  
KLZ.....Harvey Wehrman  
KNYR.....Glen James  
KOA.....Robert H. Owen  
Grand Junction, KFNJ.....Eph Towne  
Greeley, KFKA.....Kenneth Cooper

## Connecticut

Bridgeport,  
WICC.....George Keich  
WNAB.....Gard Ray  
Hartford,  
WDRS.....Italo A. Martino  
WNBC.....Roger B. Holt  
WTIC.....H. D. Taylor  
WHTT.....Richard K. Blackburn  
New Britain, WNBC.....Roger B. Holt  
New Haven, WELI.....J. Gordon Keyworth  
New London, WNLC.....Francis Stephens  
Waterbury,  
WATR.....Harold Thomas  
WBRV.....Frank Hales  
Stamford, WSRR.....John Reilly

## Delaware

Wilmington, WILM.....J. E. Mathiot

## District of Columbia

Washington,  
WINX.....Ralph E. Cannon, Jr.  
WISV.....Clyde Hunt  
WMAL.....H. A. Wadsworth  
WOL.....Harry Lyon  
WRC.....A. E. Johnson  
WWDC.....U. L. Lynch

## Florida

Gainesville, WRUF.....Dr. Palmer Craig  
Jacksonville,  
WJAX.....John T. Hopkins, 3rd  
WJHP.....B. Hayford  
WMBR.....E. B. Vordermark  
WPDQ.....James R. Donovan  
Lakeland, WLAK.....Wm. P. Lee  
Lake Worth, WWPG.....W. H. Malone  
Miami,  
WIOD.....Bob Barwick  
WQAM.....T. C. Wisenbaker  
Miami Beach, WKAT, Arthur Smith, Thomas Magee  
Ocala, WTCM.....Beecher Hayford, H. F. Lange  
Orlando,  
WBDB.....J. E. Yarbrough  
Palm Beach, WWPG.....Paul McGinty  
WLOP.....Harold A. Jenkins  
Panama City, WDLP.....Beecher Hayford  
Pensacola, WCOA.....G. E. Mead  
St. Petersburg,  
St. Augustine, WFOY.....Pat Bernhard  
WSTN.....Louis J. Link  
WTSP.....Joe Latimer  
Sarasota, WSPB.....Bill Sheetz  
Tallahassee, WTAL.....William A. Snowden, Jr.  
Tampa,  
WDAE.....William Pharr Moore  
WFLA.....Joe Mitchell  
West Palm Beach, WJNO.....E. Whit MacDowell

## Georgia

Albany,  
WALB.....Noel Martin  
WGPC.....Charles M. Kinnett  
Atlanta,  
WAGA.....Russ Shettler  
WATL.....Zenas Sears  
Augusta,  
WGAC.....DeForest Lorton  
WSB.....C. F. "Harry" Daugherty  
Augusta, WRDW.....Harvey Aderhold  
Brunswick, WMOG.....Kenneth E. White

Cedartown, WGAA.....Clarence Landress  
Columbus, WRBL.....Wilfred Siddle  
Cordele, WMJM.....Clayton Lee  
Dalton, WBLJ.....W. C. Roberts  
Gainesville, WGGA.....F. K. Brown  
Macon,  
WBML.....Mary Hester Richardson  
WMAZ.....George P. Rankin, Jr.  
Moultrie, WMGA.....James Wilder  
Rome, WRGA.....R. L. Starr  
Savannah,  
WSAV.....Meredith E. Thompson  
WTOG.....Claude M. Gray  
Toccoa, WRIC.....H. C. Lindahl  
Valdosta, WGOV.....L. C. McCall  
Waycross, WAYX.....John T. Tobola  
West Point, WDAK.....Dige Bishop

## Idaho

Boise, KIDO.....H. W. Toedemeier  
Lewiston, KRLC.....Milton MacLafferty  
Nampa, KFXD.....Eddie Hurt  
Pocatello, KSEI.....Henry H. Fletcher  
Twin Falls, KTFI.....Franklin V. Cox  
Wallace, KWAL.....Charles Crane

## Illinois

Aurora, WMRO.....Mary Louise Brown  
Champaign, WDWS.....Jack Baum  
Chicago,  
WAAP.....Carl Pbrlich  
WAIF.....Edward J. Jacker  
WHBM.....Frank B. Falknor  
WCFB.....Maynard F. Marquardt  
WEDC.....Chester Lewicki  
WENR.....E. C. Hertsman  
WGES.....George Bush  
WGN.....George Lang  
WJLD.....Walter Myers  
WLS.....Thomas L. Rowe  
WMAQ.....Howard C. Lutgens  
WMBI.....A. P. Frye  
WSBC.....Dean Remick  
Cicero, WHFC.....George M. Ives, Jr.  
Danville, WDAN.....Theodore Marlin  
Decatur, WSOY.....M. H. Stuckwisch  
East St. Louis, WTMV.....Thomas R. McLean  
Galesburg, WGLI.....Dale King  
Harrisburg, WEBQ.....Joseph R. Tate  
Herrin, WJPF.....Lynton R. Lemons  
Jacksonville, WLDS.....Gerald Cassens  
Peoria, WMBD.....Ted Giles  
Quincy, WTAD.....Francis Wentura  
Rockford, WROK.....T. C. Cameron  
Rock Island, WHBF.....R. J. Smetton  
Springfield, WDBZ.....Harold L. Dowling  
Tuscola, WDBZ.....Mark Spies  
Urbana, WLLI.....A. James Ebel

## Indiana

Anderson, WHBI.....L. E. Podhaski  
Elkhart, WTRB.....K. N. Singleton  
Fort Wayne, WGL-WOWO.....Alva E. Smith  
Gary, WIXD.....Victor H. Voss  
Hammond, WJOB.....Stanley Strousberg  
JWC.....William E. Albright  
Indianapolis,  
WFBM.....Harold Holland  
WHBC.....Harry Adams  
WIRE.....Eugene E. Alden  
WISH.....Stokes Gresham, Jr.  
Lafayette, WASK.....Russell Lewis  
Muncie, WLBC.....M. M. Crain  
South Bend, WSBF.....Paul Mangus  
Terre Haute, WBOV.....Don Aldrich  
Vincennes, WAQY.....Robert M. Henley  
West Lafayette, WBBA, Howard Eckert, Earl Stout

## Iowa

Ames, WOI.....L. L. Lewis  
Boone, KFGQ.....Paul R. Huntsinger  
Burlington, KBER.....Kirby Smith  
Cedar Rapids, WMT.....Paul A. Palmer  
Clinton, KROS.....Gilbert Andrew

Davenport, WOC.....Ray Stauffer  
 Des Moines, KWL.....Oliver M. Eittrheim  
 Des Moines, KRNT-KSO.....Paul Huntsinger  
 Dubuque, WHO.....P. A. Loyet  
 Dubuque, KDTH.....Stan Beck  
 Dubuque, WKBB.....Leonard Carlson  
 Fort Dodge, KVPD.....Dave Sinclair  
 Iowa City, WSUL.....S. J. Ebert  
 Marshalltown, KFJB.....Alfred Urbashich  
 Mason City, KGLD.....Roger Sawyer  
 Ottumwa, KBIZ.....August P. Wendt  
 Shenandoah, KENF.....Earl Blakesley  
 KMA.....Ray Schroeder  
 Sioux City, KSCJ.....Alvin H. Smith  
 KTRI.....Earl Huss  
 Spencer, KICD.....Hewitt D. Grotewohl  
 Waterloo, RXEL.....Don Kassner

## Kansas

Atchison, KVAK.....Charles Giles  
 Coffeyville, KGGF.....Sarto Jaminet  
 Dodge City, KGNO.....Ralph Hickman  
 Emporia, KTSW.....Harold E. Davis  
 Garden City, KIUL.....Henry McClintock  
 Great Bend, KVGB.....Leo Legleiter  
 Hutchinson, KWBW.....Millard Clary  
 Kansas City, KCKN.....Bernard Maltby  
 Lawrence, WREN.....Carl Bliesner  
 Manhattan, KSAC.....R. C. Dennison  
 Pittsburg, KOAM.....W. L. Brown  
 Salina, KSAL.....N. E. Vance, Jr.  
 Topeka, WIBW.....Karl Troekler  
 Wichita, KANS.....Carl Hall  
 KFBT.....K. W. Pyle  
 KFH.....Amos C. Daisman

## Kentucky

Ashland, WCMJ.....Clarence Weaver  
 Harlan, WHLN.....Max Cockley  
 Henderson, WSON.....Edwin L. Robb  
 Hopkinsville, WHOP.....Lynton R. Lemond  
 Lexington, WLAP.....Sanford Helt  
 Louisville, WAVE.....Wilbur Hudson  
 WLAS.....D. C. Summerford  
 WINN.....Wayne J. Hatchett  
 New Albany (Louisville), Perry Easton  
 Owensboro, WOMI.....Leslie Goodaker  
 Paducah, WPAD.....James Grant

## Louisiana

Alexandria, KALB.....Jesse Sexton  
 New Orleans, WDSU.....C. L. Whitney  
 WNOE.....Ellis Trepegnier  
 WWL.....J. D. Bloom, Jr.  
 Shreveport, KRMD.....R. M. Dean  
 KTBS.....C. H. Maddox  
 KWKH.....W. E. Antony

## Maine

Augusta, WRDO.....Harold Dinsmore  
 Lewiston, WCOU.....John T. Duty  
 Portland, WCSH.....G. Fred Crandon  
 WGSN.....Roger W. Hodgkins

## Maryland

Baltimore, WBAL.....George W. Cooke  
 WCAO.....Martin L. Jones  
 WFBR.....William Q. Ranft  
 WTHH.....James Duff  
 Cumberland, WTBO.....L. Edward Pamphilon  
 Frederick, WFMD.....A. V. Tidmore  
 Hagerstown, WJED.....George W. McIntire  
 Salisbury, WBOC.....Peter A. Alfonsi

## Massachusetts

WBZ.....F. M. Sloan  
 WBZA.....H. E. Raudol  
 WCOP.....Roland C. Hale  
 WEEL.....W. J. Stiles  
 WHDH.....R. G. Matheson  
 WNAC.....Paul A. DeMars, Irving Robinson  
 WORL.....John Parker  
 Fall River, WSAR.....John C. Pavao  
 Fitchburg, KEIM.....Theodore Kalin  
 Greenfield, WHAI.....James L. Spates  
 Holyoke, WHYN.....Thomas Humphrey  
 Hyannis-West Varnmouth, WOGB.....L. D. Trefry  
 Hyannis, WOGB.....Rodney A. Merrill  
 Lawrence, WLAW.....George A. Hinkley  
 Lowell, WLLH.....Ralph Newton  
 New Bedford, WNBH.....Irving Vernilya  
 Pittsfield, WBRK.....Leonard Lavendol  
 Springfield, WMAS.....Earle G. Hewinson  
 WSPR.....Lawrence A. Reilly  
 Worcester, WAAB.....Irving B. Robinson  
 WTAC.....Elliot A. Browning

## Michigan

Bay City, WBCM.....Ralph H. Carpenter  
 Calumet, WHDF.....George L. Burgan  
 Detroit, WJLB.....Edward H. Clark  
 WWJ.....Herbert F. Tank  
 WXYZ.....Verne C. Alston  
 East Lansing, WKAR.....Norris E. Grover  
 Flint, WFDF.....Frank D. Fallain  
 Grand Rapids, WOOD-WASH.....Fred W. Russell  
 Ironwood, WJMS.....Arne Dahlback  
 Jackson, WIBM.....Charles Wirtanen  
 Kalamazoo, WKZO.....Carl E. Lee  
 Lapeer, WMPC.....Holis F. Hayes  
 Muskegon, WKBZ.....George Krivitzky  
 Pontiac, WCAR.....Wayne N. Cook  
 Port Huron, WHLS.....Leslie Conant  
 Royal Oak, WEXL.....Jerome Steadley  
 Saginaw, WSAM.....Simon Maruszian  
 Traverse City, WTCM.....Drew McClay

## Minnesota

Albert Lea, KATH.....Lawrence Lawson  
 Duluth, KDAL.....Robert A. Dettman  
 WEBR.....William Lounsberry  
 Hibbing, WMFG.....Wm. Lounsberry  
 Mankato, KYSM.....James Houts  
 Minneapolis, WCCO.....Hugh S. McCartney  
 WDGY.....Dr. George W. Young  
 WLB.....Burton Holmberg  
 WLOL.....Gene Brautigam, Ozden Prestholdt  
 WTCN.....Myron Fleming  
 Moorhead, KVON.....Dick Noble  
 Northfield, WCAL.....O. W. Halderson  
 St. Cloud, KFAM.....Robert B. Witschen  
 St. Paul, WMIN.....Warren Fritze  
 Virginia, WHLB.....Wayne Kestila  
 Willmar, KWLM.....Vern Baumgartner

## Mississippi

Columbus, WCBJ.....Maxwell Williams  
 Greenville, WJPR.....R. L. Leo  
 Greenwood, WGRM.....Gordon Clark  
 Gulfport, WGM.....Donovan Murphy  
 Jackson, WSLL.....C. A. Perkins  
 Laurel, WAML.....Bruce Dennis  
 McComb, WSKB.....Robert Louis Sanders  
 Meridian, WOOC.....D. W. Gavin  
 Natchez, WMIS.....Thomas Patterson  
 Vicksburg, WQBC.....C. E. Drake

## Missouri

Columbia, KFRL.....Robert Haigh  
 Hannibal, KHM.....Warren E. McFadden  
 Joplin, WMBH.....Richard Meek  
 Kansas City,

# CHIEF ENGINEERS

KCMO.....Jack Stewart  
 KMBC.....A. R. Moler  
 WDAF.....Joseph A. Flaherty  
 Poplar Bluff, KWOC.....Don Lidenton  
 St. Joseph, KFEQ.....Fred H. Damm  
 St. Louis,  
 KPYO.....Carl H. Meyer  
 KWK.....Rich. Hayes  
 KNOK.....Arthur Rekart  
 WEW.....George E. Rueppel  
 WIL.....Chas. C. Stoup  
 Sedalia, KDRO.....Bing G. Wong  
 Springfield,  
 KGBX-KWTO.....Fritz Bauer  
 KTTO.....Frank L. Barker

## Montana

Billings, KGHL.....Jeff Kitchli  
 Bozeman, KRBM.....Jack Provis  
 Great Falls, KFBB.....Wilbur Melre  
 Helena, KPFA.....R. D. Martin  
 Kalispell, KGEZ.....Donald Gorman  
 Miles City, KGVO.....R. E. Nelson  
 Missoula, KGVO.....Fred Wamble  
 Sidney, KGCX.....Otto E. Moates

## Nebraska

Fremont, KORN.....Lee Gustavson  
 Grand Island, KMMJ.....D. Swanson  
 Hastings, KHAS.....Duane B. Allison  
 Kearney, KGFV.....Jack Lewis  
 Lincoln, KPAB-KFOR.....Mark W. Bullock  
 Norfolk, WJAG.....Frank Weidenbach  
 North Platte, KGNF.....J. B. Eaves  
 Omaha,  
 KBON.....Richard Wina  
 KOLL.....Mark Bullock  
 KOWH.....F. E. Shopen, Jr.  
 WOW.....William J. Kotera

## Nevada

Reno, KOH.....M. Hewlitt Kees

## New Hampshire

Keene, WKNE.....Howard Ayer  
 Laconia, WLNH.....Louis Steady  
 Manchester,  
 WFEA.....Reginald A. B. Schow  
 WMUR.....Vincent H. Chandler  
 Portsmouth, WHEB.....Paul Lindsay

## New Jersey

Asbury Park, WCAP.....Gordon Shaw  
 Atlantic City,  
 WBAB.....Earle Godfrey  
 WJPG.....Blair K. Thorn  
 Camden, WCAM.....C. E. Owens  
 Jersey City,  
 WAAT.....Frank V. Bremer  
 WHOM.....Allison Burnham  
 Paterson, WPAT.....Earl P. Lucas  
 Trenton,  
 WTNJ.....Edward P. Knowles  
 Zaraphath, WAWZ.....Nathaniel Wilson

## New Mexico

Albuquerque,  
 KGGM.....Leonard Dodds  
 KOB.....George S. Johnson  
 Carlsbad, KAVE.....David O. Crouch  
 Clovis, KICA.....Vernon Hughes  
 Hobbs, KWEW.....Chet L. Gonca  
 Las Vegas, KFUN.....A. F. Schultz  
 Roswell, KGFL.....Melvin Unger

## New York

Albany,  
 WABY.....J. H. Corey  
 WOKO.....O. A. Sardi  
 Auburn, WMBO.....Herbert House  
 Batavia, WBTA.....Howard Cochran  
 Binghamton, WBNB.....Lester H. Gilbert  
 Brooklyn,  
 WBYN.....Peter Testan  
 WLIB.....Arthur Faske  
 Buffalo,  
 WBBN.....Ralph J. Kingsley  
 WBNY.....Thomas L. Vines  
 WEBR.....Raymond Lamy  
 WGR.....K. B. Hoffman  
 WKBW.....K. B. Hoffman  
 Elmira, WENY.....Thurloa A. Greene  
 Freeport, WGBB.....Robert Milos  
 Ithaca, WHCU.....True McLean  
 Jamestown, WJTN.....Harold J. Krutzert  
 Kingston, WRNY.....M. S. Selmes  
 Middletown, WALL.....Martin Karig, Jr.  
 Newburgh, WGNV.....John Bondy  
 New York,  
 WABC.....Henry Grossman  
 WEAJ (NBC).....F. A. Wankel  
 WEVD.....Charles Brown  
 WHN.....Paul Fuelling  
 WINS.....Paul Von Kunits  
 WJZ (Blue Network).....George Milne  
 WMCA.....Frank Marx  
 WOR.....J. R. Poppele  
 WOV.....Hillis W. Holt  
 WNEW.....M. J. Weiner  
 WQXR.....Russell D. Valentine  
 Niagara Falls, WHLD.....Robert Wilson  
 Ogdensburg, WSLB.....Clifford Moore  
 Olean, WHDL.....Karl Haberman  
 Plattsburg, WMFP.....Jack Nazak  
 Poughkeepsie, WKIP.....John Burke  
 Rochester,  
 WHAM.....Kenneth Gardner  
 WHEC.....Bernard C. O'Brien  
 WSAY.....Gordon P. Brown  
 Schenectady, WGY.....W. J. Purcell  
 Syracuse,  
 WAGE.....Charles Brannen  
 WFBL.....Alfred R. Marey  
 WSYR.....A. G. Bello Isle  
 Troy, WTRY.....William Watson, W. J. Lardner  
 Utica, WUBX.....J. T. Dowdell  
 Watertown,  
 WATN.....Vernice E. Baxter  
 WWNV.....Maynard B. Davis  
 White Plains, WFAS.....Harry C. Laubenstein  
 Woodside, WWR1.....William H. Reuman

## North Carolina

Asheville, WISE.....Charles W. Sumner  
 Burlington, WBBB.....James Beatty  
 Charlotte,  
 WAYS.....Bob Rigby  
 WBT.....J. J. Beloungy  
 WSOC.....L. L. Caudle, Jr.  
 Durham, WJNC.....Walter Hill  
 Elizabeth City, WCNC.....Joe Kyle  
 Fayetteville, WFNC.....Howard Harrell  
 Gastonia, WCNC.....W. C. Groves, Jr.  
 Goldsboro, WGBR.....Daniel B. Trueblood  
 Greensboro,  
 WHIG.....Earl Allison  
 WGBG.....Clyde C. Penny  
 Greenville, WGTC.....Hank Tribbley  
 Hickory, WHKY.....E. S. Long  
 High Point, WFR.....Robert P. Boyd  
 New Bern, WHIT.....Glen Neuville  
 Raleigh,  
 WPTF.....Henry Hulick, Jr.  
 WRAL.....Stanley H. Brown  
 Roanoke Rapids, WCBT.....Lewis Hiland  
 Salisbury, WSTP.....Carl B. Watson

Washington, WRRF.....George P. Martin  
 Wilmington, WMFD.....S. Harold Jones  
 Wilson, WGTM.....Warren Wooten  
 Winston-Salem,  
 WAIR.....Leon Lloyd  
 WSJS.....Phil Hedrick

## North Dakota

Bismarck, KFYZ.....Ivar Nelson  
 Devil's Lake, KDJR.....Richard Moritz  
 Fargo, WDAY.....Julius Heiland  
 Grand Forks, KFJM.....Edwin J. O'Brien  
 Minot, KLPM.....C. W. Baker  
 Valley City, KOVC.....Charles Stogstrom

## Ohio

Akron,  
 WADC.....John Aitkenhead  
 WAKR.....Wm. W. Robertson  
 WJW.....Gerald Roberts  
 Ashtabula, WICA.....G. G. Gaultney  
 Canton, WHB.....Kenneth L. Sliker  
 Cincinnati  
 WCKY.....C. H. Topmiller  
 WCPO.....Glen A. Davis  
 WKRC.....George Wilson  
 WLW.....R. J. Rockwell  
 WSAI.....R. J. Rockwell  
 Cleveland,  
 WCLE.....Ralph DeLany  
 WGAR.....R. Morris Pierce  
 WHK.....Ralph DeLany  
 WTAM.....S. E. Leonard  
 Columbus,  
 WBNS.....Lester H. Nafziger  
 WCOL.....James E. Lowe  
 WHKC.....J. E. Anderson  
 WOST.....C. H. Boehrker  
 Dayton,  
 WHIO.....Ernest L. Adams  
 WING.....Paul F. Braden  
 Findlay, WFIN.....Edgar Smith  
 Lima, WLOR.....Jack E. Bannun  
 Mansfield, WMAN.....Perry Wilson  
 Marion, WMRN.....S. Robert Morrison  
 Portsmouth, WPAY.....Maurice Myers  
 Steubenville, WSTV.....Joseph M. Troesch  
 Toledo,  
 WSPD.....William Stringfellow  
 WTDL.....Frank B. Ridgway  
 Warren, WRRN.....William C. Minor  
 Youngstown, WKBN.....B. T. Wilkins  
 Zanesville, WHIZ.....William A. Hunt

## Oklahoma

Ada, KADY.....William Lindsay  
 Ardmore, KVSQ.....George Milner  
 Bartlesville, KWON.....Gil W. Ownby  
 Elk City, KASA.....Clive Lee Neel  
 Enid, KRCR.....Paul Snell  
 Muskogee, KRIX.....D. W. Housington  
 Norman, WNAD.....Franklin W. Harris  
 Oklahoma City,  
 KOMA.....M. W. Thomas  
 KTOK.....Clifford Easum  
 WKY.....Herman J. Lovell  
 Okmulgee, KHGG.....Chester Ludwick  
 Shawnee, KGFF.....S. Riccetti  
 Tulsa,  
 KOMA.....Bob Ehmors  
 KTUL.....Robert Snider  
 KVOO.....L. W. Stinson

## Oregon

Vibany, KWHL.....Herb Davidson  
 Astoria, KAST.....Raymond Williams  
 Baker, KBBK.....Sidney Williams  
 Bend, KBND.....Robert Dickinson  
 Corvallis, KOAC.....Grant S. Feikert

The Dalles, KODL.....Don Jones  
 Eugene, KORE.....Harold Gander  
 Grant's Pass, KUN.....Edward A. Malone  
 La Grande, KLBH.....Lee Ready  
 Marshfield, KOOS.....Roger L. Spaulgh  
 Medford, KMED.....Dave Rees  
 Pendleton, KWRC.....Paul E. Walden  
 Portland,  
 KBPS.....Louis Ballinger  
 KEX-KGW.....Harold Singleton  
 KALE-KOIN.....Louis S. Bookwalter  
 KWJJ.....Wilbur Jerman  
 KXL.....Lew Ballanger  
 Roseburg, KRNR.....Henry J. Chandler, Jr.  
 Salem, KSLM.....Clyde Carlton

## Pennsylvania

Altoona, WFBG.....Paul Rex  
 Butler, WISR.....Clifford L. Gorsuch  
 Du Bois, WCED.....Raymond Baird  
 Easton, WEST.....J. E. Mathiot  
 Erie,  
 WERC.....Charles Jenks  
 Erie,  
 WLEU.....Clarence Baker  
 Grove City, WSAJ.....H. W. Harmon  
 Harrisburg,  
 WHP.....R. S. Duncan  
 WKBO.....J. E. Mathiot  
 Hazleton, WAZL.....J. E. Mathiot  
 Johnstown, WJAC.....Nevin Straub  
 Lancaster, WGAL.....J. E. Mathiot  
 Lewistown, WMRE.....Bernard H. Bopp  
 New Castle, WKST.....Robert Emch  
 Philadelphia,  
 KYW.....Ernest H. Gager  
 WCAU.....(acting) George Lewis  
 WDAS.....Frank Unterberger  
 WFIL.....Louis E. Littlejohn  
 WIBG.....John H. Henninger  
 WIP.....Clifford Harris  
 WPEN.....Charles W. Burtis  
 WTET.....Gray D. MacLaughlin  
 Pittsburgh,  
 KDKA.....Dwight A. Myer  
 KQV.....Walter McCoy  
 WCAE.....James Schultz  
 WWSW.....Henry R. Kaiser  
 Reading,  
 WEEU.....R. A. Gaul  
 WRAW.....H. O. Landis  
 Scranton,  
 WARM.....Adolph Oschmann  
 WGBI.....Kenneth R. Cooke  
 Sharon, WPIC.....A. C. Heck  
 Sunbury, WKOR.....Chf. Kerstetter  
 Uniontown, WMB.....Harold Frucham  
 Washington, WJPA.....Joseph M. Troesch  
 Wilkes-Barre,  
 WBAX.....John Stenger, Jr.  
 WBRE.....Charles Sakoski  
 Williamsport, WRAK.....Louis N. Persio  
 York,  
 WORR.....J. E. Mathiot  
 WSRA.....Woodrow G. Eberhart

## Rhode Island

Pawtucket, WFCI.....Gilbert Johnson  
 Providence, WPRO.....Howard W. Thorndyke

## South Carolina

Anderson, WAIM.....Harold C. Spengler  
 Charleston,  
 WCSC.....James Weaver  
 WTMA.....Douglass M. Bradham  
 Columbia,  
 WCOS.....Harry Chippard  
 WIS.....Scott Helt  
 Florence, WOIS.....Herman Hanks  
 Greenville, WFBC.....Clyde Ethendae  
 Greenwood, WURS.....E. C. Niemann  
 Spartanburg, WOPB-WSPA,  
 Murray Coleman, Harold Beckhoff  
 Sumter, WFIG.....William E. Williams

# CHIEF ENGINEERS

## South Dakota

Aberdeen, KABR.....Delbert T. Hunt  
 Rapid City,  
   KOBH.....M. J. Jones  
   WCAT.....E. E. Clark  
 Sioux Falls, KELO-KSOO.....Max Staley  
 Vermillion, KUSD.....Tom Bedwell  
 Watertown, KWAT.....Francis Alwin  
 Yankton, WNAX.....Clifford Todd

## Tennessee

Bristol, WOPI.....R. H. Smith  
 Chattanooga,  
   WAPO.....B. B. Barnes  
   WDEF.....B. C. Baker  
   WDOD.....Julius Vessels  
 Clarksville, WJZM.....F. Kravitz  
 Cookeville, WHUR.....Charles R. Duke  
 Jackson, WTJS.....B. Carey Brummel  
 Johnson City, WJHL.....O. K. Garland  
 Kingsport, WKPT.....G. W. Upchurch  
 Knoxville,  
   WBR.....Edward McGinley  
   WNOX.....J. B. Epperson  
   WROL.....Owen McReynolds  
 Memphis,  
   WHBQ.....W. M. Roy  
   WMC.....E. C. Frase, Jr.  
   WMPB.....J. G. Deaderick  
 Nashville,  
   WLAC.....F. D. Binns  
   WSM.....(Acting) George Reynolds

## Texas

Abilene, KRBC.....J. B. Casey  
 Amarillo,  
   KFDA.....Howard Blaker  
   KGNC.....Wm. H. Torrey  
 Austin,  
   KNOW.....James E. Lewis  
   KTBC.....G. C. Farmer  
 Beaumont, KRIC.....Ray Wheeler  
 Big Spring, KBST.....Andrew M. Jones  
 Brownwood, KBWD.....G. M. Patterson  
 College Station, WTAW.....H. C. Dillingham  
 Corpus Christi,  
   KEYS.....H. B. Lockhart  
   KRIS.....Robert S. Bush  
 Corsicana, KAND.....Gene Hellum  
 Dallas,  
   KRLD.....Roy M. Flynn  
   KSKY.....Morris M. Ming  
   WFAA.....Raymond Collins  
   WRR.....D. J. Tucker  
 El Paso,  
   KROD.....Edward P. Talbott  
 KTSM.....E. L. Gemoets  
 Fort Worth,  
   KFJZ.....Truett Kinzey  
   KGKO.....R. C. Stinson  
   WBAP.....R. C. Stinson  
 Galveston, KLEF.....Lee Clough  
 Harlingen, KGBS.....Marvin D. Myers  
 Houston,  
   KPRC.....H. T. Wheeler  
   KTRH.....Howard Robinson  
   KXYZ.....Gerald Chinski  
 Huntsville, KSAM.....Robert Newton  
 Lubbock, KFYO.....W. S. Bledsoe  
 Midland, KRLH.....Jack Cecil  
 Palestine, KNET.....Frank Goodson  
 Pampa, KPDN.....H. E. Kreiger  
 Paris, KPLT.....Mitchell Secrest  
 Port Arthur, KPAC.....Glen Boatright  
 San Angelo, KGKI.....Frank Jones  
 San Antonio,  
   KABC.....Kenneth Hyman  
   KNAC.....Charles F. Harris  
   KONO.....George W. Ing  
   KTSa.....W. G. Egerton  
   WOAT.....Fred Sterling  
 Sweetwater, KXOX.....G. W. Dotson

Tyler, KGKB.....John B. Sheppard  
 Vernon, KWVC.....Herman Ridgway  
 Waco, WACO.....L. H. Appleman  
 Weslaco, KRGV.....O. L. Hartwig  
 Wichita Falls, KWFT.....John Adams

## Utah

Cedar City, KSUB.....Herschell Urie  
 Logan, KVN.....C. N. Layne  
 Ogden, KLO.....W. D'Orr Cozzens  
 Provo, KOVO.....Gerald Peterson  
 Salt Lake City,  
   KDYL.....John M. Baldwin  
   KUTA.....Lyle Wahlquist

## Vermont

Burlington, WCAC.....John C. Quill  
 Rutland, WSYB.....David Lyons  
 St. Albans, WWSR.....Norman B. Lyons  
 Waterbury, WDEV.....Paul Hurd

## Virginia

Charlottesville, WCHV.....Walter Gray  
 Danville, WBTM.....Harry W. Spencer  
 Fredericksburg, WFVA.....James Garber  
 Lynchburg, WLVA.....John Orth  
 Martinsville, WMVA.....William R. Harmon  
 Newport News, WGR.....Raymond P. Aylor, Jr.  
 Norfolk, WTAR.....Julius L. Grether  
 Petersburg, WPID.....Fred Wagner  
 Richmond,  
   WMBG.....Wilfred H. Wood  
   WRNL.....Rudolph W. Raabe  
   WRVA.....David C. Woods  
 Roanoke,  
   WDBJ.....J. W. Robertson  
   WSLS.....Philip Briggs  
 Suffolk, WLPB.....William Rupp  
 Winchester, WINC.....Phil Whitney

## Washington

Aberdeen, KXRO.....W. M. McGoffin  
 Centralia-Chehalis, KELA.....Ellwood Lippencott  
 Everett, KEVE.....Vernon Downing  
 Olympia, KGY.....Vernon Johnson  
 Pullman, KWSC.....Sig Turnquist  
 Seattle,  
   KTRO.....James Hatfield  
   KJR.....F. J. Brott  
   KOL.....Perry C. Lind  
   KOMO.....F. J. Brott  
   KRSC.....George Freeman  
   KXA.....John Dubuque  
 Spokane,  
   KFIO.....Dee Waymire  
   KFPY.....George Langford  
 Tacoma,  
   KMO.....Joe Kolesar  
   KVI.....Raymond Griese  
 Walla Walla, KFL.....M. L. MacLafferty  
 Vancouver, KVAN.....S. W. McCready

## West Virginia

Beckley, WJLS.....Al J. Ginkle  
 Bluefield, WHIS.....P. T. Flanagan  
 Charleston,  
   WCHS.....Odes E. Robinson  
   WGKV.....Denzil Pulley  
 Clarksburg, WBLK.....C. S. Clemans  
 Fairmont, WMMN.....Robert Hough  
 Huntington, WSAZ.....John R. Csensich  
 Logan, WLOG.....John Blackwood  
 Morgantown, WAJR.....Ray C. Spense  
 Parkersburg, WPAR.....Cecil Knowles  
 Welch, WBRW.....John Timberlake  
 Wheeling,  
   WKWK.....Fred Baker, Vernon Totten  
   WWVA.....Edwin L. Kelm



# CHIEF ENGINEERS

## Wisconsin

Appleton, WHBY.....George Merkle  
Ashland, WATW.....Hine Dahlback  
Fond du Lac, KFJZ.....Wendell S. Meyers  
Green Bay, WTAQ.....Wallace Stengel  
Janesville, WCLO.....William Havens  
La Crosse, WKBH.....Al Leeman  
Madison,  
WHA.....John Stiehl  
WIBA.....Norman Hahn  
Manitowac, WOMT.....W. F. Dubin  
Marinette, WMAM.....Martin R. Lund  
Medford, WIGM.....Walter Nimmernan  
Milwaukee,  
WEMP.....Raymond Host  
WISN.....D. A. Weller  
WTMJ.....Daniel W. Gellerup  
Oshkosh, WOSH.....Nathan Williams  
Racine, WRJN.....F. Lee Dechant  
Rice Lake, WJMC.....Ray Pearson  
Sheboygan, WHBL.....Herbert Mayer  
Stevens Point, WLBL.....Donald L. Yapp  
Superior, WDSM.....Melvin Laskey  
Wausau, WSAU.....Roland Richardt  
Wisconsin Rapids, WFHR.....Garth N. Bowker

## Wyoming

Cheyenne, KFBC.....Gaal Barrett  
Powell, KPOW.....Del Brandt  
Rock Springs, KQRS.....Archie Buchanan  
Sheridan, KWYO.....Robert F. Crosssthaite

## Alaska

Anchorage, KFQD.....Hal Leighton  
Fairbanks, KPAR.....Stanton Bennett

## Hawaii

Honolulu, KGMB.....Ernest Lindemann

## Puerto Rico

San Juan, WIAO.....Alfonso Sanchez

## Canada Alberta

Calgary, CFAC.....Earl C. Connor  
Edmonton,  
CFRN.....F. Makepeace  
GJCA.....Gordon Shillageer  
CKUA.....J. W. Porteous  
Grande Prairie, CEGP.....George Bliss  
Lethbridge, CJOC.....James Ihey

## British Columbia

Kamloops, CFJC.....D. Sharpe  
Kelowna, CKOV.....J. H. B. Browne  
Nelson, CKLN.....F. W. Cameron  
Prince Rupert, CFPR.....C. H. Insulander  
Trail, CJAT.....E. C. Aylen  
Vancouver,  
CBR.....Norman Olding  
CJOR.....A. Chandler  
CKMO.....R. Whiteside  
Victoria, CJVI.....J. Sommers

## Manitoba

Winnipeg, CKY.....W. A. Duffield

## New Brunswick

Campbellton, CKNB.....L. P. Paquet  
Fredericton, CFNB.....E. S. Cassidy  
Moncton, CKCW.....A. J. White  
Saint John, CHSJ.....J. G. Bishop

## Nova Scotia

Antigonish, CJEX.....Gordon MacDougall  
Halifax, CHNS.....A. W. Greig  
Sydney, CJCB.....A. Vernon  
Yarmouth, CJLS.....Donald L. Smith

## Ontario

Brantford, CKPC.....Alfred Teague  
Chatham, CFCO.....Gordon Brooks  
Hamilton,  
CHML.....William Crawford  
CKOC.....L. Horton  
Kingston,  
CFRC.....Professor H. S. Stewart  
CKWS.....George McCurdy  
Kirkland Lake, CJKL.....Tom Watson  
Kitchener, CKCR.....Ion Hartman  
North Bay, CFCH.....Jack Barnaby  
Ottawa, CBO.....E. C. Stewart  
Owen Sound, CFOS.....William Vallins  
Petersborough, CHEN.....Bert Crump  
Prescott, CFPC.....G. W. Andrews  
St. Catharines, CKTB.....W. H. Allen  
Sault St. Marie, CJIC.....M. Fisher  
Sault St. Marie, CJIC.....S. C. Cusack  
Stratford, CJCS.....George Hildebrand  
Sudbury, CKSO.....Jim McRae  
Timmins, CKGB.....Ernest Mott  
Toronto,  
CHL.....M. L. Poole  
CBY.....M. L. Poole  
CFRB.....Jack Sharpe  
CKCL.....Ernest O. Swan  
Windsor, CKLW.....W. J. Carter  
Wingham, CKNX.....Joe McGill

## Prince Edward Island

Charlottetown, CFYV.....R. F. Large  
Summerside, CHGS.....Angus MacKee  
Chicoutimi, CBJ.....J. E. Roberts  
Hull, CKCH.....Max Gebhardt

## Quebec

Amos, CHAD.....George H. Pope  
Montreal,  
CBF.....Gordon W. Olive  
CBM.....Gordon W. Olive  
CFCF.....J. G. Gettenby  
CHLP.....Alphonse Cloutier  
CKAC.....Leonard Spencer  
New Carlisle, CHNG.....J. R. McGough  
Rouyn-Noranda, CERN.....George H. Pope  
Sherbrooke, CHLT.....Romeo Fréchette  
Three Rivers, CHLN.....Leon Trapanier  
Val D'Or, CKVD.....George Pope

## Saskatchewan

Moose Jaw, CHAB.....M. Pickford  
Prince Albert, CKBI.....Tom Vanees  
Regina,  
CJRM.....William McDonald  
CKCK.....E. A. Strong  
Saskatoon, CFQC.....Stan Clifton

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**AN UP-TO-THE-MINUTE LIST OF IMPORTANT**

# **EQUIPMENT FIRMS**

**SUPPLYING RADIO IN ALL OF ITS BRANCHES**

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## **H. W. Acton Co., Inc.**

370 Seventh Ave., New York, N. Y.  
Phone LOnacre 5-4884

President.....Harry W. Acton  
Treasurer.....Harold A. Benguefield  
BRANCH OFFICE: Lowell, Mass.  
PRODUCTS: Transcription, phonograph cutting and semi-permanent needles.

## **The Acme Elec. & Mfg. Co.**

50 Water St., Cuba, N. Y.  
Phone Cuba 4

President.....C. H. Bunch  
Vice-President, Chief Engineer  
J. A. Comstock  
Treasurer.....L. E. Williams  
Secretary.....W. F. Radon  
BRANCH OFFICE: Clyde, N. Y.  
PRODUCTS: Transmitting transformers, broadcast equipment, audio reactors, output and microphone input transformers, and other types of transformers.

## **Aerovox Corp.**

740 Belleville Ave., New Bedford, Mass.  
President.....S. I. Cole  
Sales Manager.....Charles Golenpaul  
PRODUCTS: Capacitors, paper, electrolytic and mica, for transmitting, receiving and electronic applications, including paper, oil and wax impregnated, moulded-mica, bakelite-cased and ceramic-cased-mica capacitors; carbon and wire-wound resistors; electrolytics for filter circuits, motor-starting and industrial applications.

## **Aircraft Accessories Corp.**

Fairfax & Funston Roads, Kansas City, Kans.  
Phone: FAirfax 3200  
President.....Randolph C. Walker  
Vice-President.....Clifford C. Andrews  
Sales Manager.....Emery Johnson  
PRODUCTS: Transmitters, piezo-electric crystals aviation antenna.

## **Air King Products Co., Inc.**

1523-29 Sixty-third St., Brooklyn, N. Y.  
Phone: BEachview 2-6700

President.....J. P. Lieberman  
Vice-President.....H. D. Halperin  
Sales Manager.....Jules Frank  
PRODUCTS: Receiving sets, radio-phonograph combinations, television receiving sets.

## **Allen-Bradley Co.**

136 W. Greenfield Ave., Milwaukee, Wisc.  
Phone: Mitchell 5151

President.....Harry L. Bradley  
Vice-President & General Manager  
F. F. Loock  
PRODUCTS: Fixed and variable composition resistors.

## **The Alliance Manufacturing Co.**

Lake Park Blvd., Alliance, Ohio  
President.....W. H. Purcell  
General Manager.....Owen L. Lewis  
PRODUCTS: Phonograph motors, record changer motors, recording motors, tuning motors.

## **American Condenser Corp.**

2508 S. Michigan Ave., Chicago, Ill.  
Phone: CAlumet 5903  
President & General Manager  
Irving Menschlik  
PRODUCTS: Transmitting condensers, electrolytic condensers, ignition condensers, by-pass condensers.

## **American Microphone Co., Ltd.**

1915 S. Western Ave., Los Angeles, Calif.  
Phone PA 1161  
President.....P. S. Gramer  
Vice-President.....F. A. Yarbrough  
Secretary.....Z. R. Yarbrough  
PRODUCTS: Microphones.

## **American Microphone & Telephone Co.**

1220 Glendon Ave., Los Angeles, Calif.  
President.....C. W. Evans  
Supt., Intercommunicating Equipment  
M. E. Harris  
Foreman, Microphone Dept.....O. B. Carrier  
PRODUCTS: Microphones, intercommunicating telephones, talk-back equipment, amplifiers.

## **The American Steel Package Co.**

Squire Ave., Defiance, Ohio  
President.....G. E. Behringer  
Sales Manager.....W. F. Reiter  
PRODUCTS: Variable gang tuning condensers, air trimmer condensers.

### **Amperex Electronic Products**

79 Washington St., Brooklyn, N. Y.  
Phone Cumberland 6-4430

Sales Manager.....S. Norris  
BRANCH OFFICES: 1623 S. Hill St., Los Angeles, Cal.; 3218 Western Ave., Seattle, Wash.; 9 S. Clinton St., Chicago, Ill. PRODUCTS: Transmitting Tubes.

### **Amplifier Co. of America**

17 W. 20th St., New York, N. Y.  
CHelsea 2-6998

General Manager.....N. M. Haynes  
Chief Engineer.....A. C. Shaney  
Sales Manager.....H. S. Manney  
PRODUCTS: Program, Monitor, and Audition Amplifiers, Voltage Regulators, Audio Transformers, Audio Reactors, Equalizers, Band Pass, High Pass, and Low Pass Filters, Band Rejection Filters, 6, 12, 36 and 48-volt Humless Regulated (DC) Power Supplies, Volume Indicators, Direct-Coupled Amplifiers, Code Training Oscillators, Tape Inkers, Portable P. A. Systems, Telephone Repeaters, High Fidelity Transformers, Saturable Reactors.

### **Amy, Aceves & King, Inc.**

11 West 42nd St., New York, N. Y.  
Phone LOngacre 5-6622

President.....Ernest V. Amy  
General Manager.....Frank King  
PRODUCTS: Receiving sets.

### **Andrea Radio Corp.**

43-20 Thirty-fourth St., Long Island City, N. Y.

Phone: STillwell 4-4754

President.....F. A. D. Andrea  
PRODUCTS: Receiving sets, television sets.

### **Ansley Radio Corp.**

21-10 49th Ave., Long Island City, N. Y.  
Phone STillwell 4-4405

President.....Arthur C. Ansley  
Secretary-Treasurer.....Anne Klein Ansley  
Purchasing Agent.....D. Prato  
PRODUCTS: Radio-Phonograph Combinations, Marine Direction Finder.

### **The Arnold Engineering Co.**

147 E. Ontario St., Chicago, Ill.  
Phone: WHIttehall 6677

President-General Manager

Robert M. Arnold  
PRODUCTS: Alnico permanent magnets and other magnetic material.

### **Audak Company**

500 Fifth Ave., New York, N. Y.  
Phone LA 4-3723

Contact.....Geo. V. Sullivan  
BRANCH OFFICES: All key cities.  
PRODUCTS: Microdyne Pickups, Cutting Heads, and Acoustic Instruments.

### **Audio Devices, Inc.**

1600 Broadway, N. Y. C.  
Phone CI 5-5696

President.....Hazard E. Reeves  
General Manager.....Bryce Haynes  
Traffic Manager.....Donald E. Ward  
Research Engineer.....E. J. Frank  
PRODUCTS: Instantaneous Acetate Recording Blanks, All Types of Cutting and Playback Style, Audiodisc Chiphaser and Groovoscope, Audio Devices Sound Effects Kit, and Audiodisc Recording Blanks.

### **John F. Beasley Construction Co.**

P. O. Box 1642, Muskogee, Okla.  
Phone Muskogee 4762

Owner.....John F. Beasley  
BRANCH OFFICE: 1303-4 Gulf States Bldg., Dallas, Tex. PRODUCTS: Steel construction.

### **Automatic Radio Mfg. Co.**

122 Brookline Ave., Boston, Mass.  
Phone: COmmonwealth 1420

President.....David Housman  
Sales Manager.....F. P. Altshul  
PRODUCTS: Receiving sets.

### **Bank's Manufacturing Co.**

1105 Lawrence Ave., Chicago, Ill.  
Phone: LOng Beach 6272

Owner.....Maurice Bank  
Sales Manager.....M. Hoaglund  
PRODUCTS: Public address systems, amplifiers, low capacity relays and special parts.

### **The Bead Chain Manufacturing Co.**

110 Mountain Grove St., Bridgeport, Conn.  
President-General Manager...W. G. Bryant  
Vice-President & Sales Manager...W. G. Blatz  
PRODUCT: Tube contact pins.

### **Belmont Radio Corp.**

5921 Dickens Ave., Chicago, Ill.  
Phone: BErkshire 7000

President.....P. S. Billings  
Vice-President.....H. C. Mattes  
Sales Manager.....S. Freshman  
PRODUCTS: Receiving sets, radio-phonograph combinations, amplifiers.

### **Bendix Radio (Division of Bendix Aviation Corp.)**

East Joppa Rd., Towson, Md.  
920 E. Fort Ave., Baltimore, Md. (General offices)

President.....E. R. Breech  
Director of Sales & Engineering  
W. P. Hilliard  
Sales Contact.....J. W. Hammond  
PRODUCTS: Receiving sets, transmitters, radio compasses and accessories.

**Bentley, Harris Mfg. Co.**

Hector & Lime Sts., Conshohocken, Pa.  
President-General Manager

William H. Bentley

PRODUCTS: Varnished tubing, saturated sleeving.

**William Brand & Co.**

276 Fourth Ave., New York, N. Y.

Phone: ALgonquin 4-4929

PRODUCTS: Insulating, varnished tubing, synthetic extruded tubing, saturated sleeving, mica condenser films and fabricated parts, mica sheets, mica composites, varnished cambric and paper, etc.

**Blaw-Knox Co.**

Pittsburgh, Pa.

Phone ST. 2700

BRANCH OFFICES: Peoples Gas Bldg., Chicago; Brown-Marx Bldg., Birmingham, Ala.; 342 Madison Ave., N. Y. C.; 1617 Pennsylvania Blvd., Phila. PRODUCTS: Radio Towers.

**Bliley Elec. Co.**

P. O. Box 1070, Erie, Pa.

Phone 26-857

President-General Manager.....F. D. Bliley  
Sales Manager.....G. E. Wright  
Purchasing Agent.....O. L. Horsman  
Advertising Manager.....F. A. Lennberg  
Vice-Pres.....C. C. Collman  
Chief Engineer.....J. M. Wolfskill  
Production Manager.....W. R. Mong

PRODUCTS: Quartz Piezo-Electric Crystals and Mountings. Quartz Crystals for Transmitter and Receiver Frequency Control, for Filters, Ultrasonics, Piezo-Electric Pressure Gauges and for special optical or electrical applications.

**Boonton Radio Corp.**

P. O. Box 390, Boonton, N. J.

Phone Boonton 8-0795

President.....W. D. Loughlin  
Sec'y-Treasurer.....W. H. Albert  
General Manager.....G. A. Downsbrough

PRODUCTS: Generators, broadcasting equipment.

**Browning Laboratories, Inc.**

750 Main St., Winchester, Mass

Phone WINchester 2121

President.....G. H. Browning  
Vice-President & Sales Manager

R. L. Purrington

General Manager.....C. H. Day

PRODUCTS: Frequency meters, FM apparatus.

**The Brush Development Co.**

3311 Perkins Ave., Cleveland, Ohio

Phone: Endicott 3315

Chairman of Board.....W. R. Burwell

President.....A. L. Williams

Vice-President.....V. B. Phillips

Advertising-Personnel.....W. H. Shelton

PRODUCTS: Microphones, headphones, phonograph pickups, record cutters, magnetic tape recording equipment.

**Bud Radio, Inc.**

2118 E. 55th St., Cleveland, O.

Phone HE 7166

President.....Max L. Haas

Vice President.....George Grostick

General Manager.....M. L. Haas

Treasurer.....H. A. Haas

Secretary.....M. C. Dawson

Engineer.....R. B. Applegate

Production Manager.....A. M. Crombie

PRODUCTS: Visible Condensers, Relay Racks, Panels, Chassis, Cabinets, Coils, R. F., Band Switching, Plugs, Switches, Jacks, dials, Sockets, Name Plates, Tube Shields.

**William W. L. Burnett Radio Lab.**

4814 Idaho St., San Diego, Calif.

Phone Talhot 4943

Contact.....William W. L. Burnett

PRODUCTS: Piezo-Electric Crystals, Holders, Constant Temperature Ovens, Frequency Measuring Equipment, Laboratory Equipment, Conducting of Radio Laboratory Measurements, Frequency Monitoring Service.

**C. F. Cannon Co.**

Main St., Springwater, N. Y.

Sales Contact.....C. F. Cannon

PRODUCTS: Headsets.

**Centralab Division of Globe-Union, Inc.)**

900 East Keefe Ave., Milwaukee, Wisc.

Phone: EDgewood 9200

President.....C. O. Wanvig

Vice-President.....H. E. Osmun

PRODUCTS: Variable resistors, volume and tone controls, fixed resistors, ceramic capacitors, switches.

**Chicago Moulded Products Corp.**

1020 N. Kolmer Ave., Chicago, Ill.

Phone: CAPitol 1020

President.....M. C. Bachner

Vice-President.....E. C. Maywald

Vice-President.....M. F. Bachner

PRODUCTS: Cabinets, synthetic moulded parts.

### **Chicago Telephone Supply Co.**

1142-1228 W. Beardsley Ave., Elkhart, Ind.  
President.....F. C. Best  
Sales Manager.....W. A. Nicely  
PRODUCTS: Volume controls, tone controls, switches, plugs, jacks, headsets, ringers, generators, remote controls, switch keys, push switches.

### **Chicago Transformer Corp.**

3501 Addison St., Chicago, Ill.  
Phone INdependence 1120  
President.....W. J. Leidy  
Sales Manager.....G. R. Blackburn  
PRODUCTS: Transformers and reactors.

### **Cinch Manufacturing Corp.**

2335 W. Van Buren St., Chicago, Ill.  
Phone: SEElly 0733  
President.....A. W. Kimbell  
Vice-President.....W. G. Roby  
General Manager.....J. J. Steffen  
Sales Manager.....E. E. Hannigan  
PRODUCTS: Tube sockets, soldering lugs, terminal strips, binding posts, connector plugs.

### **Clarostat Mfg. Co., Inc.**

285 N. 6th St., Brooklyn, N. Y.  
Phone EV 8-6770  
President.....John J. Mucher  
General Manager.....Victor Mucher  
Treasurer.....Jacob Mucher  
Secretary.....Stephen Mucher  
Chief Engineer.....George Mucher  
Sales Engineer.....J. Edward Trefz  
BRANCH OFFICES: 540 No. Mich. Ave., Chicago. PRODUCTS: Fixed and Variable Power Resistors, Power Rheostats, Power Resistor Decade Boxes, Wire Wound Potentiometers, "T" "L" Cism Pads, 25 and 10 Watt Attenuators, Special Resistor Products, and Composition Potentiometers.

### **Coil Engineering & Mfg. Co.**

Roanoke, Ind.  
President-General Manager.....W. Eugene Strait  
PRODUCTS: Electrical coil windings.

### **Colonel Radio Corp.**

254 Rano St., Buffalo, N. Y.  
Phone: RIVerside 2450  
President.....A. H. Gardner  
PRODUCTS: Receiving sets, radio-phono-graph combinations.

### **Communication Equipment & Engineering Co.**

504 N. Parkside Ave., Chicago, Ill.  
Phone: ESTebrook 3110  
President.....Robert A. Clark  
PRODUCTS: Transmitters, receivers, amplifiers and test equipment.

### **Continental Carbon, Inc.**

13900 Lorain Ave., Cleveland, Ohio  
Phone: CLearwater 3962  
Vice-President & Sales Manager.....W. M. Kohring  
PRODUCTS: Carbon and wire-wound resistors, suppressors, precision resistors for meters, paper dielectric condensers, filter-noys.

### **Continental Radio & Television Corp.**

3800 Cortland St., Chicago, Ill.  
Phone: SPAlding 1400  
President.....Ross D. Siragusa  
Sales Manager.....J. H. Clippinger  
PRODUCTS: Receiving sets, radio-phono-graph combinations, FM receiving sets, record-players, parts.

### **Cornell-Dubilier Electric Corp.**

333 Hamilton Blvd., S. Plainfield, N. J.  
Phone: PLainfield 6-9000  
President-General Manager.....Octave Blake  
Vice-President.....William Dubilier  
Vice-President.....Charles H. Caine  
Sales Manager.....A. Williams  
Advertising & Sales Promotion Manager.....William G. Many  
PRODUCTS: Capacitors for all radio and electronic applications, filters, capacitor test instruments.

### **Corning Glass Works**

Corning, New York  
Phone: Corning 372  
President.....Glen W. Cole  
Vice-President.....W. C. Decker  
Sales Manager.....E. F. Ling  
Contact.....C. J. Phillips  
PRODUCTS: Glass envelopes for tubes used for radio receiving, broadcasting, cathode ray, television and all other electronic purposes, tubing and special sealing glasses, insulators, coil forms, resistor tubes.

### **Cornish Wire Co., Inc.**

15 Park Row, New York, N. Y.  
Phone CO 7-2525  
President.....John Cook  
Contact.....W. F. Osler, Jr.  
PRODUCTS: Radio and Electrical Wires and Cables.

### **Crescent Industries, Inc.**

4140 W. Belmont Ave., Chicago, Ill.  
Phone: PENsacola 6300  
President.....Henry H. Gelfert  
General Manager.....Nels Leuberg  
PRODUCTS: Speakers, tools and dies, transformer channel frames, pulleys and brackets.

**The Crosley Corp.**

1329 Arlington St., Cincinnati, Ohio

Phone: Klrby 6600

President.....Powell Crosley, Jr.  
Vice-President & General Manager

R. C. Cosgrove

PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, tubes, service parts and antennas.

**Crowe Name Plate & Mfg. Co.**

3701 Ravenswood Ave., Chicago, Ill.

Phone: BITtersweet 7500

President.....E. C. Coolidge  
Sales Manager.....Marvin M. Lane

PRODUCTS: Escutcheons, dials, cabinets, tuning devices, knobs, pointers, name-plates.

**DeWald Radio Mfg. Corp.**

440 Lafayette St., New York, N. Y.

Phone: GRamercy 7-6776

President.....David Wald  
Sales Manager.....Louis N. Weiss

PRODUCTS: Receiving sets, radio-phonograph combinations, record-players, trimmer condensers.

**Doolittle Radio Co.**

7421 S. Loomis St., Chicago, Ill.

President.....E. M. Doolittle  
Vice-President.....Dudley Gray

Sales Manager.....C. M. Rodman

PRODUCTS: Radio Communication equipment.

**Wilbur B. Driver Co.**

150 Riverside Ave., Newark, N. J.

Phone: HUmboldt 2-5550

President.....Wilbur B. Driver  
Vice-President.....Robert O. Driver

Sales Manager.....Sidney A. Wood

PRODUCTS: Carbonized Nickel ribbon, nickel support wire, grid wire, filament wire, resistance wire.

**Dumont Electric Co.**

34 Hubert St., New York, N. Y.

Phone: CAAnal 6-7980

President & Sales Manager...Philip Dubilier  
Vice-President.....J. Dubilier

PRODUCTS: Paper, electrolytic and mica condensers.

**Allen B. DuMont Labs., Inc.**

2 Main Ave., Passaic, N. J.

Phone Passaic 3-1616

President.....Allen B. DuMont  
Vice-President.....F. Cramer

Secretary.....Bernard Goodwin

Treasurer.....Paul Raibourn

General Manager.....Paul Ware

BRANCH OFFICE: 515 Madison Ave., New York, N. Y. Phone: PLaza 5-9045. W. J. Swenson, Engineer.

PRODUCTS: Television Receivers, Transmitters and Studio Equipment, Cathode-Ray Tubes and Oscillographs.

**DX Crystal Corp.**

1841 W. Carroll Ave., Chicago, Ill.

Phone: HAYmarket 7737

President.....Louis J. Patla  
Sales Manager.....George Trimmings

PRODUCTS: Frequency coils, transmitting crystals.

**Eastern Mike-Stand Co.**

56 Christopher Ave., Brooklyn, N. Y.

Phone DICKens 2-3538

Contact.....S. Sherman  
BRANCH OFFICES: 43 E. Ohio St., Chicago, Ill.; 7101 W. Chester Pike, Upper Darby, Pa.; 3106 Edgewood Ave., Richmond, Va.; 18288 Appoline Ave., Detroit.

PRODUCTS: Microphone Stands and Accessories, Locking Telephone Plugs, Shock Absorbers. *(Firm has reported that it is engaged in war manufacturing for the duration.)*

**Hugh H. Eby, Inc.**

18 W. Chelton Ave., Philadelphia, Pa.

Phone: TENnessee 1800

President.....Hugh H. Eby  
Vice-President.....Frank Holstrom

PRODUCTS: Insulated and metal binding posts, battery plugs, speaker plugs, chassis plugs, vibrator plugs, moulded sockets, cable connectors and couplers, capped plugs, moulded and laminated tip jacks, battery adaptor cables, cable assemblies, strain relief, terminal strips, tie points, metal and bakelite punchings, electric eye equipment, AC and DC relays, photocell equipment.

**Eitel-McCullough, Inc.**

San Bruno, Calif.

Phone San Bruno 117

Vice-President & Treasurer...J. A. McCullough  
Production Manager....George Wunderlich

BRANCH OFFICE: Salt Lake City, Utah.  
Phone Salt Lake City 6-8761. W. W. Eitel, Pres. PRODUCTS: Transmitting Vacuum Tubes, Vacuum Relays and Rectifiers.

**Electro-Voice Mfg. Co., Inc.**

South Bend, Ind.

Phone: South Bend 3-7764

President.....Albert Kahn  
Chief Engineer.....L. R. Burroughs

Production Manager.....R. E. Siekman

PRODUCTS: Dynamic, carbon, velocity microphones.



## **Electrical Research Laboratories, Inc.**

2020 Ridge Ave., Evanston, Ill.  
Phone: University 2400

President.....E. Alschuler  
General Manager.....O. F. Taylor  
Sales Manager.....E. G. May  
PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, record-players.

## **The Electro Motive Mfg. Co.**

South Park & John Sts., Willimantic, Conn.  
Executive Partner & Sales Manager

Philip Lauter  
PRODUCTS: Carbon resistors; mica, trimmer and padder condensers; suppressors.

## **Electro-Voice Mfg. Co., Inc.**

1239 S. Bend Ave., So. Bend, Ind.  
Phone S. Bend 3-7764

President.....Albert Kahn  
Engineer.....L. R. Burroughs  
PRODUCTS: Velocity, Dynamic and Carbon Microphones.

## **Electronic Products Mfg. Co.**

7300 Huron River Drive, Dexter, Mich.  
President.....Robert P. Wuerfel  
Vice-President.....John R. Scanlan  
PRODUCT: Accessories.

## **Emerson Radio & Photograph Corp.**

111 Eighth Ave., New York, N. Y.  
Phone: CHelsea 2-1800

President.....Benjamin Abrams  
Sales Manager.....Charles Robbins  
PRODUCTS: Receiving sets, radio-phonograph combinations, television sets, FM receiving sets, record-players, tubes, parts.

## **Erie Resistor Corp.**

644 West 12th St., Erie, Pa.  
President.....G. Richard Fryling  
Vice-President & Sales Manager

W. H. Fryling  
PRODUCTS: Carbon resistors; ceramic, silver mica, ceramicon trimmer condensers.

## **Epsley Manufacturing Co.**

305 East 63rd St., New York, N. Y.  
Phone REgent 7-3090

President.....Harold Shevers  
General Manager.....Nathan Pinsley  
PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, record-players, television sets.

## **Evanston Sound Proof Door**

1127 Hinman Ave., Evanston, Ill.  
Phone University 2758  
Contact.....W. W. Lloyd  
PRODUCTS: Sound Proof Doors.

## **Essex Wire Corp.**

14310 Woodward Ave., Detroit, Mich.  
Phone: TOWnsend 8-2994  
President.....Addison E. Holton  
Sales Manager.....John G. Seals  
PRODUCTS: Copper wire products, relays, coils.

## **Fairchild Aviation Corp.**

88-06 Van Wyck Blvd., Jamaica, L. I., N. Y.  
Phone JAMAica 6-3800

Manager Sound Equipment Division,  
C. V. Kettering  
Products: Disc Sound Recorders, Transcription Turntables, Amplifiers, Pickups, Acetate Discs, Recording Styli, and Amplifier-Equalizers. (*Firm has reported that it is engaged in war manufacturing for the duration. Repair Department is maintained.*)

## **Farnsworth Television & Radio Corp.**

3700 East Pontiac St., Fort Wayne, Ind.  
President.....E. A. Nicholas  
Vice-President.....E. H. Vogel  
Vice-President.....B. Ray Cummings  
Vice-President & Treasurer.....J. P. Rogers  
PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, television receiving sets, television transmitters, studio equipment.

## **John E. Fast & Co.**

3123 N. Crawford Ave., Chicago, Ill.  
Phone: PENscola 7160  
President.....Louis Kopinski  
Sales Manager.....P. G. McConnell  
PRODUCTS: Fixed electrical condensers.

## **Federal Recorder Co., Inc.**

630 S. Wabash Ave., Chicago, Ill.  
Phone Har. 8330  
General Manager.....Ralph Rubenstein  
Engineer.....Earl Kent  
BRANCH OFFICES: 251 Fourth Ave., New York, N. Y.; 150 Marietta St. N. W., Atlanta, Ga.; 569 Mission St., San Francisco, Calif. PRODUCTS: 12 and 16" Recording Discs, Cutter Heads, Recording Amplifiers, Home Recorders, Cutting and Playback Needles, Steel, Glass and Paper Base Recording Blanks.

## **Federal Telephone and Radio Corp.**

200 Mt. Pleasant Ave., Newark, N. J.  
Manager.....T. M. Douglas  
PRODUCTS: Broadcasting and point-to-point equipment; land, marine and air sets; vacuum tubes and crystals.

## **Ferranti Electric, Inc.**

30 Rockefeller Plaza, New York, N. Y.  
Phone Circle 7-0912  
General Manager.....W. R. Spittal  
Production Engineer.....C. Cutney  
PRODUCTS: Transformers; indicators; broadcasting equipment.



**Finch Telecommunications, Inc.**

4th and Virginia Sts., Passaic, N. J.  
Phone PA 2-3440

President.....Frederic C. Scofield  
Vice President.....Frank R. Brick, Jr.  
Treasurer.....James L. Bradford

PRODUCTS: Special radio equipment for governmental usage only; facsimile for broadcasting; radio applications; teletype equipment.

**Freed Radio Corp.**

39 West 19th St., New York, N. Y.  
Phone: CHelsea 2-4030

President.....Max Adelberg  
Sales Manager.....Arthur Freed

PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, television receiving sets.

**Freeland & Olschner**

611 Baronne St., New Orleans, La.  
Phone Raymond 4756

President.....W. T. Freeland  
PRODUCTS: Repair of vacuum transmitting tubes of 250 watts and over.

**Billings S. Fuess**

2-4 Lackawana Place, South Orange, N. J.  
Proprietor.....Billings S. Fuess

PRODUCTS: Loud speaker cones, spiders, moulded and formed products.

**Galvin Manufacturing Co.**

1545 Augusta Blvd., Chicago, Ill.  
Phone: SPalding 6500

President.....Paul V. Galvin  
PRODUCTS: Receiving sets, radio phonograph combinations, FM receiving sets, record-players.

**Garod Radio Corp.**

70 Washington St., Brooklyn, N. Y.  
Phone: MAin 4-6044

President.....Max W. Weintraub  
Sales Manager.....Louis Silver

PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets.

**Gates Companies**

Quincy, Ill.

PRODUCTS: Radio Broadcast and Communications Transmitters, Phasing and Antenna Equipment, Frequency Control and Remote Control Apparatus, Speech Equipment, Sound Effects Tables, Limiting Amplifiers.

**General Electric**

1 River Road, Schenectady, N. Y.  
President.....G. Swope

Vice-President.....W. R. G. Baker  
Advertising Manager.....H. J. Deines  
Receiver Division

1285 Boston Ave., Bridgeport, Conn.

Managing Engineer.....I. J. Kaar  
Designing Engineer.....W. M. Angus  
Sales Manager (Receivers and Replacement Tubes).....A. A. Brandt  
Replacement Tube Sales.....H. J. Mandernach  
Advertising and Sales Promotion

R. E. Burrows

BRANCH OFFICES: (Eastern) 570 Lexington Ave., New York, N. Y. D. W. May;  
(Central) 840 South Canal St., Chicago, Ill. G. F. Peterson; (Western) 235 Montgomery St., San Francisco, Calif., W. M. Boland.  
PRODUCTS: Electric and battery receiving sets; radio and FM receivers; replacement electronic tubes.

Electronic Tube and Transmitter Division  
1 River Road, Schenectady, N. Y.

Engineer (Electronic tubes).....O. W. Pike  
Engineer (Transmitters).....C. A. Priest  
Sales Manager (Industrial tubes).....H. A. Jones  
Sales Manager (Transmitters and Transmitting tubes).....G. W. Henyan  
Transmitter Tube Sales.....E. N. Fritschel  
U. S. Government Sales.....V. M. Lucas  
Television and Transmitter Sales.....W. R. David  
Police and Emergency Radio Sales

D. L. Chesnut

Advertising and Sales Promotion.....J. G. Porter  
PRODUCTS: Industrial and transmitting tubes; standard-band, FM, shortwave and television transmitters; antennas; monitoring devices; measuring apparatus; quartz crystals; police and emergency equipment; etc.

**The General Industries Co.**

Olive & Taylor Sts., Elyria, Ohio

President.....W. A. Neracher  
General Manager.....A. W. Fritzsche

PRODUCTS: Electric phonograph motors, record changers and recorders.

**General Instrument Corp.**

829 Newark Ave., Elizabeth, N. J.

President.....Samuel Cohen  
Vice-President & General Manager

Richard E. Laux

Vice-President & Sales Manager

Don J. Phelps

PRODUCTS: Variable condensers, record changers.

**General Magnetic Corp.**

2126 E. Fort St., Detroit, Mich.

Phone: FIitzroy 5760

President.....Charles M. Hofman  
Sales Manager.....O. H. Hofman

PRODUCTS: Magnets.

### **General Radio Co.**

30 State St., Cambridge, Mass.  
Phone TRObridge 4400

President.....Melville Eastham  
Contact.....H. B. Richmond  
BRANCH OFFICES: 90 West St., N. Y. C.;  
1000 N. Seward St., Los Angeles, Cal.; PROD-  
UCTS: Broadcast Station Frequency and  
Modulation Monitors, Volume Controls,  
Test Equipment, Sound Measuring and Ana-  
lyzing Equipment.

### **Gits Molding Corp.**

4600 W. Huron St., Chicago, Ill.  
Phone: MANSfield 4146

President.....Joseph A. Gits  
Vice-President.....Jules P. Gits  
Sales Manager.....C. N. Cahill  
PRODUCTS: Knobs, push buttons, es-  
cutechons, concentric cable, drum dials, poin-  
ters, remote control cases, housings insula-  
tors and needle cups, coaxial cable, insulators.

### **Edwin I. Guthman & Co.**

15 S. Throop St., Chicago, Ill.  
Phone: CHESApeake 1600

President.....Edwin I. Guthman  
Sales Manager.....B. J. Funk  
PRODUCTS: R.F. and I.F. coils, trimmer  
condensers, textile-covered wire, zinc coil  
shields, coil winding machinery, tools and  
dies, electroplating.

### **The Hallicrafters Co.**

2611 Indiana Ave., Chicago, Ill.  
Phone: CALumet 1600

Partner.....W. J. Halligan, Sr.  
Partner.....R. W. Duest, Jr.  
PRODUCTS: FM receiving sets, transmit-  
ters.

### **Hamilton Radio Corp.**

510 Sixth Ave., New York, N. Y.  
Phone: GRamercy 7-6211

President.....A. A. Juviler  
Vice-President.....P. L. Schoenen  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations, record players.

### **The Hammarlund Mfg. Co., Inc.**

460 West 34th St., New York, N. Y.  
Phone LONGacre 5-1300

President.....Lloyd A. Hammarlund  
V-P & Treasurer.....Joseph Lush  
V-P & Asst. Treasurer.....H. B. Macartney  
Secretary-Comptroller.....E. A. Wittmer  
PRODUCTS: Variable air capacitors, radio  
receiving sets.

### **Hartenstine Zane Co., Inc.**

225 Broadway, New York, N. Y.  
Phone BA 7-8390

Contact.....Chas. J. Hartenstine  
BRANCH OFFICE: 571 Springdale Ave.,  
East Orange, N. J. PRODUCTS: Antennae

Installation including all field work for  
foundations, erection, painting, lighting, and  
servicing radio towers. Installing ground  
systems and coaxial cable.

### **Harvey-Wells Communications, Inc.**

North Street, Southbridge, Mass.  
Phone SOUThbridge 1940

President & Treasurer.....John M. Wells  
Vice-President.....C. A. Harvey  
General Manager.....Richard A. Mahler  
Production Engineer.....H. E. Allen  
PRODUCTS: Radio transmitting and re-  
ceiving equipment; rectifier and power sup-  
ply equipment.

### **Hawley Products Co.**

333 North 6th St., St. Charles, Ill.  
Phone: COLumbus 0248

President.....J. B. Hawley  
Sales Manager.....A. P. Akerlund  
PRODUCTS: Speaker diaphragms and spi-  
ders, moulded fiber specialties.

### **Hollister Crystal Co.**

Boulder, Colo.

Phone BOulder 1720

Contact.....Herb Hollister  
PRODUCTS: Quartz Crystals.

### **Howard Radio Co.**

1735 Belmont Ave., Chicago, Ill.  
Phone: BITtersweet 4433

President.....Joseph F. Riley  
Sales Manager.....J. M. Muniz  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations, FM receiving sets.

### **Hytron Corp.**

76 Lafayette St., Salem, Mass.

President.....L. H. Coffin  
PRODUCTS: Receiving tubes, transmit-  
ting tubes, resistance tubes, special purpose  
tubes.

### **The Indiana Steel Products Co.**

6 N. Michigan Ave., Chicago, Ill.  
Phone: FRAnklin 1114

President.....Ernest Searing  
Vice-President.....Jesse Marsten  
Vice-President.....Harry A. Ehle  
PRODUCTS: Fixed resistors, variable re-  
sistors, volume and tone controls, rheostats,  
attenuators.

### **Insuline Corp. of America**

3602-10 35th Ave., Long Island City, N. Y.  
Phone AStoria 8-3738

President.....S. J. Spector  
Sales Manager.....Edward J. Cohen  
Vice President.....A. G. Heller  
Production Manager.....I. W. Romm  
PRODUCTS: Radio Receiving-Transmit-  
ting Parts and Accessories, Stamping Metal  
Goods, Radio Chassis, Metal Cabinets, Plugs,  
Jacks, Sockets, Screw Machine Parts, Test  
Tools, Test Leads.

**Irvington Varnish & Insulator Co.**

6 Argyle Place, Irvington, N. J.

Phone: ESsex 3-4200

President.....Arthur E. Jones

PRODUCTS: Insulating material, tubing.

**Isolantite Inc.**

343 Cortlandt St., Belleville, N. J.

Phone Belleville 2-1316

Vice President & General Manager,

K. D. Hamilton

Production Manager.....H. M. Dickman

Sales Manager (Steatite Div.)...F. A. Domber

Sales Manager (Radio Specialties Div.)

H. L. Quick

SALES OFFICE: 233 Broadway, New York,

N. Y. Phone Rector 2-9274. Contact, E. A.

Domber. PRODUCTS: High Frequency Radio

Insulators, Coaxial Transmission Line

and Accessory Equipment, Special Antenna

Equipment.

**Jefferson Electric Co.**

25th Ave. & Madison St., Bellwood, Ill.

Phone: MANsfield 7161

President.....John S. Bennan

Vice-President & General Sales Manager

Alfred E. Tregenza

PRODUCTS: Power transformers, chokes

and audio input and output transformers,

television deflecting yokes, horizontal and

vertical scanning transformers, centering and

focusing coils.

**Jensen Radio Manufacturing Co.**

6601 S. Laramie Ave., Chicago, Ill.

Phone: PORTsmouth 7600

President.....W. E. Maxon

Vice-President & Sales Manager...T. A. White

PRODUCTS: Loudspeakers, public address equipment.

**J. F. D. Manufacturing Co.**

4111 Fort Hamilton Parkway, Brooklyn, N. Y.

Phone: WINDsor 8-3100

Owner.....Julius Finkel

Sales Manager.....Walter Bergman

PRODUCTS: Antennas, replacement ballast

tubes, dial belts, battery plugs, battery adap-

ters.

**Johns-Manville Corp.**

22 East 40th St., New York, N. Y.

Phone LEXington 2-7600

PRODUCTS: Sound-control; Materials and Acoustical-Engineering Service.

**E. F. Johnson Co.**

Waseca, Minn.

Phone 432

General Manager.....E. F. Johnson

Controller.....F. C. Mann

Sales Manager.....C. W. Stevenson

Chief Engineer.....L. W. Olander

Purchasing Agent.....M. L. Johnson

BRANCH OFFICE: 259 W. 14th St.,

N. Y. C. PRODUCTS: Phasing Equipment,

Antenna Tuning Units, Inductors, Variable

Condensers, Tube Sockets, Insulators, Plugs

and Jacks, Copperweld Wire, Coupling

Equipment, Insulators, Concentric Line, Spe-

cial Antennas, & Special Order Equipment.

**Kellogg Switchboard & Supply Co.**

6650 S. Cicero Ave., Chicago, Ill.

Phone PORTsmouth 6900

President.....Maurice K. McGrath

Sales Manager.....Albert Parlett, Jr.

PRODUCTS: Oil and wax condensers, communications equipment.

**Ken-Rad Tube & Lamp Corp.**

Owensboro, Ky.

President.....Roy Burlew

Sales Manager.....R. W. Metzner

PRODUCTS: Receiving, transmitting, cathode ray and special purpose tubes.

**Kenyon Transformer Co., Inc.**

840 Barry St., New York, N. Y.

Phone DAYton 9-0100

President.....Franklin P. Kenyon

General Manager.....F. Ralph Kenyon

Chief Engineer.....Richard B. Shimer

BRANCH OFFICES: 21 E. Van Buren St.,

Chicago, Ill.; 2412 West 7th St., Los Angeles,

Calif.; 262 Grayson Pl., Teaneck, N. J.

PRODUCTS: Transformers, Reactors, Filters.

**Kester Solder Co.**

4201 Wrightwood Ave., Chicago, Ill.

Phone: BELmont 1601

President.....F. C. Engelhart

General Sales Manager-Research Engineer

P. C. Ripley

PRODUCTS: Solders.

**"King Brand" Music Papers**

1595 Broadway, New York, N. Y.

Phone CI 6-0488

Contact....."Wes" Cowen

BRANCH OFFICE: 3928 Crenshaw Blvd.,

Los Angeles, Calif. PRODUCTS: Music-

Manuscript Paper, Score Paper, Ink, Fountain

Pens, Carrying Cases and Covers, Batons,

Duplicating Papers, Music Tapes.

**King Laboratories, Inc.**

205 Oneida St., Syracuse, N. Y.

President.....Aden J. King

PRODUCTS: Tube parts, alloys and chemicals.

### **Kluge Radio Co.**

1913 Montrose St., Los Angeles, Calif.  
Phone Exposition 1742

Owner ..... Myron E. Kluge  
PRODUCTS: Radio and electronic equip-  
ment. (Editor's NOTE: This Firm is closed  
for the duration).

### **Lapp Insulator Co., Inc.**

Le Roy, N. Y.  
Phone Le Roy 385

President..... J. S. Lapp  
Vice-President..... W. F. Young  
Treasurer..... G. W. Lapp  
Sales Manager..... Brent Mills  
PRODUCTS: Tower footing and guy in-  
sulators; standoff, entrance and antenna in-  
sulators; radio frequency high voltage con-  
densers.

### **Lehigh Structural Steel Co.**

17 Battery Place, New York, N. Y.  
Phone WHitchall 4-1424

Contact..... J. F. Neary  
BRANCH OFFICES: In all principal cities.  
PRODUCTS: Vertical Radiators, Antenna  
Fowers and Masts.

### **Lektra Laboratories, Inc.**

30 E. 10th Street, New York, N. Y.  
Phone: ALgonquin 4-0230

President..... Milton W. Blatner  
Vice-President..... B. Eisenberg  
Treasurer..... Julius Kriser  
PRODUCTS: Bullet dynamic microphones;  
custom-built electronic equipment.

### **Lenz Electric Manufacturing Co.**

1751 N. Western Ave., Chicago, Ill.  
Phone: ARMitage 4454

President..... J. Mayo Lenz  
Sales Manager..... R. G. Zender  
PRODUCTS: Wires, cords and cables.

### **The Lifetime Corp.**

1101 Adams St., Toledo, O.  
Phone Main 5643

Vice-President & Treasurer ..... Marion H. Manoff  
Production Engineer..... E. L. Church  
PRODUCTS: Microphones: Carbon, Dy-  
namic, Velocity; Trumpets, Reflex Trumpets,  
P. M. Trumpet Units, Aluminum Baffles.

### **John E. Lingo and Son, Inc.**

28th St. and Buren Ave., Camden, N. J.  
Phone Camden 0487

President..... J. E. Lingo  
Chief Engineer..... Wesley Thompson  
Production..... George Burrows  
PRODUCTS: Vertical Radiators; Guyed  
Tubular Steel and Portable Dural; Turn-  
stile and UHF Antennae, Tubular Steel  
Supporting Poles (for UHF Antennae).

### **Miles Reproducer Co., Inc.**

812 Broadway, New York, N. Y.  
Phone GRamercy 5-9466

Contact..... J. M. Kuhlik  
PRODUCTS: Filmgraph — Instantaneous,  
Continuous Recording Devices; Permanent  
Play-Back.

### **Mirror Record Corp.**

58 W. 25th St., New York, N. Y.  
Phone CH 3-2222

Contact..... P. K. Trautwein  
PRODUCTS: All Recording Accessories.

### **Magnavox Co., Ltd.**

2131 Bueter Rd., Fort Wayne, Ind.

President..... Richard A. O'Connor  
Sales Manager..... S. S. Sondles  
PRODUCTS: Speakers, capacitors.

### **P. R. Mallory & Co.**

3029 E. Washington St., Indianapolis, Ind.  
Phone: Market 5511

President..... P. R. Mallory  
Vice-President & General Manager, J. E. Cain  
Vice-President, Sales..... Ray F. Sparrow  
Sales Manager..... Howard W. Sams  
PRODUCTS: Condensers, switches, volume  
controls, resistors, grid bias cells, jacks, con-  
nector plugs, cable connectors, rectifiers, bat-  
tery chargers, electrical contacts.

### **John Meck Industries**

Liberty St., Plymouth, Ind.

Contact..... John S. Meck  
PRODUCTS: Sound equipment, electronic  
devices.

### **Micamold Radio Corp.**

1087 Flushing Ave., Brooklyn, N. Y.  
Phone: STagg 2-9820

President..... A. P. Hirsch  
Sales Manager..... E. B. Tyler  
PRODUCTS: Mica, paper, and electrolytic  
condensers; resistors; ballast tubes; televi-  
sion, coil and transmitting condensers.

### **Mission Bell Radio Mfg. Co.**

3430 S. Hill St., Los Angeles, Calif.  
Phone: ADams 1-2175

President..... H. L. Hoffman  
Sales Manager..... R. J. McNeely  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations, FM receiving sets, rec-  
ord-players, variable condensers.

### **The Muter Co.**

1255 S. Michigan Ave., Chicago, Ill.  
Phone: CALumet 4000

President..... Leslie F. Muter  
Sales Manager..... J. R. Scanlan  
PRODUCTS: Resistors, switches, conden-  
sers, ballasts, coils, antenna loops, I.F. and  
R.F. transformers.

### National Carbon Co.

30 East 42nd St., New York, N. Y.

Phone: MUrray Hill 2-6800

President.....P. P. Huffard  
PRODUCTS: Batteries.

### National Co., Inc.

61 Sherman St., Malden, Mass.

Phone: MALden 6350

President.....William A. Ready  
General Manager.....J. J. Freeley

PRODUCTS: Receiving sets, FM receiving sets, transmitters, transmitting condensers, dials, coils, chokes, receiving condensers, transmitting parts, R.F. and I.F. transformers, sockets, couplings, receiving parts.

### National Fabricated Products, Inc.

2650 Belden Ave., Chicago, Ill.

Phone: ARmitage 3426

President.....R. L. Freeman  
Sales Manager.....C. R. Booth

PRODUCTS: Sockets, terminal strips, plugs and jacks.

### National Union Radio Corp.

15 Washington St., Newark, N. J.

Phone: HUmboldt 2-5050

President.....S. W. Muldowny  
Sales Manager.....H. A. Hutchins

PRODUCTS: Receiving tubes, cathode ray tubes, transmitting tubes, photo-cells, condensers, dry batteries, volume controls.

### Noblitt-Sparks Industries, Inc.

13th St. & Big Four Railroad, Columbus, Ind.

President.....O. G. Noblitt  
Sales Manager.....G. W. Thompson

PRODUCTS: Receiving sets, radio-phono-graph combinations.

### Northern Electric Co., Ltd.

1261 Shearer St., Montreal, P. Q., Canada

Phone: WILbank 3131

President.....P. F. Sisto  
PRODUCTS: Transmitters, point-to-point equipment, music reproducing equipment, microphones, portable amplifiers, public address systems, aircraft radio, vacuum tubes, electric organs.

### Oak Manufacturing Co.

1260 Clybourn Ave., Chicago, Ill.

Phone: MOHawk 222

President.....E. F. Bessey  
Sales Manager.....R. A. O'Reilly

PRODUCTS: Rotor relays, communication equipment.

### The Ohio Carbon Co.

12508 Berea Rd., Cleveland, Ohio

Phone: Boulevard 2700

President.....Allen K. Moulton  
Sales Manager.....L. W. Brandel

PRODUCTS: Carbon resistors, wire-wound resistors.

### Operadio Manufacturing Co.

St. Charles, Ill.

Phone: MANsfield 6446

President.....J. M. Stone  
Vice-President & Gen. Manager...G. R. Haase

PRODUCTS: Communication equipment, loud speakers, amplifiers, public address systems.

### Oxford-Tartak Radio Corp.

3911 S. Michigan Ave., Chicago, Ill.

Phone: ATLantic 6161

President & Sales Manager...Paul H. Tartak  
PRODUCTS: Loud speakers, output and line transformers.

### Pacific Sound Equipment Co., Inc.

1534 Cahuenga Blvd., Hollywood, Calif.

Phone: HEMPstead 5141

President.....Robert G. Metzner  
Secretary-Treasurer.....William L. Maas

BRANCH OFFICES: 1121 Vermont Ave., NW, Washington, D. C. Phone NAtional 1682. William H. Holmes; 153 Kearny St., San Francisco, Calif. William Hockey; 1900 Euclid Ave., Cleveland, Ohio. Clarence Moses. PRODUCTS: Transcription play-backs; recording equipment; public address systems.

### Packard-Bell Co.

1115 S. Hope St., Los Angeles, Calif.

Phone: PROspect 3404

President.....Herbert A. Bell  
General Manager.....H. D. Thomas, Jr.

Sales Manager.....Joe Spain  
PRODUCTS: Receiving sets, radio-phono-graph combinations, record-players.

### Parisian Novelty Co.

3510 S. Western Ave., Chicago, Ill.

Phone: VIRginia 1212

President.....H. J. Joseph  
Vice-President & General Mgr...L. E. Kahn

PRODUCTS: Dials, insulators, crystals, etc.

### Par-Metal Products Corp.

3262 -49th St., Long Island City, N. Y.

Phone: ASToria 8-8905

Contact.....A. A. Parmet  
PRODUCTS: Racks—relay and cabinet type—Panels, Metal Equipment.

### **Philco Corp.**

Tioga & C Sts., Philadelphia, Pa.

Phone: NEBraska 5100

Chairman of the Board.....Larry E. Gubb

President.....James T. Buckley

Vice-President in Charge of Operations,  
John Ballantyne

Vice-President in Charge of Sales,  
Thomas A. Kennally

Vice-President in Charge of Engineering,  
David Grimes

Vice-President in Charge of Service,  
R. F. Herr

PRODUCTS: Receiving sets, radio-phono-

graph combinations, FM receiving sets, tubes,

accessories, batteries.

### **Philharmonic Radio Corp.**

216 William St., New York, N. Y.

Phone: REctor 2-4781

President.....Avery Fisher

PRODUCTS: Receiving sets, radio-phono-

graph combinations, FM receiving sets.

### **Philmore Manufacturing Co.**

113 University Place, New York, N. Y.

Phone: ALgonquin 4-3363

President-General Manager...Philip Schwartz

PRODUCTS: Receiving sets, microphones,

detectors, plugs, headphones, coils.

### **Phonovision Corp.**

850 Blackhawk St., Chicago, Ill.

Phone: MICHigan 0800

President.....Harry J. Berlin

General Manager.....Carl T. McKelvy

PRODUCTS: Amplifiers, remote control

devices.

### **Pilot Radio Corp.**

37-06 Thirty-sixth St., Long Island City, N. Y.

Phone: STillwell 4-5455

President-General Manager..Isidor Goldberg

PRODUCTS: Receiving sets, radio-phono-

graph combinations, FM receiving sets, tele-

vision receiving sets.

### **Poinsettia, Inc.**

112 Cedar Ave., Pitman, N. J.

Phone Pitman 511

President.....E. Poinsett

Vice President.....W. Warner

Secretary.....F. L. Pedrick

BRANCH OFFICES: 4447 W. Irving Park

Rd., Chicago, Ill.; 705 S. First St., Louis-

ville, Ky. PRODUCTS: Phonograph Rec-

ord Manufacturing Equipment, and Made to

Order Phonograph Records.

### **Premax Products Division**

(Chisholm-Ryder Co.)

College & Highland Aves., Niagara Falls, N. Y.

President.....S. M. Ryder

Manager.....G. O. Benson

PRODUCTS: Antenna equipment, metal stampings.

### **Press Wireless, Inc.**

1475 Broadway, New York, N. Y.

Phone: BRyant 9-5030

President.....Joseph Pierson

Sales Manager.....R. H. dePasquale

PRODUCTS: Transmitters, receiving sets,

diversity equipment, radiophoto and fac-

simile equipment, direction finders.

### **Presto Recording Corp.**

242 W. 55th St., New York, N. Y.

Phone CI 5-7760

President.....George J. Saliba

Secretary.....Morris M. Gruber

General Sales Manager....Ralph C. Powell

PRODUCTS: Sound Recording Equipment,

Discs and Needles, Transcription Turntables,

Recording Amplifiers and Accessory Record-

ing Equipment.

### **B. A. Proctor Co., Inc.**

2 W. 45th Street, New York, N. Y.

Phone MU 6-7542

President & Treasurer...Barton A. Proctor

Vice President & Secretary,  
Ferd. C. W. Thiede

PRODUCTS: Crystal Pickups and Record-

ing Heads, Transcription Turntables and Re-

cording Machines.

### **Quality Hardware & Machine Co.**

5894 N. Ravenswood Ave., Chicago, Ill.

Phone: LONGbeach 8200

President.....H. A. Laystrom

Sales Manager.....A. A. Wisersky

PRODUCTS: Tools and dies.

### **Quam-Nichols Co.**

33rd Place & Cottage Grove Ave., Chicago, Ill.

Phone: CALumet 7313

President.....James P. Quam

PRODUCTS: Speakers, microphones, etc.

### **Radio Condenser Co.**

Davis & Copewood Sts., Camden, N. J.

President.....Stanley S. Cramer

Sales Manager.....William J. May

PRODUCTS: Variable air condensers.

### **Radio Electronics Laboratory, Inc.**

120 Freeman St., Brooklyn, N. Y.

President.....Lionel R. Bausman

PRODUCTS: Cathode ray tubes.

### **Radio Engineering Labs., Inc.**

35-54—36th St., Long Island City, N. Y.

Phone RAvenswood 8-2340

President.....Charles M. Srebroff

Treasurer.....Frank A. Gunther

Secretary.....Marion Wade

**BRANCH OFFICES:** 5334 Hollywood Blvd., Hollywood, Calif. Norman B. Neeley; 2040 Grand River Ave., Detroit, Mich., M. N. Duffy; 310 Fifteenth St., Denver, Colo., Mulinix Sound System. **PRODUCTS:** Frequency Modulation—Broadcast Transmitters, Receiver and Loud Speaker Units, Portable Transmitters and Receivers for Speech frequencies, Hi-Fidelity Broadcast Relay Transmitters, Portable Transmitters for broadcast pickup service, Transmitters and Receivers for fixed stations on speech frequencies and Speech Equipment; Military and Municipal Transmitters and Receivers.

### **Radio Speakers, Inc.**

221 E. Cullerton St., Chicago, Ill.  
Phone: VICTory 1613

President-Sales Manager.....H. C. Forster  
**PRODUCTS:** Loudspeakers, recorders.

### **A. E. Ravenscroft, Inc.**

2320 S. Hill St., Los Angeles, Calif.  
Phone Prospect 1317

President.....A. R. Magner  
Vice-President.....A. M. Ravenscroft  
**PRODUCTS:** Distributor of radio and electronic parts, tubes, etc.

### **Raytheon Production Corp.**

55 Chapel St., Newton, Mass.  
Phone: BIGelow 7500

President.....L. K. Marshall  
**PRODUCTS:** Tubes.

### **RCA Manufacturing Co., Inc.**

Camden, New Jersey  
Phone Camden 8000

Chairman, Executive Committee,  
G. K. Throckmorton  
President.....Robt. Shannon  
Commercial V. P.....H. C. Bonfig  
Financial V. P. & Secy.....F. H. Corregan  
V. P. in charge of Engineering Products, RCA  
Photophone Div.....F. R. Deakins  
V. P. & Adv. Director.....T. F. Joyce  
Adv. Mgr.....D. J. Finn  
V. P. in charge of Mfg. & Prod. Engineering.....E. W. Ritter  
V. P. in charge of Manufacturing

J. M. Smith  
V. P. & Chief Engineer...Dr. Charles Jolliffe  
V. P. of International Division...J. D. Cook

**BRANCH OFFICES:** 530 Citizens & Southern Bank Bldg., Atlanta, Ga.—589 E. Illinois St., Chicago, Ill.—411 Fifth Ave., New York, N. Y.—M. F. Blakslee, Manager; 170 Ninth St., San Francisco, Cal. **PRODUCTS:** Broadcast Station Transmitters, Microphones and Associated Equipment, Electric and Ra-

dio Broadcast Transcriptions, Instantaneous Disc Recording Equipment, Facsimile Equipment, Television Transmitters, F. M. Transmitters.

### **Readrite Meter Works**

College Ave., Bluffton, Ohio

President.....R. L. Triplett  
Sales Manager.....N. A. Triplett  
**PRODUCTS:** Testing equipment, electrical measuring meters.

### **Rea Magnet Wire Co.**

East Pontiac St., Ft. Wayne, Ind.

President.....Victor F. Rea  
Sales Manager.....R. L. Whearley

### **Remler Co., Ltd.**

2101 Bryant St., San Francisco, Calif.  
Phone: VAlencia 3435

President.....E. G. Danielson  
Sales Manager.....R. C. Gray  
**PRODUCTS:** Receiving sets, radio-phonograph combinations, inter-communication and sound equipment.

### **The Rola Co.**

2530 Superior Ave., Cleveland, Ohio  
Phone: PROspect 4242

President.....B. A. Engholm  
Sales Manager.....Lee Golder  
**PRODUCTS:** Loudspeakers, electro-dynamic and permanent magnet transformers.

### **The Ross Manufacturing Co.**

2241 Indiana Ave., Chicago, Ill.  
Phone: CALumet 4887

President.....K. B. Ross  
**PRODUCTS:** Coils.

### **The Chas. E. Schuler Engineering Co.**

109 Cambria St., Newark, O.  
Phone Newark 4319

President.....Charles E. Schuler  
Chief Engineer.....Charles Schwartz  
Secretary-Treasurer.....Corwin D. Harris  
Superintendent.....D. E. VanNess  
**PRODUCTS:** Steel Vertical Radiators for Antenna Systems, Guyed and Self-supporting.

### **Scientific Radio Service**

4301 Sheridan Ave., University Park, Md.  
Phone Hyattsville 0535

Contact.....H. D. Eisenhauer  
**PRODUCTS:** Piezo Electric Crystals and Holders, Calibration and Testing of Radio Frequency Monitors.



### **Scully Machine Co.**

62 Walter St., Bridgeport, Conn.

Phone 4-5300

Owner.....L. J. Scully  
Manager.....J. J. Scully  
PRODUCTS: Precision Disc Recording  
Machines.

### **Seattle Radio Supply Co., Inc.**

2117—2nd Ave., Seattle, Wash.

President.....C. A. Reeves  
Vice-President.....E. O. Mickelson  
PRODUCTS: Radio Parts and Tubes.

### **Shure Bros.**

225 W. Huron St., Chicago, Ill.

Phone Del 8381

General Manager.....S. N. Shure  
Sales Manager.....J. A. Berman  
Chief Engineer.....B. B. Bauer  
BRANCH OFFICES: 136 Liberty St.,  
N. Y. C.; 908 W. Venice Blvd., Los Angeles;  
415 Peachtree St., N. E. Atlanta, Ga.; 2411  
First Ave., Seattle, Wash. PRODUCTS:  
Microphones, Phonograph Pickups, Mag-  
netic Cutters, Microphone Stands, Vibration  
Pickups and Acoustic Devices.

### **The F. W. Sickles Co.**

Box 920, Springfield, Mass.

President.....R. F. Sickles  
Sales Manager.....Monte Cohen  
PRODUCTS: R. F. and I. F. coils, mica  
and air trimmers, silver mica condensers.

### **Solar Manufacturing Co.**

Avenue A & 25th St., Bayonne, N. J.

President.....Otto Paschkes  
Sales Manager.....W. C. Harter  
PRODUCTS: Dry and wet electrolytic  
condensers.

### **Sonora Radio & Television Corp.**

325 N. Hoyne Ave., Chicago, Ill.

Phone: CHESApeake 2323

President.....Joseph Gerl  
Sales Manager.....Edward Harris  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations.

### **The Sparks-Withington Co.**

2400 E. Ganson St., Jackson, Mich.

President.....William Sparks  
Vice-President & Gen. Mgr. Harry C. Sparks  
Radio Plant Manager.....Charles J. Kayko  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations, television sets, trans-  
formers.

### **Speak-O-Phone Record. & Equip. Co.**

23 West 60th St., New York, N. Y.

Phone CO 5-1350

General Sales Manager.....C. A. Austin  
Secretary.....R. L. Lee

PRODUCTS: Recording and reproducing  
equipment.

### **Speer Resistor Corp.**

Theresa St., St. Marys, Pa.

President.....Dudley H. Miller  
General Manager.....G. G. Herriek  
PRODUCTS: Resistors, suppressors.

### **Sperry Gyroscope Co.**

Manhattan Bridge Plaza, Brooklyn, N. Y.

Phone: CUMberland 6-5600

President.....R. E. Gillmor  
Vice-President, Sales.....R. B. Lea  
PRODUCTS: Tubes, tuners, cable acces-  
sories.

### **Sprague Specialties Co.**

189 Beaver St., North Adams, Mass.

President-General Manager....R. C. Sprague  
PRODUCTS: Condensers, resistors, filters.

### **Stackpole Carbon Co.**

Tannery St., St. Marys, Pa.

President.....Lyle G. Hall  
Sales Manager.....J. H. Stackpole  
PRODUCTS: Variable and fixed resistors,  
switches, iron cores, anodes for power tubes,  
condensers, battery electrodes.

### **Standard Transformer Corp.**

1500 N. Halsted St., Chicago, Ill.

Phone MOhawk 5300

President-General Manager, Jerome J. Kahn  
PRODUCTS: Transformers, reactors, audio  
components, transmitters, electrical special-  
ties.

### **Stewart-Warner Corp.**

1826 Diversey Pkwy., Chicago, Ill.

Phone: Lakeview 600

Vice-President & General Sales Manager,  
F. A. Hiter  
Manager, Radio Dept.....L. L. Kelsey  
PRODUCTS: Receiving sets, radio-phono-  
graph combinations, FM receiving sets, tele-  
vision receiving sets, record-players.

### **Stromberg-Carlson Telephone Mfg. Co.**

100 Carlson Rd., Rochester, N. Y.

Phone Culver 260

President.....W. M. Angle  
Vice-Pres. & Gen. Manager...Ray H. Manson  
Treasurer.....W. W. Hetzel  
Chief Engineer.....F. C. Young  
Sales Manager.....L. L. Spencer  
BRANCH OFFICES: 564 West Adams St.,  
Chicago, Ill., H. T. McCraig; 2017 Grand  
Ave., Kansas City, Mo., A. J. Roberts; 1355  
Market St., San Francisco, Calif., T. C.  
Thompson. PRODUCTS: Electric, Combina-  
tion, Television and FM Sets; Paging Systems,  
Antenna Kits.



### **Warwick Manufacturing Corp.**

4640 W. Harrison St., Chicago, Ill.

Phone: ESTebrook 2727

President.....J. S. Holmes

PRODUCTS: Receiving sets, radio-phonograph combinations.

### **Watterson Radio Mfg. Co.**

2608 Ross Ave., Dallas, Texas

Phone: Riverside 4512

Owner-Sales Manager.....J. W. Davis

PRODUCTS: Receiving sets, radio-phonograph combinations, record-players.

### **Wells-Gardner & Co.**

2701 N. Kildare Ave., Chicago, Ill.

Phone: ALBany 8220

President.....A. S. Wells

Sales Manager.....H. A. Johanson

PRODUCTS: Receiving sets, radio-phonograph combinations.

### **William H. Welsh Co.**

2241 Indiana Ave., Chicago, Ill.

Phone: CALumet 5454

Contact.....William H. Welsh

PRODUCTS: Speaker diaphragms.

### **Western Electric Co., Inc.**

(Radio Division)

120 Broadway, New York, N. Y.

Phone COrtland 7-7700

Manager.....F. R. Lack

Manager Commercial Sales...H. N. Willets

Publicity.....S. D. Daniels

Radio Broadcasting and Sound Systems...L. F. Bockoven

Aviation and Marine Radio...F. C. McMullen

Manager Government Contract Service

C. R. Smith

PRODUCTS: Hearing Aids and Hearing Measuring Equipment; Aviation, Marine, Police Radio Transmitters and Receivers; Radio Broadcasting Speech Input Equipment; Sound Distribution Systems; Vacuum Tubes; Acoustic Measuring Equipment; Microphones, Loudspeakers, and allied items; Telephone Apparatus and Cable; Carrier Telephone Equipment and Train Dispatching Apparatus.

### **Westinghouse Electric & Mfg. Co.**

Radio Division

2519 Wilkens Ave., Baltimore, Md.

Phone EDmondson 2300

Lamp Division

Clearfield Ave., Bloomfield, N. J.

Phone: BLOomfield 2-2200

President.....George H. Bucher

Vice-President.....Walter Evans

Manager, Radio Division.....C. J. Burnside

Sales Manager.....E. T. Morris

Mgr. Engineer.....J. A. Hutcheson

Manager, Tube Division.....H. J. Hoffman

BRANCH OFFICES: In all principal cities. PRODUCTS: Radio Transmitting Apparatus for broadcast use; Antenna Phasing, Tuning and Lighting Equipment; Special Control Items and Operating Consoles; Power Equipment, Generators, Motors, De-ion Circuit Breakers, Relays, Instruments, Meters, Indicating Lights, Supervisory Apparatus, Insulating Material, Transmitting Tubes and Equipment, Receiving Tubes and Equipment.

### **Weston Electrical Instrument Corp.**

614 Frelinghuysen Ave., Newark, N. J.

Phone Bigelow 3-4700

Contact.....V. E. Jenkins

BRANCH OFFICES: All principal U. S. cities and Canada. PRODUCTS: Tubecheckers, Vacuum Tube Voltmeters, Power Level Indicators, Volume Indicators, Switchboard Voltmeters and Ammeters, Portable Voltmeters, Ammeters and Ohmmeters, Portable Capacity Testers, Portable Combination Volt-Ohm-Milliammeters, Radio and electronic industrial test equipment.

### **Wilcox-Gay Corp.**

604 W. Seminary St., Charlotte, Mich.

President-Treasurer.....Chester M. Wilcox

Vice-President & Sales Manager,

Warren L. Hasemeier

PRODUCTS: Radio-phonograph combinations, FM receiving sets, record-players.

### **Wincharger Corp.**

E. Seventh and Division Sts., Sioux City, Iowa

Phone Sioux City 8-6513

Contact.....R. F. Weinig

PRODUCTS: Vertical Radiators, Antenna Towers and Accessories, and Dynamotors

### **Zenith Radio Corp.**

6001 Dickens Ave., Chicago, Ill.

Phone: BERkshire 7500

President-General Mgr...E. F. McDonald, Jr.

Executive Vice-President & Treasurer,

Hugh Robertson

Vice-President & Director of Sales,

J. J. Nance

PRODUCTS: Receiving sets, radio-phonograph combinations, FM receiving sets, television receiving sets, record-players.



# INTERNATIONAL



*International Broadcast Stations  
In The United States*



*FCC International Regulations*



*CBS-NBC Latin-American Networks*



*Cuba*



*Mexico*



*South America*



*Central America*



# INTERNATIONAL RADIO IN WAR

By *Herbert Rosen*

*Editor, Radio Press Service, Pan American Radio & Broadcasting Program Service*

In the first as in the present war, many highly perfected mechanisms were and are being utilized. Broadcasting is the only brand new weapon in this war. It plays an unique role as a vehicle for reaching great masses of people and is therefore the most potent weapon in the psychological arsenal of each government.

The development of the radio in the whole world—especially since the outbreak of the war—is immense, not only regarding the number of stations, but also regarding the power of the transmitters. Where formerly the word "station" or "transmitter" could be used interchangeably, this is no longer possible now because most stations have several transmitters operating simultaneously either with the same or different programs.

Today the official total number of stations in the world are 2,768. They are distributed as follows:

	No. of Stations	Total power (kw)	Aver. power (kw)
<b>Continents</b>			
North America	1,122	5,706.85	5.09
Central America	279	276.56	0.99
South America	471	1,666.39	3.54
Europe	470	12,156.45	25.86
Africa	75	304.49	4.06
Asia	179	1,045.34	5.84
Australia and Oceania	172	423.65	2.46
<b>Total</b>	<b>2,768</b>	<b>21,579.73</b>	<b>7.80</b>

From these statistics we can learn that Europe, indeed, has only 470 stations and that North America has 1,122 stations. However, in the international broadcasting it is not important to note the **number**, but the **power** of stations. It is the total power of the stations in kilowatts which is decisive. We discover,

for example, that the 470 stations in Europe have a total power of 12,156 kw. while the 1,122 stations of North America have a total power of only 5,706 kw. The average power of the stations in Europe is 25.86, almost five times as great as the 5.09 average of North America.

The above statistic includes all stations together—domestic and shortwave. But the official shortwave stations alone present the following picture:

UNITED NATIONS		Power (kw)
	Stations	
England	22	1,550
U. S. A.	11	340
Russia	10	480
Australia	4	60
<b>Total</b>	<b>47</b>	<b>2,430</b>

AXIS		Power (kw)
	Stations	
Germany	80	1,420
Italy	11	710
Japan	8	400
Finland	5	250
Dutch India	3	170
Holland	2	80
<b>Total</b>	<b>58</b>	<b>3,030</b>

(Present plans of the United States include the construction of 22 additional transmitters, which will eventually bring this country's total to 36 stations.)

Another sign of the progress and the importance of radio broadcasting is the continuous growth of the audience with over 96,000,000 listeners in the world:

Radio Homes	
North and Central America	31,864,000
South America	2,028,000

☆ ☆ ☆ *Radio On To Victory* ☆ ☆ ☆

Europe . . . . .	51,986,000
Asia . . . . .	7,968,000
Australia and Oceania . . . . .	1,653,000
Africa . . . . .	607,000
<hr/>	
Total . . . . .	96,106,000

All figures based on documents of the International Broadcasting Union, Geneva (Switzerland).

### —Foreign Language Broadcasts—

An initial step in the use of radio for war was the development of foreign-language broadcasts via shortwaves. Several nations have developed their foreign-language service in recent times to a high standard of perfection. Statistics show that England leads the other countries by broadcasting news and other information in 38 different languages, carrying some even in Arabian, Cantonese, Burmese, Malayan, Thai, etc. The present world situation forced the United State to develop its foreign-language service, too. In a very short time it has been brought up to a high standard, and at this moment broadcasts are sent out in 24 different languages. Especially a high grade of perfection has been reached in the service to Central and South America in Spanish and Portuguese via six channels of distribution:

- (a) shortwave broadcasts,
- (b) rebroadcasts of shortwave programs by local stations,
- (c) local rebroadcasts of programs sent point-to-point,
- (d) transcriptions,
- (e) programs sponsored by U. S. advertisers,
- (f) local programs.

In this connection it will be of interest to know that the U. S. export advertising in Latin-American republics will show a definite increase this year, as revealed recently by a joint survey by the Office of Coordinator of Inter-American Affairs and the Department of Commerce. The survey was aimed to ascertain the extent to which United States manufacturers would seek to preserve their brand names and good-will in our neighboring republics. The increase reverses the trend started in the early part of last year,

when export budgets were reduced. Of 367 manufacturers surveyed, 146, or 40 per cent, will maintain normal schedules; 89, or 25 per cent still have advertising expenditures under consideration; while 12, or 3 per cent, have not yet been reached by field representatives of the Department of Commerce. A breakdown of budgets of 210 concerns, or 57 per cent, shows that last year they spent \$11,407,378 and indications are that this year they will expend \$11,798,395. It is assumed, however, that the 1943 budgets will exceed these figures, inasmuch as some companies, which still had budgets under consideration, said they would increase them. In those cases, the 1942 figures were used.

### —Future of Radio—

The future of the radio and its role in the post war era is best explained in the 11th annual report of the Swiss Broadcasting Service for the past year, which I have received recently: "We do not have to have any special gift of prophecy to predict that the reconstruction of Europe and of the whole world after the war will place all tasks of such magnitude that their repercussions on the destinies of individuals and of nations will be as great as those of the war itself. That means that for many years to come radio will continue to be used for the diffusion of news and for governmental communications. We hope also that it will work with all its might to reconcile nations and for the encouragement of art and culture. In these domains too it should be able to play a more and more important part. It is not likely that in the years in front of us we shall enjoy a rapidly growing prosperity; hard work and strict economy will rather be the order of the day. But in such times when every penny must be counted and costly pleasures must be given up, we shall turn more often to the radio for our enjoyment. It will be as indispensable in the town as in the country where often it offers the only opportunity of keeping in touch with contemporary art and science."

# INTERNATIONAL BROADCAST STATIONS IN THE UNITED STATES

<i>Licensee and Location</i>	<i>Call Letters</i>	<i>Frequency (Kc)</i>	<i>Power</i>
The Associated Broadcasters, Inc. San Francisco, Calif.....	KWID	6060, 7230, 9570, 11870, 15290, 17760, 21610	100 kw
Columbia Broadcasting System, Inc. Brentwood, L. I.....	WCBX	6060, 6120, 6170, 9480, 9590, 9650, 11830, 15267, 15270, 17830, 21520, 21570	50 kw
Columbia Broadcasting System, Inc. Brentwood, L. I.....	WCRC	6060, 6120, 6170, 9480, 9590, 9650, 11830, 15267, 15270, 17830, 21520, 21570	50 kw
Columbia Broadcasting System, Inc. Brentwood, L. I.....	WCDA	6060, 6120, 6170, 9650, 11830, 15270, 17830, 21520, 21570 S. A. 9480, 9590, 15267	10 kw
The Crosley Corp. Mason, Ohio .....	WLWO	6080, 9590, 11710, 15250, 17800, 21650	75 kw
General Electric Company South Schenectady, N. Y.....	WGEA	6190, 7000, 9530, 9550, 11847.5, 15330, 21500, 21590	50 kw
General Electric Company South Schenectady, N. Y.....	WGEO	6190, 7000, 9530, 9650, 11847.5, 15330	100 kw
General Electric Company near Belmont, Calif.....	KGEI	6190, 7250, 9530, 9550, 11730, 15210, 15330	50 kw
National Broadcasting Co., Inc. Bound Brook, N. J.....	WRCA	6100, 9670, 11890, 11893, 15150, 15190, 17780, 21630 (50 to 100 kw on 9670)	50 kw
National Broadcasting Co., Inc. Bound Brook, N. J.....	WNBI	Same as WRCA	Same as WRCA
Westinghouse Radio Stations, Inc. Hull, Mass. ....	WBOS	6140, 9570, 11870, 15210, 17780, 21540	50 kw
World Wide Broadcasting Corp. Scituate, Mass. ....	WRUL	6040, 11730, 11790, 15130, 15350, 17750, 21460	50 kw
World Wide Broadcasting Corp. Scituate, Mass. ....	WRUS	6040, 11730, 11790, 15130, 15350, 17750	7 kw (S. A.) C.P. 100 kw
World Wide Broadcasting Corp. Scituate, Mass. ....	WRUW	11730, 15130, 25600, 11790, 15350, 17750, 9700	20 kw C.P. 50 kw

## Pending Applications

The Associated Broadcasters, Inc. Seattle, Wash. ....	To be determined	50 kw
The Associated Broadcasters, Inc. Los Angeles, Calif.....	To be determined	50 kw
The Associated Broadcasters, Inc. San Francisco, Calif.....	6060, 7230, 9570, 11870, 15290, 17760, 21610	50 kw
The Crosley Corp. Cincinnati, Ohio .....	6080, 9590, 11710, 15250, 17800, 21650	200 kw



# FCC REGULATIONS REGARDING INTERNATIONAL BROADCAST STATIONS

The term "international broadcast station" means a station licensed for the transmission of broadcast programs for international public reception. (Frequencies for these stations are allocated from bands assigned (between 6000 and 26600 kilocycles) for broadcasting by international agreement.)

A license for an international broadcast station will be issued only after a satisfactory showing has been made in regard to the following, among others:

(a) That there is a need for the international broadcast service proposed to be rendered.

(b) That the necessary program sources are available to the applicant to render an effective international service.

(c) That the technical facilities are available on which the proposed service can be rendered without causing interference to established international stations having prior registration and occupancy in conformity with existing international conventions or regulations on the frequency requested.

(d) That directive antennas and other technical facilities will be employed to deliver maximum signals to the country or countries for which the service is designed.

(e) That the production of the program service and the technical operation of the proposed station will be conducted by qualified persons.

(f) That the applicant is technically and financially qualified and possesses adequate technical facilities to carry forward the service proposed.

(g) That the public interest, convenience, and necessity will be served through the operation of the proposed station.

A licensee of an international broadcast station shall render only an international broadcast service which will reflect the culture of this country and which will promote international goodwill, understanding, and cooperation. Any program solely intended for, and directed to an audience in the continental United States does not meet the requirements for this service.

(The Commission on July 14, 1939, suspended the operation of this rule until further order of the Commission.)

## Commercial Service

Such international broadcast service may include commercial or sponsored programs: Provided, that—

(1) Commercial program continuities give no more than the name of the sponsor of the program and the name and general character of the commodity, utility or service, or attraction advertised.

(2) In case of advertising a commodity, the commodity is regularly sold or is being promoted for sale on the open market in the foreign country or countries to which the program is directed in accordance with paragraph in these rules regarding directional antenna.

(3) In case of advertising an American utility or service to prospective tourists or visitors to the United States, the advertisement continuity is particularly directed to such persons in the foreign country or countries where they reside and to which the program is directed in accordance with paragraph in these rules regarding directional antenna.

(4) In case of advertising an international attraction (such as a world fair, resort, spa, etc.) to prospective tourists or visitors to the United States, the oral continuity concerning such attraction is consistent with the purpose and intent of this section.

(5) In case of any other type of advertising, such advertising is directed to the foreign country or countries and to which the program is directed in accordance with paragraph in these rules regarding directional antenna and is consistent with the purpose and intent of this section.

The areas or zones established to be served by international broadcast stations are the foreign countries of the world, and directive antennas shall be employed to direct the signals to specific countries. The antenna shall be so designed and operated that the signal (field intensity) toward the specific foreign country or countries served shall be at least 3.16 times the average effective signal from the station (power gain of 10).

An international broadcast station may transmit the program of a standard broadcast station or network system: Provided, The conditions in the commercial provision of these rules in regard to any commercial continuities are observed and when station identifications are made, only the call letter designa-

tion of the international station is given on its assigned frequency: And provided further, That in the case of chain broadcasting the program is not carried simultaneously by another international station (except another station owned by the same licensee operated on a frequency in a different group to obtain continuity of signal service), the signals from which are directed to the same foreign country or countries.

Station identification, program announcements, and oral continuity shall be made with international significance (language particularly) which is designed for the foreign country or countries for which the service is primarily intended.

### Program Logs

(1) Each licensee of an international broadcast station shall make verbatim mechanical records of all international programs transmitted.<sup>3</sup>

(2) The mechanical records, and such manuscripts, transcripts, and translations of international broadcast programs as are made shall be kept by the licensee for a period of two years after the date of broadcast and shall be furnished the Commission or be available for inspection by representatives of the Commission upon request.<sup>3</sup>

(3) If the broadcast is in a language other than English the licensee shall furnish to the Commission upon request such record and scripts together with complete translations in English.<sup>3</sup>

### Frequency Assignment

The following groups of frequencies are allocated for assignment to international broadcast stations:

Group A	Group D
6040 kc.	15130 <sup>1</sup> kc.
6060	15150
6080	15210
6100	15230
6120 <sup>1</sup>	15270
6140	15330
6170	15350
6190	Group E
Group B	17750 kc.
9530 kc.	17760
9550 <sup>1, 2</sup>	17780
9570	17800
9590	17830
9650	Group F
9670	21460 kc.
Group C	21500 <sup>1, 2</sup>
11710 kc.	21520
11730 <sup>1, 2</sup>	21540
11790	21570
11820	21590
11830	21610
11870	21630
11890	21650

Group G	25725
25600 kc.	25750
25625	25775
25650	25800
25675	25825
25700	25850

Additional frequencies allocated by international agreement may be assigned to international broadcast stations subject to the conditions that no objectionable interference results to the service of foreign international broadcast stations which, in the opinion of the Commission, have priority of assignment.

Any frequency licensed to an international broadcast station shall also be available for assignment to other international broadcast stations, provided no objectionable interference is caused to the service of any United States international broadcast station.

An international broadcast station will not be authorized to use more than one frequency listed in any group listed in the rule on available frequencies without a showing of technical necessity.<sup>3</sup>

Not more than one frequency shall be used simultaneously under the same authorization and call letter designation.<sup>3</sup>

No international broadcast station will be authorized to install equipment or licensed for operation with a power less than 50 kilowatts.

### Supplemental Report

A supplemental report<sup>3</sup> shall be filed with and made a part of each application for renewal of license and shall include statements of the following:

1. The number of hours operated on each frequency.

2. A list of programs transmitted of special international interest.

3. Outline of reports of reception and interference and conclusions with regard to propagation characteristics of the frequency assigned.

The transmitter of each international broadcast station shall be equipped with automatic frequency control apparatus so designed and constructed that it is capable of maintaining the operating frequency within plus or minus 0.005 per cent of the assigned frequency.

<sup>1</sup> Authorizations for international broadcast stations which permit operation on these frequencies shall be subject to the condition that the authorizations for these frequencies may be modified by the Commission to delete these frequencies without advance notice or hearing.

<sup>2</sup> Authorizations for international broadcast stations which permit operation on these frequencies shall be subject to the condition that there shall be no commercial or advertising announcements of any kind in the programs broadcast through the medium of these frequencies, and that the names of program sponsors shall not be broadcast.

<sup>3</sup> Suspended on December 12, 1942 until further notice.

# LATIN-AMERICAN NETWORKS

CBS — NBC

## LA CADENA DE LAS AMERICAS

(The Network of the Americas)

of

## THE COLUMBIA BROADCASTING SYSTEM

### — PERSONNEL —

Director of Shortwave Broadcasting and Latin American Relations.....Edmund A. Chester  
 Assistant Director of Latin American Relations and Latin American News Editor.....Roberto I. Unanue  
 Assistant in Charge of Public Relations for Latin America.....Carlos Garcia-Palacios  
 Publicity Director.....Wil Marcus  
 Director of Programs.....William H. Fineshriber  
 Assistant Director of Programs, Supervisor of Special Events Programs, Traffic Manager, John W. Hundley  
 Director of Music.....Terig Tucci  
 Production Chief.....Russ Johns  
 Script Department Manager.....Benjamin F. Feiner, Jr.  
 Shortwave News Director.....Lawrence S. Haas  
 Engineer in Charge of International Broadcasting.....Guy Hutcheson

### — ARGENTINA —

Call Letters	Station Name	City	Frequency Kilocycles	Power Watts
LR3.....	Radio Belgrano	Buenos Aires	950	50000
LRY.....	Radio Belgrano	Buenos Aires	11840	50000
LRY1.....	—Radio Belgrano Network—			
LU7.....	Radio General San Martin	Bahia Blanca	1240	1500
LV3.....	Radio Cordoba	Cordoba	620	25000
LT7.....	Radio Provincia	Corrientes	1340	5000
LT1.....	Radio del Litoral	Rosario	780	12000
LV1.....	Radio Graffigna	San Juan	560	10000
LV4.....	Radio San Rafael de Mendoza	San Rafael	690	5000
LV11.....	Radio del Norte	Santiago del Estero	1170	500
LV12.....	Radio Aconquija	Tucuman	580	5000
LV14.....	Radio La Rioja	Corrientes	1460	500
LV10.....	Radio Cuyo	Mendoza	1210	2500
LV13.....	Radio San Luis	San Luis	—	—
ZP9.....	Radio Encarnacion	Encarnacion, Paraguay	—	—
ZP1.....	Radio Encarnacion	Encarnacion, Paraguay	—	—
CXA8.....	Radio Real de San Carlos	Colonias, Uruguay	9620	20000
CXA14.....	Radio Real de San Carlos	Colonias, Uruguay	11820	1000

### — BOLIVIA —

CP4.....	Radio Illimani	La Paz	1040	10000
CP5.....	Radio Illimani	La Paz	6200	1000

## BRAZIL

Call Letters	Station Name	City	Frequency Kilocycles	Power Watts
PRE8.....	Radio Nacional .....	Rio de Janeiro .....	980	22000
PRB9.....	Radio Sociedade Record .....	Sao Paulo .....	1000	20000

## CHILE

CB57.....	Radio Sociedad Nacional de Agricultura.	Santiago de Chile...	570	6000
CB1180.....	Radio Sociedad Nacional de Agricultura.	Santiago de Chile...	11800	1000
CB90.....	Radio Sociedad Nacional de Agricultura.	Valpariso .....	900	1000

## COLOMBIA

HJAG .....	Emisora Atlantico .....	Barranquilla .....	1050, 4905	1000
HJAH.....	Emisora Atlantico .....	Barranquilla .....	1080	1000
HJCS.....	Radio Continental .....	Bogota .....	920	50000
HJEB.....	La Voz del Valle .....	Cali .....	1150	500
HJED.....	La Voz del Valle .....	Cali .....	4825	1000
HJFB.....	Radio Manizales .....	Manizales .....	6105	1000
HJFD.....	Radio Manizales .....	Manizales .....	1390	500
HJDT.....	Radio Nutibara .....	Medellin .....	1150	500
HJFF.....	Ondas del Otun.....	Pereira .....	1350	1000

## COSTA RICA

TIPG.....	La Voz de la Victor.....	San Jose .....	625	5000
TIPG.....	La Voz de la Victor.....	San Jose .....	9615	2000

## CUBA

CMJN.....	RHC Cadena Azul .....	Camaguey .....	740	1000
CMCY.....	RHC Cadena Azul .....	Havana .....	590	15000
COCY.....	RHC Cadena Azul .....	Havana .....	11470	1000
CMKV.....	RHC Cadena Azul .....	Holguin .....	600	1000
CMHI.....	RHC Cadena Azul .....	Santa Clara .....	570	15000
COHI.....	RHC Cadena Azul .....	Santa Clara .....	6450	5000
CMKN.....	RHC Cadena Azul .....	Santiago de Cuba...	930	1000

## DOMINICAN REPUBLIC

HIIZ.....	Broadcasting Nacional .....	Ciudad Trujillo ....	6315	100
HIZ.....	Broadcasting Nacional .....	Ciudad Trujillo ....	1350	200

## ECUADOR

HC2AJ.....	Radiodifusora del Ecuador.....	Guayaquil .....	1050	1000
HC2AK.....	Radiodifusora del Ecuador.....	Guayaquil .....	9310	1000
HCQR.....	Radiodifusora del Ecuador.....	Quito .....	1340	250
HCQRX.....	Radiodifusora del Ecuador.....	Quito .....	5970	300

## EL SALVADOR

YSP.....	La Voz de Cuscatlan.....	San Salvador .....	—	—
YSP.....	La Voz de Cuscatlan.....	San Salvador .....	—	—
YSPA.....	La Voz de Cuscatlan.....	San Salvador .....	—	—
YSPB.....	La Voz de Cuscatlan.....	San Salvador .....	—	—

## GUATEMALA

TGW.....	La Voz de Guatemala.....	Guatemala City ....	610	10000
TGWA.....	La Voz de Guatemala.....	Guatemala City ....	9685 15170	10000
TGWB.....	La Voz de Guatemala.....	Guatemala City ....	6460	1000
TGWC.....	La Voz de Guatemala.....	Guatemala City ....	1520	1000

## HAITI

Call Letters	Station Name	City	Frequency Kilocycles	Power Watts
HHW.....		Port-au-Prince	1230	75
HH3W.....		Port-au-Prince	9595	150

## HONDURAS

HRN.....	La Voz de Honduras.....	Tegucigalpa	1450	500
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## MEXICO

XEQ.....	Radio Pan Americana, S. A.....	Mexico City	730	50000
XEQQ.....	Radio Pan Americana, S. A.....	Mexico City	9680	1000
XEA.....	Luis A. Maury .....	Campeche, Cam.....	1370	250
XEBU.....	Feliciani Lopez Islas .....	Chihuahua, Chih.....	1260	500
XEBL.....	Max Gomez Blanco .....	Culiacan, Sin.....	1260	500
XEHL.....	Radio Anunciadora Kist S. de R. L.....	Guadalajara, Jal.....	1370	50
XEHQ.....	Radio Hermosillo S. de R. L.....	Hermosillo, Son.....	590	300
XERJ.....	Oscar Perez E. ....	Mazatlan, Sin.....	1320	500
XEFC.....	Julio Molina Fonto .....	Merida, Yuc.....	1340	250
XEMR.....	Enrique Serna Martinez .....	Monterrey, N. L.....	1370	500
XELQ.....	Francisco Laris Iturbide .....	Morelia, Mich.....	1270	100
XEAX.....	Alvaro Rodriguez A. ....	Oaxaca, Oax.....	1270	500
XEHR.....	Manuel R. Canalo .....	Puebla, Pue.....	1090	250
XETU.....	Juan Perez Cardenas .....	Tampico, Tams.....	1460	1000
XEBP.....	Alejandro O. Stevenson, Jr. ....	Torreón, Coah.....	1260	250
XEHV.....	Juan A. Palavicini .....	Veracruz, Ver.....	1310	1000

## NICARAGUA

YNOW.....	La Voz de la America Central.....	Managua	6850	800
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## PANAMA

HOC.....	Radio Teatro Estrella de Panama.....	Panama City	1440	50
HP5A.....	Radio Teatro Estrella de Panama.....	Panama City	11700	1000

## PARAGUAY

ZP5.....	Radio Paraguay .....	Asuncion	1365	100
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## PERU

OAX6C.....	Radio Continental .....	Arequipa	1370	250
OAX6D.....	Radio Continental .....	Arequipa	9500	250
OAX6E.....	Radio Continental .....	Arequipa	6055	300
OAX4A.....	Radio Nacional del Peru .....	Lima	850	10000
OAX4Z.....	Radio Nacional del Peru .....	Lima	6082	15000

## URUGUAY

CX16.....	Radio Carve .....	Montevideo	850	10000
CX24.....	Radio la Voz del Aire.....	Montevideo	58000	2500
CXA8.....	Radio Belgrano .....	San Carlos, Colonia.	9620	20000
CXA14.....	Radio Belgrano .....	San Carlos, Colonia.	11820	1000

## VENEZUELA

YV5RG.....	Ondas Populares .....	Caracas	1010	1000
YV5RU.....	Ondas Populares .....	Caracas	6070	2232
YV6RA.....	Ecos Del Orinoco.....	Ciudad Bolivar	1400	750
YV6RU.....	Ecos Del Orinoco.....	Ciudad Bolivar	4790	1000
YV1RA.....	Ecos Del Zulia .....	Maracaibo	1300	200
YV1RV.....	Ecos Del Zulia .....	Maracaibo	4750	300
YV4RE.....	Radio Valencia .....	Valencia	1400	1000
YV4RP.....	Radio Valencia .....	Valencia	3460	1000

# NBC PAN-AMERICAN SERVICE

## — PERSONNEL —

Director of Latin American Broadcasts.

Buck Cannel

Chief, Portuguese Section.....Aurora Diaz

Chief, Spanish Section.....Francisco Lara

Musical Commentator.....Augustin de Olivares

## — ARGENTINA

Call Letters	Station Name and/or Owner	Location	Frequency Kilocycles	Power Watts
LR4.....	Radio Splendid .....	Buenos Aires .....	990	50000

### LR4 Network

LW1.....	Radio Cultura .....	Cordoba .....	790	20000
LT2.....	Radio Stentor .....	Rosario .....	1230	20000
LU3.....	Radio Del Sur .....	Bahia Blanca .....	1150	10000
LT4.....	Radio Posadas .....	Posadas .....	1010	1500
LU5.....	Radio Neuquen .....	Neuquen .....	1130	1500
LV6.....	Radio Mendoza .....	Mendoza .....	630	10000
LU7.....	Radio Catamarca .....	Catamarca .....	730	1500
LU4.....	Radio Comodoro Rivadavia .....	Comodoro Rivadavia .....	640	1000
LU12.....	Radio Rio Gallegos .....	Rio Gallegos .....	680	1000
LU6.....	Radio Atlantica .....	Mar del Plata .....	1300	500

## — BOLIVIA

CP4.....	Radio Illimani (Government) .....	La Paz .....	1000	10000
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## — BRAZIL

PRB6.....	Radio Cruzeiro Do Sul .....	Sao Paulo .....	1220	5000
PRD2.....	Radio Cruzeiro Do Sul .....	Rio de Janeiro.....	1060	10000

### PRB6 Network

PRA2.....	Radio Club do Brasil .....	Rio de Janeiro.....	860	10000
PRE7.....	Radio Cosmos, S. A. ....	Sao Paulo .....	1410	5000
PRI9.....	Radio Club do Espirito Santo .....	Vitoria .....	1350	1000
PRF9.....	Radio Difusora Porto Alegrense.....	Porto Alegre .....	640	5000
PRG8.....	Bauru Radio Club .....	Bauru .....	1210	250
PRE2.....	Radio Club Paranaense .....	Curityba .....	1440	5000
PRC5.....	Radio Club do Para .....	Para .....	1450	2000
PRD4.....	Radio Cultura de Araraquara .....	Araraquara .....	1370	500
PRE5.....	Radio Sociedade do Triangulo Mineiro...	Uberaba .....	1390	500
PRH2.....	Radio Sociedade Farroupilha .....	Porto Alegre .....	600	25000
PRF7.....	Sociedade Radio Cultura de Campos.....	Campos .....	1330	250
PRI3.....	Radio Inconfidenciade Minas Geraes ....	Belo Horizonte .....	880	25000

## — CHILE

CB138.....	Radio El Mercurio .....	Santiago .....	1380	5000
CD70.....	Radio La Frontera .....	Temuco .....	1250	1000
CC117.....	Radio Zenith .....	Concepcion .....	1170	1000
CB64.....	Union de Recreo.....	Valparaiso .....	640	25000

## — COLOMBIA

HJCC.....	La Voz de Bogota.....	Bogota .....	870	5000
HJCR.....	Radiodifusora Nacional (Government) ..	Bogota .....	1200	5000
HJCZ.....	Cipriano Rios Hoyos "Voz de Colombia"...	Bogota .....	1040	2500

<b>Call Letters</b>	<b>Station Name and/or Owner</b>	<b>Location</b>	<b>Frequency Kilocycles</b>	<b>Power Watts</b>
HJAN.....	Emisoras Unidas .....	Barranquilla .....	1190	1000
HJFX.....	Emisoras Electra .....	Manizales .....	600	500
HJDE.....	La Voz de Antioquia.....	Medellin .....	6145	—
HJDK.....	La Voz de Antioquia.....	Medellin .....	1250	500
HJFA.....	La Voz de Pereira.....	Pereira .....	6054.3	500
HJFE.....	Radio Quirama .....	Pereira .....	—	—
HJGK.....	Radio Santander .....	Bucaramanga .....	1280	500
HJGB.....	Radio Santander .....	Bucaramanga .....	4775	—

## COSTA RICA

TIPG.....	La Voz de la Victor.....	San Jose .....	625	4000
			9615	2500
TINBC.....	La Voz de la Democracia.....	San Jose .....	1070	—

## CUBA

CMBZ.....	Radio Salas .....	Havana .....	950	5000
COBZ.....	Radio Salas .....	Havana .....	9030	1000
CMQ.....	Cambo & Gabriel, S. A.....	Havana .....	690	25000
COCQ.....	Cambo & Gabriel, S. A.....	Havana .....	9670	10000

### CMQ Network

CMHQ.....	Cambo & Gabriel, S. A.....	Santa Clara .....	810	10000
CMJK.....	Jones Castrillon & Cia.....	Camaguey .....	920	10000
CMJL.....	Cambo & Gabriel, S. A.....	Camaguey .....	620	500
CMKF.....	Manuel J. de Gongora.....	Holguin .....	1490	500
CMKU.....	Cambo & Gabriel, S. A.....	Santiago de Cuba...	970	1000
CMKJ.....	Cambo & Gabriel, S. A.....	Holguin .....	800	1000

## DOMINICAN REPUBLIC

HIX.....	Radiodifusora Oficial .....	Trujillo .....	800	1000
HIIX.....	Radiodifusora Oficial .....	Trujillo .....	6206	300
			17400	

## ECUADOR

HCJB.....	La Voz de los Andes.....	Quito .....	4107	200
			12460	10000
			974	100
HC2ET.....	El Telegrafo .....	Guayaquil .....	1131	200

## GUATEMALA

TGW.....	Radiodifusora Nacional de Guatemala...	Guatemala City ...	1520	10000
TGWA.....	La Voz de Guatemala.....	Guatemala City ...	15170	10000
			9685	
			11760	
			17800	
TGWB.....	Radiodifusora Nacional .....	Guatemala City ...	6485	1000
TGWC.....	Radiodifusora Nacional .....	Guatemala City ...	2320	1000

## HAITI

HH2S.....	Societe Haitienne de Radiodiffusion.....	Port-au-Prince .....	5945	400
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## HONDURAS

HRN.....	Rafael Ferrari, Paul John.....	Tegucigalpa .....	5875	500
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## MEXICO

Call Letters	Station Name and/or Owner	Location	Frequency Kilocycles	Watts Power
XEW.....	Cadena Radiodifusora Mexicana, S. A.	Mexico City	890	100000
XEWV.....	Cadena Radiodifusora Mexicana, S. A.	Mexico City	15160	10000

### XEW Network

XEDK.....	Salvador Vazquez T.	Guadalajara, Jal.	1490	500
XERJ.....	Oscar Perez A.	Mazatlan, Sin.	610	600
XECZ.....	Zeferino Z. Jiminez.	San Luis Potosi, S. L. P.	1370	100
XES.....	Difusora Portena	Tampico, Tamps.	1300	250
XEFI.....	Ramiro G. Uranga	Chihuahua, Chih.	1440	1000
XEBI.....	Pedro C. Rivas	Aguascalientes Aga.	1360	250
XECW.....	Juan Sedas M.	Cordoba, Ver.	1340	250
XEME.....	Perfecto Villamil Cisero	Merida, Yuc.	1240	400
XEFB.....	Jesus Quintanilla	Monterrey, N. L.	630	500
XEBH.....	Carlos Balderrama	Hermosillo, Son.	920	1000
XEBR.....		Hermosillo, Son.	1000	150
XEJR.....	Anastasio Gomez Gallardo	Parral, Chih.	1490	100
XERZ.....	Rafael C. Navarro	Leon, Gto.	1030	250
XEBP.....	Alejandro O. Stevenson	Torreón, Coah.	1260	250
XEFE.....	Rafael T. Carranza	N. Laredo, Tamps.	960	1000
XEE.....	Alejandro O. Stevenson, Jr.	Durango, Dgo.	1280	250
XEJX.....	Radio Emisora Queretana, S. de R. L.	Queretaro	1450	250
XEAM.....	Manuel L. Salinas	Matamoros, Tamps.	1400	250
XEKJ.....	Refugio Acosta de Valdivieso	Acapulco, Gro.	1400	250
XEBJ.....	Fernando Elizalde	C. Victoria, Tamps.	1450	100
XEJT.....		Celaya, Gto.	1600	100
XESA.....	Pablos y Elizalde, S de R L	Culiacan, Sin.	1360	250
XEBO.....	Alfonso Martinez	Irapuato, Gto.	1330	600
XEDW.....	Hector Silva Canto	Minatitlan, Ver.	1260	250
XEGL.....	Fuasto M. Gomez	Navojoa, Son.	1270	500
XETQ.....	Francisco Campos H.	Orizaba, Ver.	1370	250
XEMU.....	Cia Radiodifusora de Piedra Negras	Piedras Negras, Coah.	580	250
XETL.....	Calixto Almazan	Tuxpam, Ver.	1390	250
XERK.....	Dario Mondragon	Tepic, Nay.	1450	250
XEUF.....	Ignacio Navarro	Uruapan, Mich.	550	350
XEU.....	Fernando Pazos y Cia	Veracruz, Ver.	960	500
XEGC.....	Guillermo Calzada	Zamora, Mich.	1450	100
XEHR.....	Manuel R. Canale	Puebla, Pue.	1090	250
XEA.....	Luis A. Maury	Campeche, Camp.	1370	250
XEAX.....	Alvaro Rodriguez A.	Oaxaca, Oax.	1270	500
XEP.....	Esteban Parra	C. Juarez, Chih.	1300	500
XEI.....	Tiburcio Ponce	Morelia, Mich.	1400	250
XEBA.....	Javier Velasco	C. Guzman, Jal.	1270	125
XEBX.....	Miguel B. Rodriguez	Sabinas, Coah.	610	250
XEDE.....	Blas Narro Dunno	Saltillo, Coah.	1400	100
XECF.....	Francisco Perez H.	Los Mochia, Sin.	1330	1000

## NICARAGUA

YNRS.....	Radiofusora Nicaraguense	Managua	8590	650
YNPH.....	Radiofusora Nicaraguense	Managua	1180	500

## PANAMA

HOK.....	Panama Broadcasting System	Colon	640	250
HP5K.....	La Voz de la Victor.	Colon	6005	250
				C. P. 1000
				C. P. 1000

## PARAGUAY

<i>Call Letters</i>	<i>Station Name and/or Owner</i>	<i>Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
ZPI.....	Radio La Capital .....	Asuncion .....	970	2000

## PERU

OAX4A....	Radiodifusora Nacional (Government) ..	Lima .....	854	10000
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## PUERTO RICO

WNEL.....	Juan Piza, "The Link of the Americas" ..	San Juan .....	1320	5000
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## EL SALVADOR

YSS.....	Estacion Radiodifusora Nacional (Govt.) ..	San Salvador .....	730	500
YSM.....	Estacion Radiodifusora Nacional (Govt.) ..	San Salvador .....	11710	500
YSD.....	Estacion Radiodifusora Nacional (Govt.) ..	San Salvador .....	7894	500
HUB.....	Estacion Radiodifusora Nacional (Govt.) ..	San Salvador .....	4780	300

## URUGUAY

CX14.....	El Espectador .....	Montevideo .....	810	10000
CXA19.....	El Espectador .....	Montevideo .....	11705	1000
CX18.....	Radio Sport .....	Montevideo .....	890	5000
CXA9.....	El Espectador .....	Montevideo .....	15345	1000

### CX14 Network

CW7.....	Radio Carmelo .....	Carmela .....	640	1000
CW46A....	Radio Zorrilla de San Martin.....	Tacuarembó .....	1400	1250
CW45.....	Radio Trienta y Tres.....	Treinta y Tres.....	1390	100
CW19.....	Radio Rochense .....	Rocha .....	1340	100
CW47A....	Radio Welcome .....	San Jose .....	1510	500
CW43.....	Radio Internacional .....	Minas .....	1480	500

## VENEZUELA

YV5RA....	Radio Caracas .....	Caracas .....	960	5000
YR5RN....	Radio Caracas .....	Caracas .....	6200	10000

### YV5RA Network

YV1RK....	Radio Popular .....	Maracaibo .....	1250	300
YV1RL....	Radio Popular .....	Maracaibo .....	4810	...
YV4RA....	La Voz de Carabobo.....	Valencia .....	1350	1280
YV4RO....	La Voz de Carabobo.....	Valencia .....	4760	300
YV3RE....	Radio Barquisimeto .....	Barquisimeto .....	1470	1000
YV3RN....	Radio Barquisimeto .....	Barquisimeto .....	4780	600
YV1RW....	Radio Coro .....	Coro .....	1370	1000
YV1RY....	Radio Coro .....	Coro .....	4770	...
YV2RB....	La Voz del Tachira.....	San Cristobal .....	980	500
YV2RN....	La Voz del Tachira.....	San Cristobal .....	4830	500
YV5RC....	La Voz de Anzoategui.....	Barcelona .....	3450	1500
YV5RE....	Onda del Neveri.....	Barcelona .....	1080	500
YV1RO....	Radio Trujillo .....	Trujillo .....	3340	1040
YV2RC....	La Voz de la Sierra.....	Merida .....	3420	495

# STATIONS OF CUBA

## PROVINCE OF HABANA

<i>Call Letters</i>	<i>Owner</i>		<i>Frequency Kilocycles</i>	<i>Watts Power</i>
CMW.....	A. Gil & M. Troncoso.....	Regla .....	550	2500
CMCY.....	Radio Habana Cuba, Cadena Azul, S. A.....	Habana .....	590	15000
CMZ.....	Ministerio de Educacion .....	Columbia .....	1260	5000
CMCD.....	La Voz del Aire .....	Regla .....	630	15000
CMQ.....	Cambo & Gabriel, S. A.....	Habana .....	690	25000 d.; 15000 n.
CMK.....	Fauto Montiel .....	Habana .....	830	250
CMBC.....	Domingo Fernandez Cruz .....	Habana .....	790	5000 d.; 1000 n.
CMBL.....	Radio Cadena Suaritos, S. A.....	Arroyo Apolo .....	860	5000
CMCF.....	Oscar Gutierrez .....	Guanabacoa .....	910	5000
CMBZ.....	Manuel & Guillermo Salas .....	Habana .....	950	5000 d.; 1000 n.
CMCK.....	Casas & Cia .....	Puentes Grandes.....	980	5000
CMX.....	Francisco A. Lavin .....	Guanabacoa .....	1010	10000
CMCM.....	Compania Transradio Columbia, S. A.....	Habana .....	1060	250
CMBY.....	Pages & Compania .....	Habana .....	1120	250
CMBQ.....	Amletto Battisti .....	Puentes Grandes.....	1150	5000 d.; 1000 n.
CMCU.....	Jorge Garcia Serra .....	Habana .....	1190	250 (C.P. 5000)
CMCO.....	Enrique Lasanta .....	Habana .....	1230	250
CMCW.....	Jose Villarino .....	Habana .....	1230	250
CMBF.....	Compania Cubana de Radio & Tele., S. A.....	Puentes Grandes.....	730	5000
CMCH.....	Radio Popular, S. A.....	Habana .....	1290	250
CMCX.....	Radio Popular, S. A.....	Habana .....	1290	250
CMBG.....	John L. Stowers .....	Marianao .....	1390	1000
CMBS.....	Enrique Artalejo .....	Habana .....	1330	250
CMOA.....	Juan Fernandez Duran .....	Habana .....	1360	250
CMC.....	Rafael Valdes .....	Habana .....	1360	250
CMBX.....	Vicente Espinosa .....	Habana .....	1390	250
CMCB.....	Metropolitan Radio de Cuba, S. A.....	Habana .....	1330	250
CMBD.....	Luis Perez Garcia .....	Habana .....	1460	250
			C.P. 1420	5000
CMCQ.....	Andres Martinez .....	Habana .....	760	250
CMCG.....	La Onda, S. A.....	Habana .....	1460	250
CMCA.....	Agusto Testar & Jose Manuel Gonzalez.....	Habana .....	1490	250
CMOX.....	Perez & Chisholm .....	Habana .....	1490	250
CMBH.....	Alberto Alvarez Ferrera .....	Guanabacoa .....	1540	5000
CMCJ.....	Rafael Rodriguez .....	Habana .....	1580	250
CMCR.....	Aurelio Hernandez .....	Habana .....	1580	250

## PROVINCE OF PINAR DEL RIO

CMAH.....	Juan de Dios Carreno.....	Artemisa .....	660	250
CMAQ.....	Cambo & Gabriel, S. A.....	Pinar del Rio.....	810	1000
CM9RT.....	Raul Torres Pardo .....	Guines (Experimental)	1610	250
CMAN.....	Radio Habana Cuba, Cadena Azul, S. A.....	Pinar del Rio.....	1300	1000
CMAC.....	Israel Porras Fajardo.....	Guanajay .....	1370	100
CMAB.....	Francisco Martinez .....	Pinar del Rio.....	1450	250

## PROVINCE OF MATANZAS

Call Letters	Owner	City	Frequency Kilocycles	Power Watts
CMGF.....	Bernabe R. de la Torre.....	Matanzas .....	1240	250
CMGN.....	Radio Habana Cuba, Cadena Azul, S. A.....	Joveilianos .....	1310	1000
CMGH.....	Manuel Garcia Alvarez .....	Matanzas .....	1440	500
CMGE.....	Genaro Sabater .....	Cardenas .....	1470	250

## PROVINCE OF LAS VILLAS

CMHI.....	Radio Habana Cuba, Cadena Azul, S. A.....	Santa Clara .....	570	15000
CMHQ.....	Cambo & Gabriel, S. A.....	Santa Clara .....	800	5000
CMHW.....	R. H. C., Cadena Azul, S. A.....	Santa Clara .....	960	1000
CMHT.....	Fernando E. Soto del Valle.....	Trinidad .....	990	250
-----	Valdes & Menendes .....	Sagua La Grande .....	1100	100
CMHO.....	Enrique Lasante .....	Santa Clara .....	1250	250
CMHA.....	Abelardo Menocal .....	Sagua la Grande.....	1280	250
CMHP.....	Candido de los Angeles Guevaro .....	Placetas .....	1320	250
CMHJ.....	Romualdo Ugalde .....	Cienfuegos .....	1350	250
CMHK.....	Virgilio Villanueva .....	Cruces .....	1380	250
CMHB.....	Vicente E. Weis .....	Sancti Spiritus .....	1410	250
CMHM.....	Jose R. Fomenias.....	Cienfuegos .....	1450	250
CMHX.....	Francisco Chavarry Fuster .....	Santa Clara .....	1480	250
CMHD.....	Manuel Alvarez .....	Caibarien .....	1560	250

## PROVINCE OF CAMAGUEY

CMJK.....	Jones Castrillon & Cia.....	Camaguey .....	620	250
CMJN.....	Radio Habana Cuba, Cadena Azul, S. A.....	Camaguey .....	740	1000
CMJA.....	Rafael Valdes Jimenez.....	Camaguey .....	1060	250
CMJL.....	Cambo & Gabriel, S. A.....	Camaguey .....	920	5000
CMJE.....	Primo A. Cesares.....	Camaguey .....	1230	250
CMJM.....	Radio Habana Cuba, Cadena Azul, S. A.....	Ciego de Avila.....	1270	1000
CMJF.....	Gertrudis de la Cruz Perez.....	Camaguey .....	1300	250
CMJC.....	Fernando Terron Bolanos .....	Camaguey .....	1340	250
CMJH.....	Luis Marauri .....	Ciego de Avila.....	1370	250
CMJW.....	Andres Moran Cisneros .....	Camaguey .....	1440	250
CMJI.....	Isidro Castellanos Perez .....	Ciego de Avila.....	1400	250
CMJO.....	Bonifacio Idefonso .....	Ciego de Avila.....	1470	250
CMJQ.....	Manuel Puig Martinez .....	Nuevitas .....	1580	250

## PROVINCE OF ORIENTE

CMKM.....	Raimundo Comas Soler .....	Manzanillo .....	560	250
CMKV.....	Radio Habana Cuba, Cadena Azul, S. A.....	Holguin .....	600	1000
CMKS.....	Candido Savon Suarez.....	Guantanamo .....	900	250
CMKJ.....	Cambo & Gabriel, S. A.....	Holguin .....	970	1000
CMKN.....	Radio Habana Cuba, Cadena Azul, S. A.....	Santiago de Cuba...	930	1000
CMKU.....	Cambo & Gabriel, S. A.....	Santiago de Cuba...	640	5000 d.; 1000 n.
CMKW.....	Ricardo Miranda Cortes .....	Santiago de Cuba...	1000	1000
CMKG.....	Emilio Grau Medina .....	Victoria de las Tunas	1050	250
CMKX.....	Oscar Vidal Benitez .....	Bayamo .....	1390	250
CMKH.....	Virgilio Arciero .....	Guantanamo .....	1130	250
CMKO.....	Manuel Angulo Farran .....	Holguin .....	1220	250
CMKC.....	Robert Miguel Gonzalez .....	Santiago de Cuba...	1250	250
CMKD.....	Otto J. Vinas Gimeno.....	Santiago de Cuba...	1290	1000
CMKE.....	Radio Manzanillo, S. A.....	Manzanilla .....	1320	250
CMKY.....	Pedro Zacca Cheda .....	Puerto Padre .....	1350	100
CMKR.....	Jaime Nadal .....	Santiago de Cuba...	1090	250

## CUBA STATIONS

Call Letters	Owner	City	Frequency Kilocycles	Power Watts
CMKZ.....	Joaquin Venero Obregon .....	Palma Soriano .....	1430	250
CMKQ.....	Angela Viededo Quintero .....	San Luis .....	1460	500
CMKF.....	Manuel J. de Gongora.....	Holguin .....	1490	250

### SHORT WAVE STATIONS IN HAVANA

COCO*	Casas & Cia .....	Puentes Grandes....	6010	5000
COCH.....	General Broadcasting Co. ....	Guanabacoa .....	9437	5000
COCQ†.....	Cambo & Gabriel, S. A.....	.....	9670	5000
			9740	
COCM.....	Cia. Transradio Columbia, S. A.....	Arroyo Apolo .....	9833	1000
COCX†.....	Francisco A. Lavin .....	Habana .....	11650	1000
COBC*.....	Domingo Fernandez Cruz .....	Habana .....	17850	1000
COBQ††.....	Andres Martinez .....	Habana .....	8540	1000
COBZ††.....	Guillermo Salas .....	Habana .....	9030	1000
			17820	
COCY***.....	Radio Habana Cuba, Cadena Azul, S. A...	Habana .....	21620	1000
COCD.....	La Voz del Aire, S. A. ....	Regla .....	6130	1000
COCW†††.....	Adolfo Gil Izquierdo .....	Regla .....	21740	1000

\* Using 8700 kilocycles provisionally.

† Using 6345 and 8845 kilocycles provisionally.

† Using 9273 kilocycles provisionally.

\*\* Using 9362 kilocycles provisionally.

†† Using 9235 kilocycles provisionally.

†† Using 9026 kilocycles provisionally.

\*\*\* Using 11740 kilocycles provisionally.

††† Using 6322 kilocycles provisionally.

### SHORT WAVE STATIONS IN THE INTERIOR

#### Province of Matanzas

COGF.....	Bernabe R. de la Torre.....	Matanzas .....	11800	1000
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#### Province of Las Villas

COH1§.....	Radio Habana Cuba, Cadena Azul, S. A...	Santa Clara .....	11765	5000
	§ Using 6450 kilocycles provisionally.			

#### Province of Camaguey

COJK.....	Jones, Castrillon & Cia.....	Camaguey .....	8663	1000
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#### Province of Oriente

COKG.....	Emilio Grau Medina .....	Santiago de Cuba...	8955	1200
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### SHORT WAVE STATIONS OPERATED BY OFFICIAL ORGANIZATIONS

COX-4.....	Ministerio de Educacion .....	Columbia .....	6390	5000
COX-7.....	Ministerio de Educacion .....	Columbia .....	4290	5000

# STATIONS OF MEXICO

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XEKL.....	Carlo Ferraez Matos.....	Jalapa, Ver. ....	550	250
XEUF.....	Ignacio Navarro .....	Uruapan, Mich. ....	550	350
XEMU.....	Cia. Radiodifusora de P. Negras.....	Piedras Negras, Coah.....	580	250
XEHQ.....	Radio Hermosillo S. de R. L.....	Hermosillo, Son. ....	590	300
XEPH.....	Pedro Riestra Diaz.....	Mexico, D. F.....	590	1000
XEAZ.....	Carlos V. Rodriguez .....	Reynosa, Tam. ....	590	250
				(Auth.: 5000 d.)
XEZ.....	Jorge L. Palomeque.....	Merida, Yuc. ....	600	2000
XESF.....	Jose Martinez R.....	Morelia, Mich. ....	600	250
XEBX.....	Miguel B. Rodriguez.....	Sabinas, Coah. ....	610	250
XEFB.....	Jesus Quintanilla .....	Monterrey, N. L. ....	630	500
XETS.....	Wadelay Dominguez Correa .....	Tapachula, Chis. ....	630	100
XEBZ.....	Refugio Esparza Vda. de Valezzi.....	Mexico, D. F.....	660	500
XED.....	Cia. Radiofonografica, S. A.....	Guadalajara, Jal. ....	680	250
XEN.....	Guillermina P. de del Conde.....	Mexico, D. F.....	690	1000
				(Auth.: 5000)
XEAC.....	Jorge I. Rivera.....	Tijuana, B. C.....	690	5000
XEQ.....	Radio Panamericana, S. A. ....	Mexico, D. F.....	730	50000
XEDF.....	Ruperto Villarreal .....	Nuevo Laredo, Tam.....	790	500
XERC.....	Radio Popular de Mexico, S. A.....	Mexico, D. F.....	790	500
				(Auth.: 1000)
XEFW.....	Flores y Martinez.....	Tampico, Tam. ....	810	5000
XELA.....	Radio Metropolitana, S. A.....	Mexico, D. F.....	830	1000
XEMO.....	Fernando Federico Ferreira.....	Tijuana, B. C. ....	860	5000
XEUN.....	Universidad Nacional de Mexico*.....	Mexico, D. F.....	860	1000
				(Auth.: 5000)
XEW.....	Cadena Radiodifusora Mexicana.....	Mexico, D. F.....	900	100000
XEAO.....	Chavez y Castro, Sucesores.....	Mexicali, B. C.....	910	250
XEBH.....	Carlos Balderrama.....	Hermosillo, Son. ....	920	1000
XEMJ.....	Jesus F. Elizondo.....	Piedras Negras, Coah.....	920	200
XEDP.....	Radio Gobernacion* .....	Mexico, D. F.....	940	500
				(Auth.: 150000)
XEGM.....	Rita Mayans y Gustavo Faist F.....	Tijuana, B. C.....	950	2500
XEFE.....	Rafael T. Carranza.....	Nuevo Laredo, Tam. ....	960	250
				(Auth.: 1000)
XEU.....	Fernando Pazos y Cia.....	Veracruz, Ver. ....	960	500
XEHK.....	Carmen Villasenor .....	Guadalajara, Jal. ....	960	250
XEK.....	Arturo Martinez .....	Mexico, D. F.....	970	500
XEJ.....	Pedro Meneses, Jr. ....	Ciudad Juarez, Chih.....	970	5000
XEFQ.....	Pedro L. Diaz.....	Cananea, Son. ....	980	500
XECA.....	Nicolas M. Picot.....	Tampico, Tam. ....	980	1000
XEXT.....	Gobierno del Estado de Nayarit*.....	Tepic, Nay. ....	980	1000

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XET.....	El Pregonero del Norte, S. A.....	Monterrey, N. L.....	990	5000
XECL.....	Alfonso A. Lacarra.....	Mexicali, B. C.....	990	5000
XEOY.....	Ignacio Diaz R. ....	Mexico, D. F.....	1000	10000
XEJB.....	Gobierno del Estado de Jalisco.....	Guadalajara, Jal. ....	1010	5000
XEG.....	Rodolfo Junco de la Vega.....	Monterrey, N. L. ....	1050	50000 (Auth.: 150000)
XERB.....	Radiodifusora Internacional, S. A..	Tijuana, B. C.....	1090	50000
XEHR.....	Manuel R. Canale.....	Puebla, Pue. ....	1090	250
XEFO.....	Partido Revolucion Mexicana.....	Mexico, D. F. ....	1110	5000 (Auth.: 20000)
XENT.....	Cia Industrial Universal, S.A.....	Nuevo Laredo, Tam.....	1140	50000
XETJ.....	Jesus Casillas Baoz.....	Tepatitlan, Jal. ....	1150	100
XEJP.....	Delia Cubillas de Fernandez.....	Mexico, D. F.....	1150	500
XECD.....	Ricardo Vazquez .....	Puebla, Pue. ....	1170	350
XELO.....	Cia. Radiodifusora de P. Negras....	Mexico, D. F.....	1190	10000 (Auth.: 50000)
XEB.....	El Buen Tono, S. A.....	Mexico, D. F.....	1220	20000 (Auth.: 100000)
XEFV.....	Dario Cordoba .....	Ciudad Juarez, Chih.....	1240	250
XERZ.....	Rafael C. Navarro.....	Leon, Gto. ....	1240	250
XEAT.....	Amador Ronquillo*** .....	H. del Parral, Chih.....	1250	250
XETF.....	Jose Rodriguez Lopez.....	Veracruz, Ver. ....	1250	500
XEDK.....	Salvador Vazquez T.....	Guadalajara, Jal. ....	1250	500
XEL.....	Ramon Farreiro R.....	Mexico, D. F.....	1250	750
XEBL.....	Max Gomez Blanco.....	Culiacan, Sin. ....	1260	500
XEBM.....	Benjamin Briones .....	San Luis Potosi, S. L.....	1260	150 (Auth.: 250)
XEDW.....	Hector Silva Canto.....	Minatitlan, Ver. ....	1260	250
XER.....	Rafael T. Carranza.....	Linares, N. L.....	1260	250
XEXJ.....	Gobierno del Estado de Chiapas....	Tuxtla Gutierrez, Chis.....	1260	100
XEBU.....	Feliciano Lopez Islas.....	Chihuahua, Chih. ....	1260	100
XEBP.....	Alejandro O. Stevenson, Jr.....	Pte. Torreon, Coah. ....	1260	250
XEAX.....	Alvaro Rodriguez A.....	Oaxaca, Oax. ....	1270	500
XEFM.....	Sucs. R. Ortiz Gonzalez.....	Leon, Gto. ....	1270	20 (Auth.: 100)
XEGL.....	Fausto M. Gomez.....	Navojoa, Son. ....	1270	500
XEBA.....	Jose D. Gonzalez.....	Ciudad Guzman, Jal.....	1270	125
XELQ.....	Francisco Laris Iturbido.....	Morelia, Mich. ....	1270	100
XEME.....	Perfecto Villamil Cisero.....	Merida, Yuc. ....	1270	400 (Auth.: 500)
XEX.....	El Heraldo del Comercio, S. A.....	Monterrey, N. L. ....	1280	500
XEE.....	Alejandro O. Stevenson, Jr.....	Durango, Dgo. ....	1280	100
XEOX.....	Felipe G. de Leon.....	Los Mochis, Sin. ....	1280	250
XELK.....	Macias y Acevedo.....	Zacatecas, Zac. ....	1280	100
XEBW.....	Radio Emisora del Norte.....	Chihuahua, Chih. ....	1280	250
XERL.....	J. Roberto Levy.....	Colima, Col. ....	1280	250
XEAG.....	Diodoro Zuniga .....	Cordoba, Ver. ....	1280	250
XEDA.....	Pedro Riestra Diaz.....	Mexico, D. F.....	1290	200 (Auth.: 1000)
XEAP.....	Emilio Manzanilla .....	Ciudad Obregon, Son.....	1290	100
XEP.....	Esteban Parra .....	Ciudad Juarez, Chih.....	1300	500
XES.....	Difusora Portena, S. de R. L.....	Tampico, Tam. ....	1300	100
XEC.....	Luis E. Enciso.....	Tijuana, B. C.....	1310	250
XEHV.....	Juan A. Palavicini .....	Veracruz, Ver. ....	1310	1000



# MEXICO STATIONS

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XEAD.....	Alejandro A. Diaz.....	Guadalajara, Jal.	1310	125
XEAI.....	Carmen Gutierrez .....	Mexico, D. F.....	1320	250
				(Auth.: 500)
XESY.....	Publicistas del Norte A. en P.....	Cananea, Son.	1320	100
XERJ.....	Oscar Perez E.....	Mazatlan, Sin.	1320	500
XEKS.....	Juan Antonio de la Pena.....	Saltillo, Coah.	1330	100
XECF.....	Francisco Perez H.....	Los Mochis, Sin.....	1330	1000
XEBO.....	Alfonso Martinez .....	Irapuato, Gto.	1330	600
XELW.....	Salvador Galindo de la Torre.....	Guadalajara, Jal.	1340	250
XEDH.....	Vicente Hernandez .....	Villa Acuna, Coah.....	1340	250
XEBK.....	J. Manuel Cortes.....	Nuevo Laredo, Tam.....	1340	100
XEFZ.....	Pedro E. Rocher.....	Coatzacoalcos, Ver.	1340	250
XECW.....	Juan Sedas M.....	Cordoba, Ver.	1340	250
XEFC.....	Julio Molina Fonto.....	Merida, Yuc.	1340	250
XEMA.....	Jose Miguel Acevedo Moya.....	Fresnillo, Zac.	1340	100
XEAA.....	Alberto Gonzalez .....	Mexicali, B. C.....	1340	250
XEXS.....	Instituto Cientifico y Literario*.....	Toluca, Mex.	1340	100
XEQK.....	Angel H. Ferreiro.....	Mexico, D. F.....	1350	400
XETB.....	Sucs. Aurelio G. Zaragoza.....	Pte Torreon, Coah.	1350	500
XETM.....	Jesus Manuel Franco.....	Naco, Son.	1350	1000
XEBI.....	Pedro C. Rivas.....	Aguascalientes, Ags.	1360	250
XESA.....	Pablos y Elizalde, S. de R. L.....	Culiacan, Sin.	1360	500
XEHF.....	Gaston Mascarenas .....	Nogales, Son.	1370	1000
XETQ.....	Francisco Campos H.....	Orizaba, Ver.	1370	250
XEMR.....	Enrique Serna Martinez.....	Monterrey, N. L.....	1370	500
XEHL.....	Radio Anunciadora Kist. S. de R. L.....	Guadalajara, Jal.	1370	500
XEA.....	Luis A. Maury.....	Campeche, Camp.	1370	250
				(Auth.: 1000)
XEMX.....	Guillermo Robles .....	Mexico, D. F.....	1380	500
XEM.....	Pedro Meneses, Jr. ....	Chihuahua, Chih.	1390	500
XEMQ.....	Lazaro Achurra .....	Merida, Yuc.	1390	250
XETL.....	Calixto Almazan .....	Tuxpan, Ver.	1390	250
XEDE.....	Blas Narro Dunno.....	Saltillo, Coah.	1400	150
XEJA.....	Daniel Schacht Perez.....	Jalapa, Ver.	1400	100
XEAM.....	Manuel L. Salinas.....	Matamoros, Tam.	1400	250
XEPF.....	Luis E. Enciso.....	Ensenada, B. C.....	1400	250
XEI.....	Tiburcio Ponce .....	Morelia, Mich.	1400	250
XEMH.....	Alvaro Barquet .....	Merida, Yuc.	1400	100
XEKJ.....	Refugio Acosta de Valdivieso.....	Acapulco, Gro.	1400	250
XEBS.....	Maria Remedios Delgado.....	Mexico, D. F.....	1410	200
				(Auth.: 750)
XEDS.....	Alejandro A. Schober.....	Mazatlan, Sin.	1420	500
XEWE.....	Felipe Gallardo .....	Irapuato, Gto.	1420	100
XEH.....	Radio Tarnava, S. de R. L.....	Monterrey, N. L.....	1420	1000-500
				(Auth.: 1000)
XEF.....	Gilberto Gil .....	C. Juarez, Chih.	1420	100
XEON.....	Cia. Radiodifusora Mexicana, S. A.....	Tijuana, B. C.....	1420	2000
XECZ.....	Zeferino Z. Jimenez.....	San Luis Potosi, S.L.P.....	1430	1000
XEOK.....	Arturo Pina Perez.....	Progreso, Yuc.	1430	100
XELZ.....	Maria Cardona de Zetina.....	Mexico, D. F.....	1440	1000
XEFI.....	Ramiro G. Uranga.....	Chihuahua, Chih.	1440	1000
XEGC.....	Guillermo Calzada .....	Zamora, Mich.	1450	100
XEJX.....	Radio Emisora Queretana, S. de R. L.....	Queretaro, Qro.	1450	250

# MEXICO STATIONS

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XEBQ.....	Maria Refugio A. de Valdivieso.....	Torreón, Coah. ....	1450	100
XEDJ.....	Enrique Saralegui.....	Magdalena, Son. ....	1450	100
XEFK.....	Manuel Zapata Espinosa.....	Merida, Yuc. ....	1450	100
XERK.....	Dario Mondragon .....	Tepic, Nay. ....	1450	100
XEBJ.....	Fernando Elizalde .....	Ciudad Victoria, Tam.....	1450	100
XEPP.....	Hector Sotomayor .....	Orizaba, Ver. ....	1450	100 (Auth.: 250)
XEWG.....	Carlos Mendez .....	Ciudad, Juarez, Chih.....	1460	250 (Auth.: 1000)
XETU.....	Juan Perez Cardenas.....	Tampico, Tam. ....	1460	1000
XEAU.....	Manuel Acuna Varela.....	Tijuana, B. C.....	1470	250
XESM.....	Salvador San Martin.....	Mexico, D. F.....	1470	500 (Auth.: 1000-5000)
XELY.....	Rafael Loal Camarena.....	Aguscalientes, Ags. ....	1490	150
XEOB.....	Panfilo Gonzales Flores .....	Gomez Palacio, Dgo.....	1490	100
XETR.....	Cesar Trujillo Vadillo .....	Ciudad Madero, Tams.....	1490	100
XEJR.....	Anastasio Gomez Gallardo.....	H. del Parral, Chih.....	1490	100
XEDR.....	Modesto Ortega .....	Guaymas, Son. ....	1490	100
XECH.....	Rodolfo Llamas .....	Toluca, Mex. ....	1490	250
XERH.....	Gabriel Hernandez Llergo.....	Mexico, D. F.....	1500	400 (Auth.: 500)
XEML.....	Roberto Valozzi Esparza.....	Coyoacan, D. F.....	1550	1000
XEBG.....	Angel B. Fernandez.....	Tijuana, B. C. ....	1550	1000
XEAW.....	Cia Internacional Dif. de Reynosa	Reynosa, Tam. ....	1570	100000
XEMC.....	Dolores G. Estrada de F.....	Mexico, D. F.....	1590	200 (Auth.: 5000)
XEJT.....	Jose Torres Morales.....	Celaya, Gto. ....	1600	100

## Short Wave Stations

XEJG.....	Gobierno del Estado de Jalisco....	Guadalajara, Jal. ....	4820	200
XEBT.....	El Buen Tono, S.A.....	Mexico, D. F.....	6000	500 (Auth.: 10000)
XEUW.....	Fernando Pazos Sosa.....	Veracruz, Ver. ....	6020	250
XEKW.....	Jose Martinez Ramirez .....	Morelia, Mich. ....	6030	500
XETW.....	Flores y Martinez.....	Tampico, Tam. ....	6045	100
XEBF.....	Pedro Coronel Aburto.....	Jalapa, Ver. ....	6090	250
XEUZ.....	Partido Revolucion Mexicana.....	Mexico, D. F.....	6130	100
XEDQ.....	Cia. Radiofonografica, S. A.....	Guadalajara, Jal. ....	6155	100
XEXA.....	Radio Gobernacion*	Mexico, D. F.....	6175	100
XECC.....	Ricardo Vazquez .....	Puebla, Pue. ....	6185	50
XECR.....	Secretaria de Relaciones Exteriores*	Mexico, D. F.....	7380	20000
XEWW.....	Cadena Radiodifusora Mexicana, S. A. ....	Mexico, D. F.....	9500	10000
XEFT.....	Jose Rodriguez Lopez.....	Veracruz, Ver. ....	9545	250
XEYU.....	Universidad Nacional de Mexico*	Mexico, D. F.....	9600	250
XEQQ.....	Radio Panamericana, S. A.....	Mexico, D. F.....	9680	1000
XEBR.....	Carlos Balderrama .....	Hermosillo, Son. ....	11820	150

\* Official station

\*\* Cultural station

# STATIONS OF ————— SOUTH AMERICA

## ARGENTINA\*

Call Letters	Station Name	Location	Frequency Kilocycles	Power Watts
LV1.....	Radio Graffigna .....	San Juan .....	560	10000
LV12.....	Radio Aconquija .....	Tucuman .....	580	5000
LS10.....	Radio Calloa .....	Florida, Buenos Aires.....	590	6000
LV3.....	Radio Cordoba .....	Cordoba .....	620	15000
LV6.....	Radio Mendoza .....	Mendoza .....	630	10000
LU4.....	Radio Comodora Rivadavia.....	Comodoro Rivadavia, Chubut	640	5000
LS4.....	Radio Portena .....	Ciudadela, Buenos Aires.....	670	12000
LU12.....	Radio Rio Gallegos.....	Rio Gallegos, Santa Cruz.....	680	1000
LV4.....	Radio San Rafael.....	San Rafael, Mendoza .....	690	1000
LS1.....	Radio Municipal .....	Monte Grande, Buenos Aires	710	50000
LW7.....	Radio Catamarca .....	Catamarca .....	730	1000
LRA.....		Buenos Aires .....	750	10000
LT1.....	Radio del Rosario.....	Rosario, Santa Fe.....	780	10000
LW1.....	Radio Cultura .....	Cordoba .....	790	15000
LV7.....	Radio Tucuman .....	Tucuman .....	820	2500
LR5.....	Radio Excelsior .....	Monte Grande, Buenos Aires	830	25000
LT8.....	Radio Rosario .....	Rosario, Santa Fe.....	840	3000
LR6.....	Radio Mitre .....	Hurlingham, Buenos Aires..	870	25000
LU2.....	Radio Bahia Blanca.....	Bahia Blanca .....	900	5000
LR2.....	Radio Argentina .....	Banfield, Buenos Aires.....	910	6000
LR3.....	Radio Belgrano .....	Hurlingham, Buenos Aires...	950	90000
LV2.....	Radio Central .....	Cordoba .....	960	5000
LV9.....	Radio Provincia de Salta.....	Salta .....	970	1000
LR4.....	Radio Splendid .....	Rivadavia, Buenos Aires...	990	50000
LT4.....	Radio Misiones Posadas.....	Posadas, Misiones .....	1010	1000
LS2.....	Radio Fenix .....	Florida, Buenos Aires.....	1030	5000
LR1.....	Radio El Mundo.....	San Fernando, Buenos Aires.	1070	50000
LT5.....	Radio Chaco .....	Resistencia, Chaco .....	1080	1500
LV5.....	Radio Los Andes.....	San Juan .....	1090	1500
LU5.....	Radio Neuquen .....	Neuquen .....	1130	1000
LU3.....	Radio del Sud.....	Bahia Blanca .....	1150	10000
LT3.....	Radio Sociedad Rural de Crealistas.	Rosario, Santa Fe.....	1160	5000
LV11.....	Radio del Norte.....	Santiago del Estero.....	1170	2000
LS2.....	Radio Prieto .....	Florida, Buenos Aires.....	1190	15000
LT9.....	Radio Roca Soler.....	Santa Fe .....	1200	1000
LV10.....	Radio de Cuyo.....	Heras, Mendoza .....	1210	2500
LT2.....	Radio Stentor .....	Rosario, Santa Fe.....	1230	15000
LU7.....	Radio Gral. San Martin.....	Bahia Blanca .....	1240	2500

\* Resulting from the war, questionnaires addressed to individual countries were not answered by the radio authorities in Argentina, Brazil, Ecuador, Paraguay and Venezuela; rather than omit these countries from the listing of Latin American stations, RADIO ANNAL has presented the material used in the 1942 edition, with corrections whenever they were known.

Call Letters	Station Name	Location	Frequency Kilocycles	Power Watts
LU8.....		Santa Rosa, La Pampa.....	1250	500
LT12.....		Santa Fe.....	1260	1000
LV12.....	Radio La Voz del Aire.....	Vicente Lopez, Buenos Aires	1270	6000
LU6.....	Radio Atlantica.....	Mar del Plata.....	1300	500
LS11.....	Radio Provincia de Buenos Aires...	Olmos, Buenos Aires.....	1310	30000
LT10.....	Radio del Instituto Social de la Universidad Nacional del Litoral.	Santa Fe.....	1320	500
LV17.....		Cordoba.....	1330	1000
LT7.....	Radio Provincia de Corrientes.....	Corrientes.....	1340	1000
LS6.....	Radio del Pueblo.....	Ciudadela, Buenos Aires.....	1350	6000
LV15.....		Catamarca.....	1360	500
LV18.....		Mendoza.....	1370	500
LR11.....	Radio de la Universidad Nacional de La Plata.....	La Plata.....	1390	500
LV13.....	Radio Provincia de Jujuy.....	Jujuy.....	1430	1000
LU9.....		Necochea, Buenos Aires.....	1440	500
LV14.....	Radio Provincia de La Rioja.....	La Rioja.....	1460	500
LT11.....	Radio Provincia de Entre Rios.....	Parana, Entre Rios.....	1470	500
LV16.....	Radio Universidad de Cuyo.....	Mendoza.....	1520	250
LV8.....	Radio Presidente.....	Cordoba.....	1540	250

### Short Wave Stations

LRS1.....	Radio Argentina de Emisoras Splendid.....	Buenos Aires.....	6090	25000
LRM.....	Sociedad Diario.....	Mendoza.....	6180	10000
LRA2.....		Buenos Aires.....	6180	7000
LRS.....	Radio Argentina de Emisoras Splendid.....	Buenos Aires.....	9590	25000
LRX.....	Radio El Mundo.....	San Fernando, Buenos Aires.	9660	7000
LRA1.....		Buenos Aires.....	9690	7000
LRA3.....		Buenos Aires.....	11730	7000
LRV.....	Radio Belgrano.....	Hurlingham, Buenos Aires...	11840	90000
LRR.....	Diario La Capital.....	Rosario, Santa Fe.....	11880	10000
LRU.....	Radio El Mundo.....	San Fernando, Buenos Aires.	15290	7000
LRA5.....		Buenos Aires.....	17830	7000
LRA6.....		Buenos Aires.....	42485	150

## BOLIVIA

Call Letters	Station Name	Location	Owner	Frequency Kilocycles	Power Watts
CP.....		Proyecto.....	—	550	5000
CP44.....	Radio Popular.....	Cochabamba.	Victor Veltze.....	580	50
CP32.....	Radio Bolivia.....	La Paz.....	J. C. Salinas.....	620	50
CP34.....	Radio Sucre.....	La Paz.....	Arturo Steele.....	680	150
CP46.....	Radio Victoria.....	La Paz.....	—	770	50
CP20.....	Radio Condor.....	La Paz.....	Ramon Pelaez.....	900	250
CP19.....	Radio Cultura.....	La Paz.....	Hugo Aspiazu.....	950	50
CP31.....	Radio Patria.....	La Paz.....	Senor Freire.....	975	50
CP4.....	Radio Illimani.....	La Paz.....	Estado.....	1040	10000
CP10.....	Radio La Paz.....	La Paz.....	Gonzalo Munoz A.....	1090	50
CP45.....	Radio Rural.....	Cochabamba.	Raul Montecinos.....	1090	50
CP16.....	Radio Paris.....	La Paz.....	Abel Maldonado.....	1200	50
CP14.....	Radio La Noche.....	La Paz.....	Javier Romero.....	1250	50
CP13.....	Radio El Oriente.....	Santa Cruz.	J. Canedo Reyes.....	1250	50
CP18.....	Radio Comercio.....	La Paz.....	Luis Cortadellas.....	1300	50
CP29.....	Radio Fides.....	La Paz.....	C. S. Calixto.....	1350	100
CP28.....	Radio Central.....	Cochabamba.	Gottret & Co.....	1360	150
CP3.....	Radio Nacional.....	La Paz.....	Costas Bros.....	1390	5000
CP27.....	Radio Pilot.....	Sucre.....	Carlos Torres R.....	1420	50
CP36.....	Radio Mercurio.....	Oruro.....	Enrique Wanting.....	1420	50

# • • • SOUTH AMERICAN STATIONS • • •

Call Letters	Station Name	Location	Owner	Frequency Kilocycles	Power Watts
CP8	Radio America	La Paz	Luis Medina	1450	50
CP17	Radio Cultura	Potosi	Alfredo Ossio L.	1600	50
CP41	Radio Chuquisaca	Sucre	Jose Camacho	6020	250
CP11	Radio Bolivar	Oruro	Estado	6100	250
CP2	Radio Nacional	La Paz	Costas Bros.	6110	5000
CP15	Radio Condor	La Paz	Ramon Pelaez	6120	250
CP22	Radio International	Potosi	Luis Camacho A.	6130	250
CP30	Radio El Oriente	Santa Cruz	L. Canedo Reyes	6135	250
CP12	Radio Fides	La Paz	C. S. Calixto	6150	250
CP39	Radio Continental	Cochabamba	Remberto Zapata	6160	250
CP37	Radio Oruro	Oruro	Mariaca & Co.	6170	250
CP23	Radio Guadalouivir	Tarija	—	6190	250
CP5	Radio Illimani	La Paz	Estado	6200	1000
CP1	Radio Chuquisaca	Sucre	Jose Camacho B.	9500	1000
CP38	Radio National	La Paz	Costas Bros.	9505	5000
CP6	Radio Illimani	La Paz	Estado	9520	1000
CP40	Radio Central	Cochabamba	Gottret & Co.	9570	250
CP25	Radio Sucre	La Paz	Arturo Steele	9700	250
CP7	Radio Illimani	La Paz	Estado	15300	1000

## BRAZIL\*

Call Letters	Station Name and/or Owner, City	Frequency Kilocycles	Power Watts
PRJ6	Radiodifusora de Aracajua, Aracajua, Sergipe	630	1000
PR18	Cultura de Aracatuba, Aracatuba, Sao Paulo	1460	100
PRJ3	Araguari, Araguari, Minas Geraes	970	250
PRD4	Cultura de Araraquara, Araraquara, Sao Paulo	1370	500
PRA4	Sociedade de Baia S. A., Sao Salvador, Bahia	740	10000
ZYA9	Radiodifusora de Assis, Assis, Sao Paulo	1550	100
PRJ8	Barretos, Barretos, Sao Paulo	1530	100
PRG8	Bauru Radio Club, Bauru, Sao Paulo	1210	500
PRC5	Club do Para, Belem, Para	1450	2000
		4865	2000
PRC7	Sociedade Radio Mineira, Belo Horizonte, Minas Geraes	690	3000
PRH6	Sociedade Radio Guarany, Belo Horizonte, Minas Geraes	1340	3000
PR13	Inconfidencia, Belo Herozinte, Minas Geraes	880	25000
PRC4	Club de Blumenau, Blumenau, Santa Catharina	1330	250
PRF8	Emissora Botucatu, S. A., Botucatu, Sao Paulo	1530	100
ZYA3	Radiodifusora Cambara, S. A., Cambara, Parana	1590	100
PRC9	Sociedade Radio, E. de Campinas, Campinas, Sao Paulo	1170	1000
PR17	Sociedade Campo Grande, Campo Grande, Mato Grosso	1510	100
PRF7	Cultura de Campos, Campos, Rio de Janeiro	1330	500
ZYA2	Radiofusora Matogrossense, Corumba, Mato Grosso	1470	500
PRG6	Sociedade Mantiqueira, Cruzeiro, Sao Paulo	640	500
PRB2	Club Paranaense, Curityba, Parana	1440	5000
ZYB6	Voz de Formiga, Formiga, Minas Geraes	1530	100
PRE9	Ceara Radio Club, Fortaleza, Ceara	1320	2000
		6105. 15165	5000
PRB5	Club Hertz, Franca, Sao Paulo	1240	250
PRD9	Radiodifusora Itapetininga, Itapetininga, Sao Paulo	970	250
ZYA7	Club de Itarare, S. A., Itarare, Sao Paulo	1550	100
PRG4	Club de Jaboticabal, Jaboticabal, Sao Paulo	1250	250
PRG7	Club de Jauense, Jau, Sao Paulo	1010	250
ZYA5	Radiodifusora de Joinville, Joinville, Santa Catarina	1600	100
PR14	Tabajara da Paraiba, Joao Pesson, Parahyba	1110	10000

\* Resulting from the year, questionnaires addressed to individual countries were not answered by the radio authorities in Argentina, Brazil, Ecuador, Paraguay and Venezuela; rather than omit these countries from the listing of Latin American stations, RADIO ANNUAL has presented the material used in the 1942 edition, with corrections whenever they were known.

<b>Call Letters</b>	<b>Station Name—Owner and Location, City</b>	<b>Frequency Kilocycles</b>	<b>Power Watts</b>
PRB3.....	Sociedade de Juiz de Fora, Juiz de Fora, Minas Geraes .....	1010	500
PRJ5.....	Educadora de Limeira, Limeira, Sao Paulo.....	1550	100
ZYB3.....	Lins Radio Club, S. A., Lins, Sao Paulo.....	1550	100
PRF6.....	Government, Manaus, Amazonas .....	4895	100
PRJ2.....	Club de Marilia, Marilia, Sao Paulo.....	1090	500
ZYB5.....	Educadora de Natal, S. A., Natal, Rio Grande do Norte .....	1270	1000
PRD8.....	Club Fluminense, Nictheroy, Rio de Janeiro.....	1320	1000
PRE6.....	Sociedade Fluminense, Nictheroy, Rio de Janeiro...	1470	1000
PRJ4.....	Educadora de Parnaiba, Parnaiba, Piaui .....	1470	500
ZYB4.....	Radio Club de Patos, Patos, Minas Geraes.....	1530	100
PRC3.....	Sociedade Pelotense, Pelotas, Rio Grande do Sul.....	580	250
PRH4.....	Radio Culture, Pelotas, Rio Grande do Sul.....	1320	500
PRD3.....	Petropolis Radiodifusora S. A., Petropolis, Rio de Janeiro .....	1480	1000
PRD6.....	Club de Piracicaba, Piracicaba, Sao Paulo.....	820	250
PRH5.....	Club Pocos de Caldas, Pocos de Caldas, Minas Geraes .....	1160	250
PRJ2.....	Club Pontagrossense, Ponta Grosso, Parana.....	1240	500
PRC2.....	Sociedade Gaucha, Porto Alegre, Rio Grande do Sul.	680	5000
PRF9.....	Radiodifusora Porto Alegrense, Porto Alegre, Rio Grande do Sul.....	640	5000
PRH2.....	Sociedade Farroupilha, Porto Alegre, Rio Grande do Sul .....	600	25000
PRJ7.....	Club de Pousa Alegre, S. A., Pouso Alegre, Minas Geraes .....	1530	100
PRI5.....	A Voz do Sertao, Presidente Prudente, Sao Paulo....	970	250
PRA8.....	Club de Pernambuco, Recife, Pernambuco.....	720	25000
		6013	5000
PRA7.....	Club de Ribeirao Preto, Ribeirao Preto, Sao Paulo...	730	500
PRH7.....	Louzada, Bueno & Cia., Riberirao Preto, Sao Paulo....	1170	.....
PRF2.....	Club de Rio Clara, Rio Clara, Sao Paulo.....	1460	250
PRA2.....	Ministerio Educacao e Saude Publica, Rio de Janeiro, Federal District .....	800	25000
PRA3.....	Club do Brasil, Rio de Janeiro, Federal District.....	860	10000
PRA9.....	Sociedade Mayrink Veiga, Rio de Janeiro, Federal District .....	1220	25000
PRB7.....	Sociedade Radio Educadora do Brasil, Rio de Janeiro, Federal District .....	900	5000
		6200, 9610, 15370	25000
PRC8.....	Sociedade Guanabara, Rio de Janeiro, Federal District .....	1360	5000
PRD2.....	Sociedade Radio Cruzeiro do Sul, Rio de Janeiro, Federal District .....	1060	10000
PRD5.....	Instituto Educacao do Distrito Federal, Rio de Janeiro, Federal District .....	1400	1000
PRE2.....	Sociedade Vera Cruz, Rio de Janeiro, Federal District .....	1430	20000
PRE3.....	Transmissora Brasileira, Rio de Janeiro, Federal District .....	1180	10000
PRE8.....	Sociedade Radio Nacional, Rio de Janeiro, Federal District .....	980	25000
PRF4.....	Jornal do Brasil S. A., Rio de Janeiro, Federal District .....	940	10000
PRG3.....	Tupy do Rio de Janeiro, Federal District.....	1280	10000
PRH8.....	Ipanema S. A., Rio de Janeiro, Federal District.....	1120	5000
PRB8.....	Rio Preto S. A., Rio Preto, Sao Paulo.....	640	250
PRB4.....	Club de Santos, Santos, Sao Paulo.....	1450	1000
PRG5.....	Sociedade Radio Atlantica, Santos, Sao Paulo.....	580	750
ZYA6.....	Sao Carlos, S. A., Sao Carlos, Sao Paulo.....	1590	100
PRJ9.....	Radiodifusora do Estado, Sao Luis, Maranhao.....	1490	5000
PRI6.....	Club Sao Manoel, Sao Paulo .....	1510	100
ZYA4.....	Radiodifusora Paraisense, S. A., Sao Sebastiao do Paraíso .....	1510	100
PRD7.....	Club de Sorocaba, Sorocaba, Sao Paulo.....	1080	500
ZYA8.....	Club Sorocaba, Sorocaba, Sao Paulo .....	1590	100
PRA5.....	Sao Paulo, Sao Paulo, Sao Paulo.....	1260	5000

# • • • SOUTH AMERICAN STATIONS • • •

<i>Call Letters</i>	<i>Station Name—Owner and Location, City</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
PRA6.....	Sociedade Radio Educadora Paulista, Sao Paulo, Sao Paulo .....	890	10000
PRB6.....	Sociedade Radio Cruzeiro do Sul, Sao Paulo, Sao Paulo	1200	10000
PRB9.....	Sociedade Record, Sao Paulo, Sao Paulo.....	1000	25000
PRE4.....	Sociedade Cultura "Voz de Espaco," Sao Paulo, Sao Paulo .....	1300	5000
PRE7.....	Sociedade Radio Comos, Sao Paulo, Sao Paulo.....	1410	5000
PRF3.....	Difusoro Sao Paulo, Sao Paulo.....	960	5000
PRG2.....	Tupy de Sao Paulo, Sao Paulo, Sao Paulo.....	1040	25000
PRG9.....	Excelsior, Sao Paulo, Sao Paulo .....	1100	25000
PRH3.....	Piratiniga, Sao Paulo, Sao Paulo.....	620	5000
PRH9.....	Sociedade Bandeirante, Sao Paulo, Sao Paulo.....	840	5000
ZYB7-8-9.....	Radiodifusora de Sao Paulo, Sao Paulo, Sao Paulo.....	6095, 11765, 25000,	15155
PRE5.....	Sociedade Triangulo Mineiro Uberaba, Minas Geraes.	1390	500
PRC6.....	Radiodifusora Brasileira, S. A., Uberlandia, Minas Geraes .....	1510	100
ZYB2.....	Club de Varginha, Ltd., Varginhas, Minas Geraes....	1590	100
PR19.....	Club do Espirito Santo, Victoria, Espirito Santo.....	1350	100
PRF5.....	Comp. Radio Internacional Brasil, Rio de Janeiro. Federal District.....	6105, 9500, 9600 10220, 15190	12000
PRA8.....	Club de Pernambuco, Recife, Pernambuco.....	6012	5000

## BRITISH GUIANA

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
ZFY.....	British Guiana United Broadcasting Co., Georgetown .....	6130	650

## CHILE

<i>Call Letters</i>	<i>Station Name</i>	<i>Location</i>	<i>Owner</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
CA63 .....	Radio Esmeralda .....	Iquique ..	Antonio Cajiao .....	630	250
CA90 .....	Radio Ynesta .....	Tocopilla ..	Hilda Cueller .....	900	100
CA96 .....	La Voz del Norte .....	Coquimbo ..	Cesar Nieme Apey.....	960	300
CA127 .....	La Voz del Norte .....	Antofagasta.	Raquel Palma de Pedreni...	1270	100
CA141 .....	Radio El Loa.....	Antofagasta.	Angel Garcia & Co.....	1410	1400
CB57 .....	Soc. Nac. de Agricultura.	Santiago ..	Soc. Nac. de Agricultura....	570	6000
CB66.....	Radio Chilena .....	Santiago ..	International Machinery Co.	660	700
CB64 .....	Radio Aconcagua .....	Vina Del Mar .....	Adriano Iz .....	640	1000
CB68 .....	Radio Metro .....	Vina Del Mar .....	Renard & Garcia Tello.....	680	300
CB76 .....	Cooperative Vitalicia...	Santiago ..	Soc. Cooperative Vitalicia...	760	5000
CB78 .....	Cooperative Vitalicia...	Valparaiso.	Soc. Cooperativa Vitalicia...	780	16000
CB84 .....	Radio del Pacifico....	Valparaiso..	Angel Prieto .....	840	50
CB89 .....	Otto Becker .....	Santiago ..	Bernardo & Otto Becker .....	890	600
CB93 .....	Radio Hucke .....	Santiago ..	Orlandini & Raggio, Ltd.....	930	10000
CB90.....	Soc. Nac. de Agricultura.	Valparaiso	Soc. Nac. de Agricultura....	900	1000
CB97 .....	Radio Prat .....	Santiago ..	Soc. Industrial de Maquinaria	970	1000
CB101 .....	Radio Mayo .....	Santiago ..	Felix Bewais & Cia.....	1010	1100
CB103 .....	Univ. Tecnica Sta. Maria .....	Valparaiso.	Fundacion Santa Maria.....	1030	400
CB106 .....	Sud America .....	Santiago ..	Manuel Casblanca .....	1060	5000



Call Letters	Station Name	Location	Owner	Frequency Kilocycles	Power Watts
CB111	Radio Los Castanos	Vina del Mar	Joaquin Venegas	1110	600
CB113	Radio de Quillota	Valparaiso	Vargas & Salinas	1130	2000
CB114	Radio del Pacifico	Santiago	Ricardo Vivado	1140	500
CB116	Radio Caupolican	Valparaiso	Oscar Cornejo Harker	1160	750
CB120	Diario La Union	Valparaiso	Jiles & Cia	1200	650
CB124	Vina del Mar	Valparaiso	Ramon & Fernando Garcia & Co.	1240	150
CB126	Radio Carrera	Santiago	Soc. Chilena Radiodifusora, S. A.	1260	12000
CB130	Radio "La Americana"	Santiago	Lehman & Becker	1300	1500
CB132	Radio Independencia	Valparaiso	David Wallace	1320	700
CB134	Radio Cervantes	Santiago	Amilear Locci J.	1340	2000
CB138	"El Mercurio"	Santiago	Emp. Periodistica "El Mercurio"	1380	3500
CB140	Onda Azul	San Antonio	Soc. Radiodifusora Onda Azul, Ltd.	1400	250
CB144B	Radio O'Higgins	Santiago	Bogolowski & Cia.	1440	2500
CB144C	Radio Moraga & Cia.	Santiago	Miguel Torres de la Fuente	1440	200
CB147	Radio Continental Vitalicia	Valparaiso	Luis Falcone	1470	350
CE960	Radio "La Americana"	Santiago	Lehmann & Becker	9600	1000
CE970	Cooperative Vitalicia	Valparaiso	Soc. Cooperative Vitalicia	9700	2500
CE1170	Radio Otto Becker	Santiago	Bernardo & Otto Becker	11700	150
CE1174	Radio Hucke	Santiago	Orlandini & Raggio	11740	1000
CE1180	Soc. Nac. de Agriculture	Santiago	Soc. Nac. de Agricultura	11800	1000
CC63	Radio Central	Rancagua	Manuel Massoni	630	300
CC64	Diario El Sur	Concepcion	Mario Saez	640	850
CC67		Talca	Ramon Abasolo	670	100
CC84	Radio Cultura	Talcahuano	Francisco Morales	840	250
CC96	Radio Curico	Curico	Alberto Guerra	960	100
CC109	Radio Rancagua	Rancagua	Jorge Romero	1090	600
CC117	Radio Zenith	Concepcion	Federico Sanchez	1170	1300
CC127	Radio Nuble	Chillan	Rafael Barrios	1270	150
CC133	Radio La Discusion	Chillan	Miguel Arrau	1330	100
CC141	Radio "Patria"	Concepcion	Pedro Lopez de Heredia	1410	400
CC145	Radio La Prensa	Rancagua	Ramon Caceres	1450	800
CD69	Radio Sur	Valdivia	Soc. Radio-Emisoras "Sur de Chile"	690	500
CD84	Soc. Agricola & Granadera de Osorno	Osorno	Soc. Agricola & Ganadera de Osorno	840	1500
CD70	La Frontera	Temuca	Daniel de Mayo	700	1250
CD101	Radio Llanguihue	Puerto Montt	Soc. Radio-Emisoras "Sur de Chile"	1010	500
CD103	Radio Magallanes	Magallanes	Ramon Verde Ramos	1030	100
CD111	Radio Austral	Magallanes	Emilio Turina	1110	100
CD113		Punta Arenas	Julio Femenina Loyola	1130	500
CD125	Radio Temuco	Temuco	Jorge Spano Riffo	1250	500
CD132	Radio Baguedano	Valdivia	Carlos Cockbaine	1320	1000
CD136	La Voz del Sur	Punta Arenas	Ines Diez Paz	1360	500
CD147	Radio Aliviol	Puerto Montt	Ernesto Riedel	1470	100
CE1190	Radio Sur	Valdivia	Soc. Radio-Emisoras "Sur de Chile"	11900	250

• • • SOUTH AMERICAN STATIONS • • •

## COLOMBIA

Call Letters	Location	Owner	Frequency Kilocycles	Power Watts
HJ-FX	Manizales	Antonio Pinzon H.	600	1000
HJ-CU	Bogota	Cristobal Paez	720	5000
HJ-CI	Bogota	Manuel J. Gaitan	810	2500
HJ-CC	Bogota	Gustavo Uribe Th.	870	5000
HJ-CS	Bogota	C. E. Arboleda	920	50000
HJ-CM	Bogota	Roberto Ramirez G.	970	500
HJ-CZ	Bogota	Cipriano Rios Hoyos	1040	2500
HJ-AH	Barranquilla	Alex Blanco	1050	1000
HJ-CG	Bogota	Luis J. Bernal N.	1060	1000
HJ-EE	Cali	Jose T. Calderon	1090	500
HJ-CB	Bogota	Roberto Ramirez G.	1105	1000
HJ-FQ	Pereira	Marcelino Ossa M.	1120	500
HJ-GE	Bucaramanga	Gustavo Sorzano	1130	1000
HJ-BJ	Santa Marta	Julio A. Sanchez	1140	500
HJ-DT	Medellin	Alfonso Jaramillo	1150	500
HJ-EB	Cali	Eduardo Cordoba	1150	500
HJ-CO	Bogota	Jesus M. Garcia	1160	1000
HJ-HB	Pasto	Hernando Bueno D.	1170	500
HJ-EQ	Palmira	Regulo Benitez P.	1180	500
HJ-AN	Barranquilla	Eliecer Velasco	1190	1000
HJ-CR	Bogota	Gobierno Nacional (Cultural)	1200	5000
HJ-FM	Armenia	Botero & Compania	1210	500
HJ-AM	Monteria	Julio A. Sanchez	1210	251
HJ-CE	Bogota	Gustavo Uribe Th.	1220	1000
HJ-EO	Cartago	Daniel Benitez	1230	500
HJ-AF	Cartagena	Rafael Fuentes	1240	500
HJ-FG	Armenia	Alfonso Toro V.	1245	500
HJ-DK	Medellin	Duis Ramos	1250	500
HJ-EL	Cali	Hernando Bueno	1260	500
HJ-BC	Cucuta	Pompilio Sanchez	1270	500
HJ-AT	Barranquilla	Delfina V. De Haayen	1275	1000
HJ-GK	Bucaramanga	Francisco A. Bueno	1280	500
HJ-DA	Medellin	Humberto Restrepo A.	1285	500
HJ-CK	Bogota	Arez & Tobon Sierra	1290	500
HJ-EC	Cali	Rafael Angulo	1300	500
HJ-AK	Barranquilla	Clemente Basallo	1310	500
HJ-FO	Libano	Hector E. Giraldo L.	1310	100
HJ-DQ	Medellin	Fernando Restrepo A.	1320	1000
HJ-AA	Barranquilla	Alfonso Rosales Navarro	1330	500
HJ-CN	Bogota	Roberto Laignelet	1335	500
HJ-EF	Cali	Hernando Bueno	1340	500
HJ-FF	Pereira	Antonio Giraldo	1350	1000
HJ-HA	Pasto	Luis F. Martinez	1350	500
HJ-GN	Bucaramanga	Francisco A. Bueno	1360	1000
HJ-DC	Medellin	Francisco Cuartez	1360	500
HJ-AI	Barranquilla	Julian Melendez	1370	500
HJ-EN	Cali	Alfonso Mesa Vargas	1370	500
HJ-DR	Medellin	Camilo Torres P.	1380	500
HJ-CJ	Bogota	Manuel J. Gaitan	1380	500
HJ-FD	Manizales	Francisco Jaramillo	1390	500
HJ-ER	Cali	Cesar Mendoza M.	1395	500
HJ-FL	Ibague	Luis E. Martinez	1400	250
HJ-AR	Cartagena	Lequerica Hermanos	1400	500
HJ-BH	Santa Marta	Jose M. Conde	1410	500
HJ-EI	Buga	Hernando Bueno	1410	100
HJ-AC	Magangue	Manuel Agustin Varela	1420	100

Call Letters	Location	Owner	Frequency Kilocycles	Power Watts
HJ-GA	Tunja	Pedro P. Martinez	1425	250
HJ-EK	Tulua	Hernando Bueno D.	1430	100
HJ-CV	Girardot	Antonio Useche R.	1430	100
HJ-AD	Cartagena	Rafael Fuentes	1440	250
HJ-EG	Popayan	Mercedes M. De Valencia	1450	250
HJ-EJ	Palmira	Rafael Angulo	1460	500
HJ-CL	Girardot	Carlos J. Sanchez G.	1460	100
HJ-BE	Cienaga	Elvira De Pereira	1460	250
HJ-AL	Monteria	Julio Cesar Patino	1465	500
HJ-FE	Pereira	Cesar Arango Mejia	1470	500
HJ-DL	Medellin	Jaime Tobon B.	1480	500
HJ-EP	Buga	J. Ortiz Marquez	1485	500
HJ-DU	Medellin	Universidad de Antioquia (Cultural)	1490	250
HJ-AS	Barranquilla	Miguel A. Ruiz	1500	250
HJ-FO	Ibague	Vicente Caitan Rondon	1500	100
HJ-FJ	Aguadas C.	Roberto Florez (Cultural)	1500	25
HJ-EA	Popayan	Jesus H. Hormaza	1500	500
HJ-EM	Cali	Arturo Salazar	1510	500
HJ-DM	Medellin	Prospero Aguirre M.	1520	1000
HJ-BF	Ocana	Luis Linero	1525	500
HJ-ES	Buenaventura	Heriberto Quintera	1525	100
HJ-CP	Tocaima	Ruperto Aguilera Leon (Cultural)	1530	250
HJ-FI	Armenia	J. Palacios E. y Cia	1540	1000
HJ-EH	Santander	Escuela Rafael Tello (Cultural)	1550	175
HJ-FP	Ibague	Mauro Cadavid S.	1550	100
HJ-GB	Bucaramanga	Francisco A. Bueno	4775	2500
HJ-AB	Barranquilla	Eliecer Velasco	4785	2500
HJ-DX	Medellin	Francisco Cuartas	4795	750
HJ-DG	Quibdo	Direccion Educacion (Cultural)	4805	150
HJ-BB	Cucuta	Pompilio Sanchez	4815	750
HJ-ED	Cali	Eduardo Cordoba	4825	1000
HJ-EX	Cali	Cesar Mendoza M.	4865	2500
HJ-FH	Armenia	Botero & Compania	4875	500
HJ-DP	Medellin	Fernando Restrepo A.	4885	2500
HJ-CH	Bogota	Manuel J. Gaitan	4895	750
HJ-AG	Barranquilla	Alex Blanco	4905	750
HJ-AP	Cartagena	Lequerica Hermanos	4925	750
HJ-CW	Bogota	Jesus M. Garcia	4945	750
HJ-CQ	Bogota	Ministerio Educacion Nal. (Cultural)	4955	500
HJ-AE	Cartagena	Rafael Fuentes	4965	750
HJ-CX	Bogota	Cipriano Rios Hoyos	6018	750
HJ-CF	Bogota	Gustavo Uribe Th.	6033	750
HJ-FA	Pereira	Cesar Arango Mejia	6054	750
HJ-FK	Pereira	Sdad. Voz Amiga	6097	2500
HJ-FB	Manizales	Francisco Jaramillo	6105	1000
HJ-DE	Medellin	Luis Ramos	6145	5000
HJ-CD	Bogota	Roberto Ramirez G.	6160	5000
HJ-CA	Bogota	Cristobal Paez	4855	1000
HJ-BD	Bucaramanga	Gustavo Sorzana	9630	650
HJ-CT	Bogota	Ministerio Educacion Nal.	9655	2500

## ECUADOR\*

Call Letters	Owner	Station Name	Location	Frequency Kilocycles	Power Watts
HC2AJ	Odalía Arauz de G.	Radio Guayaquil	Guayaquil	900	25
HCJB	Alfonso Vilmot	Ondas del Pacifico	Guayaquil	900	100
HC2CW	Clarence W. Jones	La Voz de Quito	Quito	973	50
HC2OAD	Cia. Radidifusora del Ecuador	Cia. Radidifusora del Ecuador	Guayaquil	1050	1000

## • • • SOUTH AMERICAN STATIONS • • •

Call Letters	Owner	Station Name	Location	Frequency Kilocycles	Power Watts
HC2ET.....	Empresa "El Telegrafo" ....	Diario "El Telegrafo".....	Guayaquil	1330	300
HC2JSB.....	Juan S. Behr .....	Ecuador Radio .....	Guayaquil	1131	100
HC2RB.....	Erik Williams .....	La Voz del Litoral.....	Guayaquil	1250	200
HC1ETC.....	Manuel Mantilla .....	Radio Teatro Bolivar.....	Quito	1350	200
HCQR.....	Carlos Mantilla .....	Radio Quito .....	Quito	1304	300
HC2AU.....	Augusto Alvarado O. ....	Radio Atalaya .....	Guayaquil	1250	200

### Short Wave Stations

HCJB4.....	Pedro Zambrano Barcia ....	La Voz de Manabi .....	Portoviejo	3645	80
HC1GQ.....	Cia. del Ferrocarril del Sur..	Nariz del Diablo .....	Quito	3710	80
HC1IM.....	Concejo Municipal .....	La Voz de Imbabura .....	Ibarra	4020	300
HCJB.....	Clarence W. Jones.....	Broadcast Provincial.....	Quito	4107	200
HC1AO.....	Octavio Espinosa, Jose .....	La Voz de Tomebamba.....	Cuenca		
	Heredia Crespo .....			4200	200
HC1VT.....	Concejo Municipal .....	La Voz del Tungurahua.....	Ambato	4300	250
HC1PM.....	Leonardo Ponde .....	El Palomar .....	Quito	5725	150
HC1QRX.....	Carlos Mantilla .....	Radio Quito .....	Quito	5970	300
HC2JSB.....	Juan S. Behr.....	Ecuador Radio .....	Guayaquil	7845	300
HC2CW.....	Alfonso Vilmot .....	Ondas del Pacifico.....	Guayaquil	8400	50
HC1GQ.....	Cia. del Ferrocarril del Sur..	Nariz del Diablo .....	Quito	9163	150
HC2ET.....	Empresa "El Telegrafo".....	Diario "El Telegrafo".....	Guayaquil	9200	300
HC1ETC.....	Manuel Mantilla .....	Radio Teatro Bolivar.....	Quito	9350	300
HC2AK.....	Cia. Radio Difusora del .....	Cia. Radiodifusora .....	Guayaquil		
	Ecuador .....	del Ecuador .....		9377	1000
HC2OAD...	Odalia Arauz de G.....	La Voz del Alma .....	Guayaquil	9400	200
HCJB.....	Clarence W. Jones.....	La Voz de los Andes.....	Quito	12455	10000

## PARAGUAY\*

Call Letters	Station Name—Owner—Location	Frequency Kilocycles	Power Watts
ZP1.....	Radio El Pais—Atilo C. Bajac, Asuncion.....	970	100
ZP4.....	Radio Continental—Isern & Sacarello, Asuncion .....	730	100
ZP5.....	Radio Paraguay—Alfonso Sa, Asuncion.....	1360	100
ZP6.....	Radio Livieres—Jordon Livieres, Asuncion...	1300	100
ZP11.....	Radio Charitas—Juventud Antoniana, Asuncion .....	1200	100
ZP10.....	Noriega Hnos. & Franco, Asuncion.....	1330	100
ZP17.....	Haneman Hnos., Asuncion .....	1030	100
ZP7.....	La Voz del Aire—Julio Coriulot, Encarnacion.	900	

### Short Wave Stations

ZPA1.....	Peruvian Government, Asuncion.....	6070	3000
ZPA2.....	Teleco Paraguaya, S. A., Asuncion.....	11721	5000
ZPA6.....	Teleco Paraguaya, S. A., Asuncion.....	7890	5000
ZPA7.....	Teleco Paraguaya, S. A., Asuncion.....	15780	5000
ZPO3.....	Teleco Paraguaya, S. A., Asuncion.....	13333	5000

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# PERU

Call Letters	Owner	Station Name	Location	Frequency Kilocycles	Power Watts
OAX4A....	Government .....	Radio Nacional .....	Lima .....	850	10000
OAX4E....	Ing. Juan P. Goicochea ...	Radio Goicochea .....	Lima .....	960	250
OAX4F*...	Armando Ortiz Lambert...	Radio Mundial .....	Lima .....	1080	250
OAX4C....	Alvarado & Urteaga.....	Radio Callao .....	Callao .....	1160	500
OAX4B....	Empres Peruana Parlante..	Radio Lima .....	Lima .....	1200	250
OAX4L....	Radio Miraflores .....	Radio Miraflores .....	Miraflores ..	1250	200
OAX4I....	Radio Internacional .....	Radio Internacional ..	Lima .....	1320	250
OAX6C....	J. Antonio Umbert F. ....	Radio Continental .....	Arequipa ..	1370	250
OAX5B....	Luis de los Heros & Rios...	Radio Universal .....	Ica .....	1460	200

## Short Wave Stations

OAX2A....	Rafael Larco Hoyle.....	Radio La Nacion.....	Trujillo ....	6000	250
OAX4P....	Alfredo Elejalde Granados.	Radio Huancayo .....	Huancayo ....	6200	250
OAX6B....	Maximo J. Landa .....	Radio Landa .....	Arequipa .....	6035	150
OAX6A....	Jorge E. Olazabel .....	Radio Arequipa .....	Arequipa ..	6050	100
OAX6E....	J. Antonio Humbert F.....	Radio Continental .....	Arequipa ..	6055	300
OAX4Z....	Government .....	Radio Nacional .....	Lima .....	6082	15000
OAX4H*...	Armando Ortiz Lambert...	Radio Mundial .....	Lima .....	6095	1000
OAX3A....	Victor Priano Storace.....	Radio Huanuco .....	Huanuco ..	6115	400
OAX7A....	Carlos Lizarraga Fisher...	Radio Cuzco .....	Cuzco .....	6128	100
OAX1A....	José Carlos Montjoy D....	Radio Delcar .....	Chiclayo ....	6150	200
OAX4G....	Empresa Peruana Parlante.	Radio Lima .....	Lima .....	6190	250
OAX6D....	J. Antonio Umbert F. ....	Radio Continental .....	Arequipa ..	9500	250
OAX4J....	Radio Internacional .....	Radio Internacional ..	Lima .....	9520	200
OAX4K....	Ing. Juan P. Goicochea ...	Radio Goicochea .....	Lima .....	9545	250
OAX4T....	Government .....	Radio Nacional .....	Lima .....	9562	10000
OAX5C....	Luis de los Heros & Rios...	Radio Universal .....	Ica .....	9590	200

# URUGUAY

Call Letter	Station Name	Location	Owner	Frequency Kilocycles	Power Watts
CW1.....	Radio Popular .....	Real de San Carlos-Colonia ...	Bernotti y Montellano .....	550	4500
CW3.....	Radio Rural del Uruguay .....	Florida ....	Rodolfo J. Caissiol.....	580	200
CX4.....	Direccion de Agronomia .....	Montevideo	Direccion de Agronomia.....	610	5000
CW7.....	Radio Carmelo .....	Carmelo-Colonia ..	Alberto Pablo Brouard .....	640	250
CX6.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	650	20000
CW27....	Radio Tabare .....	Salto .....	Luis Batlle Berres .....	680	250
CX8.....	Radio Jackson .....	Montevideo	Ramon Puyal .....	690	500
CX10....	Radio Ariel .....	Montevideo	Ferrera, Gestoso y Cia.....	730	1000
CX12....	Radio Oriental .....	Montevideo	Luis A. Artola .....	770	5000
CX14....	El Espectador .....	Montevideo	Difusoras El Espectador ...	810	5000
CW23....	Radio Cultural .....	Salto .....	Domingo Giordano .....	820	250
CX16....	Radio Carve .....	Montevideo	S.A.D.R.E.P. ....	850	10000
CX18....	Radio Sport .....	Montevideo	Difusoras El Espectador ...	890	5000
CX20....	Radio Montecarlo .....	Montevideo	Carlos L. Romay .....	930	2000
CX22....	Radio Universal .....	Montevideo	Harispuu Hnos .....	970	1500
CX24....	La Voz del Aire .....	Montevideo	S.A.D.R.E.P. ....	1010	2500
CX26....	Radio Uruguay .....	Montevideo	A. Canepa y Cia.....	1050	2000
CX28....	Radio Imparcial .....	Montevideo	Walfrido Figueira Moran ...	1090	3000
CW31....	Salto Broadcasting ...	Salto .....	Salvador E. Pera.....	1120	250
CX30....	Radio Nacional .....	Montevideo	Silva y Larrea.....	1130	1000
CX32....	Radio Aguila .....	Montevideo	Compania Uruguaya de Publicidad S. A. ....	1170	500
CW33....	Difusora Florida .....	Florida ....	Omar F. Barreiro .....	1200	75

# • • • SOUTH AMERICAN STATIONS • • •

Call Letters	Station Name	Location	Owner	Frequency Kilocycles	Power Watts
CX34.....	Radio Artigas .....	Montevideo	A. Canepa y Cia. ....	1210	500
CW35.....	Paysandu Broadcasting.	Paysandu ..	Buenaventura Malher y Ordoqui .....	1240	250
CX36.....	Centenario Brdcsng. ..	Montevideo	Vaquez y Walder .....	1250	250
CX38.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	1290	5000
CW39.....	La Voz de Paysandu ..	Paysandu ..	Miguel Penna .....	1320	100
CX40.....	Radio Fenix .....	Montevideo	Julio J. Rabassa .....	1330	500
CW19.....	Difusora Rochense ..	Rocha .....	Juan J. Harispuru y Abel Machado .....	1340	50
CW19A.....	Radio Charrua .....	Rivera .....	Jorge Downton Garcia ..	1340	60
CW41.....	Brdcsng. San Jose .....	San Jose ..	Juan J. Harispuru y Pedro Bruccoleri .....	1360	50
CX42.....	Tribuna Sonora .....	Montevideo	Hector Verhazzo .....	1370	500
CW45.....	Difusora Treinta y Tres.	Treinta y Tres .....	Marroche, Lacurcia y Rodriguez .....	1390	60
CW46A.....	Difusora Zorrilla de San Martin .....	Tacuarembó	Luis S. Dini. ....	1400	2000
CX44.....	Radio Montevideo .....	Montevideo	Julio J. Rabassa .....	1410	250
CW43.....	Radio Lavalleja .....	Minas .....	Volante y Harisouru ..	1420	500
CW25.....	Radio Durazno .....	Durazno ..	Artola, Evangelisti y Cia....	1430	500
CX46.....	Radio America .....	Montevideo	Guzman Bortacchi .....	1450	1500
CW46B.....	Liceo de Dolores .....	Dolores-Soriano ..	Roberto Taruselli .....	1460	50
CW47.....	Radio Canelones .....	Canelones ..	Julio J. Rabassa .....	1470	300
CW43B.....	Radio Internacional ..	Rivera .....	Walfrido Figueiro Moran...	1480	750
CX48.....	Radio Femenina .....	Montevideo	Vazquez y Cia. ....	1490	1500
CW47A.....	Radio Welcome .....	San Jose ..	Fasola, Rios y Tiboni .....	1510	100
CX50.....	Radio El Mundo .....	.....	Bernardino Ayala .....	1530	300
CW51.....	Radio Maldonado .....	Maldonado.	Hector Lamaison .....	1560	250
CX52.....	Radio Litoral .....	.....	.....	.....	.....
	Soriano .....	Mercedes ..	Anibal Frabasile, Juan Orlando Kelly, Jose Pedro Iri-garay y Florencio Donato Montero .....	1570	50
CW53.....	Proyectado .....	Melo, Cerro Largo....	Ruber D. Lucas.....	1580	250

## Short Wave Stations

CXA2.....	Radio Continental .....	Montevideo	Raice Schmidt .....	6000	5000
CXA30.....	Radio Nacional .....	Montevideo	Silva y Larrea .....	6035	1000
CXA3.....	(Proyectada) .....	Montevideo	Leon y Landeira.....	6075	2500
CXA4.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	6125	5000
CXA21.....	Radio Fenix .....	Montevideo	Julio J. Rabassa .....	6170	1000
CXA1.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	6200	50
CX14.....	El Espectador .....	Montevideo	El Espectador .....	7330	50
CXA6.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	9620	20000
CXA8.....	Radio Real de San Carlos .....	Real de San Carlos-Colonia ...	Jaime Yankelevich .....	9640	5000
CX14.....	El Espectador .....	Montevideo	El Espectador .....	10000	20
CXA19.....	El Espectador .....	Montevideo	El Espectador .....	11705	1000
CXA14.....	Radio Real de San Carlos .....	Real de San Carlos-Colonia ...	Jaime Yankelevich .....	11820	1000
CXA10.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	11895	20000
CXA18.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	15300	20000
CXA9.....	El Espectador .....	Montevideo	El Espectador .....	15345	1000
CXA11.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	27000	2500
CXA22.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	29500	2500
CXA23.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	43500	2500
CXA24.....	Estacion Oficial .....	Montevideo	S.O.D.R.E. ....	58000	2500



# VENEZUELA\*

Call Letters	Station Name	Location	Owner and Director of Station	Frequency Kilocycles	Power Watts
YV5RI	....Radio Continente	....Caracas	...Oscar Vicentelli Oscar Vicentelli	590	1750
YV5RH	...La Voz de La Petria	...Caracas	...Mons. J. M. Pellin Mons. J. M. Pellin	720	1500
YV5RB	...Radiodifusora Venez.	...Caracas	...Degwitz & Siblesz H. Degwitz	790	7250
YV5RQ	...Radio Libertador	....Caracas	...Jesusa Gonzales A. Jose Gil Borges	880	1820
YV5RA	...Radio Caracas	....Caracas	...Cia. Anonima Almacen Americano Ricardo Espina	960	13000
YV2RB	....La Voz del Tachira	...San Cristo- bal	....Jesus Diaz Gonzalez Jesus Diaz Gonzalez	980	500
YV5RG	....Ondas Populares	....Caracas	...Gonzalo Veloz M. Gonzalo Veloz M.	1010	1480
YV5RZ	...Emisora Vargas	....La Guaira	...Gonzalo Veloz Mancera Gonzalo Veloz Mancera	1050	770
YV6RE	...Ondas del Neveri	....Barcelona	..L. J. Arreaza Almenar L. J. Arreaza Almenar	1080	300
YV1RF	...Ondas del Lago	....Maracaibo	..N. Vale Quintero N. Vale Quintero	1120	845
YV1RD	...Radiodifusora Maracaibo	....Maracaibo	..G. Govea & G. Nouel Guillermo Govea	1150	308
YV5RL	...Radio Tropical	....Caracas	...Ponce & Viggiani Ponce & Viggiani	1160	1150
YV3RE	...Radio Barquisimeto	...Barquisi- meto	....Amilcar Segura Amilcar Segura	1240	1175
YV1RK	...Radio Popular	....Maracaibo	..Jose Higuera M. Rafael Rivera P.	1250	675
YV3RA	...Radio America	....Barquisi- meto	....Arturo Ramos M. Arturo Ramos M.	1270	264
YV1RA	...Ecos del Zulia	....Maracaibo	..Luis Garcia Nebot Luis Garcia Nebot	1300	150
YV4RA	...La Voz de Carabobo	....Valencia	..G. Degwitz G. Degwitz	1350	1280
YV1RW	...Radio Coro	....Coro	....Roger Leyba Roger Leyba	1370	300
YV4RE	....Radio Valencia	....Valencia	..Miguel Ache Miguel Ache	1400	1750
YV1RC	...La Voz de la Fe	....Maracaibo	..Pedro A. Bermudez V. Pedro A. Bermudez V.	1400	800
YV6RA	...Ecos del Orinoco	....Ciudad Bolivar	..E. Torres Valencia E. Torres Valencia	1400	960
YV4RL	...Radio Maracay	....Maracay	..Atilio Ormezzano Atilio Ormezzano	1430	300
YV4RR	...Radio Puerto Cabello	..Puerto Ca- bello	....Rafael A. Segura Rafael A. Segura	1470	800

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# • • • SOUTH AMERICAN STATIONS • • •

## Short Wave Stations

Call Letters	Station Name	Location	Owner and Director of Station	Frequency Kilocycles	Power Watts
YV1RO	...Radio Trujillo	Trujillo	Pedro J. Torres	3310	1040
YV5RS	...Radio Libertador	Caracas	Pedro J. Torres		
			Comp. Anonimo	3360	1550
YV1RT	...La Voz de la Fe	Maracaibo	M. A. Torrealba		
			Pedro A. Bermudez V.	3370	700
YV5RY	...Radio Continente	Caracas	Pedro A. Bermudez V.		
			Oscar Vicentelli	3380	1590
YV4RK	...Radio Maracay	Maracay	Oscar Vicentelli		
			Atilio Ormezzano	3390	465
YV5RW	...Radio Tropical	Caracas	Atilio Ormezzano		
			Ponce & Viggiani	3400	1150
YV3RX	...Radio America	Barquisimeto	Ponce & Viggiani		
			Arturo Ramos Maggi	3410	1040
YV2RC	...La Voz de la Sierra	Merida	Arturo Ramos Maggi		
			Amilcar Segura	3420	495
YV5RX	...La Voz de la Patria	Caracas	Roberto Straus		
			Mons. J. M. Pellin	3430	2700
YV1RU	...Radiodifusora Maracaibo	Maracaibo	Pedro Vargas		
			G. Govea & G. Nouel	3440	1000
YV6RC	...Ondas del Neveri	Barcelona	Guillermo Govea		
			L. J. Arreaza A.	3450	465
YV4RP	...Radio Valencia	Valencia	L. J. Arreaza		
			Miguel Ache	3460	1000
YV4RQ	...Radio Puerto Cabello	Puerto Cabello	Miguel Ache		
			Rafael A. Segura	3480	885
YV3RF	...La Voz del Llano	Acarigua	Rafael A. Segura		
			Pausides Sigala	3490	160
YV5RV	...Emisora Vargas	La Guaira	Luis Barrios		
			G. Veloz Mancero	3500	350
YV1RV	...Ecos del Zulia	Maracaibo	Gonzalo Veloz M.		
			L. Garcia Nebot	4750	300
YV4RO	...Radio Carabobo	Valencia	L. Garcia Nebot		
			G. Degwitz	4760	300
YV1RY	...Radio Coro	Coro	G. Degwitz		
			Roger Leyba	4770	312
YV3RN	...Radio Barquisimeto	Barquisimeto	Roger Leyba		
			Amilcar Segura	4780	1250
YV6RU	...Ecos del Orinoco	Ciudad Bolivar	Amilcar Segura		
			E. Torres Valencia	4790	960
YV1RX	...Ondas del Lago	Maracaibo	F. Torres Valencia		
			N. Vale Quintero	4800	3080
YV1RL	...Radio Popular	Maracaibo	N. Vale Quintero		
			J. A. Higuera M.	4810	300
YV2RN	...La Voz del Tachira	San Cristobal	Rafael Rivera Parra		
			Jesus Diaz Gonzalez	4830	2000
YV1RZ	...Radio Valera	Valera	Jesus Diaz Gonzalez		
			Pedro Flores Jelambi	4840	484
YV5RU	...Ondas Populares	Caracas	Pedro Flores Jelambi		
			Gonzalo Veloz M.	6070	2232
YV5RM	...Radiodifusora Venez.	Caracas	Gonzalo Veloz M.		
			Degwitz & Siblesz	6150	7250
YV5RN	...Radio Caracas	Caracas	H. Degwitz		
			Almacen Americano	6200	7550
			Ricardo Espina		

# STATIONS OF CENTRAL AMERICA

## BRITISH HONDURAS

Call Letters	Operated by and Location	Frequency Kilocycles	Power Watts
ZIK2	Government, Belize	10600	200

## COSTA RICA

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
TI5JJM	Emilio E. Martinez, Alajuela	575	1500
TI4NRH	Amando Cespedes M., Heredia	710	750
TIRH	Rafael Hine Ch., San Jose	970	500
TIJMP	Jose Maria Pinaud, San Jose	855	3000
TIRM	Rafael Merino A., San Jose	900	1000
TIGPH2	Gonzalo Pinto H., San Jose	800	3000
TIEP	Eduardo Pinto H., San Jose	830	3000
TIFA	Francisco Arie, San Jose	1000	250
TIGPH	Gonzalo Pinto H., San Jose	605	6500
TISMG	Guillermo Zuniga R., San Jose	1045	500
TILJ	Lola Monge Peralta, San Jose	775	450
TILS	Luis Saenz Mata, San Pedro	880	5000
TICQ	Narcisco Garcia, San Jose	750	500
TIPG	Claudia Martinez N., San Jose	625	5000
TIRCC	Carlos Borge, San Jose	1200	500
TIRS	Rogelio Sotela B., San Jose	920	400
TIGH	Jose Maria Pinaud, San Jose	690	2000
TIHZ	Heli Zuniga, San Jose	1150	1000
TIOS	Guillermo Castro Saenz, San Jose	940	500
TIMBC	Oscar Martinez Nussbaumer, San Jose	1070	5000
TIBAS	Gonzalo Pinto H., San Juan de Tibas	650	8000
TIMC	Jorge Mario Cardos M., Cartago	735	700

### Short Wave Stations

TINRH	Amando Cespedes, Heredia	9692	750
TIEP	Eduardo Pinto H., San Jose	6700	1000
TIGPH	Gonzalo Pinto H., San Jose	5875	1000
TIPG	Claudia Martinez, San Jose	9615	2000
TIRCC	Carlos Borge, San Jose	6180	300
TIRH	Rafael Hine Ch., San Jose	6150	250
TILS	Luis Saenz Mata, San Pedro	6165	2000
TIRVM	Ruben Venegas Mora, Las Juntas de Abangarez	6035	500
TIWS	Manuel Campos J., Puntarenas	6065	500

## GUATEMALA

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
TGW	Radiodifusora Nacional, Guatemala City	610	10000
TGI	Government, Guatemala City	1310	200
TGX	El Liberal Progresista (newspaper), Guatemala City	1410	50
TGQ	Government, Quezaltenango	1450	200
TGWC	Radiodifusora Nacional, Guatemala City	1520	1000

### Short Wave Stations

TG3	Government, Guatemala City	2300	200
TGWA	Radiodifusora Nacional, Guatemala City	9685, 15170	10000
TGWB	Radiofusora Nacional, Guatemala City	6460	1000

# • • • CENTRAL AMERICAN STATIONS • • •

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
TG2.....	Government, Guatemala City.....	6190	200
TGX1.....	El Liberal Progresista (newspaper), Guatemala City .....	6100	50
TGQA.....	Government. Quezaltenango .....	6400	200

## HONDURAS

Call Letters	Owner	Station Name	Location	Frequency Kilocycles	Power Watts
HRN .....	Rafael Ferrary .....	La Voz de Honduras..	Tegucigalpa .....	1450	500

### Short Wave Stations

HRN .....	Rafael Ferrary .....	La Voz de Honduras..	Tegucigalpa .....	2437	500
HRD2 .....	Genoveva v. de Castaneda .....	La Voz de Atlantida...	La Ceiba .....	5875	500
HRP1 .....	Filiberto Diaz Zelaya..	Eco de Hondura.....	San Pedro Sula..	6235	250
				6351	100

## NICARAGUA

Call Letters	Owner	Station Name	Location	Frequency Kilocycles	Power Watts
YNMA.....	Gobierno de Nicaragua..		Managua .....	6140, 9570, 11750	500
YNDS.....	Gobierno de Nicaragua..	La Voz de Nicaragua..	Managua .....	6240	600
YNLG.....	Benjamin Guerra L....	Ruben Dario .....	Managua .....	6610	400
YNPS.....	Gobierno de Nicaragua..	La Voz de Nicaragua..	Managua .....	6760	800
YNFM.....	Jose F. Tercero.....	La Voz de la Ciudad de las Flores .....	Masaya .....	6950	60
YNBO.....	J. Edgar Tijerino.....	La Voz de Boaco.....	Boaco .....	6980	20
YNFF.....	Francisco Perez G....	La Voz del Tropico...	Managua .....	7235	100

### Short Wave Stations

YNJAT ...	J. A. Tijerino .....	La Voz del Aire.....	Leon .....	5758	1000
YNOW ...	Mendoza & Bros.....	Voz de La America Central .....	Managua .....	6850	800
YNFT ...	Jose F. Tercero Z.....	La Voz de La Sultana..	Granada .....	7500	100
YNLT ...	Reyes V. de Tenoria...	La Voz del Mombacho..	Granada .....	7625	200
YNDG ...	Dionisio E. Gallo.....	Gilfilland .....	Leon .....	7660	1000

## PANAMA

Call Letters	Owner (and Station Name)	Location	Frequency Kilocycles	Power Watts
HOK.....	Jose Jaen & Jaen, La Voz de la Victor.....	Colon .....	640	250
HP5C.....	Radio Miramar .....	Panama City .....	730	500
HOA.....	La Voz de la Democracia.....	Panama City .....	1000	500
HOQ.....	Agustin de Mena & Jose M. Herrera, Jr.....	Panama City .....	1250	250
HP6J.....	La Voz de Panama.....	Panama City .....	1358	250
HOC.....	Jose Jaen & Jaen.....	Panama City .....	1440	50

### Short Wave Stations

HP5K.....	La Voz de La Victor.....	Colon .....	6005	1000
HP5B.....	Radio Miramar .....	Panama City .....	6030	150
HP5F.....	La Voz de Colon.....	Colon .....	6050	1000
HP5H.....	La Voz del Pueblo.....	Panama City .....	6122	400
HP5J.....	La Voz de Panama.....	Panama City .....	9607	400
HP5A.....	Radio Teatro Estrella de Panama.....	Panama City .....	11700	1000
HP5G.....	La Voz de la Democracia.....	Panama City .....	11780	800

## EL SALVADOR

Call Letters	Station Name	Owner	Location	Frequency Kilocycles	Power Watts
YSP.....	La Voz de Cuscatlan...	Fernado Albayeris Sosa	San Salvador.....	6150	300
YSR.....	La Voz de El Salvador..	Sucesion Cevallos .....	San Salvador.....	6265	400
HUB.....	Government .....		San Salvador.....	4780	300

## BAHAMAS

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts
ZNS.....	Bahamas Government	Nassau	640	1000 C.P. 5000

### Short Wave Stations

ZNS.....	Bahamas Government	Nassau	690	200
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## CURACAO

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts
PJC1.....	Government of Curacao	Willemstad	9106 5929	150 (C.P. 1000)

## DOMINICAN REPUBLIC

Call Letters	Operator	Location	Frequency Kilocycles	Power Watts
H1N.....	Partido Dominicano	Ciudad Trujillo	1090	150
H1X.....	Government	Ciudad Trujillo	950	800
H1Z.....	Frank Hatton	Ciudad Trujillo	1350	200
H19U.....	Luis A. Pelegrin	Puerto Plata	1010	100

### Short Wave Stations

H11G.....	A. C. Puello	Ciudad Trujillo	6280	100
H12G.....	A. C. Puello	Ciudad Trujillo	9290	100
H1L.....	J. C. Pellicer	Ciudad Trujillo	6500	60
H11N.....	Partido Dominicano	Ciudad Trujillo	6243	700
H1T.....	F. A. Sanabia	Ciudad Trujillo	6630	100
H11Z.....	Frank Hatton	Ciudad Trujillo	6316	100
H11X.....	Government	Ciudad Trujillo	6206	300
H16H.....	Emilio Garden, Jr.	Ciudad Trujillo	6115	100
H13C.....	Antonio Herrero H.	La Romana	6105	30
H1H.....	D. Dominguez	San Pedro de Macoris	6780	250
H11J.....	F. M. Donastorg	San Pedro de Macoris	6025	40
H11A.....	Rafael Western	Santiago	6182	75
H11L.....	Maria J. Tavares	Santiago	6480	200
H11S.....	Generoso Sarnelli	Santiago	6420	200
H13U.....	Fernando Bertran	Santiago	6015	100
H19B.....	J. L. Sanchez	Santiago	6383	200
H19T.....	Luis A. Pelegrin	Puerto Plata	6170	100
H12X.....	Government	Ciudad Trujillo	11960	250
H13X.....	Government	Ciudad Trujillo	17400	250

## HAITI

HHW.....	R. Widmaier	Port-au-Prince	1230	75
HH2S.....	Societe Haitienne de Radio- diffusion	Port-au-Prince	5920	300
HHBM.....	F. C. Magloire	Port-au-Prince	9655	100
HH3W.....	R. Widmaier	Port-au-Prince	9595	150

# NO DELAYS



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*Hap Hadley*

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is the Ross Federal coincidental study that doesn't syphon up some important data. These little suspected facts will pay for the study many times over.

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### CONFIDENTIAL SHOPPING STUDIES

### DEALER INTERVIEWS

Inventory and point of sale display checking

### READERSHIP STUDIES

### OUTDOOR ADVERTISING CHECKING

### TRAFFIC CHECKING

\*For a detailed presentation of Ross Federal's many research services write for a copy of *SOUNDINGS*.

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