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# EDUCATIONAL RADIO A PUBLIC SERVICE

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By

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**A** SMALL coin—suppose we say a penny—held close enough to the eye, will obscure the noblest works of God and man.

Pennies need perspective.

Similarly, a considerable amount of perspective would seem to be necessary in the matter of achieving education through radio in the United States.

On all sides of this question we see exhibited the tendency to allow the trees to obscure the forest. Broadcasters here and there, making time available for what is euphemistically known as “educational programs,” are likely to feel that, judged by entertainment values, designed to intrigue and hold listeners, the quality of the productions sponsored by educational groups is extremely low. Certainly under these circumstances, we can understand if the broadcaster concludes that the actual achievement of education through radio is a questionable quantity. His approach is purely pragmatic. He points out that he has made the time and the facilities of his station available for educational purposes, but he sincerely questions the actual achievement of any important degree of education because of the low quality of many programs from a show business angle. He is, basically, a showman, and his values are those of show business.

The educator, on the other hand, has an entirely different approach to this question. First, he points out, the broadcaster is not interested in education, and certainly the majority of the programs which he airs cannot be considered educational. For the life of him he cannot understand why the average radio listener should not be interested in the gems of enlightenment and culture which he is all too ready to impart. He does his best, he points out, to present listenable programs, but his resources are limited.

If the foregoing is the bird’s eye view which we get when we look at radio in the United States today, then certainly we need perspective.

It is true that there is a certain super-

ficial conflict of interests between broadcasters and educators, but this conflict is, let it be repeated, superficial. Under the surface there is a basic philosophy within which there can be no conflict between broadcasters and educators. As a matter of fact, these two groups will be working together through the year 1940 as never before in a cooperative effort through which, we dare to hope, there will be evolved the American system of education through radio.

Let us examine briefly the basic philosophy which underlies the American system of broadcasting. The American way is to encourage the individual toward the fullest self-expression, and one of the major responsibilities of American education is to guide that self-expression into constructive channels.

Broadcasters are members of that small group of our national community which has found self-expression through the administration of radio. Further, our national philosophy is dedicated to the principle that many natural resources need not and should not become Governmental monopolies, but that they may and should be administered privately and for legitimate profit, so long as that administration remains in the public interest, convenience, and necessity.

Broadcasters then, enjoy the privilege of administering the great natural resource of radio, but as an accompanying condition they are obliged to accept the responsibility of insuring that their administration remains at all times in the public interest.

Translated into more concrete terms this means that a certain number of their broadcast periods should be devoted to what may be designated as “public service” broadcasting. The need for these safeguards is intrinsic in radio in that it touches all of the people, and we hardly need explore the point further.

Now certainly programs which are designed to achieve or which do achieve public enlightenment along constructive and desirable lines may be considered as serving a public need, and hence, in airing them, the broadcasters are conducting

their operations in the public interest, convenience and necessity.

Broadcasters sometimes overlook the fact, however, that educators are constantly rendering them a vital service. As U. S. Commissioner of Education John W. Studebaker has pointed out in a year's end report to the Federal Communications Commission:

"In the kindergarten, the elementary school, the secondary school, the college, the university—from the rostrum, the forum platform, and at the table around which a discussion group may gather, educators are today, and for years have been upholding and inculcating an appreciation of the American way of life and especially of the basic necessity of freedom to learn. In doing so they have increased the understanding of the need for a system of broadcasting free from the compulsion of censorship."

It is quite apparent therefore that broadcasters and educators have mutual and vital interests. Through his activity the educator is perpetuating the American system, within which the broadcasters enjoy the privilege of administering their property with a minimum of Governmental interference or control. On

the other hand, the broadcaster offers the educator a powerful instrument for achieving the education which is designed to maintain and strengthen the entire American system—a fundamental aim of American education. That there is a mutual recognition of these facts is evident in the program of the Federal Radio Education Committee. This Committee, jointly composed of broadcasters and educators, and appointed by the Federal Communications Commission, is now in the midst of a program aimed at bringing about effective cooperation between broadcasters and educators.

It is carrying forward a series of thirteen exhaustive studies, upon the findings of which sound steps may be planned. Meanwhile, it is promoting the development of sound technics through a Service Division. Finally it seeks to interpret this evolution in American radio to the American people so that it may have their understanding and support.

The eventual result of this cooperative effort may be the emergence of the American plan for education through radio which will be an integral and an accepted part of the American system of broadcasting.

## Non-Commercial Educational Broadcast Stations

(As of January 1, 1940)

*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. Such stations operate on not less than 100 watts and not greater than 1000 watts unless a definite need for greater power is shown and such stations must furnish a non-profit and non-commercial broadcast with no sponsored or commercial programs.*

Licensee and Location	Call Letters	Frequency (Kc)	Power
Board of Education, City of New York, Brooklyn, N. Y. ....	WNYE	41100	500 w
Cleveland City Board of Education, (Charles H. Lake, Superintendent) Cleveland, Ohio .....	WBOE	41500	500 w
<b>Pending Application</b>			
Board of Education of San Francisco Unified School District, Civic Auditorium Bldg., 22nd & Bartlett Sts., San Francisco, Calif. ....	not assigned	41300	1000 w
Pacific States University, 1117 Venice Blvd., Los Angeles, Calif. ....	not assigned	41300	1000 w
San Mateo Junior College District, San Mateo, Calif. ....	not assigned	41060	100 w
University of Kentucky, Lexington, Ky., (Transmitter: High School Bldg., Beattyville, Ky.) .....	not assigned	41900	100 w

# F. C. C. Regulations Regarding Non-Commercial Educational Broadcast Stations

*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 educational 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:

41,020 kc	41,060 kc	41,100 kc	41,140 kc
41,180	41,220	41,260	41,300
41,340	41,380	41,420	41,460
41,500	41,540	41,580	41,620
41,660	41,700	41,740	41,780
41,820	41,860	41,900	41,940
41,980			

Stations serving the same area will not be assigned frequencies separated less than 160 kilocycles.

Amplitude modulation shall be employed exclusively unless it can be shown that frequency modulation will better serve the purpose of the station in which case such modulation may be authorized provided sufficient frequencies can be grouped so as to obtain the required band width without causing interference to established stations or preventing the full expansion of the service.

Only one frequency will be assigned to a station.

# COLLEGES AND UNIVERSITIES IN THE UNITED STATES OFFERING COURSES IN RADIO BROADCASTING

As of January 1st, 1940

*With Names of Instructors and Credit Hours*

*Compiled by the Director of Research, Federal Radio Education  
Committee, U. S. Office of Education, Federal Security Agency,  
Washington, D. C.*

On September 30, 1938, the Educational Radio Script Exchange, of the Office of Education, mailed a questionnaire to the 1,686 colleges and universities in the United States asking for information regarding specialized courses in the field of radio. Replies were received from 916 institutions. A total of 310 institutions reported at least one regular course in radio. In August 1939, the 916 institutions which responded to the first questionnaire were asked to re-check and correct their previous information concerning radio courses. The list that follows is the result of the rechecking survey. The following code should be used to interpret the listings in this survey, the courses being indicated by letters as follows: (A) General Course in Radio, (B) Radio Program Planning and Production, (C) Education by Radio, (D) Radio Script Writing, (E) Radio Announcing (F) Radio Speech, (G) Radio Dramatics, (H) Radio Music, (I) Radio Station Management, (J) Radio Advertising, (K) Technical Courses in Radio, (L) Television, and (M) Radio Law.

Whenever credit hours were reported for any course, the number of hours will be found bracketed with the identifying letter of that particular course. For example, (D-2) (E) indicates a course in Radio Script Writing for which 2 credit hours are given and a course in Radio Announcing for which no credit hours were reported. The symbol (F and G-4) signifies that a course involving both Radio Speech and Radio Dramatics is offered with 4 hours of credit given. The symbol (K-varies) means that technical courses in radio are available for which credit hours vary. Included with each listing will be found the name of an instructor who is in charge of radio instruction. These persons should be consulted for further information. The asterisk before the name of the institution indicates that the school has its own broadcasting station and equipment.

College	In Charge of Radio
Abilene Christian College, Abilene, Tex. (D & F-3)	Mrs. A. B. Morris
Akron, University of, Akron, Ohio. (F-3)	O. A. Hitchcock
Alabama University of, University, Ala. (A) (D) (E) (F) (K)	Clyde B. Crawley
Alabama College, Montevallo, Ala. (A-2)	Nora Landmark
Alabama Polytechnic Institute, Auburn, Ala. (A-2) (K-varies)	Woodrow Darling
Alliance Technical Institute, Cambridge Springs, Pa. (A-3)	F. Kowalko

Antioch College, Yellow Springs, Ohio. (K-6).....	C. D. Barbulesco
Arizona, University of, Tucson, Ariz. (K-3).....	R. G. Picard
Arkansas, University of, Fayetteville, Ark. (K-3).....	C. W. Janes
Armour Institute, 3300 Federal Street, Chicago, Ill. (K-4) (L-4).....	A. W. Sear
Asheville Normal and Teachers College, Asheville, N. C. (A).....	Hazel Gebbany
Augustana College, Rock Island, Ill. (A-3) (G).....	Theodor Le Vander & Ruth Robinson
Augustana College, Sioux Falls, S. Dak. (F) (G) (E) (H).....	Hugo A. Carlson
Aurora College, Aurora, Ill. (B-2).....	J. Floyd Morris
Bard College, Annandale-on-Hudson, N. Y. (K & L-8) (A-8).....	Harold Hughes
Baylor University, Waco, Tex. (A-3 1/3).....	Sara Lowrey
Berry College, Mt. Berry, Ga. (K-2).....	L. E. McAllister
Birmingham Southern College, Birmingham, Ala. (A-3).....	Dr. M. F. Evans
Blue Ridge College, New Windsor, Md. (G).....	Mme. Barry-Orlova
Bob Jones College, Cleveland, Tenn. (B-2).....	Elizabeth Adams
Boston College, Chestnut Hill, Mass. (K-8).....	Rev. John A. Tobin
Boston University College of Business Administration, Boston, Mass., (B-2) (D-2) (F-2) (G-2) (J-2).....	Ralph L. Rogers
Bradley Polytechnic Institute, Peoria, Ill. (A-2) (F-2) (K-3).....	F. E. Duce
Branch Agricultural College, Cedar City, Utah. (E-5).....	R. L. Halverson
Brigham Young University, Provo, Utah. (A-2) (D-2) (G) (H) (I) (J).....	Dr. T. Earl Pardoe
Bucknell University, Lewisburg, Pa. (K-3).....	George A. Irland
Butler University, Indianapolis, Ind. (F-3) (K-6).....	L. Gray Burdin
California, University of, Extension Division, Los Angeles, Calif. (B) (D) (G).....	Margaret Wotten
California, Institute of Technology, Pasadena, Calif. (K-18).....	S. S. Mackeown
California Polytechnic Junior College, San Luis Obispo, Calif. (A-3) (H-2) (K-6).....	B. G. Eaton
Canisius College, Buffalo, N. Y. (A-2) (D-2).....	Charles E. Brady
Capital University, Columbus, Ohio. (B-3).....	Prof. W. C. Craig
Carnegie Institute of Technology, Pittsburgh, Pa. (K).....	Charles Williamson
Carroll College, Waukesha, Wis. (F-2) (K).....	V. P. Batha
Carson Newman College, Jefferson City, Tenn. (A-3).....	Alex Chavis
Case School of Applied Science, Cleveland, Ohio. (K-12).....	J. R. Martin
Catholic University, Washington, D. C. (D-2) (E-2) (G-2).....	Rev. G. V. Hartke
C. C. N. Y. School of Technology, New York, N. Y. (A-3) (K-3).....	Alexander H. Wing, Jr.
Centenary Junior College, Hackettstown, N. J. (A-1).....	Ellen C. Crouch
Chicago, University of, Chicago, Ill. (A-3 1/3) (D-7) (F-3 1/3).....	Charles Newton
Chicago Musical College, Chicago, Ill. (A) (B) (C) (D) (E) (G) (H).....	Belle Forbes Cutter
Chicago School of Expression and Dramatic Art, Chicago, Ill. (A) (B) (D) (E) (G).....	Helen C. Espie
Chicago Teachers College, Chicago, Ill. (C-2) (D-3).....	Luella Hoskins
Cincinnati, University of Cincinnati, Ohio (D-4) (J-2) (K-varies) (L) (M-4).....	W. C. Osterbrock
Cincinnati College of Music, Cincinnati, Ohio. (B-4).....	Uberto Neely
Cincinnati Conservatory of Music, Cincinnati, Ohio. (A) (D) (G).....	Hubert Kockritz
Citadel, The, Charleston, S. C. (A-6).....	N. F. Smith
Clarkston College, Potsdam, N. Y. (K-varies).....	J. L. Stiles
Clemson College, Clemson, S. C. (K-2).....	Prof. A. B. Credle
Coe College, Cedar Rapids, Iowa. (A-2) (F).....	J. Dale Welsch
College of St. Scholastica, Duluth, Minn. (A-1).....	Sister Bernard
College of St. Teresa, Winona, Minn. (B) (C) (H).....	Sister M. Marceline
College of Wooster, Wooster, Ohio. (A-4).....	Earl W. Ford
Colorado College, Colorado Springs, Colo. (K-8).....	Howard Olson
Colorado School of Mines, Golden, Colo. (K-6).....	Myron G. Pawley, Raymond Dickinson
Colorado State College, Fort Collins, Colo. (A-3).....	Frank P. Goeder, Ph.D.
Colorado State College of Education, Greeley, Colo. (A-4).....	F. L. Herman
Columbia College of Drama and Radio, Chicago, Ill. (A) (B-2) (C) (D-2) (E-2) (F-2) (G-4).....	Norman Alexandroff
Columbia University, New York, N. Y. (A-2) (D-3).....	James C. Egbert
Compton Junior College, Compton, Calif. (K-5).....	Jesse E. Hathaway
Connecticut State College, Storrs, Conn. ....	Dr. R. B. Corbett
Cornell College, Mount Vernon, Iowa. (A-3) (B-3).....	Albert Johnson
Cornell University, Ithaca, N. Y. (A-2) (K-4).....	Chas. A. Taylor

Cornish School, The, Seattle, Wash., (A-3) (B--2) (D-2) (E-2) (F-2) (G-3) (I) (J-3) (M)	Donald MacLean
Creighton University, Omaha, Nebr. (B-3) (D-3)	Edwin Puls
Cummock Junior College, Los Angeles, Calif. (F)	Josephine Dillon
Davidson College, Davidson, N. C. (K-4)	F. L. Jackson
Dayton, University of, Dayton, Ohio. (G) (K-3)	Prof. Louis Rose
Denison University, Granville, Ohio. (A-3)	Richard H. Howe
Denver, University of (School of Commerce), Denver, Colo. (B-2½) (D-2½) (F-2½)	Roscoe K. Stockton
Detroit, University of, Detroit, Mich. (A-2) (F)	E. A. McFaul
Doane College, Crete, Nebr. (A-4) (B) (G)	Dr. E. Russell Wightman
Dodd College, Shreveport, La. (A-3)	(not known)
Drake University, Des Moines, Iowa, (A-2) (B-2) (D-4) (E) (G-2) (I-3) (J-2)	Edwin G. Barrett
Note: Drake offers a major in radio.	
Drexel Institute of Technology, Philadelphia, Pa. (K)	R. T. Zern
Dubuque, University of, Dubuque, Iowa. (A-4) (K-4)	R. G. Wilson
Duke University, Durham, N. C. (K-3)	W. J. Seeley
Duquesne University, Duquesne, Pa. (A-3)	Madeleine S. Foust
East Central Teachers College, Ada, Okla. (A-2)	D. J. Nabors
Eastern Washington College of Education, Cheney, Wash. (K-2)	James S. Lane
Elmira College, Elmira, N. Y. (F)	Geraldine Quinlon
Emerson College, Boston, Mass. (A-3) (D-2) (E-2) (G-2)	Arthur F. Edes
Emory University, Emory University, Ga. (A-5) (K)	J. B. Peebles
Emporia, College of, Emporia, Kans. (A-4)	R. F. Miller
Florida, University of, Gainesville, Fla. (F-3) (K-varies)	Garland Powell
Florida Agricultural and Mechanical, Tallahassee, Fla. (A-2) (K-4)	H. R. Orr
Florida Southern College, Lakeland, Fla. (A-1)	Miss Alma Johnson
Fort Hays Kansas State College, Hays, Kans. (A-3)	Harvey A. Zinszer
Frances Shimer College, Mount Carroll, Ill. (D-2) (G-3)	George E. Hoffman
Franklin University, YMCA, Columbus, Ohio. (A) (K)	E. E. Dysart
Friends University, Wichita, Kans. (B-2) (E-1) (G) (K-5)	Irene Vickers Baker
George Peabody Teachers College, Nashville, Tenn. (E-2)	A. L. Crabb
George Washington University, Washington, D. C. (A-3) (K)	Prof. W. Hayes Yeager
Georgetown University, Washington, D. C. (A) (M-2)	P. J. Donovan
Georgia, University of, Athens, Ga. (D & E-5)	Prof. Edward C. Crouse
Georgia School of Technology, Atlanta, Ga. (A-3) (D & F-3) (K-3)	Irving H. Gerks
Gila Junior College, Thatcher, Ariz. (A-3) (G-2) (H-2)	William G. Kauffman
Glendale Junior College, Glendale, Calif. (A-3) (F-2)	B. L. Griffing
Gonzaga University, Spokane, Wash. (K-5)	Richard A. Brown
Grays Harbor Junior College. (A)	Not Known
Grove City College, Grove City, Pa. (A-4) (G) (H) (K-4)	Not Known
Harding College, Searcy, Ark. (A-5) (H-3)	Leonard Kirk
Hardin-Simmons University, Abilene, Tex. (F-3)	Katherine Boyd
Harvard University, Cambridge, Mass. (K)	Dr. R. W. Hickman
Hastings College, Hastings, Nebr. (A-2) (F)	Charles J. Thurmond
Haverford College, Haverford, Pa. (A-3) (K-3)	J. D. Elder
Houston, University of, Houston, Tex. (K-3½)	Harvey W. Harris
Howard College, Birmingham, Ala. (K-2)	Paul D. Bales
Idaho, University of, Moscow, Idaho. (A-2) (K-varies)	Prof. R. H. Hull
Illinois College, Jacksonville, Ill. (K-varies)	F. Cooke
Illinois, University of, Urbana, Ill. (K)	Josef F. Wright
Illinois State Normal University, Normal, Ill. (F-2)	Harvey F. Admire
Illinois Wesleyan University, Bloomington, Ill. (A-4)	Wilson B. Paul
Indiana State Teachers College, Terre Haute, Ind. (A-4) (B-4) (C-4) (D-4) (E-4)	Dr. Clarence M. Morgan
Indiana University, Bloomington, Ind. (A-3) (B-3) (C-3) (D-3)	Dr. Lee Norvelle
Iowa, State University of, Iowa City, Iowa. (A-3) (B-2) (D-3) (F-3) (G-3) (J-3) (K-2)	Bruce E. Mahan
Iowa State College, Ames, Iowa. (D-3) (F-3) (K-4) (L-4)	W. L. Griffith
Iowa Wesleyan College, Mount Pleasant, Iowa. (A-3)	Roger M. Morrow
Ithaca College, Ithaca, N. Y. (D) (E-4) (G-4)	Dr. Winn F. Zeller
John B. Stetson University, DeLand, Fla. (G-6) (H-6) (K-6)	Dr. Robert I. Allen
John Brown University, Siloam Springs, Ark. (A-3) (B-3) (I-3) (K-varies) (M-2)	Harold Fristoe

John Carroll University, Cleveland, Ohio. (B-3) (D-3) (E-3) (G-3)	Wm. A. D. Millson
Johns Hopkins University, Homewood, Baltimore, Md. (K-3)	Ferdinand Hamburger, Jr.
Juilliard School of Music, 130 Claremont Avenue, New York, N. Y. (A)	Robert A. Simon
Kanawha College, Charleston, W. Va. (A-2)	Ann Ferguson
Kansas, University of, Lawrence, Kans. (G-2)	Harold G. Ingham
Kansas State College, Manhattan, Kans. (A-3) (B-2) (D-2) (F-2) (H-2) (J-3) (K-4)	H. B. Summers
Kansas State Teachers College, Emporia, Kans. (A-2) (D) (E) (F) (G)	S. Winston Cram
Kent State University, Kent, Ohio. (A-3)	G. Harry Wright
Kentucky, University of, Lexington, Ky. (C-3) (K-3)	Elmer G. Sulzer
Lafayette College, Easton, Pa. (A-3) (K & L-6)	C. H. Page
La Grange College, La Grange, Ga. (B-2) (G-3)	Mae Kirkland
Lamont School of Music, Denver, Colo. (A-2) (B-2) (E) (G-2)	James Lehman
Lehigh University, Bethlehem, Pa. (K-varies)	Assoc. Prof. H. C. Knutson
Lenoir Rhyne College, Hickory, N. C. (A-3)	Karl Z. Morgan
Lincoln University, Jefferson City, Mo. (A)	Albert A. Kildare
Little Rock Junior College, Little Rock, Ark. (G) (H-1)	Dell Park McDermott
Long Beach Junior College, Long Beach, Calif. (F-6)	Miss Edith Hitchcock
Louisiana Polytechnic Institute, Ruston, La. (C) (K)	D. R. Armstrong
Louisiana State University, University, La. (A-3) (D-3) (F-3) (I-3) (K-3)	Ralph W. Steetle
Louisville Municipal College, Louisville, Ky. (K-4)	Donald A. Edward
Loyola University, Los Angeles, Calif. (A-2) (D-2) (G-1) (J-1)	Martin H. Work
McMurray College, Abilene, Tex. (B-3)	Harold G. Burman
Mac Phail School of Music, Minneapolis, Minn. (A-4) (H-4)	Don Tuttle
Macalester College, St. Paul, Minn. (K-4)	R. B. Hastings
Madison College, Madison College, Tenn. (A-4) (K-4)	Bayard D. Goadge
Maine, University of, Orono, Me. (A-2) (B-2) (K-3)	W. J. Creamer
Manhattan College, New York, N. Y. (K-6)	J. Francis Reintjes
Marin Junior College, Kentfield, Calif. (K-2)	C. E. Cherry
Marjorie Webster School, The, Rock Creek Park, Washington, D. C. (B-3) (D-3) (G-3)	Miss Florence McCracken
Marquette University, Milwaukee, Wis. (A-2) (F-2) (K-3)	Wm. R. Duffey
Marshall College, Huntington, W. Va. (A-3)	Dr. Frank A. Gilbert
Maryland, University of, College Park, Md. (A-2)	Dr. Ray Ehrensberger
Massachusetts Institute of Technology, Cambridge, Mass. (K-varies)	Prof. Edward L. Bowles
Massachusetts State College, Amherst, Mass. (K)	Francis C. Pray
Miami University, Oxford, Ohio. (D-3) (F) (G)	A. Loren Gates
Michigan, University of, Ann Arbor, Mich. (A-2) (C-2) (D-2) (E) (G-2) (J-4) (K-12) (L-2)	Prof. Waldo Abbott
Michigan College of Mining and Technology, Houghton, Mich. (K-6) (I-3) (L)	G. W. Swenson
Michigan State College, East Lansing, Mich. (D-2) (E-3) (F-5) (G-3) (K-2)	Robert J. Coleman
Milton College, Milton, Wis. (K-4)	C. F. Oakley
Minnesota, University of, Minneapolis, Minn. (F-3) (K-3)	E. W. Ziebarth
Mississippi College, Clinton, Miss. (A-3)	Prof. Henry A. Carlock
Mississippi State College, State College, Miss. (A-3) (M-3) (K-6)	Horace M. Trent
Missouri, University of, Columbia, Mo. (A-4) (K-8)	Prof. C. M. Wallis
Missouri Valley College, Marshall, Mo. (K-3)	Dwight M. Pasek
Modesto Junior College, Modesto, Calif. (A-2)	Leonard I. Bartlett
Montana State College, Bozeman, Mont. (K-6)	Prof. C. F. Bowman
Moore School of Electrical Engineering, Philadelphia, Pa. (B-2) (D & F-4) (K-3)	Knox McIlwain
Moravian College, Bethlehem, Pa. (A-3)	Cyril N. Hoyler
Morehead State Teachers College, Morehead, Ky. (K-3)	J. G. Black
Morehouse College, Atlanta, Ga. (A-3)	H. V. Eagleson
Mt. Holyoke College, South Hadley, Mass. (K & L-3)	Rogers D. Rusk
Mount Mary College, Milwaukee, Wis. (A-1) (B-2) (F)	S. M. Louis Downey
Mount Mercy College, Pittsburgh, Pa. (A-3)	Anna Marie McConnell
Muhlenburg College, Allentown, Pa. (A-4) (K)	Dr. Carl W. Boyer
Mundelein College, Chicago, Ill. (D-2)	Miss Louise Litten
Murray State Teachers College, Murray, Ky. (K-4)	Charles Hire
Muskingum College, New Concord, Ohio. (A-2)	W. H. Ewing
National University, Washington, D. C. (M-4)	Howard S. LeRoy
Nebraska, University of, Lincoln, Nebr. (K-4)	Ferris W. Norris
Nebraska State Teachers College, Wayne, Nebr. (A-4)	Prof. J. E. Brock
Nebraska Wesleyan University, Lincoln, Nebr. (A-3) (B-3) (D-2)	J. C. Jensen
Nevada, University of, Reno, Nev. (K-3)	Assoc. Prof. I. J. Sandorf
New Mexico, University of, Albuquerque, N. Mex. (B-3) (D) (K-8)	Dr. Herbert L. Jones

New River State College, Montgomery, W. Va. (A-3) (L-3) (M-3)	Ritter F. Maxwell
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*A comprehensive and important selection of books on Radio and Television. Appended is a listing of informative literature published and available through National Broadcasting Company, Columbia Broadcasting System and Mutual Broadcasting System.*



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## **Publications of the Columbia Broadcasting System**

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 Analysis of the New York Philharmonic  
 Symphony Radio Audience.  
 Analysis of the Value of Spot Announcements  
 As a Radio "Buy" for the Large Adver-  
 tiser.  
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 Continued Upswing in Radio.  
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 . . . To Shrink Space.  
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 Truth About the Harvard Findings.  
 Twelve Months.  
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 Very Rich.  
 We Write a P. S. To a Postcard.  
 When the Advertising Dollar Goes To Work  
 In Newspapers, Magazines and Radio.

## **Publications of the Mutual Broadcasting System**

All Three of Us Can't Be Wrong.  
 Along Different Lines.  
 Award Folder.  
 Coverage: Maps and Market Data of the  
 Mutual Broadcasting System.  
 A Day In the Life of Ray D. O'Dollar  
 The Greeks Used a Wooden Horse.  
 A Guinea Pig Goes To Town.  
 Hollywood Moves East.  
 Hollywood Playhouse Program Folder.  
 How Big Is a Rubber Band.

The Human Element In a Sheet of Steel.  
 Mutual Marches On.  
 Napoleon's Boots.  
 "Put It In Quotes."  
 Some Think Them Sacred.  
 Study In Ups and Downs.  
 Take Your Choice.  
 True or False.  
 We Suspect.

## **Publications of the National Broadcasting Company**

### **INSTITUTIONAL**

History in the Making.  
 Partnership of Religion & Radio.  
 Broadcasting in the Public Interest.  
 Radio Stations of the U. S.—Folders.  
 RCA Television.  
 An Interpretation of NBC Program Poli-  
 cies as Affected by War.  
 The World's Most Glamorous Performance.  
 The Church in the Sky.  
 Listening to Learn.  
 Meet Mr. Weeks (Announcement).  
 NBC Presents (Monthly publication).  
 Yesterday's Children.  
 Music for Education.  
 Human Nature in Action.  
 Alma Kitchell's Briefcase.

### **NBC SALES PROMOTION**

NBC Broadcast Merchandising (Nov. 1937—  
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 Birds Eye View of U. S. Families.  
 Dialogue Over Pittsburg, h  
 Estimated Number of Families.  
 Joint Committee Rural Survey Books 1-2-3.  
 Joint Committee Rural Survey Book 4.  
 Let's Look at Radio Together.  
 NBC Program Policies.  
 New Dial for KECA.  
 Radio Families in the U. S.  
 Sales Through the Air.  
 So They Never Came Back.  
 Stubble, Stubble, Sales are Double.  
 Summer Slumps in Radio.  
 Taking the Blue Sky out of the Air.  
 Time Zone Cards.  
 What is a Radio Program Rating?  
 M & O Station Circulation Maps.

### **NBC RADIO-RECORDING DIVISION**

NBC Thesaurus Portfolio of Recorded Pro-  
 grams.  
 NBC Thesaurus Program Service Bulletin.  
 NBC Thesaurus Sales Bulletin.  
 NBC Thesaurus Sales Manual.  
 NBC Syndicated Recorded Programs—Pre-  
 sentations: The Lone Ranger, Secret  
 Agent K-7 Returns, Heart Throbs of the  
 Hills, Listeners' Club, etc.  
 A New Lateral Transcription Standard  
 (Technical treatise on NBC Orthacoustic).

### **GUEST RELATIONS**

Radio City Broadcasting & Television Tours  
 Booklet.  
 NBC Radio City Hollywood Studio Tour  
 Booklet.  
 Television Booklet.

### **LISTENER AIDS**

NBC Music Appreciation Hour.  
 Ideas That Came True.  
 America's Town Meetings of the Air.  
 Science On the March.  
 The World Is Yours.  
 On Your Job.  
 Story Behind the Headlines.  
 Great Plays.  
 University of Chicago Round Table.  
 Gallant American Women.  
 Torch of Progress.  
 Pilgrimage of Poetry.  
 Art For Your Sake.  
 Standard Looseleaf Binder.  
 Catalogue of Listener's Aids.



# ASSOCIATIONS

- Clubs**
- Guilds**
- Organizations**
- Radio Groups**
- Unions**
- Personnel**
- Addresses**



# ORGANIZATIONS

## Acoustical Society of America

919 North Michigan Ave., Chicago, Ill.

### OFFICERS

President	F. R. Watson
	(University of Illinois)
Vice-President	F. A. Firestone
	(University of Michigan)
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### EXECUTIVE COUNCIL

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## Actors' Equity Association

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

### OFFICERS

President	Arthur Bryon
First Vice-President	Bert Lytell
Second Vice-President	Florence Reed
Third Vice-President	Burgess Meredith
Fourth Vice-President	Peggy Wood
Executive Secretary-Treasurer	Paul Dullzell
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Counsel	Paul N. Turner
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Branches: San Francisco, Theodore Hale, 220 Bush St.; Los Angeles, I. B. Kornblum, 1202 Commercial Exchange Bldg., 416 W. 8th St.; Chicago, Frank R. Dare, 729 Waveland Ave.; Chorus Equity: 117 W. 48th St., New York, N. Y.

## Advertising Federation of America

330 West 42nd St., New York, N. Y.  
BRyant 9-0430

### OFFICERS

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### 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.

## American Association of Advertising Agencies

420 Lexington Ave., New York, N. Y.  
MOhawk 4-7982

### OFFICERS

President	John Benson
Executive Secretary	Frederic R. Gamble

## American Association of Baseball Broadcasters

### OFFICERS

President	George Higgins
	(WTCN, Minneapolis-St. Paul)
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	(WBNS, Columbus, O.)

### MEMBERSHIP

Connie Desmond (WSPD, Toledo); Vic Lund (WIRE, Indianapolis); Don Hill (WAVE, Louisville); Walt Lockman (KITE, Kansas City, Mo.); Allan Hale (WISN, Milwaukee, Wisc.); George Gallaher (WCCO-WMIN, Minneapolis).

### FUNCTIONS

The purpose of this organization is to foster more uniform play-by-play pictures of league baseball games.

## American Bar Association (Standing Committee on Communications)

Office of the Chairman: 920 Southern Bldg., Washington, D. C.

### COMMITTEE

Chairman	Robert N. Miller
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Committeeman	Bethuel M. Webster, Jr.
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### FUNCTIONS

The main function of this committee is to keep in touch with any phase of the field of communications in which the American Bar Association may have an interest. It reports to the Bar Association at intervals with recommendations for action, and carries out such mandates as it receives from the Association.



# ORGANIZATIONS

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

10 Bridge St., New York, N. Y.  
Bowling Green 9-3007

### OFFICERS

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## American Council on Education

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

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### 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. It has sponsored two national conferences on educational broadcasting to provide a national forum of educational and broadcasting interests for the furthering of education by radio. It also has an educational motion picture project which is evaluating and producing classroom films.

## American Federation of Musicians

1450 Broadway, New York, N. Y.  
Pennsylvania 6-2546

### OFFICERS

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## American Federation of Radio Artists (AFRA)

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

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Cincinnati Local—Box No. 2, Burnet Woods Station, Cincinnati, Ohio.  
Montreal Local—1126 St. Catherine St., West Montreal, Canada.  
Detroit Local—1003 Tuller Hotel, Detroit, Mich.  
St. Louis Local—3868 A Connecticut St., St. Louis, Mo.  
Miami Local—Box 3082, Miami, Fla.  
Denver Local—2650 Hudson St., Denver, Colo.  
Racine Local—804 Hamilton St., Racine, Wisc.  
Cleveland Local—11418 Bellflower Rd., Cleveland, Ohio.  
Other locals located in Des Moines, Ia.; Philadelphia, Pa.; Pittsburgh, Pa.; Schenectady, N. Y.; Boston, Mass.; Birmingham, Ala.; Shreveport, La.; Racine, Wisc.; Washington, D. C.; Toronto, Ont.; Hamilton, Ont.

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

576 Fifth Ave., New York, N. Y.  
Longacre 3-6223

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## FUNCTIONS

ACMA is a union whose purpose is to bargain collectively on behalf of solo musical artists in the protection of their common interests. It is not directly engaged in the radio industry and is affiliate of the American Federation of Radio Artists which has direct jurisdiction over broadcasting artists.

## American Guild of Radio Announcers and Producers

13-26 142nd St., Melba, Long Island  
INdependence 3-2633

### OFFICERS

President.....Roy S. Langham  
Secretary-Treasurer.....Roger Bower

### FUNCTIONS

This organization is an independent labor union, industrial in character, representing announcers, producers, sound effects technicians, radio engineers, etc., at radio stations throughout the United States.

## American Marketing Association

1621 Millard St., Bethlehem, Pa.

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## American Newspaper Publishers Association

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

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### FUNCTIONS

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

## The American Radio Relay League, Inc.

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

### OFFICERS

President.....Dr. Eugene C. Woodruff  
Vice-President.....George W. Bailey  
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### 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

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### FUNCTIONS

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

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## ORGANIZATIONS

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**ILLINOIS:** E. S. Hartman, 7 So. Dearborn St., Chicago, Ill.

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**IOWA:** John C. Wooden, 601 Des Moines Bldg., Des Moines, Iowa.

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**MISSOURI:** (Address Nearest Office) Maurice J. O'Sullivan, 700 Gloyd Bldg., Kansas City, Mo. Karl P. Spencer, 950 Telephone Bldg., 1010 Pine St., St. Louis, Mo.

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**NEVADA:** Hugo B. Anderson, 623 Continental Bank Bldg., Salt Lake City, Utah.

**NEW HAMPSHIRE:** Demond, Woodworth, Solloway, Piper & Jones, New Hampshire Savings Bank Bldg., Concord, New Hampshire.

**NEW JERSEY:** Samuel M. Hollander, Military Park Bldg., 60 Park Place, Newark, N. J.

**NEW MEXICO:** H. O. Bergcamp, Security Bldg., Denver, Colo.

**NEW YORK:** (Address Nearest Office) American Society of Composers, Authors and Publishers, 30 Rockefeller Plaza, New York, N. Y. Lawrence Schlus, 1140 Lincoln-Alliance Bank Bldg., Rochester, N. Y.

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**OHIO:** (Address Nearest Office) Samuel Feldman, 3910-11 Carew Towers, Cincinnati, Ohio. Frankel & Frankel, 1520 NBC Bldg., Cleveland, Ohio.

**OKLAHOMA:** Milsten and Milsten, 807 Tulsa Loan Bldg., Tulsa, Okla.

**OREGON:** Herman Kenin, 911 Public Service Bldg., Portland, Oregon.

**PENNSYLVANIA:** (Address Nearest Office) (Western Part) William J. O'Brien, 509 Grant Bldg., Pittsburgh, Pa. (Eastern Part) H. A. Brown, 1638 Lincoln Liberty Bldg., Philadelphia, Pa.

**RHODE ISLAND:** R. W. Rome, 44 School Street, Boston, Mass.

**SOUTH CAROLINA:** I. T. Cohen, 607-11 First National Bank Bldg., Atlanta, Ga.

**SOUTH DAKOTA:** Dwain M. Ewing, 909 Northwestern Bank Bldg., Minneapolis, Minn.

**TENNESSEE:** I. T. Cohen, 607-11 First National Bank Bldg., Atlanta, Ga.

**TEXAS:** Frank H. Hemby, 412 Tower Petroleum Bldg., 1905 Elm Street, Dallas, Texas.

**UTAH:** H. O. Bergcamp, Security Bldg., Denver, Colo.

**VERMONT:** R. W. Rome, 44 School Street, Boston, Mass.

**VIRGINIA:** I. T. Cohen, 607-11 First National Bank Bldg., Atlanta, Ga.

**WASHINGTON:** American Society of Composers, Authors and Publishers, 30 Rockefeller Plaza, New York, N. Y.

**WEST VIRGINIA:** I. T. Cohen, 607-11 First National Bank Bldg., Atlanta, Ga.

**WISCONSIN:** Robert A. Hess, Flankinton Bldg., Milwaukee, Wis.

**WYOMING:** H. O. Bergcamp, Security Bldg., Denver, Colo.

**EUROPEAN REPRESENTATIVE:** Hugo Bryk, 27-33 Champs-Elysees, Paris (8e), France.

**JAPAN:** Dr. W. Plage, 29 Mikawadaimachi, Azabu-Ku, Tokyo, Japan.

**ARGENTINA:** G. Giacompol, Sante Fe 1548, Buenos Aires, Argentina.

**HAWAII:** Samuel M. Roeder, 1302 Humboldt Bank Bldg., San Francisco, Calif.

**PUERTO RICO:** Stanley Shepard, Camino Del Acueducto de Guaynabo, Box 3667, Santurce, Puerto Rico.

**CUBA:** Dr. Ricardo E. Viurrun, 7 O'Reilly Street, Havana, Cuba.

### American Society of Music Arrangers

1438 Ridgley Drive, Los Angeles, Calif.

#### OFFICERS

President.....Robert Russell Bennett  
 First Vice-President.....Adolph Deutsch  
 Second Vice-President.....John M. Leipold  
 Secretary-Treasurer.....Vernon Leftwich  
 Counsel.....William Jennings Bryan, Jr.  
 Business Manager.....Richard S. Hartman

#### DIRECTORS

Robert Russell Bennett, Adolph Deutsch, John M. Leipold, Vernon Leftwich, John Raab, Edmund Ross, Leigh Harline, Charles Wolcott, Arthur Lange, Felix Miifs, Leo Arnaud.

#### FUNCTIONS

The American Society of Music Arrangers is a national organization founded in 1937 and is composed of the leading music arrangers of the country. Its function is to gain greater recognition for its members, to establish a closer bond among its members, to promote a mutual understanding with contemporaries, and to secure the fulfillment of the coordinate needs and protection of all members.

### Associated Actors and Artistes of America

25 West 45th Street—Room 1604, New York City, N. Y.

Phone: BRyant 9-9237.

#### OFFICERS

President-Executive Director.....Frank Gillmore  
 Executive Secretary.....Paul Dultzell  
 1st Vice-President.....Jean Greenfield  
 2nd Vice-President.....Kenneth Thomson  
 Treasurer.....Leo Fischer  
 Counsel.....Paul M. 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.

# ORGANIZATIONS

## Associated Broadcast Technicians, Unit of the International Brotherhood of Electrical Workers

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

### OFFICERS

President	Lyman C. Swenson (WCCO, Minneapolis)
Recording Secretary	Robert J. Mayberry (WABC, New York City)
Financial Secretary	Edward L. Philbrick (WEEI, Boston)
Treasurer	Ted Denton, Jr. (KNX, Los Angeles)
National Business Manager and International Representative	D. J. Dunlop
International Representative	Russ Rennaker
<b>REGIONAL OFFICERS</b>	
1st Region	Edward L. Philbrick (WEEI, Boston)
2nd Region	Robert J. Mayberry (WABC, New York City)
3rd Region	Edwin F. Laker (WJSV, Washington, D. C.)
4th Region	Ralph F. Painter (WBT, Charlotte, N. C.)
5th Region	Howard Stephen (WKRC, Cincinnati)
6th Region	Harry Harvey (WBBM, Chicago)
7th Region	Percy Zeigler (KOWH, Omaha)
8th Region	Ted Denton, Jr. (KNX, Los Angeles)

### FUNCTIONS

This association is a labor union representing broadcast technicians only.

## Association of National Advertisers, Inc.

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

### OFFICERS

Chairman of Board	A. O. Buckingham (Cluett, Peabody & Co.)
Vice-Chairman	Leo Nejejski (The Pepsodent Co.)
Vice-Chairman	H. W. Roden (Harold H. Clapp, Inc.)
Vice-Chairman	D. P. Smelser (The Procter & Gamble Co.)
President	Paul B. West (Sun Oil Co.)
Treasurer	M. H. Leister
Secretary	G. S. McMillan
Counsel	I. W. Digges

### DIRECTORS

Northrop Clarey, Standard-Oil Co. of N. J.; Gordon E. Cole, Cannon Mills, Inc.; Keith J. Evans, Inland Steel Co.; P. C. Handerson, The B. F. Goodrich Co.; W. A. Hart, E. I. du Pont de Nemours & Co.; Carleton Healy, Hiram Walker, Inc.; Charles G. Mortimer, Jr., General Foods Corp.; A. T. Preyer, Vick Chemical Co.; H. M. Shackelford, Johns-Manville Corp.; H. B. Thomas, The Centaur Co.; 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 Editors & Writers

c/o Ken McClure, San Antonio, Texas

### OFFICERS

President	Ken McClure
Secretary-Treasurer	Al Hollender (WJJD-WIND, Chicago, Ill.)

### FUNCTIONS

This association has for its object to bring together radio and television news editors and writers in accordance with the principles, procedure and ethics of good newscasting and journalism.

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

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

### OFFICERS

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

### DIRECTORS

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

### 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; American Record Co.; Ray Morgan & Co.; Standard Radio, Inc.; Recordings, Inc.

## Australian Federation of Commercial Broadcasting Stations

Commonwealth Bank B.dg., 371 Collins St.,  
Melbourne, C.1., Australia  
Phone M 5440, M 5532

### OFFICERS

President	C. F. Marden (2UW, Sydney)
Vice-President	T. Holt (3XY, Melbourne)
Vice-President	J. Ridley (2GZ, Sydney)
Vice-President	A. C. Kinnear (5AD, Adelaide)
Vice-President	A. Robertson (4BK, Brisbane)
Vice-President	B. Samuel (W. A. Broadcasters, Ltd.)
Vice-President	A. P. Findlay (7LA, Launceston)
Secretary	R. Dooley New South Wales
Secretary	A. F. O. Brown
Trustee	A. N. Kemsley (3UZ, Melbourne)
Trustee	C. V. Stevenson (2UE, Sydney)

### EXECUTIVE COMMITTEE

The committee comprises the president, vice-presidents, representatives of Sydney and Melbourne stations and two representatives of country stations in both New South Wales and Victoria.

### COUNCIL

The council comprises representatives of metropolitan stations in each capital city, with the addition of the country stations' representatives on the executive committee.

### BRANCH OFFICE

1 Jamieson Street, Sydney, New South Wales.

## Authors' Guild

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

### OFFICERS

President	Hendrik Willem van Loon
Vice-President	Henry F. Pringle
Secretary	Margaret Widdemer

# • • • ORGANIZATIONS • • •

## Authors' League

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

### OFFICERS

President ..... Elmer Davis  
Vice-President ..... Kenyon Nicholson  
Secretary ..... Homer Croy  
Treasurer ..... Luise Sillcox

### 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.

## Canadian Association of Broadcasters

Suite 1014, Metropolitan Bldg., Toronto, Ont.,  
Canada  
Elgin 5623

### OFFICERS

President ..... Harry Sedgwick  
Vice-President ..... H. Gordon Love  
Secretary-Treasurer ..... T. Arthur Evans

### DIRECTORS

Harry Sedgwick, CFRB, Toronto; Henry S. Gooderham, CKCL, Toronto; J. Stewart Neill, CFWB, Fredericton; Marcel Lefebvre, CHLP, Montreal; A. A. Murphy, CFQC, Saskatoon; H. R. Carson, CFAC, Calgary; H. Gordon Love, CFCN, Calgary.

### FUNCTIONS

The Canadian Association of Broadcasters is a trade association comprising 57 privately owned radio stations.

## Canadian Performing Right Society, 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.

## Catholic Actors Guild of America, Inc.

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

### OFFICERS

President ..... George M. Cohan  
First Vice-President ..... Gene Buck  
Second Vice-President ..... Hugh O'Connell  
Honorary Vice-Presidents:

Walter Connolly, Bing Crosby, Dan Healy, Pat O'Brien  
Chaplain ..... Very Rev. Edward F. Leonard  
Treasurer ..... Rev. John F. White  
Recording Secretary ..... Brandon Peters  
Counsel ..... Hon. Alfred J. Talley  
Historian ..... Jane Hoy  
Executive Secretary ..... George Buck  
Chairman of Executive Board ..... William David  
Social Secretary (Theatrical) ..... Allyn Gillyn  
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, non-sectarian in scope.

## Catholic Writers Guild of America, Inc.

128 W. 71st St., New York, N. Y.  
ENdicott 2-0411

### OFFICERS

President ..... Eugene A. Colligan  
1st Vice-President ..... Joseph A. Durkin  
2nd Vice-President ..... Daniel D. Halpin  
3rd Vice-President ..... Joseph M. Branigan  
Treasurer ..... Hugh A. O'Donnell  
Financial Secretary ..... Edwin P. Kolroe  
Recording Secretary ..... Clarence E. Heller  
Corresponding Secretary ..... Gertrude D. Healy  
Counsel ..... J. Hilary Bouillon  
Spiritual Director ..... Rev. John B. Kelly  
President Emeritus ..... James J. Walsh

### BOARD OF DIRECTORS

Thomas F. Woodlock, Very Rev. Fulton J. Sheen, Joseph A. Durkin, Victor Ridder, Rev. Joseph A. Daly, Hugh A. O'Donnell, Mrs. Philip A. Brennan, Rev. Eckhard Koehle, Kenton Kilmer, Richard Reid, Nicholas Farley, Katherine Edgerly, Charles H. Moran, Alex J. Morrison.

## Direct Mail Advertising Association, Inc.

17 East 42nd St., New York, N. Y.  
Vanderbilt 6-1479

### OFFICERS

President ..... L. Rohe Walter  
(The Flintkote Co.)  
Vice-President ..... Richard Messner  
(E. E. Brogle & Co.)  
Secretary-Treasurer ..... George E. Loder  
(The National Process Co.)  
Managing Secretary ..... Jane L. Bell

## The Dramatists' Guild

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

### OFFICERS

President ..... Elmer Rice  
Vice-President ..... George S. Kautman  
Chairman of the Board ..... Edward Childs Carpenter  
Secretary ..... Richard Rodgers  
Executive Secretary ..... Luise Sillcox  
Annual meeting and election: November; Membership: 2500.

### 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.

## Educational Radio Division

United States Office of Education,  
Washington, D. C.

### OFFICERS

U. S. Commissioner of Education ..... J. W. Studebaker  
Director ..... William Dow Bcutwell  
Business Manager ..... Richard Philip Herget  
Production Director ..... Philip H. Cohen  
Musical Director ..... Rudolf Schramm  
Script Editor ..... Morris Jones  
Audience Participation Director ..... Benjamin Brodinsky  
Research Director ..... Philip Leonard Green

### FUNCTIONS

The Educational Radio Division is attempting to make educational programs interesting to a larger majority of radio listeners. In doing this it conducts experimental demonstrations in the use of radio in the service of education.

# ORGANIZATIONS

## Federal Communications Bar Association

National Press Bldg., Washington, D. C.

### OFFICERS

President ..... Philip J. Hennessey, Jr.  
 First Vice-President ..... Horace Lohnes  
 Second Vice-President ..... Philip G. Loucks  
 Third Vice-President ..... Paul A. Porter  
 Secretary ..... John Little Page

### 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.

## 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 ..... Gertrude G. Broderick  
 Assistant to the Chairman  
 In Charge of Service ..... W. D. Boutwell  
 Assistant to the Chairman  
 In Charge of Research ..... Leonard Power  
 Director of Information-Editor ..... J. Kenneth Jones

### COMMITTEE

John Elmer, WCBM, Baltimore; Willard Givens, National Education Association; Reverend George Johnson, Catholic University of America; Neville Miller, National Association of Broadcasters; A. D. Ring, Federal Communications Commission; John F. Royal, National Broadcasting Co.; Levering Tyson, Muhlenberg College; Frederic A. Willis, Columbia Broadcasting System; John W. Studebaker, United States Commissioner of Education.

### 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, 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 Forums on the Air.

## First Advertising Agency Group

524 Union Commerce Bldg., Cleveland, Ohio

### OFFICERS

President ..... Lee Donnelley  
 Vice-President ..... C. P. Clark  
 Secretary-Treasurer ..... Charlton Keen

### 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.

## Independent Radio Network Affiliates, Inc. (IRNA)

Chairman's Office: 200 Bankers Securities Bldg., Philadelphia, Pa.

### OFFICERS

Chairman ..... Samuel R. Rosenbaum  
 (WFIL, Philadelphia)  
 Vice-Chairman & Acting Treasurer ..... Paul W. Morency  
 (WTIC, Hartford)

### EXECUTIVE COMMITTEE

Mark Ethridge, WHAS, Louisville; Walter J. Damm, WTMJ, Milwaukee; L. B. Wilson, WCKY, Cincinnati; John Shepard 3rd, WAAB, Boston.

### DIRECTORS

Edgar L. Bill, WMBD, Peoria; H. K. Carpenter, WHK, Cleveland; Edwin W. Craig, WSM, Nashville; E. B. Craney, KGIR, Butte; Walter J. Damm, WTMJ, Milwaukee; Mark Ethridge, WHAS, Louisville; John A. Kennedy, WCHS, Charleston; I. R. Lounsberry, WGR, Buffalo; Paul W. Morency, WTIC, Hartford; Charles W. Myers, KOIN, Portland, Ore.; George W. Norton, Jr., WAVE, Louisville; Eugene P. O'Fallon, KFEL, Denver; Samuel R. Rosenbaum, WFIL, Philadelphia; John Shepard, 3rd, WAAB, Boston; L. B. Wilson, WCKY, Cincinnati.

## Institute of Radio Engineers, Inc.

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

### OFFICERS

President ..... L. C. F. Horle  
 Secretary ..... Harold P. Westman

## Institution of Electrical Engineers

Savoy Place, London W.C.2, England  
 Temple Bar 7676

### OFFICERS

President ..... Johnstone Wright  
 Secretary ..... W. K. Brasher

## Interdepartmental Radio Advisory Committee (IRAC)

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

### OFFICERS

Chairman ..... E. K. Jeff  
 Vice-Chairman ..... J. H. Dellinger  
 Secretary ..... Gerald C. Cross  
 Assistant Secretary ..... P. F. Silling

### MEMBERS

Department of Agriculture ..... E. W. Loveridge  
 Department of Commerce ..... Dr. John H. Dellinger  
 Civil Aeronautics Authority ..... W. E. Jackson  
 Federal Communications Commission ..... E. K. Jeff  
 Department of Interior ..... C. D. Monteith  
 Department of Justice ..... T. D. Quinn  
 Department of Labor ..... Albert Reitzel  
 Maritime Commission ..... D. S. Brierly  
 Department of Navy ..... Admiral S. C. Hooper  
 Post Office Department ..... C. P. Graddick  
 Department of State ..... Thomas Burke  
 Department of Treasury ..... Commander J. F. Farley  
 Department of War ..... Major General J. O. Mauborgne

### ALTERNATE MEMBERS

Department of Agriculture ..... Wallace L. Kadderly  
 Department of Commerce ..... Dr. H. G. Dorsey  
 Civil Aeronautics Authority ..... L. H. Simson  
 Federal Communications Commission ..... Gerald C. Cross  
 Department of Interior ..... John S. Cross  
 Department of Justice ..... none  
 Department of Labor ..... H. J. Walls  
 Maritime Commission ..... J. T. Welsh  
 Department of Navy ..... Commander John R. Redman  
 Post Office Department ..... none  
 Department of State ..... Francis C. de Wolf  
 Department of Treasury ..... Lieutenant D. E. McKay,  
 Lieutenant G. Van A. Graves  
 Department of War ..... Captain Wesley T. Guest

### 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 stations or classes of stations. Funds are con-

# ORGANIZATIONS

tributed from the budgets of the member agencies and records and minutes of meetings are on deposit with the FCC committeemen. Little of the committee's work is divulged for public information because of its nature (e.g. National Defense), which is more or less confidential.

## International Broadcasting Union

(Union Internationale de Radiodiffusion)

Palais Wilson, 52, rue des Paquis, Geneva Switzerland  
Telephone: 29.055

### OFFICERS

Secretary General.....A. R. Burrows  
Director of Technical Observation Station.....R. Braillard  
Assistant Director of Technical

Observation Station.....Prof. E. Divoire  
**TECHNICAL OBSERVATION STATION**

32, Avenue Lancaster, Uccle 3 Brussels, Belgium.  
Phone: 44.17.97.

### FUNCTIONS

The International Broadcasting Union has been founded to establish relations between the various European and non-European organizations operating broadcasting services, to centralize the study of all questions of general interest arising from the development of broadcasting, and to promote the interest of the latter in every domain. On the technical side, the Union acts as expert for the European administrations in all questions relating to the application of the European Broadcasting Convention, which determines the distribution of wavelengths among the different European broadcasting stations. Its Brussels office checks the frequencies of broadcasting stations daily. In connection with its work the Union publishes monthly bulletins for its members as well as other information in the form of booklets and books on the subject of broadcasting service.

## International Short Wave Club

923 Vine Street, East Liverpool, Ohio  
1685-R Main

### 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.

## The Lambs

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

### OFFICERS

Shepherd.....Fred Waring  
Boy.....Raymond Peck  
Corresponding Secretary.....Jack Whiting  
Recording Secretary.....Bobby Clark  
Treasurer.....J. C. Cuppia  
Librarian.....Harold G. Hoffman

### MEMBERS OF THE COUNCIL

Arthur Hurley, Kenneth Webb, J. W. Powell, Martin Gillen, James E. Meighan, Earl Benham, John Hayden, Edward C. Lilley, John McManus, Percy Moore, Edwin Burke, Dr. M. Sayle Taylor, M. D. Stauffer, William P. Adams.

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

## Market Research Council

444 Madison Ave., New York.  
ELdorado 5-6400

### OFFICERS

President.....Arthur Hirose  
(McCall Corp.)  
Vice President.....Arno H. Johnson  
(J. Walter Thompson Co.)  
Secretary-Treasurer.....Will S. Johnson  
(Vick Chemical Co.)

### EXECUTIVE COMMITTEE

Arthur Hirose, Arno H. Johnson, Will S. Johnson, D. E. Robinson (McCall Corp.), L. D. Weld (McCann-Erickson, Inc.).

## The Masquers

1765 N. Sycamore Ave., Hollywood, Calif.  
HOLLYWOOD 2164

### OFFICERS

Harlequin.....William B. Davidson  
Pierrot.....Jean Hersholt  
Ponchinello.....Stanley Taylor  
Croesus.....Howard B. Henshey  
Pantaloon.....Lloyd Corrigan  
Reader.....Frank Campeau

### JESTERATE

Charles Chase, Berton Churchill, Benjamin W. Shipman, Jed Prouty, Ernest Hilliard, Frank M. Flynn, Robert Armstrong, David H. Thompson, Ned A. Sparks, Raymond Walburn, Syd Saylor, William H. Dunn, Dell Henderson, James W. Horne, Charles Vanda.

## Music Publishers' Protective Association, Inc.

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

### OFFICERS

Chairman of the Board.....Walter G. Douglas  
President.....E. H. Morris  
Vice-President.....Lester Santly  
Treasurer.....J. J. Bregman  
Secretary.....Jack Mills  
General Manager.....Harry Fox

## National Advisory Council on Radio in Education

60 E. 42nd St., New York, N. Y.  
MUrray Hill 2-3420

### OFFICERS

President.....Dr. Robert A. Millikan  
Vice-President.....Dr. Livingston Farrand  
Vice-President.....Miss Meta Glass  
Vice-President.....Dr. Robert M. Hutchins  
Vice-President.....Dr. Robert G. Sproul  
Vice-President.....Dr. Walter Dill Scott  
Chairman of the Board.....Dr. Harry W. Chase  
Vice-Chairman of the Board.....Dean James E. Russell  
Treasurer.....Col. William J. Donovan  
Secretary.....Dr. Levering Tyson

### FUNCTIONS

The National Advisory Council on Radio in Education was organized to promote the more effective utilization of the art of broadcasting in the general field of American education. Its membership includes representatives in the field of education, government and industry as well as the general public.

## National Association of Broadcasters

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

### OFFICERS

President.....Neville Miller  
Secretary-Treasurer.....Edwin M. Spence  
General Counsel.....Russell P. Place  
Special Copyright Counsel.....Andrew W. Bennett  
Director of Public Relations.....Edward M. Kirby

# ORGANIZATIONS

Director of Labor Relations . . . . . Joseph L. Miller  
 Director of Research . . . . . Paul F. Peter  
 Director of Engineering . . . . . Lynne C. Smeby  
 Auditor . . . . . Everett E. Revercomb

## BOARD OF DIRECTORS

- District  
 1—Paul Morency, WTIC, Hartford, Conn.  
 2—Harry C. Wilder, WSYR, Syracuse, N. Y.  
 3—Clifford M. Chafey, WEEU, Reading, Pa.  
 4—John A. Kennedy, WBLK, Clarksburg, W. Va.  
     Frank M. Russell, WRC, Washington, D. C. (director-at-large)  
     John Elmer, WCBM, Baltimore, Md. (director-at-large)  
     Don S. Elias, WWNC, ASHEVILLE, N. C.  
 5—W. Walter Tison, WFLA, Tampa, Fla.  
     Lambdin Kay, WSB, Atlanta, Ga. (director-at-large)  
 6—Edwin W. Craig, WSM, Nashville, Tenn.  
 7—J. H. Ryan, WSPD, Toledo, Ohio  
     George Norton, Jr. (director-at-large)  
 8—John E. Fetzer, WKZO, Kalamazoo, Mich.  
 9—William E. West, WTMV, East St. Louis, Ill.  
 10—John J. Gillin, Jr., WOW, Omaha, Nebr.  
 11—Earl H. Gammons, WCCO, Minneapolis, Minn.  
 12—Herbert Hollister, KANS, Wichita, Kans.  
 13—O. L. Taylor, KGNC, Amarillo, Tex.  
     Harold Hough, WBAP, Fort Worth, Tex. (director-at-large)  
     Elliott Roosevelt, Hearst Radio, Inc. (director-at-large)  
 14—Eugene P. O'Fallon, KFEL, Denver, Colo.  
 15—Howard Lane, KFBK, Sacramento, Calif.  
 16—Donald W. Thornburg, KNX, Los Angeles, Calif.  
 17—C. W. Myers, KOIN, Portland, Ore.  
     Harry R. Spence, KXRO, Aberdeen, Wash. (director-at-large)

## EXECUTIVE COMMITTEE

Neville Miller, Paul W. Morency, Harry C. Wilder, John A. Kennedy, Edwin W. Craig, Herbert Hollister, John Elmer.

## National Association of Educational Broadcasters

Exec. Secy., Radio Station WILL, Univ. of Illinois, Urbana, Illinois

### OFFICERS

- President . . . . . Harold G. Ingham (KFKU, Lawrence, Kans.)  
 Vice-President . . . . . M. Reid White (KWSC, Pullman, Wash.)  
 Treasurer . . . . . W. I. Griffith (WOI, 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 Association 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

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### 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 Association of Regional Broadcast Stations

Munsey Bldg., Washington, D. C.  
 Metropolitan 0023

### OFFICERS

- President . . . . . John Shepard 3rd (The Yankee Network, Boston)  
 Secretary-Treasurer . . . . . Grace C. Inge's

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### FUNCTIONS

The objects of this association are to protect the interests of the members of the Association by opposing the enactment or adoption of any laws, rules, regulations, customs or practices which would discriminate against or in any way injure the members to any greater degree or in any different manner than licensees of broadcast stations who are ineligible for membership.

## National Committee on Education by Radio

Room 308, One Madison Ave., New York, N. Y.  
 CALdonia 5-6965

### OFFICERS

- Chairman . . . . . Arthur C. Crane (Pres., University of Wyoming)  
 Vice-Chairman . . . . . H. J. Umberger (Dir., Division of Extension, Kansas State College)  
 Secretary . . . . . S. Howard Evans

### FUNCTIONS

Acts as spokesman in radio matters for organized education. Publishes a bulletin titled "Education By Radio." Aids and encourages non-commercial radio stations. Promotes cooperation between educators and commercial broadcasters. Acts as clearing house for information about education by radio.

## National Independent Broadcasters, Inc. (NIB)

President's Office: 630 Fifth Ave., New York, N. Y.

### OFFICERS

- President . . . . . Harold A. Lafount  
 Vice-President . . . . . Edward A. Allen  
 Secretary-Treasurer . . . . . Lloyd C. Thomas

### DIRECTORS

- District  
 1—Stanley N. Schultz, WLAW, Lawrence, Mass.  
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 11—Gregory Gentling, KROC, Rochester, Minn.  
 12—W. B. Greenwald, KWBG, Hutchinson, Kans.  
 13—James R. Curtis, KFRO, Longview, Texas



# ORGANIZATIONS

- 14—Frank Hurt, KFXD, Nampa, Idaho  
 15—Arthur Westlund, KRE, Berkeley, Calif.  
 16—Calvin J. Smith, KFAC, Los Angeles, Calif.  
 17—T. W. Symons, Jr., KXL, Portland, Ore.

### FUNCTIONS

This association was organized by independent and local broadcasting stations to meet the need of special representation for such stations in handling the problems and activities peculiar to them as a group.

## National Industrial Advertisers Association, Inc.

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

### OFFICERS

- President ..... Charles McDonough  
 (Combustion Engineering Co.)  
 Vice-President ..... Richard P. Dodds  
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 Vice-President ..... E. J. Goes  
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 Vice-President ..... Herbert V. Mercready  
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 Vice-President ..... Terry Mitchell  
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 Past President ..... Stanley A. Knisely  
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### FUNCTIONS

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

## National Research Council of Japan

Imperial Academy House, Ueno Park, Tokyo, Japan  
 Phone: Shitaya No. 43

### OFFICERS

- President ..... A. Tanakadata  
 Vice-President ..... H. Nagaoka  
 Secretary ..... H. Honda

## National Variety Artists, Inc.

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

### OFFICERS

- President ..... Louis Handin  
 First Vice-President ..... Billy Blason  
 Second Vice-President ..... Leon E. Bendon  
 Treasurer ..... William Marbie

### DIRECTORS

Al Edwards, Harry Brooks, Nick Elliott, Wilbur Held, Charles Johnson, Charles H. Preston, Lester Rose, Joe Verdi.

## Nebraska Broadcasters Association

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

### OFFICERS

- President ..... Randall Ryan  
 (KMMJ, Grand Island)  
 Vice-President ..... W. I. LeBarron  
 (KGNF, North Platte)  
 Secretary-Treasurer ..... Art Thomas  
 (WJAG, Norfolk)

### DIRECTORS

John Gillin, Jr., WOW, Omaha; L. L. Hiliard, KGKY, Scottsbluff.

### MEMBER STATIONS

KFAB, Lincoln; KFOR, Lincoln; KCFW, Kearney; KGKY, Scottsbluff; KGNF, North Platte; KMMJ, Clay Center; KOIL, Omaha; WJAG, Norfolk; WOW, Omaha.

## North Carolina Association of Broadcasters

President's Office: c/o WPTF, Raleigh, N. C.

### OFFICERS

- President ..... Richard H. Mason  
 (WPTF, Raleigh)  
 Vice-President ..... George Walker  
 (WAIR, Winston-Salem)  
 Secretary ..... Fred Fletcher  
 (WRAL, Raleigh)  
 Treasurer ..... Earl Gluck  
 (WSOC, Charlotte)

### FUNCTIONS

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

## Pacific Advertising Clubs Association

1629 Telegraph Ave., Oakland, Calif.  
 TWinoaks 2778

### OFFICERS

- President ..... Norton W. McGee  
 (J. Walter Thompson Co.)  
 Senior Vice-President ..... Douglas G. McPhee  
 (Safeway Stores, Inc.)  
 Secretary-Treasurer ..... W. J. Borrie  
 (Pemberton & Son)  
 Acting Executive Secretary ..... Lela M. Huey  
 (Advertising Mail)  
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 (Advertising Novelties)  
 V-P District 2 ..... A. A. Campbell  
 (Salt Lake City Tribune-Telegram)  
 V-P District 3 ..... E. E. Thomas  
 (Salem Statesman)  
 V-P District 4 ..... Jack Leatherman  
 (Blake, Moffitt & Towne)  
 V-P District 5 ..... Frank McKellar  
 (Los Angeles Downtown Shopping News)  
 Vice-President-At-Large ..... Hazel Evans  
 (Anderson Printing Co.)  
 Director ..... Harold R. Deal  
 (Tidewater Associated Oil Co.)  
 Chairman Junior Division ..... George A. Hampe, Jr.  
 (Dictophone Co.)

### FUNCTIONS

This Association is composed of advertising and sales clubs in the states of California, Washington, Oregon, Utah, Nevada, Arizona and Idaho and Vancouver, B. C. Convention is held annually.

# • • • ORGANIZATIONS • • •

## Pennsylvania Broadcasters Association

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.

## The Proprietary Association

701 Otis Bldg., 810 Eighteenth St., N. W., Washington, D. C.

### OFFICERS

President ..... George H. Miller  
 (The Musterole Co.)  
 Honorary Vice-President ..... Dr. V. Mott Pierce  
 First Vice-President ..... Charles S. Beardsley  
 (Miles Laboratories, Inc.)  
 Second Vice-President ..... Robert L. Lund  
 (Lambert Pharmacal Co.)  
 Third Vice-President ..... Alvin G. Brush  
 (American Home Products Corp.)  
 Secretary-Treasurer ..... Charles P. Tyrrell  
 (Syracuse Medicine Co.)  
 Executive Vice-President ..... Dr. F. J. Cullen  
 Counsel ..... Rogers, Ramsay & Hoge

### FUNCTIONS

This organization is a trade association devoting its efforts to the mutual cooperation and advancement of its members who are manufacturers of packaged medicines, cosmetics and proprietary articles. Its Advisory Committee on Advertising reviews copy (including radio scripts) in the association's campaign of self-regulation of the industry in an effort to improve advertising standards and practices and to assist members of the industry in the preparation of copy that will be in compliance with the requirements of the law and to further assist wherever possible with other advertising problems. Members are furnished with digests of FTC Cease and Desist orders or Stipulations issued against advertising in the proprietary field.

## Radio Broadcast Engineers and Technicians, I.B.E.W. L.U. 913

Room 1611-12, 265 W. 14th St., New York, N. Y. WATKINS 9-6709

### OFFICERS

President ..... Louis J. Kleinklaus  
 Vice-President ..... Bernard J. Fuld  
 Business Manager ..... Morris Werner

### FUNCTIONS

An American Federation of Labor organization to bargain collectively for Radio Broadcast Engineers & Technicians covered by a charter from the I.B.E.W. with full autonomy in the Broadcast field for Greater New York and Vicinity. Known as—RADIO BROADCAST ENGINEERS & TECHNICIANS I.B.E.W. LOCAL 913.

## The Radio Club of America, Inc.

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

### OFFICERS

President ..... Paul F. Godley  
 Vice-President ..... J. K. Henney  
 Corresponding Secretary ..... J. L. Callahan  
 Recording Secretary ..... C. E. Dean  
 Treasurer ..... Joseph 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.

## Radio Correspondents' Association

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

### OFFICERS

President ..... Fulton Lewis, Jr.  
 Vice-President ..... Albert L. Warner  
 Secretary ..... William McAndrew  
 Treasurer ..... Frederick Morrison

### 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 or government departments.

## Radio Manufacturers Association

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

### OFFICERS

President ..... A. S. Wells  
 (Wells-Gardner & Co.)  
 Executive Vice-President-General Manager ..... Bond Geddes  
 Vice-President ..... James S. Knowlson  
 (Stewart-Warner Corp.)  
 Vice-President ..... B. G. Erskine  
 (Hygrade Sylvania Corp.)  
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 (Centralab)  
 Vice-President ..... J. McWilliams Stone  
 (Operadio Manufacturing Co.)  
 Treasurer ..... Leslie Muter  
 (The Muter Co.)  
 General Counsel ..... John W. Van Allen  
 (Buffalo, N. Y.)

### DIRECTORS

Ben Abrams, Emerson Radio & Phonograph Corp.; Powell Crosley, Jr., The Crosley Radio Corp.; Octave Blake, Cornell-Dubilier Electric Co.; James C. Daley, Jefferson Electric Co.; B. G. Erskine, Hygrade Sylvania Corp.; Jerome J. Kahn, Standard Transformer Corp.; James S. Knowlson, Stewart-Warner Corp.; Philip C. Lenz, Lenz Electric Manufacturing Co.; E. F. McDonald, Jr.; Zenith Radio Corp.; Ernest Searing, International Resistance Co.; H. E. Osmun, Centralab; J. McWilliams Stone, Operadio Manufacturing Co.; G. W. Thompson, Noblitt-Sparks Industries, Inc.; P. S. Billings, Belmont Radio Corp.; P. V. Galvin, Galvin Manufacturing Corp.; David Sarhoff, RCA Manufacturing Co.; David T. Schultz, Rayethon Production Corp.; James T. Buckley, Philadelphia Storage Battery Co.; Harry G. Sparks, The Sparks-Withington Co.; Ernest Alschuler, Electric Research Laboratories, Inc.; W. R. G. Baker, General Electric Co.; Roy Burlew, Ken-Rad Tube & Lamp Corp.; A. H. Gardner, Colonial Radio Corp.; George A. Scoville, Stromberg-Carlson Tel. Mfg. Co.; A. S. Wells, Wells-Gardner & Co.

Honorary Directors: Hebert H. Frost, A. Atwater Kent, Paul B. Klug.

### FUNCTIONS

RMA, non-profit and cooperative, was organized in 1924 to promote all interests of the radio industry.

# ORGANIZATIONS

The organization is divided as to interests into four groups: (1) the Set; (2) Tube; (3) Parts, Cabinet, and Accessory; (4) Amplifier and Sound Equipment

RMA promotes sales, both domestic and export; opposes legislation detrimental to the interests of its members; directs industry standardization; informs members of new patents issued through a weekly bulletin; aids in improving merchandising practices; distributes credit information to members and assists members in collecting, investigation of fraud, etc.

## Radio Manufacturers Association of Canada

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

### OFFICERS

President.....A. L. Brown  
 (Northern Electric Co.)  
 Vice-President.....G. A. Holmes  
 (Spartan of Canada, Ltd.)  
 Executive Secretary.....K. H. Smith  
 Chairman of Engineering Committee.....Allan B. Oxley  
 (RCA-Victor Company)

### FUNCTIONS

This association is a non-profit and cooperative organization founded in 1926 to promote all interests of radio industry.

## 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.....Kenneth Webb  
 Vice-President.....Knowles Entrikin  
 Vice-President.....Courtney Savage  
 Vice-President.....Forrest Barnes  
 Secretary.....Lillian Lauferty  
 Executive Secretary.....Luise Silcox  
 Assistant Secretary.....Margaret Scheuerman

### 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.

## Society of European Stage Authors and Composers, Inc. (SESAC)

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

### 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.....E. A. Williford  
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 Executive Vice-President.....N. Levinson

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 Editorial Vice-President.....J. I. Crabtree  
 Financial Vice-President.....A. S. Dickinson  
 Convention Vice-President.....W. C. Kunzmann  
 Secretary.....J. Frank, Jr.  
 Treasurer.....R. O. Strock

### GOVERNORS

M. C. Batsel, H. Griffin, A. C. Hardy, A. N. Goldsmith, H. G. Tasker.

### BRANCH OFFICE

226 Equitable Bldg., Los Angeles, Calif.  
 Executive In Charge.....Walter R. Greene

### 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.

## Television Engineers' Institute of America

763 Gower St., Hollywood, Calif.  
 Gladstone 3558

### OFFICERS

President.....George H. Seward  
 Secretary pro-tem.....Arthur A. Stern

### FUNCTIONS

The objects of this Institute are the advancement of the theory and practice of television engineering and its allied arts and sciences, including facsimile and other branches of electronics; experimentation and research; the transmission, projection and reception of television images; the transmission and reception of aural television frequencies; the standardization of equipment, mechanisms and the practices employed therein; the maintenance of a high professional standing among its members. Among the means to this end the association holds meetings for the reading and discussion of papers, and the publication and dissemination of knowledge by publication and such other methods as are helpful in the fulfillment of its objectives.

## University Broadcasting Council

230 N. Michigan Ave., Chicago, Illinois  
 Central 2015

### OFFICERS

Director.....Allen Miller

### FUNCTIONS

The purpose of the Council is to promote education by radio. It is made of an affiliation of two universities in Chicago area; Northwestern University and DePaul University; Field Museum of Natural History and the Art Institute of Chicago; Chicago radio stations; and three major networks cooperating.

## Woman's National Radio Committee

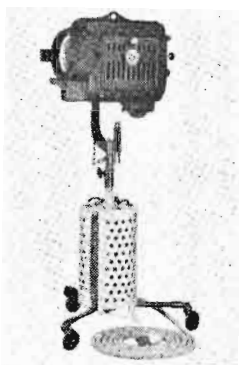
113 West 57th St., New York, N. Y.  
 Circle 7-4110

### OFFICERS

Chairman.....Mme. Yolanda Mero-Irion  
 Vice-Chairman.....Mrs. Marion M. Miller  
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 Treasurer.....Mrs. D. Leigh Colvin  
 Executive Secretary.....Miss Ruth Rich  
 Chairman, Publications Committee.....Mrs. M. D. Jackson  
 Members-at-Large.....Mrs. Benjamin Graham,  
 Mrs. E. C. Lewis, Mrs. Samuel Kubie, Mrs. Sidonie  
 Gluenberg

### 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.



Hi. Int. Arc Spot Lamp M.R. Type 65

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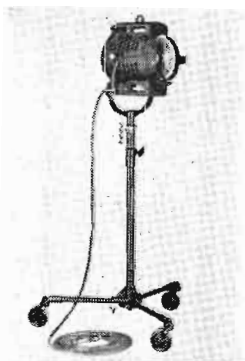
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We carry the most complete line  
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244-250 West 49th Street  
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1000 Watt Solarspot Lamp M.R. Type 208



# THE TECHNICAL SIDE



1939 ————— 1940

# TECHNICAL PROGRESS IN RADIO DURING 1939

By ALVIN VON AUW  
Western Electric Company

Overlong has the emphasis in reference to radio's development been on its youthfulness. As in the case of every invention of comparable importance in man's daily life, radio has inevitably reached the point where its technical progress can no longer be measured in leaps and bounds and has entered a period of maturity in which its chief concern is the consolidation of past accomplishments and the refinement of already existing developments.

## 1939

With the notable exceptions of frequency modulation, television and facsimile, it can be fairly said that the year 1939 saw no world-shaking innovations in broadcasting, but did see extremely important progress in design. Progress in studio and transmitter construction, the conservation of power previously wasted in medium power transmitters, the design of microphones for more efficient pick-up and of more efficient control devices for directive broadcasting have within the past year reached the stage where by the accurate prediction and control of results, they have become important factors in a marked advance in service to the listener. In this regard the ever-increasing emphasis by radio technical journals on devices for measuring the output of already existing equipment, rather than on startling new developments, is indicative of this advance of broadcasting technique from the hazy realm of surmise to the kingdom of exact knowledge.

It is well-nigh impossible to touch in due proportion upon all the elements in the advancing front of broadcasting during the past year. In so short a space the best we can do is to pick out certain developments that seem particularly notable or which seem to be typical of progress made during 1939.

With seafaring men the phrase is "from stem to stern"; with broadcasters it's "from microphone to antenna." Having developed microphones to the point

of extreme sensitivity and antennas to the point of reaching the greatest possible area with a given amount of power, broadcasting research has concerned itself during the past year with the focusing of the microphone to pick up only acoustically relevant sounds and of antennas in order to reach most effectively areas with the greatest density of population at the expense of uninhabited or sparsely peopled land, sea or swamp. Neither directional microphones nor directional antennas are new with 1939. However, an intensive study of acoustical effects and angles of sound reflection by Bell Telephone Laboratories resulted in the introduction in 1939 of Western Electric's now famous cardioid microphone, the directional characteristics of which reduce the old necessity of separating the aural wheat from the chaff by elaborate and expensive acoustic treatment to minimize irrelevant studio sounds.

## Focusing

In actual practice directional broadcasting is at least a half-decade old, but 1939 saw three different elements contributing to its adoption by alert broadcasters faced with the problem of an unequal distribution of listeners in the area served by their transmitters. In the first place, the value of focusing on the most productive area has been amply demonstrated from the commercial point of view by stations which already employ it, WOR, and WOL for instance. Secondly, the FCC has endorsed directional broadcasting because it cuts down on interference between neighbors in the broadcast band. Thirdly, 1939 saw the introduction of a newly perfected "antenna control" (line branching network) which provides means for conveniently and accurately adjusting the directional array so that transmitter energy may be distributed over the surrounding area in a pattern consistent with the needs of the listeners. Further a new "phase monitor" gives the engineer a direct indication of the phase and amplitude relations of the currents in the individual radiators in a directive array, thus expediting the original adjustment of the array, permitting frequent and convenient checks on the maintenance of the adjustment and eliminating the necessity for elaborate and expensive field-strength

surveys. Thus has another broadcast device of fairly recent development finally come within the sphere of exact measurement and control.

### Transmitters

The past year saw incorporated in transmitters of medium power many research features which had previously found their place only in high-powered equipment. The new features of Western Electric's recently announced 1 KW illustrate in this and many other respects the progress in transmitter design made in 1939. The new 1 KW possesses such features as the famous Doherty High Efficiency Circuit (which came out of Bell Telephone Laboratories a few years ago) to cut down appreciably the power required for operation, giving to this single unit transmitter the efficiency features of a 50 KW; stabilized feedback, enabling the 1 KW to preserve in the final radio signal all the clarity of the original audio; grid bias modulation and its attendant circuit simplicity and power economy.

But among the most outstanding of 1939's advances are the design features of the new 1 KW. Completely over and beyond the fact that one of the most distinguished of modern industrial designers was called in to make the cabinet with its smart blue and gray finish and satin chrome trim worthy of front-office presentation, Bell Laboratories engineers placed the greatest emphasis on convenience and ease of operation, quick accessibility of all parts with the highest degree of safety for personnel. All the electrical equipment is mounted on one central structure and the whole apparatus is made as fool-proof as possible, the exterior being electrically dead and all dangerous interior voltages automatically grounded when the doors are opened. To insure unerring operation all operating switches are divided by shape into three groups according to function.

Air-cooling of transmitter tubes, introduced a couple of years ago, advanced materially in 1939 as Bell Labs engineers undertook an intensive study of aerodynamics and thermal engineering to produce the tube used in Western Electric's new air-cooled 5 KW transmitter. The new tube marks the successful culmination of long research.

### Television

To announce to radio engineers that television has made giant strides forward during 1939 would be as anticlimactic as hurling a ball into a blanket. 1939 was, after all, television's year. First and foremost, RCA-NBC began regular transmission from the Empire

State Building on April 30 and since that time a regular, though small, viewing audience has been built up. It would be impossible to review the technical progress of television within the bounds of the past year, because television today is at the same stage of youthful exuberance that radio was some 15 years ago. Today the FCC is besieged with requests for transmitter building permits, for permits to sell time. Television images have been sent successfully from New York to Philadelphia over the Bell System coaxial cable and remote pick-ups over telephone wires. General Electric has announced that preparations are being made to re-transmit RCA's programs from up-state New York, perhaps laying the basis for a future network. CBS readies for regular transmission. Applicants crowd the patent office with their ideas. Suffice it to say that it was television's year!

But in the field of broadcast radio, wherever chief engineers are gathered together, the topic of conversation inevitably turns to frequency modulation, so-called "static-free" radio.

### Static-Free Radio

Major Armstrong at Alpine, N. J., chief proponent of f-m, the Yankee Network and Station WQXR have all been operating on experimental licenses during the year. Spring promises to show 13 f-m stations in regular operation. Amateurs compare notes and build their own f-m receivers, while proponents of traditional amplitude modulation claim that f-m has no monopoly on freedom from static, point out the disadvantages of f-m's quasi-optical horizon and that its acceptance would involve the scrapping of two billion dollars' worth of equipment. F-m's counter with the argument that a large number of transmitters, spaced 300 miles apart, can operate on the same frequency without any interference whatever.

Should f-m finally gain universal acceptance, radio research would not be completely revolutionized and have to start from scratch, for whether frequency or amplitude modulation rules the airwaves of the future, the refinements which traditional broadcasting research has developed will find their place. For the present suffice it to say that by the law of diminishing returns each innovation which comes out of the laboratories at this stage of the game implies that future research will be in terms of refinements rather than radical advances. Thus radio research will steadily reduce the distance to the goal line of perfection that is the ultimate and, fortunately for the questing human spirit, unattainable object of science.

# Institute of RADIO ENGINEERS

*Personnel—Headquarters—History*

**330 WEST 42nd STREET    ::    NEW YORK CITY**

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*Assistant Editor*  
H. M. STOTE

*Advertising Manager*  
JOHN D. CRAWFORD

### History

On May, 13, 1912, the Institute of Radio Engineers was formed through the merging of two organizations active in the technical radio field. One of these was the Wireless Institute, the headquarters of which was in New York City and the other which was located in Boston was known as the Society of Wireless Telegraph Engineers. The former organization had a membership of fourteen at the start of 1909 and twenty-seven on January 1, 1912. The Society of Wireless Telegraph Engineers had eleven members on the first day of 1907 and forty-three on January 1, 1912. At the time of its foundation, the Institute of Radio Engineers had fewer than fifty members.

Prominent in the early work of the Society of Wireless Telegraph Engineers were John Stone Stone, Lee de Forest, and Fritz Lowenstein. Those identified with the initial work of the Wireless Institute included John S. Murphy, R. A. Somerville, Joseph D.

Fountain, R. B. Respress, R. A. Cleva, John Gregg, E. Barnwell, Philip Farnsworth, Sidney L. Williams, R. H. Marriott, G. W. Pickard, Harry Shoemaker, and Eugene Thurston. The consolidation of these two societies and the initial work of organizing the Institute of Radio Engineers were done by Alfred N. Goldsmith, J. V. L. Hogan, and R. H. Marriott.

### General

The Institute of Radio Engineers functions solely to advance the art and science of radio communication. It includes among its members those who have played prominent parts in the development of radio in the United States as well as many noted radio engineers and scientists in other countries.

Membership in the Institute is strictly personal and several grades have been established. The requirements for admission to these grades is contained in the Institute's Constitution and the eligibility of the applicant is passed on by the Board of Directors.



# Radio Manufacturers Ass'n

*Officers and Executive Personnel—1939-40*

**Headquarters: 1317 F. St., N.W., Washington, D. C.**

## President

A. S. Wells, Wells-Gardner & Company, Chicago, Illinois.

## Executive Vice-Pres.-General Mgr.

Bond Geddes, 1317 F St., N. W., Washington, D. C.

## Treasurer

Leslie F. Muter The Muter Company, Chicago, Illinois.

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James S. Knowlson, Stewart-Warner Corporation, Chicago, Illinois.

B. G. Erskine, Hygrade Sylvania Corporation, Emporium, Pennsylvania.

H. E. Osmun, Centralab, Milwaukee, Wis.

J. McWilliams Stone Operadio Manufacturing Company St. Charles 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 1940

P. S. Billings, Belmont Radio Corporation, Chicago, Illinois.

Octave Blake, Cornell-Dubilier Electric Company, South Plainfield, N. J.

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James C. Daley, Jefferson Electric Company, Bellwood, Illinois.

Paul V. Galvin, Galvin Manufacturing Corporation, Chicago, Illinois.

J. J. Kahn, Standard Transformer Corporation, Chicago, Illinois.

H. E. Osmun, Centralab, Milwaukee, Wis.  
David Sarnoff, RCA Manufacturing Company, Inc., New York, N. Y.

David T. Schultz, Raytheon Production Corporation, Newton, Massachusetts.

Ernest Searing, International Resistance Co., Philadelphia, Pennsylvania.

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Ray F. Sparrow, P. R. Mallory & Co., Indianapolis, Indiana.

J. McWilliams Stone, Operadio Manufacturing Co., St. Charles, Illinois.

### Term Expiring 1941

E. Alschuler, Electrical Research Labs., Inc., Evanston, Illinois.

W. R. G. Baker, General Electric Company, Bridgeport, Connecticut

Roy Burlaw, Ken-Rad Tube and Lamp Corporation, Owensboro, Kentucky

A. H. Gardner, Colonial Radio Corporation, Buffalo, New York

Geo. A. Scoville, Stromberg-Carlson Tel. Mfg. Co., Inc., Rochester, New York.

A. S. Wells, Wells-Gardner & Company, Chicago, Illinois.

### Term Expiring 1942

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Powel Crosley, Jr., The Crosley Corporation, Cincinnati, Ohio.

B. G. Erskine, Hygrade Sylvania Corporation, Emporium, Pennsylvania.

James S. Knowlson, Stewart-Warner Corporation, Chicago, Illinois.

E. F. McDonald, Jr., Zenith Radio Corporation, Chicago, Illinois.

G. W. Thompson, Noblitt-Sparks Industries, Inc., Columbus, Indiana.

## Honorary Directors

Herbert H. Frost, 12 East 41st Street, New York, New York.

A. Atwater Kent, 4700 Wissahickon Avenue, Germantown, Philadelphia, Pa.

Paul B. Klugh, Prospect Hill at Wittredge Road, Summit, New Jersey.

## RMA STANDING COMMITTEES

### 1939-1940

#### General Executive and Finance Committee

A. S. Wells, Ex Officio Chairman

James S. Knowlson

B. G. Erskine

H. E. Osmun

J. McWilliams Stone

Leslie F. Muter

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#### Export Committee

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### Legislative Committee

A. H. Gardner, Chairman, Colonial Radio Corporation

### Membership Committee

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### Traffic Committee

Geo. A. Scoville, Chairman, Stromberg-Carlson Telephone Mfg. Co.

O. J. Davies, Vice Chairman, RCA Manufacturing Company, Inc.

T. P. Scanlan, Traffic Auditor, 1608 Milwaukee Avenue

## RMA SPECIAL COMMITTEES

1939-1940

### Commercial Television Committee

James S. Knowlson, Chairman, Stewart-Warner Corporation

### Convention Committee

P. V. Galvin, Chairman, Galvin Manufacturing Corporation

### Co-operative Promotion Committee

James T. Buckley, Chairman, Philadelphia Storage Battery Company

### Engineering Allocations Committee

W. R. G. Baker, Chairman, General Electric Company

### Fair Trade Practice Committee

E. F. McDonald, Jr., Chairman, Zenith Radio Corporation

### FCC Liaison Committee

E. F. McDonald, Jr., Chairman, Zenith Radio Corporation

### Radio Excise Tax Committee

A. H. Gardner, Chairman, Colonial Radio Corporation

### Receiving Set Statistics Committee

H. C. Bonfig, Chairman, RCA Manufacturing Company, Inc.

### Tube Stabilization Committee

(To be selected)

### Walsh-Healey Minimum Wage Committee

Octave Blake, Chairman, Cornell-Dublier Electric Corporation

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## RMA Constitution

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### Preamble

#### ARTICLE I

##### Name

The name of this Association shall be the Radio Manufacturers Association.

#### ARTICLE II

##### Membership

The membership of this Association shall consist of all persons, firms and corporations of the United States, eligible therefor and duly admitted, pursuant to the By-Laws now existing or hereafter adopted.

#### ARTICLE III

##### Objects

The objects of the Association shall be:

To promote an enlarged acquaintance and a more friendly intercourse among its members, and in all reasonable, lawful and proper ways to promote the best interest of the radio industry;

To foster, encourage and promote laws, rules, regulations, customs and practices which will be for the best interest of the public and the radio industry;

To reform abuses relative thereto, and

to secure freedom of its members from unjust or unlawful exactions;

To diffuse accurate and reliable information as to the standing of merchants and others dealing with members; as to all inventions, patents, processes or devices designed or intended for use in, upon, or in connection with radio products and the manufacture thereof; as to the state of the art relative thereto; and as to the condition and development of the trade in which the members are engaged, in the United States and foreign countries;

To procure uniformity and certainty in the customs and usages of such trade; to settle differences between members, and to provide for the arbitration of such differences;

To acquire by grant, gift, purchase, device or bequest; to hold and to dispose of such property as the purposes of the Association shall require, including inventions, letters patent, and processes, or rights thereunder, for the benefit of its members and not for pecuniary profit, subject to such limitations as may be prescribed by law.

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## MEMBERSHIP

### Aerovox Corporation

740 Belleville Ave., New Bedford, Mass.

Products—Capacitors—dry and wet Electrolytics for radio and industrial purposes; Auto Radio Condensers; Paper, Wax, and Oil Impregnated Units for industrial and radio uses; Standard Mica Condensers and Silver Plate Mica Condensers of Close Tolerances; Exact Duplicate Replacement Capacitors for radio

and refrigeration; Transmitting Capacitors; Resistors—Insulated Molded and Lacquer Coated Carbon Resistors, Fixed and Adjustable Vitreous Enamel Resistors; Interference Filters; Noise Analyzer; Condenser Bridge for testing Power Factor, Resistance and Capacity.

### Allen-Bradley Company

1326 South Second St., Milwaukee.

Products—Bradleyometers, Bradley-units, Bradleystats, Radioleaks.

- The American Steel Package Company**  
Squire Ave., Defiance, Ohio.  
Products—Variable Gang Condensers.
- Amperite Corporation**  
561 Broadway, New York, N. Y.  
Products—Amperite Ballast Tubes, Velocity Microphones, Musical Instrument Kontak Microphones, Microphone Stands, and Microphone Transformers.
- Arcturus Radio Tube Company**  
720 Frelinghuysen Ave., Newark, N. J.  
Products—Radio Tubes.
- Automatic Radio Mfg. Co., Inc.**  
122 Brookline Ave., Boston, Mass.  
Products—Radio Sets—Console, Table, Midget, Battery, Portable, and Automobile.
- The Bead Chain Manufacturing Company**  
110 Mountain Grove St., Bridgeport, Conn.  
Products—Radio Tube Contact Pins.
- Belmont Radio Corporation**  
1257 Fullerton Ave., Chicago, Ill.  
Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, Portable, and Automobile. Television Sets—Consoles.
- Bentley, Harris Mfg. Company**  
Hector and Lime Sts., Conshohocken, Pa.  
Products—Varnished Tubing and Sleeving.
- Birnbach Radio Co., Inc.**  
145 Hudson St., New York, N. Y.  
Products—Aerial Wire, Hook-up Wire, Lead-in Wire, Aerial Accessories, Stand-off Insulators, Aerial Kits, Double Antenna Systems, Automotive Radio Accessories, Short-Wave Parts, Rubber-covered Colored Wire, Transmitting Parts, and Colored Top Transmitting Parts.
- Bliley Electric Company**  
Union Station Bldg., Erie, Pa.  
Products—Quartz Crystals, Holders, Ovens, and associated equipment.
- William Brand & Co.**  
276 Fourth Ave., New York, N. Y.  
Products—Varnished Tubing, Saturated Sleeving, Mica Condenser Films and Fabricated Parts, Mica Plate in Sheets and punched to dimensions, Varnished Cambric and Paper in rolls, tape, etc., Sheet and Fabricated Bakelite, Fibre, etc.
- Walter C. Braun, Inc.**  
601 W. Randolph St., Chicago, Ill.  
Products—Amplifiers.
- C. F. Cannon Co.**  
Main St., Springwater, N. Y.  
Products—Radio Headsets.
- Centralab**  
(Division of Globe-Union Inc.)  
900 East Keefe Ave., Milwaukee, Wis.  
Products—Variable Resistors, Volume and Tone Controls, Fixed Resistors, Ceramic Capacitors, and Switches.
- Champion Radio Works**  
88 Holten St., Danvers, Mass.  
Products—Radio Tubes, Resistance Tubes.
- Chicago Telephone Supply Co.**  
1142-1228 W. Beardsley Ave., Elkhart, Ind.  
Products—Volume Controls, Tone Controls, Switches, Fixed Resistances, Head Phones, etc.
- Chicago Transformer Corporation**  
3501 Addison St., Chicago, Ill.  
Products—Small Transformers and Reactors.
- Cinaudagraph Corporation**  
2 Selleck St., Stamford, Conn.  
Products—Loud Speakers.
- Cinch Manufacturing Corporation**  
2335 W. Van Buren St., Chicago, Ill.  
Products—Tube Sockets, Soldering Lugs, Terminal Strips, Binding Posts, Connector Plugs.
- Clarostat Mfg. Co., Inc.**  
285 North Sixth St., Brooklyn, N. Y.  
Products—Fixed Resistors, Variable Resistors, Wire and Carbon.
- Colonial Radio Corporation**  
254 Rano St., Buffalo, N. Y.  
Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, Portable, and Automobile.
- Continental Carbon Inc.**  
13900 Lorain Ave., Cleveland, Ohio.  
Products—Resistors, both Carbon and Wire Wound; Suppressors, Carbon Granules for Transmitters, Paper Dielectric Condensers, Filternoys to eliminate radio interference.
- Continental Radio & Television Corp.**  
3800 Cortland St., Chicago, Ill.  
Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, and Automobile.
- Cornell-Dubilier Electric Corporation**  
1000 Hamilton Blvd., South Plainfield, New Jersey.  
Products—Capacitors.
- Corning Glass Works**  
Corning, New York.  
Products—Bulbs, Tubing, Insulators.
- Cornish Wire Co., Inc.**  
30 Church St., New York, N. Y.  
Products—Radio Hook-up Wires, Antenna Accessories, Antenna Kits, Shielded Auto Radio Wires, P-A Wires, Electric Cords.
- Crescent Tool & Die Company**  
4140 W. Belmont Ave., Chicago, Ill.  
Products—"Crescent" Speakers, Tools and Dies, Miscellaneous Metal and Fibre Stampings, Transformer Channel Frames, Sub Panels, Chassis, Pulleys and Brackets.
- The Crosley Corporation**  
1329 Arlington St., Cincinnati, Ohio.  
Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, Portable, and Automobile. Facsimile Receivers.

**Crowe Name Plate & Manufacturing Co**

3701 Ravenswood Ave., Chicago, Ill.

Products—Tuning units for household and automobile radios; dials, scales on glass, metal, pyralin and bakelite; embossed, etched or lithographed escutcheons and nameplates; controls and decorated panels for sound equipment and analyzers, metal grilles and cabinets; standard components for radio service men and amateurs.

**DeJur-Amsco Corporation**

6 Bridge St., Shelton, Conn.

Products—Radio, Electrical and Photographic Products.

**DeWald Radio Mfg. Corp.**

440 Lafayette St., New York, N. Y.

Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, Automobile.

**James W. Doyle, Inc.**

311 N. Desplaines St., Chicago, Ill.

Products—Transformers and Coils.

**Wilbur B. Driver Company**

150 Riverside Ave., Newark, N. J.

Products—Carbonized Nickel Ribbon, Nickel Support Wire, Grid Wire, Filament Wire, Resistance Wire.

**Hugh H. Eby, Inc.**

4700 Stenton Ave., Philadelphia, Pa.

Products — Binding Posts, Battery Plugs, Speaker Plugs, Chassi Plugs, Vibrator Plugs, Molded Sockets, Cable Connectors, Cable Couplers, Rubber Capped Plugs, Molded Tip Jacks, Laminated Tip Jacks, Adaptors, Battery Adaptor Cables, Cable Assemblies, Strain Reliefs, Terminal Strips, Tie Points, Metal Punchings, Bakelite Punchings, Molded Parts, Electric Eye, Electric Eye Kits, AC and DC Relays, Radio and Electric Specialties.

**Electrical Research Laboratories, Inc.**

2020 Ridge Ave., Evanston, Ill.

Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery and Portable.

**The Electro Motive Manufacturing Co., Inc.**

South Park & John Sts., Willimantic, Conn.

Products — Carbon Resistors, Molded Mica Condensers, Trimmer Condensers, Padder Condensers, Suppressors.

**Emerson Radio & Phonograph Corp.**

111 Eighth Ave., New York, N. Y.

Products—Radio Sets, Television Sets—Console.

**Erie Resistor Corporation**

644 West 12th St., Erie, Pa.

Products—Resistors, Silver Mica Condensers, Compensating Condensers, Iron Cores, and Plastic Parts.

**Essex Wire Corporation**

14310 Woodward Ave., Detroit, Mich.

Products—Radio Wires, Magnet Wire and Cord Sets.

**Farnsworth Television & Radio Corp.**

3700 East Pontiac St., Fort Wayne, Ind.

Products—Radio Sets, Television Sets—Console. Also Television Transmitters, Sound Transmitters, and other special apparatus.

**John E. Fast & Co.**

3123 N. Crawford Ave., Chicago, Ill.

Products—Fixed Electrical Condensers.

**Galvin Manufacturing Corporation**

4545 Augusta Blvd., Chicago, Ill.

Products—Radio Sets—Console, Table, Midget, Automobile, Battery.

**General Electric Company**

1285 Boston Ave., Bridgeport, Conn.

Products — Broadcast and Television Receivers. Also Handy Phone and Radio Receiving Tubes. Broadcast and Television Transmitters and Transmitting and Television Tubes.

**General Instrument Corporation**

829 Newark Ave., Elizabeth, N. J.

Products—Multiple Variable Condensers.

**General Radio Company**

30 State St., Cambridge A, Mass.

Products—Laboratory and Production Test Equipment and Apparatus. Radio Parts for General Experimental Purposes.

**Gits Molding Corporation**

4600 West Huron St., Chicago, Ill.

Products—Knobs, Push Buttons, Escutcheons, Trade Marks and Medallions, Concentric Cable, Drum Dials, Pointers, Remote Control Cases, Housings, Insulators.

**Edwin I. Guthman & Co.**

400 S. Peoria St., Chicago, Ill.

Products—R. F. Coils, Chokes, Oscillators, I. F. Transformers, Padder and Trimmer Condensers, Textile Covered and Litzendraht Wire. Radio Cabinets. Coil Winding Machinery.

**Hammarlund Mfg. Co., Inc.**

424-438 West 33d St., New York, N. Y.

Products—Radio Sets. Also Variable Condensers, Trimmers, Short Wave Parts.

**Hawley Products Company**

201 No. First Ave., St. Charles, Ill.

Products — Speaker Diaphragms and Spiders, Automobile Speaker Housings, Loop Antenna Covers and other Moulded Fibre Specialties.

**\*Hazeltine Corporation**

\*Associate member.

15 Exchange Pl., Jersey City, N. J.

Products — Patents and Engineering Service to Manufacturers.

**Hygrade Sylvania Corporation**

Emporium, Pa.

Products—Radio Receiving Tubes.

**Hytron Corporation**

76 Lafayette St., Salem, Mass.

Products—Radio Tubes.

**The Indiana Steel Products Company**

135 South La Salle St., Chicago, Ill.

Products—Permanent Magnets for all purposes.

#### **International Resistance Company**

401 N. Broad St., Philadelphia, Pa.

Products—Resistors—Fixed and Variable, Metallized, Precision, Power Wire Wound, Voltage Dividers, Volume Controls, Tone Controls, Rheostats, Attenuators.

#### **Irvington Varnish & Insulator Co.**

6 Argyle Terrace, Irvington, N. J.

Products—Insulating Materials used in the Manufacture of Radio Parts.

#### **Jefferson Electric Company**

25th Ave. & Madison St., Bellwood, Ill.

Products—Radio Power Transformers, Chokes and Audio Input and Output Transformers, Television Deflecting Yokes, Horizontal and Vertical Scanning Transformers, and Centering and Focusing Coils.

#### **Jensen Radio Manufacturing Company**

6601 South Laramie Ave., Chicago, Ill.

Products—Loud Speakers.

#### **Ken-Rad Tube and Lamp Corporation**

Owensboro, Kentucky.

Products—Radio Tubes and Incandescent Electric Lamps.

#### **Kester Solder Company**

4201 Wrightwood Ave., Chicago, Ill.

Products—Solders: Plastic Rosin Filler Solder, Radio Solder, Special Flux Filled Solders and Special Fluxes for Electrical and Radio Work.

#### **King Laboratories, Inc.**

205 Oneida St., Syracuse, N. Y.

Products—Barcx Embedded Getters, a part for radio tubes. Special alloys, chemicals and metals.

#### **Kolorama Laboratories, Inc.**

168 Coit St., Irvington, N. J.

Products—Television and Radio Research.

#### **Lenz Electric Manufacturing Co.**

1751 N. Western Ave., Chicago, Ill.

Products—Wires, Cables, Cords—for radio.

#### **The Magnavox Company, Inc.**

2131 Bueter Rd., Fort Wayne, Ind.

Products—Radio Loud Speakers, Molanode "FP" Dry Type Electrolytic Filter and By-Pass Capacitors.

#### **P. R. Mallory & Co., Inc.**

3029 East Washington St., Indianapolis, Ind.

Products—Dry Electrolytic Condensers for AC and DC, Auto-Radio Vibrators, All-Wave Switches, Volume Controls, Power Rheostats, Heavy Duty and Flexible Resistors, Dial Light Assemblies, Grid Bias Cells, Jacks, Jack Switches, Push Button Switches, Plugs, Cable Connectors, Radio Convenience Outlets, Dry Disc Rectifiers, Battery Chargers, Resistance Welding Electrodes, Electrical Contacts.

#### **Micamold Radio Corporation**

1087 Flushing Ave., Brooklyn, N. Y.

Products — Mica Condensers, Paper Condensers, Electrolytic Condensers, Resistors, Ballast Tubes, and Television Condensers.

#### **The Muter Company**

1255 South Michigan Ave., Chicago, Ill.

Products—Candohm Resistors, Aerial Accessories, Voltage Regulators, Switches, Hygrometers, Relays, Condensers, etc.

#### **National Carbon Company, Inc.**

30 East 42nd St., New York, N. Y.

Products—Radio "A," "B" and "C" Batteries.

#### **National Company, Inc.**

61 Sherman St., Malden, Mass.

Products—Amateur, Experimental and Communication type Receivers and Transmitting Equipment, Dials, Eliminators, Choke Coils, Transformers, Condensers, Couplings, Amplifiers, Grid Clips, Ceramic Insulators and Sockets.

#### **National Union Radio Corporation**

57 State St., Newark, N. J.

Products—Radio Tubes.

#### **Noblitt-Sparks Industries, Inc.**

East 13th St., Columbus, Ind.

Products—Radio Sets—Console, Table, Combination Radio-Phonograph, Battery, Automobile.

#### **Oak Manufacturing Company**

711 W. Lake St., Chicago, Ill.

Products — Switches, Range, Rotor, Tap, Push Button; Vibrators, Synchronous and Non-Synchronous; Mechanical Tuners.

#### **The Ohio Carbon Co.**

1258 Berea Rd., Lakewood, Ohio

Products—Carbon Resistors and Suppressors for Autos.

#### **Operadio Manufacturing Company**

St. Charles, Ill.

Products—Loud Speakers, Amplifiers, Public Address Equipment, Intercommunicating Equipment.

#### **Philadelphia Storage Battery Company**

Tioga and C Sts., Philadelphia, Pa.

Products—Receiving Sets, Tubes, Amplifiers and Distribution Equipment.

#### **Philmore Manufacturing Co., Inc.**

113-115 University Pl., New York, N.Y.

Products — Radio Sets — Microphones, Amplifiers, Aerial Eliminators, Headphones, Fixed Crystals and Crystal Sets.

#### **Phonovision Corporation**

850 Blackhawk St., Chicago, Ill.

Products—Radio Sets.

#### **Pilot Radio Corporation**

3706—36th St., Long Island City, N. Y.

Products—Radio Sets, Television Sets—Console and Table.

#### **Quality Hardware & Machine Corporation**

5831-51 Ravenswood Ave., Chicago, Ill.

Products—Stamping and Light Manufacturing.

**Quam-Nichols Company**

33d Place & Cottage Grove Ave., Chicago, Ill.

Products—Quam Permanic, Dynamic, Permanent Magnet Dynamic Speakers, Quam Aerial Kits and Private Brand Kits, Marvel Toy Telephones.

**The Radiart Corporation**

13229 Shaw Ave., Cleveland, Ohio

Products—Auto Radio Vibrators, Auto Radio Aerials; Power Supply Units.

**Radio Condenser Company**

Davis & Copewood Sts., Camden, N. J.

Products—Variable Air Condensers.

**Radio Speakers, Inc.**

221 East Cullerton St., Chicago, Ill.

Products—Radio Loud Speakers.

**Raytheon Production Corporation**

55 Chapel St., Newton, Mass.

Products—Radio Tubes.

**RCA Manufacturing Company, Inc.**

201 North Front St., Camden, N. J.

Products—Radio Sets, Victrolas, Battery, Portable, Automobile, and Police. Television Sets—Console, Table, Separate Video, and Kits. Broadcasting and Transmitting Equipment; Television Transmitting and Receiving Equipment; Photophone Equipment; Vacuum Tubes, including Radio Receiving Tubes, Transmitting Tubes, and parts therefor.

**Readrite Meter Works**

136 E. College Ave., Bluffton, Ohio

Products—Radio Test Instruments and Vane Type Meters.

**Rea Magnet Wire Company, Inc.**

E. Pontiac St., Extended, Fort Wayne, Ind.

Products—Magnet Wire, All Insulations.

**Reliance Die & Stamping Company**

1260 Claybourn Ave., Chicago, Ill.

Products—Variable Condensers, Gear Drives, Stamped Gears.

**Remler Company, Ltd.**

2101 Bryant St., San Francisco, Calif.

Products—Radio Sets—Console and Battery.

**The Rola Company, Inc.**

2530-70 Superior Ave., Cleveland, Ohio

Products—Loud Speakers.

**Runzel Cord and Wire Co.**

4727-31 Montrose Ave., Chicago, Ill.

Products—Diversified line of cords, both telephone and electrical.

**The F. W. Sickles Company**

300 Main St., Springfield, Mass.

Products—R.F. and I.F. Coils; Units; Padders, Trimmers, Silver Mica Condensers.

**Solar Manufacturing Corporation**

Bayonne, N. J.

Products—Dry and Wet Electrolytics, Paper Bypass Condensers, Trimmer, Molded Mica Condensers. Elim-O-Stats, Capacitor Analysers.

**The Sparks-Withington Company**

2400 E. Ganson St., Jackson, Mich.

Products—Radio Sets.

**Speer Resistor Corporation**

Saint Marys, Pa.

Products—Speer Insulated and Non-Insulated Resistors. Speer Carbon Suppressors.

**Stackpole Carbon Company**

Tannery St., St. Marys, Pa.

Products—Variable Resistors, Fixed Carbon Resistors, Switches, Contacts, Graphite Anodes for Tubes, Iron Cores.

**Standard Transformer Corporation**

1500 North Halsted St., Chicago, Ill.

Products—Transformers.

**Stewart-Warner Corporation**

1826 Diversey Parkway, Chicago, Ill.

Products—Radio Sets—Console, Table, Midget, Combination Radio-Phonograph, Battery, Portable, and Automobile. Television Sets—Console.

**Stromberg-Carlson Telephone Mfg. Co.**

100 Carlsen Rd., Rochester, N. Y.

Products—Radio Sets, Television Sets. Also Program Service Systems, and Antenna Kits.

**Supreme Instruments Corporation**

Howard St., Greenwood, Miss.

Products—Radio Testing Instruments.

**Synthane Corporation**

Oaks, Pa.

Products—Various specialties.

**Transformer Corporation of America**

69 Wooster St., New York, N. Y.

Products—Sound Equipment and Accessories, Electronic Control Devices.

**Tung-Sol Lamp Works, Inc.**

95 Eighth Ave., Newark, N. J.

Products—Radio Tubes and Radio Panel Bulbs.

**Utah Radio Products Company**

820 Orleans St., Chicago, Ill.

Products—Loud Speakers, Transformers, Chokes, Vibrators, Resistors, Jacks, Controls, Switches, Plugs, and Midget Motors.

**The Webster Company**

5622 Bloomingdale Ave., Chicago, Ill.

Products—Automatic Record Changers, Amplifiers, Phonograph Motors and Turntables, Laminations and Stampings, Microphones, Pickups.

**Wells-Gardner & Company**

2701 N. Kildare Ave., Chicago, Ill.

Products—Radio Sets.

**Weston Electrical Instrument Corporation**

614 Frelinghuysen Ave., Newark, N. J.

Products—Electrical Measuring Instruments, Sensitive Relays and Associated Devices, Radio Servicing and Tube Testing Equipment, Electrical Speed Measuring Equipment, Photoelectric Devices and Photographic Exposure Meters, West-ortherm Bi-metallic Thermometers.

**Zenith Radio Corporation**

6001 Dickens Ave., Chicago, Ill.

Products—Radio Sets.



# **RADIO BUYING GUIDE**



**WHAT TO BUY  
AND  
WHERE TO BUY IT**

# 1940 BUYING GUIDE

## ACOUSTICAL PRODUCTS AND SERVICE

American Communications Corp., 1650 Broadway, New York, N. Y.  
Armstrong Cork Products Co., Lancaster, Pa.  
Atlas Sound Corp., 1451-39th St., Brooklyn, N. Y.  
Color-Tone, Acoustical Devices, Inc., 322 E. Colfax Ave., South Bend, Ind.  
Cototex Corp., 919 No. Michigan Ave., Chicago.  
Chicago Sound Systems Co., 200 E. Illinois St., Chicago, Ill.  
Electrical Research Products, Inc., 195 Broadway, New York, N. Y.  
General Insulating & Mfg. Co., Alexandria, Ind.  
General Insulating Products Co., 8821 15th Ave., Brooklyn, N. Y.  
Insulite Co., 1100 Builders Exch., Minneapolis, Minn.  
Johns-Manville Co., 22 E. 40th St., New York, N. Y.  
Kraushev & Mattison Co., Ambler, Pa.  
Miles Reproducer Co., Inc., 812 Broadway, New York, N. Y.  
National Rug Mills, Inc., 2494 S. 5th St., Milwaukee, Wis.  
RCA Manufacturing Co., Inc., Camden, N. J.  
Shure Bros., 225 W. Huron St., Chicago, Ill.  
Shugart, Harold E. Co., 911 Sycamore Ave., Los Angeles, Calif.  
Slater Co., The, Inc., 300 W. Austin Ave., Chicago, Ill.  
U. S. Gypsum Co., 300 W. Adams St., Chicago.  
Webster Electric Co., Racine, Wis.  
Western Electric Co., 195 Broadway, N. Y. C.  
Western Felt Works, 4115 Ogden Ave., Chicago.  
Wood Conversion Co., First Nat'l Bank Bldg., St. Paul, Minn.

## AERONAUTICAL RADIO EQUIPMENT

Aeronautical Radio Co., Mineola, N. Y.  
Bendix Radio Corp., 60 E. 25th St., Chicago, Ill.  
General Electric Co., Schenectady, N. Y.  
Lear Developments, Inc., 24 State St., New York, N. Y.  
Marine Radio Corp., 91 Third Ave., New York, N. Y.  
Radio Frequency Labs., Inc., Boonton, N. J.  
Wilcox Electric Co., 1014 W. 37th St., Kansas City, Mo.  
Western Electric Co., 195 Broadway, N. Y. C.

## AMPLIFIERS

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.  
American Transformer Co., 178 Emmett St., Newark, N. J.  
Amplifier Co. of America, 37 W. 20th St., N. Y. C.  
Atlas Sound Corp., 1451 39th St., Brooklyn, N. Y.  
Bell Sound Systems, Columbus, Ohio.  
Canada Sound Appliance Co., 19570 S. Sagamore Rd., Rocky River P. O., Cleveland, O.  
Chicago Sound Systems, 200 E. Illinois St., Chicago, Ill.  
Cinema Sound Equipment Co., 8572 Santa Monica Blvd., Hollywood, Cal.  
Collins Radio Co., 2920 First Ave., Cedar Rapids, Ia.  
Daniel Electrical Labs., N. Y. C.  
DeVry Corp., 1111 Armitage Ave., Chicago, Ill.  
Electrical Research Products, Inc., 195 Broadway, N. Y. C.  
Electro-Acoustic Product Co., 55 E. Wacker Drive, Chicago, Ill.  
Gates Radio & Supply Co., Quincy, Ill.  
General Electric Co., Schenectady, N. Y.  
Good-All Electric Mfg. Co., Ogallala, Neb.  
Lincophone Co., Inc., 1661 Howard Ave., Utica, N. Y.  
Mellaphone Corp., 65 Atlantic Ave., Rochester, N. Y.  
Miles Reproducer Co., Inc., 812 Broadway, New York, N. Y.  
Morlen Electric Co., Inc., 60 W. 15th St., New York, N. Y.

Motiograph, Inc., 4431 W. Lake St., Chicago.  
Necly, Norman B., 5334 Hollywood Blvd., Hollywood, Calif.  
Operadio Mfg. Co., St. Charles, Ill.  
Parcent Engineering Corp., 79 Madison Avenue, N. Y. C.  
Picture-Fone Co., 806 Main St., Lima, O.  
Piezoelectric Laboratories, 612 Rockland Ave., New Dorp, S. I., N. Y.  
Presto Recording Corp., 139 W. 19th St., N. Y. C.  
RCA Manufacturing Co., Inc., Camden, N. J.  
Radio Receptor Co., 251 W. 19th St., N. Y. C.  
Radio Wire Television, Inc., 100 Sixth Ave., New York, N. Y.  
Radolek Co., 601 W. Randolph St., Chicago, Ill.  
Rauland Corp., 3341 Belmont Ave., Chicago.  
Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Sound Systems, Inc., 6545 Carnegie Ave., Cleveland, Ohio.  
Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Road, Rochester, N. Y.  
Thordarson Electric Mfg. Co., 500 W. Hudson St., Chicago, Ill.  
United Transformer Corp., 150 Varick St., N. Y. C.  
Weber Machine Corp., 59 Rutter St., Rochester, N. Y.  
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.  
Webster Electric Co., Racine, Wisc.  
Wenzel Co., 2059 S. State St., Chicago, Ill.  
Western Electric Co., 195 Broadway, N. Y. C.

## ANTENNAS

Aeronautical Radio Co., Mineola, N. Y.  
Andrew, Victor J., 6492 S. Laverne Ave., Chicago, Ill.  
Birnbach Radio Co., 145 Hudson St., N. Y. C.  
Blaw-Knox Co., P. O. Box 1198, Pittsburgh, Pa.  
Collins Radio Co., Cedar Rapids, Ia.  
Haisig Laboratories, Inc., Maple Shade, N. J.  
Harrell, D. H., 7731 Essex Ave., Chicago  
Hoke Vertical Radiator Co., 135 S. Market St., Petersburg, Va.  
International Derrick & Equipment Co., 875 Michigan Ave., Columbus, Ohio.  
Johnson, E. F. Co., Waseco, Minn.  
Radiart Corp., Shaw Ave., and E. 133rd St., Cleveland, Ohio.  
Radio Receptor Co., 251 W. 19th St., New York, N. Y.  
Technical Appliance Corp., 17 E. 16th St., N. Y. C.  
Transducer Corp., 30 Rockefeller Plaza, N. Y. C.

## ANTENNA EQUIPMENT

Acorn Insulated Wire Co., 225 King St., Brooklyn, N. Y.  
Alden Products Co., 715 Center St., Brockton, Mass.  
Alpha Wire Corp., 50 Howard St., New York, N. Y.  
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.  
Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.  
Bendix Radio Corp., Washington, D. C.  
Birnbach Radio Co., 145 Hudson St., N. Y. C.  
L. S. Brach Mfg. Corp., 55 Dickerson St., Newark, N. J.  
Consolidated Wire & Associated Corp., Peoria & Harrison Sts., Chicago, Ill.  
Continental Wire Co., 110 Lafayette St., N. Y. C.  
Corning Glass Works, Corning, N. Y.  
General Electric Co., Schenectady, N. Y.  
Hoke Vertical Radiators, 135 S. Market St., Petersburg, Va.  
Insuline Corp. of America, 25 Park Place, New York, N. Y.  
Isolanite, Inc., 233 Broadway, N. Y. C.  
Jacobs, Charles F., 270 Lafayette St., N. Y. C.  
Johnson Co., E. F., Waseca, Minn.  
Lapp Insulator Co., Gilbert St., Leroy, N. Y.  
Locke Insulator Corp., South Charles and Cromwell, Baltimore, Md.  
Muter Co., 1255 S. Michigan Ave., Chicago, Ill.  
Phelps Dodge Copper Products Corp., 40 Wall St., New York, N. Y.  
Phoenix Radio Products Laboratory, 2040 N. Holly Ave., Chicago, Ill.



Quam-Nichols Co., 33rd Place and Cottage Grove Ave., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Triangle Conduit & Cable Co., Elmhurst, N. Y.

## 1940 BUYING GUIDE

### ANTENNA MASTS

American Bridge Co., Pittsburgh, Pa.  
Beasley Construction Co., John F., P. O. Box 1547, Muskogee, Okla.  
Blaw-Knox Co., P. O. Box 1198, Pittsburgh, Pa.  
Hartenstine-Zane Co., Inc., 225 Broadway, N. Y. C.  
Lehigh Structural Steel Co., 17 Battery Place, N. Y. C.  
Lingo Mfg. Co., Camden, N. J.  
New Jersey Erectors, 346 Broadway, Newark, N. J.

### ANTENNA SURVEYS

Bendix Radio Corp., 60 E. 25th St., Chicago, Ill.  
Burnett Radio Laboratory, 4814 Idaho St., San Diego, Calif.  
Premier Crystal Labs., 55 Park Row, New York, N. Y.  
RCA Mfg. Co., Inc., Camden, N. J.  
Skiffner, Hector R., St. Paul, Minn.  
Washington Institute of Technology, Washington, D. C.

### ATTENUATORS

Audio Products Co., Los Angeles, Calif.  
Centralab Division, Globe Union Mfg. Co., 900 E. Keefe Ave., Milwaukee, Wis.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Hollywood, Calif.  
Clarostat Mfg. Co., 285 North Sixth St., Brooklyn, N. Y.  
Collins Radio Co., 2921 First Ave., Cedar Rapids, Ia.  
Daven Co., The, 158 Summit St., Newark, N. J.  
General Radio Co., 30 State St., Cambridge, Mass.  
International Resistance Co., 401 N. Broad St., Philadelphia, Pa.  
Leeds & Northrup, 4970 Stenton Ave., Philadelphia, Pa.  
P. R. Mallory & Co., 3029 E. Washington St., Indianapolis, Ind.  
Ohmite Mfg. Co., 4835 W. Flourney St., Chicago, Ill.  
Precision Resistor Co., 334 Badger Ave., Newark, N. J.  
RCA Mfg. Co., Camden, N. J.  
Remler Co., Ltd., 19th and Bryan Sts., San Francisco, Cal.  
Shallcross Mfg. Co., Collingdale, Pa.  
Tech Laboratories, 7 Lincoln St., Jersey City, N. J.  
United Transformer Corp., 150 Varick St., New York, N. Y.  
Utah Radio Products Co., 820 Orleans St., Chicago, Ill.

### AUDIO-FREQUENCY AMPLIFIERS

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.  
Gates Radio & Supply Co., Quincy, Ill.  
General Radio Co., 30 State St., Cambridge, Mass.  
General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Radio Engineering & Mfg. Co., 26 Journal Square, Jersey City, N. J.  
Radio Television Industries Corp., 2 Linden St., Reading, Mass.  
Radotek Co., Division of Walter C. Braun, Inc., 601 W. Randolph St., Chicago, Ill.  
Sundt Engineering Co., 4238 Lincoln Ave., Chicago, Ill.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Webster Electric Co., Racine, Wis.  
Western Electric Co., 195 Broadway, N. Y. C.

### BATTERIES

Bond Electric Corp., 146 Munson St., New Haven, Conn.

Bright Star Battery Co., Clifton, N. J.  
Burgess Battery Co., Freeport, Ill.  
Edison, Thomas A., Inc., Edison Storage Battery Division, West Orange, N. J.  
Electric Storage Battery Co., 19th and Allegheny Aves., Philadelphia.  
Eveready Battery Co. (See National Carbon Co.)  
Exide (See Electric Storage Battery Co.)  
General Dry Batteries, Inc., Cleveland, Ohio.  
Globe-Union, Inc., 900 E. Keefe Ave., Milwaukee, Wis.  
National Carbon Co., 30 E. 42nd St., N. Y. C.  
Ray-O-Vac Co., 2317 Winnebago St., Madison, Wis.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Universal Battery Co., 3410 La Salle St., Chicago, Ill.  
U-S-L Battery Corp., Niagara Falls, N. Y.  
Willard Storage Battery Co., 246 E. 131st St., Cleveland, Ohio.

### BELLS—CHIMES, MUSICAL AND ELECTRICAL

Acme Electric Construction Co., 37 W. VanBuren St., Chicago, Ill.  
Deagan, J. C., Inc., 1770 Berteau Ave., Chicago.  
Kohler-Liebich Co., 3553 Lincoln Ave., Chicago.  
Maas Organ Co., 3015 Casitas Ave., Los Angeles, Calif.  
Rangertone, Inc., 201 Verona Ave., Newark, N. J.  
RCA Manufacturing Co., Inc., Camden, N. J.  
Ross, Charles, Inc., 244 W. 49th St., N. Y. C.  
Rybeck, Frances J. Co., New York, N. Y.  
Sound Projects Co., 3140 W. Walton St., Chicago, Ill.  
Transformer Corp. of America, 69 Wooster St., New York, N. Y.

### BIAS CELLS

Mallory, P. R. & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.

### BINDING POSTS

(See HARDWARE, RADIO)  
Eby, Hugh H. Co., 2066 Hunting Park Ave., Philadelphia, Pa.

### BROADCAST EQUIPMENT

American Communications Corp., 1560 Broadway, New York, N. Y.  
American Sales Co., 44 W. 19th St., N. Y. C.  
Bassett Research Corp., South Bend, Ind.  
Collins Radio Co., 2920 First Ave., N. E., Cedar Rapids, Iowa.  
Doolittle & Falknor, 7421 S. Loomis Blvd., Chicago, Ill.  
Ferranti Electric, Inc., 30 Rockefeller Plaza, New York, N. Y.  
Gates American Corp., Quincy, Ill.  
General Communication Products, Inc., Hollywood, Calif.  
General Engineers, Upper Darby, Pa.  
Graybar Electric Co. (Distributors for Western Elec.), 420 Lexington Ave., N. Y. C.  
Hygrade Sylvania Corp., Clifton, N. J.  
International Broadcasting Equipment Co., 312 W. 51st St., Chicago, Ill.  
Kiuge Radio Co., 1041 N. Bonnie Brae, Los Angeles, Cal.  
Lear Developments, Inc., 24 State St., New York, N. Y.  
Miles Reproducer Co., 812 Broadway, New York, N. Y.  
Neely, Norman B., 5334 Hollywood Blvd., Hollywood, Calif.  
Northern Electric Co., Ltd., 1261 Shearer St., Montreal, Canada.  
Peerless Radio Mfg. Co., Albany, N. Y.  
Piezoelectric Laboratories, 612 Rockland Ave., New Dorp, S. I., N. Y.  
RCA Mfg. Co., Camden, N. J.

# 1940 BUYING GUIDE

Radio Engineering Labs., 35-54—36th St., Long Island City, N. Y.  
Radio Engineering & Mfg. Co., 26 Journal Square, Jersey City, N. J.  
Radio Television Industries Corp., 2 Linden St., Reading, Mass.  
Remler Co., Ltd., 2101 Bryant St., San Francisco, Cal.  
Skaggs Transformer Co., 5894 Broadway, Los Angeles, Calif.  
Skitter, Hector R., St. Paul Hotel, St. Paul, Minn.  
D. V. Tostenson, Moorhead, Minn.  
Transmitter Equipment Mfg. Co., 130 Cedar St., N. Y. C.  
United Transformer Corp., 72 Spring St., N. Y. C.  
Western Electric Co., 195 Broadway, N. Y. C.  
Westinghouse Electric & Mfg. Co., Chicopee Falls, Mass.

## CABLES

Acorn Insulated Wire Co., 225 King St., Brooklyn, N. Y.  
Alden Products Co., 715 Center St., Brockton, Mass.  
Alpha Wire Corp., 30 Howard St., N. Y. C.  
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.  
Belden Mfg. Co., 4647 W. Van Buren, Chicago, Ill.  
Essex Wire Corp., 14310 Woodward Ave., Detroit, Mich.  
Hoke Vertical Radiators, Petersburg, Va.  
Mallory, P. R. & Co., Indianapolis, Ind.  
Northern Electric Co., Ltd., 1261 Shearer St., Montreal, Canada.  
Phelps Dodge Copper Products Corp., 40 Wall St., New York, N. Y.  
Transducer Corp., Rockefeller Plaza, N. Y. C.  
Triangle Conduit & Cable Co., Elmhurst, N. Y.

## CABLES, COAXIAL

Andrew, Victor J., 6492 S. Laverne Ave., Chicago, Ill.  
Commercial Radio Equipment Co., 216 E. 74th St., Kansas City, Mo.  
Isolantite, Inc., 233 Broadway, N. Y. C.  
Transducer Corp., 30 Rockefeller Plaza, N. Y. C.

## CARPETS

Aetna Carpet Co., 9006 Melrose Ave., Los Angeles.  
Bigelow Sanford Carpet Co., Inc., 140 Madison Ave., N. Y. C.  
Hotel & Theater Carpet Co., 427 W. 42nd St., N. Y. C.  
Pick, Albert Co., Inc., 2159 Pershing Road, Chicago.  
Shearer, B. F., Co., 2318 Second Ave., Seattle Wash.  
Slater, William V., Inc., 300 W. Austin Ave., Chicago.  
Smith, Alexander & Sons, 295 Fifth Ave., New York, N. Y.

## CARPET CUSHIONS

Clinton Carpet Co., 222 N. Bank Drive, Chicago.  
Greater New York Carpet House, Inc., 250 W. 49th St., New York, N. Y.  
Pick, Albert Co., Inc., 2159 Pershing Road, Chicago.

## CATHODE RAY OSCILLOGRAPHS

Bernard, H. J., 319 Third Ave., Brooklyn, N. Y.  
Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill.  
DuMont, Allen B., Laboratories, Passaic, N. J.  
General Electric Co., Schenectady, N. Y.  
Hickok Electrical Instrument Co., 10514 Dupont Ave., Detroit, Mich.  
Jackson Electrical Instrument Co., 129 Wayne Ave., Dayton, Ohio  
Meck, John, Instruments, 164 N. May St., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.

Supreme Instruments Corp., Greenwood, Mass.  
Triplett Electrical Instrument Corp., Bluffton, Ohio  
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Western Electrical Instrument Corp., Newark, N. J.

## CATHODE RAY TUBES

Arcturus Radio Tube Co., 720 Frelinghuysen Ave., Newark, N. J.  
DuMont, Allen B., Laboratories, Passaic, N. J.  
Electronic Products Co., 5356 E. 9th St., Los Angeles, Calif.  
General Electric Co., Schenectady, N. Y.  
National Union Radio Corp., 57 State St., Newark, N. J.  
RCA Mfg. Co., Camden, N. J.  
Western Electric Co., 195 Broadway, N. Y. C.  
Westinghouse Lamp Co., Bloomfield, N. J.

## CHOKES, FILTER

American Transformer Co., 180 Emmet St., Newark, N. J.  
Collins Radio Co., Cedar Rapids, Ia.  
Coto-Coil Co., Inc., Providence, R. I.  
Dongan Electric Mfg. Co., Detroit, Michigan.  
Ecco High Frequency Corp., 120 W. 20th St., New York, N. Y.  
Ferranti Electric, Inc., 30 Rockefeller Plaza, N. Y. C.  
Freed Transformer Co., 72 Spring St., New York, N. Y.  
General Winding Co., 254 W. 31st St., New York, N. Y.  
Jefferson Electric Co., Bellwood, Ill.  
RCA Mfg. Co., Camden, N. J.  
Standard Transformer Corp., 1500 Halsted St., Chicago, Ill.  
Thordarson Electric Mfg. Co., 500 W. Huron St., Chicago, Ill.  
Tobe Deutschmann Corp., Canton, Mass.  
United Transformer Corp., 150 Varick St., N. Y. C.  
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.

## COILS

Aladdin Radio Industries, Inc., 468 W. Superior St., Chicago, Ill.  
American Transformer Co., 180 Emmet St., Newark, N. J.  
Automatic Winding Co., Newark, N. J.  
Bud Radio, Inc., 5205 Cedar Ave., Cleveland, O.  
Caren Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.  
Coto-Coil Co., Inc., 229 Chapman St., Providence, R. I.  
D-X Radio Products, 1575 Milwaukee Ave., Chicago, Ill.  
General Mfg. Co., 1255 S. Chicgo Ave., Chicago, Ill.  
General Winding Co., 254 W. 31st St., N. Y. C.  
Guthman, Edwin I., Co., 400 S. Peoria St., Chicago, Ill.  
Hammerlund Mfg. Co., 424 W. 33rd St., N. Y. C.  
Insuline Corp. of America, 25 Park Place, N. Y. C.  
International Transformer Co., 39 W. 20th St., New York, N. Y.  
Johnson, E. F., Co., Waseca, Minn.  
Meisner Mfg. Co., Mt. Carmel, Ill.  
Miller, J. W. & Co., 5917 S. Main St., Los Angeles, Calif.  
Precision Inductance Corp., 591 Broadway, N. Y. C.  
Sickles, F. W., Co., 300 Main St., Springfield, Mass.  
Skaggs Transformer Co., 5894 Broadway, Los Angeles, Calif.  
Telradio Engineering Corp., 484 Broome St., N. Y. C.  
United Transformer Corp., 150 Varick St., N. Y. C.  
Ultramar Mfg. Corp., 303 W. Monroe St., Chicago, Ill.  
Universal Winding Co., Providence, R. I.

## CONDENSERS, ELECTROLYTIC

Aerovox Corp., 70 Washington St., Brooklyn, N. Y.  
American Condenser Co., 2508 S. Michigan Ave., Chicago, Ill.

## 1940 BUYING GUIDE

Condenser Products, 1369 N. Branch St., Chicago, Ill.  
Consolidated Wire & Associated Corps., 512 S. Peoria St., Chicago, Ill.  
Cornell-Dubilier Corp., 1000 Hamilton Blvd., South Plainfield, N. J.  
Cosmic Radio Corp., 699 E. 135th St., N. Y. C.  
Crowley, H. L. & Co., 1 Central Ave., W. Orange, N. J.  
Curtis Condenser Corp., 3088 W. 106 St., Cleveland, Ohio.  
Deutschmann, Tobe, Corp., Canton, Mass.  
Dumont Electric Co., 514 Broadway, New York, N. Y.  
Girard-Hopkins, Oakland, Calif.  
Magnavox Co., 2131 Bueter Rd., Fort Wayne, Ind.  
Mallory, P. R. & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.  
Solar Mfg. Co., 599 Broadway, N. Y. C.  
Sprague Products Co., N. Adams, Mass.  
Tilton Electric Corp., 15 E. 26th St., N. Y. C.

### CONDENSERS, FIXED

Aerovox Corp., 70 Washington St., Brooklyn, N. Y.  
American Condenser Corp., 2508 S. Michigan Ave., Chicago, Ill.  
Centralab, 900 E. Keefe Avenue, Milwaukee, Wisc.  
Continental Carbon, Inc., 13900 Lorain Ave., Cleveland, Ohio.  
Cornell-Dubilier Corp., 1000 Hamilton Blvd., South Plainfield, N. J.  
Crowley, Henry L. & Co., Inc., 1 Central Avenue, W. Orange, N. J.  
Curtis Condenser Corp., 3088 W. 106th St., Cleveland, Ohio.  
Deutschmann, Tobe, Corp., Canton, Mass.  
Electro-Motive Mfg. Co., 797 E. 140th St., N.Y.C.  
Erie Resistor Corp., Erie, Pa.  
Fast, John E., & Co., 3121 N. Pulaski St., Chicago, Ill.  
Magnavox Co., Inc., Ft. Wayne, Ind.  
Mallory, P. R. & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.  
Muter Co., The, 1255 S. Michigan Ave., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Sangamo Electric Co., Springfield, Ill.  
Solar Mfg. Co., 599 Broadway, N. Y. C.  
Sprague Specialties, Inc., North Adams, Mass.

### CONDENSERS, VARIABLE

Atkins & Brown, 215 Fourteenth St., Oakland, Calif.  
Browning Laboratories, Inc., 750 Main St., Winchester, Mass.  
Bud Radio, Inc., 5205 Cedar Ave., Cleveland, Ohio  
Cardwell, Allen D., Mfg. Corp., 81 Prospect St., Brooklyn, N. Y.  
DeJur-Ansco Corp., Shelton, Conn.  
General Instrument Co., Elizabeth, N. J.  
General Radio Co., 30 State St., Cambridge, Mass.  
Guthman, Edwin I., Co., 400 S. Peoria St., Chicago, Ill.  
Hammarlund Mfg. Co., 424 W. 33rd St., N. Y. C.  
Johnson, E. F. Co., Waseka, Minn.  
National Co., Inc., Walden, Mass.  
Radio Condenser Co., Camden, N. J.  
Sickles, F. W., Co., 300 Main St., Springfield, Mass.

### CONVERTERS, ELECTRIC

Bodine Electric Co., 2254 W. Ohio St., Chicago, Ill.  
Carter Motor Co., 1608 N. Milwaukee Ave., Chicago, Ill.  
Eicor, Inc., 515 Laffin St., Chicago, Ill.  
Electric Specialty Co., Stamford, Conn.  
General Electric Co., Schenectady, N. Y.  
Hetro Electrical Industries, Inc., 4611 Ravenswood Ave., Chicago, Ill.  
Janette Mfg. Co., 556 West Monroe St., Chicago.

Kato Engineering Co., 530 N. Front St., Mankato, Minn.  
Pioneer Gen-E-Motor Corp., 466 W. Superior St., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

### COUPLING EQUIPMENT

Andrew, Victor J., 7221 San Francisco Ave., Chicago, Ill.  
Johnson, E. F. Co., Waseka, Minn.

### DIALS AND KNOBS

American Emblem Co., Ufica, N. Y.  
Boston Bros. Co., 1600 N. Clinton Ave., Rochester, N. Y.  
Crowe Name Plate & Mfg Co., 3701 Ravenswood Ave., Chicago, Ill.  
Davies Molding Co., Harry, 1428 N. Wells St., Chicago, Ill.  
DeJur-Ansco Corp., Shelton, Conn.  
Insuline Corp. of America, 25 Park Place, New York, N. Y.  
Mallory, P. R., & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
Meissner Mfg. Co., Mt. Carmel, Ill.  
Premier Crystal Labs., 719 Pulitzer Bldg., N. Y. C.

### ELECTRICAL MEASURING EQUIPMENT

(SEE METERS)

Acoustic Consultants, Inc., 1270 Sixth Ave., New York, N. Y.  
American Communications Corp., 1650 Sixth Ave., New York, N. Y.  
Associated Research, Inc., 16 N. May St., Chicago, Ill.  
Boonton Radio Corp., Fanny Road, Boonton, N. J.  
Burnett, William W. L., Laboratory, San Diego, Calif.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Hollywood, Calif.  
Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill.  
Continental Electric Co., Geneva, Ill.  
Daven Co., The, 158 Summit St., Newark, N. J.  
Deutschmann, Tobe, Canton, Mass.  
Electronic Design Corp., 164 N. May St., Chicago, Ill.  
Fairchild Aerial Camera Corp., 62-10 Woodside Ave., Woodside, N. Y.  
Ferris Instrument Corp., Boonton, N. J.  
General Radio Co., 30 State St., Cambridge, Mass.  
Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, O.  
Premier Crystal Labs., 719 Pulitzer Bldg., N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Supreme Instruments Corp., Greenwood, Miss.  
Tech Laboratories, 7 Lincoln St., Jersey City, N. J.  
Triplett Electrical Instrument Co., Bluffton, Ohio.  
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.  
United Motors Service, 3044 Grand Blvd., Detroit, Mich.  
Wright's Electrical Instrument Laboratories, Reed College, Portland, Ore.  
Weston Electrical Instrument Corp., 614 Freylinghusen Ave., Newark, N. J.

### EQUALIZERS

Daven Co., The, 158 Summit St., Newark, N. J.  
Emar Instrument Corp., 29 W. 57th St., N. Y. C.  
Sound Apparatus Co., 150 W. 46th St., N. Y. C.  
Tech Laboratories, 7 Lincoln St., Jersey City, N. J.  
United Transformer Corp., 150 Varick St., N. Y. C.

# 1940 BUYING GUIDE

## FILTERS, INTERFERENCE

Aerovox Corp., New Bedford, Mass.  
Andrew, Victor J., 7221 San Francisco Ave., Chicago, Ill.  
Deutschmann, Tobe, Canton, Mass.  
Miller, J. W. Co., 5917 S. Main St., Los Angeles

## FIXTURES, LIGHTING

Battle, Robert, Inc., 35-28 42nd St., Long Island City, N. Y.  
Capitol Stage Lighting Co., 527 W. 45th St., New York, N. Y.  
Erikson Electric Co., 6 Power House St., Boston, Mass.  
Erker Bros. Optical Co., 610 Olive St., St. Louis, Mo.  
General Electric Co., Schenectady, N. Y.  
Guth, Edwin F., Co., 2615 Washington Ave., St. Louis, Mo.  
Holzmueller, C. J., 1108 Howard St., San Francisco, Calif.  
Hub Electric Corp., 2225 W. Grand Ave., Chicago, Ill.  
King Scenic Co., 1914 Main St., Dallas, Tex.  
Kliegl Bros., Universal Electric Stage Lighting Co., Inc., 321 W. 50th St., New York, N. Y.  
Nation-Wide Manufacturing Corp., 449 W. 42nd St., New York, N. Y.  
Rambusch Decorating Co., 2 W. 45th St., New York, N. Y.  
Ross, Charles, Inc., 244 W. 49th St., New York, N. Y.  
Saltzman, J. G., Inc., 480 Lexington Ave., N. Y. C.  
Sterling Reflector Co., 1431 W. Hubbard St., Chicago, Ill.  
Voigt Co., 12th & Montgomery Aves., Philadelphia, Pa.  
Wagner-Woodruff Co., 830 S. Olive St., Los Angeles, Calif.  
Wheeler Reflector Co., 275 Congress St., Boston, Mass.

## FLOOR COVERINGS

American Mat Corp., 1708 Adams St., Toledo, O.  
American Tile & Rubber Co., Perrine Ave., Trenton, N. J.  
Armstrong Cork Products Co., Lancaster, Pa.  
Bigelow Sanford Carpet Co., Inc., 140 Madison Ave., New York, N. Y.  
Clinton Carpet Co., 222 N. Bank Drive, Chicago, Ill.  
Greater New York Carpet House, Inc., 250 W. 49th St., New York, N. Y.  
Imperial Floor Co., Inc., 59 Halstead St., Rochester, N. Y.  
King Scenic Co., 1914 Main St., Dallas, Tex.  
Pick, Albert, Co., Inc., 2519 Pershing Road, Chicago, Ill.  
Puritan Rubber Manufacturing Co., Perrine Ave., Trenton, N. J.  
Rosenheim, J., & Co., 71 W. 45th St., New York, N. Y.  
Slater Co., The, 300 W. Austin Ave., Chicago, Ill.  
Smith, Alexander, & Sons, Carpet Co., Sales Division, 295 Fifth Ave., New York, N. Y.

## FREQUENCY CONTROL UNITS

American Piezo Supply Co., 40th & Woodland Ave., Kansas City, Mo.  
Biley Electric Co., Erie, Pa.  
Collins Radio Co., Cedar Rapids, Ia.  
Commercial Radio Equipment Co., 7205 Baltimore St., Kansas City, Mo.  
Doolittle & Falknor, Inc., 1306 W. 74th St., Chicago, Ill.  
Gates-American Corp., Quincy, Ill.  
General Engineers, Upper Darby, Pa.  
Haigis Laboratories, Maple Shade, N. J.

International Broadcasting Equipment Co., 312 W. 51st St., Chicago, Ill.  
Kaar Engineering Co., Palo Alto, Calif.  
Peerless Radio Mfg. Co., Albany, N. Y.  
Piezo Electric Laboratories, 612 Rockland Ave., New Dorp, S. I., N. Y.  
Premier Crystal Laboratories, Inc., Park Row, N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Radio Engineering Laboratories, Inc., 35-54—36th St., Long Island City, N. Y.  
Radio Engineering & Mfg. Co., 26 Journal Sq., Jersey City, N. J.  
Radio Laboratories, Inc., 2701 California Ave., Seattle, Wash.  
Radio Receptor Co., 251 W. 19th St., New York City  
Radio Television Industries Corp., Reading, Mass.  
Tostenson, D. V., Moorhead, Minn.  
Western Electric Co., 195 Broadway, N. Y. C.  
Western Radio Engineering Co., 5th & St. Peter St., St. Paul, Minn.

## FUSES

Jefferson Electric Co., Bellewood, Ill.  
Littlefuse Laboratories, 4238 Lincoln Ave., Chicago, Ill.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Sundt Engineering Co., 4238 Lincoln Ave., Chicago, Ill.

## GENERATORS

Automatic Devices Co., 1035 Linden St., Allentown, Pa.  
Carter Motor Co., 1608 N. Milwaukee Ave., Chicago, Ill.  
Continental Electric Co., 50 Church St., N. Y. C.  
Eicor, Inc., 515 S. Laffin St., Chicago, Ill.  
Electric Specialty Co., Stamford, Conn.  
Fidelity Electric Co., Lancaster, Pa.  
Gardiner, L. J., Co., 935 W. Goodale Blvd., Columbus, Ohio.  
General Electric Co., Schenectady, N. Y.  
Hertner Electric Co., 12690 Elmwood Ave., Cleveland, Ohio.  
Hetro Electrical Industries, Inc., 4611 Ravenswood Ave., Chicago, Ill.  
Ideal Electric Mfg. Co., Mansfield, Ohio.  
Janette Mfg. Co., 556 W. Monroe St., Chicago, Ill.  
Kato Engineering Co., Mankato, Minn.  
Miles Reproducer Co., Inc., 812 Broadway, N. Y. C.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

## HEADPHONES

Brush Development Co., E. 40th and Perkins Ave., Cleveland, Ohio.  
Cannon Co., C. F., Main St., Springwater, N. Y.  
Carron Mfg Co., 415 S. Aberdeen St., Chicago, Ill.  
Chicago Telephone Supply Co., 1142-1228 W. Beardsley Ave., Elkhart, Ind.  
Dictograph Products Co., 580 Fifth Ave., N. Y. C.  
Insuline Corp. of America, 25 Park Pl., N. Y. C.  
Philmore Mfg. Co., 113 University Pl., N. Y. C.  
Quam-Nichols Co., 33rd Pl. and Cottage Grove Ave., Chicago, Ill.  
Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.  
Trimm Radio Mfg. Co., 1770 W. Berteau Ave., Chicago, Ill.  
Western Electric Co., 195 Broadway, New York, N. Y.  
Universal Microphone Co., Ltd., Inglewood, Calif.

## HORNS AND SPEAKERS

Ariston Mfg. Co., 4045 Diversey St., Chicago, Ill.  
Arlavox Mfg. Co., 4300 S. Green St., Chicago, Ill.  
Atlas Sound Corp., 1451 39th St., Brooklyn, N. Y.  
Best Mfg. Co., 1200 Grove St., Irvington, N. J.  
Cinaudagraph Corp., Stamford, Conn.  
Electrical Research Products, Inc., 250 W. 57th St., New York City.  
Hawley Products Co., 201 N. 1st Ave., St. Charles, Ill.

Jensen Radio Mfg. Co., 6601 S. Laramie Ave., Chicago, Ill.  
 Lansing Mfg. Co., 6900 McKinley Ave., Los Angeles, Calif.  
 Magna-Vox Co., Inc., 2131 Beuter Rd., Ft. Wayne, Indiana.  
 Operadio Mfg. Co., St. Charles, Ill.  
 Oxford-Tartak Radio Corp., 915 W. Van Buren St., Chicago, Ill.  
 Quam-Nichols Co., 33rd Place & Cottage Grove Ave., Chicago, Ill.  
 Racon Electric Co., Inc. 52 E. 19th St., New York, N. Y.  
 Radio Speakers, Inc., 1338 S. Michigan Ave., Chicago, Ill.  
 Rola Co., 2570 E. Superior Ave., Cleveland, Ohio.  
 Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
 RCA Manufacturing Co., Inc., Camden, N. J.  
 Silver-Marshall, Inc., 6401 West 65th St., Chicago, Ill.  
 Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Road, Rochester, N. Y.  
 Unit Reproducers Mfg. Co., 999 Main St., Rochester, N. Y.  
 Utah Radio Products Co., 820 Orleans Ave., Chicago.  
 Wenzel Co., 2059 S. State St., Chicago, Ill.  
 Western Electric Co., 195 Broadway, N. Y. C.  
 Wright De Coster, Inc., 2233 University Ave., St. Paul, Minn.

**INSULATION**

Acme Wire Co., 1255 Dixwell Ave., New Haven, Conn.  
 Alpha Wire Corp., 50 Howard St., New York, N. Y.  
 Alden Products Co., 715 Center St., Brockton, Mass.  
 American Lava Corp., Cherokee Blvd. & Manufacturers Road, Chattanooga, Tenn.  
 Bakelite Corp., 247 Park Ave., N. Y. C.  
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.  
 Brach, L. S., Mfg. Corp., 55 Dickerson St., Newark, N. J.  
 Brand, W. & Co., 268 Fourth Ave., N. Y. C.  
 Bud Radio, Inc., 5205 Cedar Ave., Cleveland, Ohio  
 Collins Radio Co., Cedar Rapids, Ia.  
 Consolidated Wire & Associated Corp., Peoria & Harrison Sts., Chicago, Ill.  
 Corning Glass Works, Corning, N. Y.  
 Crowley, Henry L., & Co., 1 Central Ave., West Orange, N. J.  
 Demuth Glass Works, Inc., Brooklyn, N. Y.  
 Electronic Mechanics, Inc., 201 E. 12th St., N. Y. C.  
 Franklin, A. W., & Co., 175 Varick St., N. Y. C.  
 Gits Molding Corp., 4600 W. Huron St., Chicago, Ill.  
 Insuline Corp. of America, 25 Park Pl., N. Y. C.  
 Isolantite, Inc., 233 Broadway, N. Y. C.  
 Johnson, E. F., Co., Waseca, Minn.  
 Lapp Insulator Co., Gilbert St., LeRoy, N. Y.  
 Locke Insulator Corp., S. Charles and Cromwell, Baltimore, Md.  
 Mica Insulator Co., 200 Varick St., N. Y. C.  
 Mylex Corp. of America, 7 E. 42nd St., N. Y. C.  
 Owens-Illinois Glass Co., Newark, Ohio.  
 Porcelain Products, Inc., Findlay, Ohio.  
 Stupakoff Labs., Inc., 6627 Hamilton Ave., Pittsburgh, Pa.

**INTEROFFICE COMMUNICATION SYSTEMS**

Dictograph Corp., 580 Fifth Ave., N. Y. C.  
 Million Radio & Television Labs., 671 W. Ohio St., Chicago, Ill.  
 Philco Radio & Television Corp., Toga & C Sts., Philadelphia, Pa.  
 Piezoelectric Labs., 612 Rockland Ave., New Dorp, S. I., N. Y.  
 Radolek Co. Division of Walter C. Braun, Inc., 601 W. Randolph St., Chicago, Ill.  
 RCA Mfg. Co., Camden, N. J.  
 Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif.  
 United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
 Universal Microphone, Ltd., Englewood, Calif.  
 Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.

**JACKS AND PLUGS**

Alden Products Co., 715 Centre, Brockton, Mass.  
 American Phenolic Corp., 1250 W. Van Buren, Chicago, Ill.  
 American Radio Hardware Co., 476 Broadway, N. Y. C.  
 Bud Radio, Inc., 5205 Cedar Ave., Cleveland, Ohio  
 Cinch Mfg. Corp., 2335 W. VanBuren St., Chicago, Ill.  
 Eby, Hugh H., Co., 2066 Hunting Park Ave., Philadelphia, Pa.  
 Ecco High Frequency Corp., 120 W. 20th St., New York, N. Y.  
 General Radio, 30 State St., Cambridge, Mass.  
 Johnson, E. F., Co., Waseca, Minn.  
 Jones, Howard B., 2300 Wabansia Ave., Chicago, Ill.  
 Mallory, P. R., & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
 Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
 Utah Radio Products Co., The, 820 Orleans St., Chicago, Ill.

**LIGHTING**

Battle, Robert, Inc., 35-28 42nd St., Long Island City, N. Y.  
 Capitol Stage Lighting Co., 527 W. 45th St., New York, N. Y.  
 Climax Reflector, Inc., 315 Reynolds Place, S. W., Canton, O.  
 Cole, W. C., & Co., 320 E. 12th St., Los Angeles, Calif.  
 Curtis Lighting, Inc., 1123 W. Jackson Blvd., Chicago, Ill.  
 Duhem Motion Picture Manufacturing Co., 135 Hayes St., San Francisco, Calif.  
 E-J Electric Installation Co., 227 E. 45th St., New York, N. Y.  
 Erikson Electric Co., 6 Power House St., Boston, Mass.  
 Flexlume Corp., 1100 Military Road, Buffalo, N. Y.  
 General Electric Co., Schenectady, N. Y.  
 Golde Manufacturing Co., 1214 W. Madison St., Chicago, Ill.  
 Guth, Edwin F., Co., 2615 Washington Ave., St. Louis, Mo.  
 Hirsch, Gustav, Organization, 209 S. Third St., Columbus, O.  
 Hub Electric Corp., 2225 W. Grand Ave., Chicago, Ill.  
 Kliegl Bros. Universal Electric Stage Lighting Co., Inc., 321 W. 50th St., New York, N. Y.  
 Olesen, Otto K., Illuminating Co., Ltd., 1560 N. Vine St., Hollywood, Calif.  
 Rambusch Decorating Co., 2 W. 45th St., New York, N. Y.  
 Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
 Saltzman, J. G., Inc., 480 Lexington Ave., N. Y. C.  
 Sterling Reflector Co., 1431 W. Hubbard St., Chicago, Ill.  
 Throckmorton, Cleon, Inc., 102 W. Third St., New York, N. Y.  
 Voigt Co., 12th & Montgomery Aves., Philadelphia, Pa.  
 Wheeler Reflector Co., 275 Congress St., Boston, Mass.

**METERS**

Aerovox Corp., New Bedford, Mass.  
 Andrew, Victor J., 6492 S. Laverne Ave., Chicago, Ill.  
 Acoustic Consultants, Inc., 1270 Sixth Ave., New York, N. Y.  
 Bendix Radio Corp., 60 E. 25th St., Chicago, Ill.  
 Boonton Radio Corp., Boonton, N. J.  
 Burton-Rogers Co., 755 Boylston St., Boston, Mass.  
 Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill.  
 Deutschmann, Tobe, Corp., Canton, Mass.  
 Daven Co., 158 Summit St., Newark, N. J.  
 Electronic Design Corp., 164 N. May St., Chicago, Ill.  
 Ferranti Electric, Inc., 30 Rockefeller Plaza, N. Y.  
 General Electric Co., Schenectady, N. Y.  
 General Radio Co., 30 State St., Cambridge, Mass.

## 1940 BUYING GUIDE

Hickok Electrical Instruments Co., 10514 Dupont Ave., Cleveland, O.  
Monarch Mfg. Co., 3341 Belmont Ave., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Service Instruments, Inc., 406 Fourth Ave., New York, N. Y.  
Shallcross Mfg. Co., 10 Jackson Ave., Collingdale, Pa.  
Triplett Electric Instrument Co., Bluffton, O.  
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.  
Westinghouse Electric & Mfg. Co., Newark, N. J.  
Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark, N. J.

### MICA

(ALSO SEE INSULATION)

American Mica Works Corp., 47 West St., New York, N. Y.  
Brand, William & Co., 276 Fourth Ave., N. Y. C.  
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago, Ill.  
Mica Insulator Co., 200 Varick St., N. Y. C.

### MICROPHONE ACCESSORIES

American Microphone Co., 1915 S. Western Ave., Los Angeles, Cal.  
Astatic Microphone Lab., Inc., 830 Market St., Youngstown, Ohio.  
Atlas Sound Corp., 1451-39th St., Brooklyn, N. Y.  
Bruno Laboratories, Inc., 30 W. 15th St., N. Y. C.  
Brush Development Co., 40th & Perkins Ave., Cleveland, Ohio.  
Eastern Mike-Stand Co., 56 Christopher Ave., Brooklyn, N. Y.  
Electro-Voice Mfg. Co., 324 E. Colfax Ave., South Bend, Ind.  
RCA Mfg. Co., Camden, N. J.  
Remler Co., 2101 Bryant St., San Francisco, Calif.  
Shure Brothers, 225 W. Huron St., Chicago, Ill.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Universal Microphone Co., Ltd., 424 Warren Lane, Inglewood, Cal.  
Western Electric Co., 195 Broadway, N. Y. C.

### MICROPHONE CABLE

(SEE WIRE & CABLE)

### MICROPHONE STANDS AND ACCESSORIES

American Microphone Co., 1915 S. Western Ave., Los Angeles, Cal.  
American Phenolic Corp., 1250 W. Van Buren St., Chicago, Ill.  
Amperite Company, 561 Broadway, N. Y. C.  
Astatic Microphone Laboratory, 830 Market St., Youngstown, Ohio.  
Atlas Sound Corp., 1451 39th St., Brooklyn, N. Y.  
Bruno Laboratories, Inc., 30 W. 15th St., N. Y. C.  
Brush Development Co., 40th & Perkins Ave., Cleveland, Ohio.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Hollywood, Calif.  
Colortone Acoustic Devices, South Bend, Ind.  
Eastern Mike-Stand Co., 56 Christopher St., N. Y. C.  
Electro-Voice Mfg. Co., Inc., 324 E. Colfax Ave., South Bend, Ind.  
Ellis Electrical Laboratory, Berwyn, Ill.  
Espy Mfg. Co., 67 Irving Place, N. Y. C.  
Garrett, M. A., Corp., Milwaukee, Wisc.  
Hetro Electrical Industries, Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Remler Co., 2101 Bryant St., San Francisco, Calif.  
Shure Bros., 225 W. Huron St., Chicago, Ill.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Universal Microphone Co., Ltd., Inglewood, Calif.  
Western Electric Co., 195 Broadway, New York, N. Y.

### MICROPHONES

American Microphone Co., 1915 S. Western Ave., Los Angeles, Cal.  
Amperite Company, 561 Broadway, N. Y. C.  
Astatic Microphone Laboratory, Inc., 830 Market St., Youngstown, Ohio.  
Atlas Sound Corp., 1451-39th St., Brooklyn, N. Y.  
Bruno Laboratories, Inc., 30 W. 15th St., N. Y. C.  
Brush Development Co., The, E. 40th and Perkins Ave., Cleveland, Ohio.  
Carrier Microphone Co., Inglewood, Calif.  
Electro-Voice Mfg. Co., Inc., 324 E. Colfax Ave., South Bend, Ind.  
Ellis Electrical Laboratory, Berwyn, Ill.  
Racon Electric Co., 52 E. 19th St., N. Y. C.  
Radio Receptor Co., 251 W. 19th St., N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Remler Co., 2101 Bryant St., San Francisco, Calif.  
Shure Bros. Co., 225 W. Huron St., Chicago, Ill.  
Turner Co., Cedar Rapids, Iowa.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Universal Microphone Co., Ltd., 424 Warren Lane, Inglewood, Cal.  
Vibro-Master Co., 2744 Broadway, N. Y. C.  
Western Electric Co., 195 Broadway, N. Y. C.

### MONITORS, FREQUENCY AND MODULATION

Acoustic Consultants, Inc., 1270 Sixth Ave., New York, N. Y.  
Andrew, Victor J., 6492 S. Laverne Ave., Chicago, Ill.  
Bendix Radio Corp., 60 E. 25th St., Chicago, Ill.  
Boehme, H. O., Inc.  
Boonton Radio Corp., Boonton, N. J.  
Bremer Broadcasting Corp.  
Collins Radio Co., Cedar Rapids, Ia.  
Commercial Radio Equipment Co., Kansas City, Mo.  
Donnelley Monitoring Service, Lake Bluff, Ill.  
Doolittle & Falknor, Inc., 1306 W. 74th St., Chicago, Ill.  
General Engineers, Upper Darby, Pa.  
General Radio Co., 30 State St., Cambridge, Mass.  
Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.  
Hygrade Sylvania Corp., Clifton, N. J.  
International Broadcasting Equipment Co., 312 W. 51st St., Chicago, Ill.  
Lampkin Labs., Bradentown, Fla.  
Piezo Electric Laboratories, 612 Rockland Ave., New Dorp, S. I., N. Y.  
Pillar of Fire.  
Premier Crystal Labs, 55 Park Row, New York, N. Y.  
RCA Mfg. Co., Camden, N. J.  
Supreme Instruments Corp., Greenwood, Mass.  
Triplett Electrical Instrument Corp., 122 Main St., Bluffton, Ohio.  
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.  
United Motors Service, 3044 W. Grand Blvd., Detroit, Mich.  
Western Electric Co., 195 Broadway, N. Y. C.

### MOTORS

Carter Motor Co., 1608 N. Milwaukee Ave., Chicago, Ill.  
Ecor, Inc., 515 S. Laffin St., Chicago, Ill.  
Electric Specialty Co., Stamford, Conn.  
Hetro Electrical Industries, Inc., 4611 Ravenswood Ave., Chicago, Ill.  
Janette Mfg. Co., 556 W. Monroe St., Chicago, Ill.  
Kato Engineering Co., Mankato, Minn.  
Pioneer Gen-E-Motor Corp., 466 W. Superior St., Chicago, Ill.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.

### NEEDLES, PHONOGRAPH AND RECORDING

Acton, H. W., Co., 370 Seventh Ave., N. Y. C.  
Allied Recording Products, 126 W. 46th St., N. Y. C.  
Fairchild Aerial Camera Corp., Long Island City, N. Y.

Lowell Needle Co., Putnam, Conn.  
Lyons & Healy, 243 S. Wabash Ave., Chicago, Ill.  
Miles Reproducer Co., 812 Broadway, N. Y. C.  
Mirror Record Co., 54 W. 25th St., N. Y. C.  
Musicraft Records, Inc., 10 W. 47th St., N. Y. C.  
Permo Products Corp., 6415 Ravenswood Ave., Chicago, Ill.  
Phonograph Needle Mfg. Co., Inc., 42 Dudley St., Providence, R. I.  
Poinsettia, Inc., Pitman, N. J.  
Presto Recording Corp., 139 W. 19th St., N. Y. C.  
Rangertone, Inc., 201 Verona Ave., Newark, N. J.  
Recotone Corp., 178 Prince St., N. Y. C.

## ORGANS

Austin Organs, Inc., 156 Woodland St., Hartford, Conn.  
Estey Organ Co., Brattleboro, Vt.  
Gottfried, A. Co., Erie, Pa.  
Hammond Instrument Co., 2915 North Western Ave., Chicago, Ill.  
Hiigreen, Lane & Co., Alliance, Ohio  
Kramer Organ Co., 336 W. 44th St., New York, N. Y.  
Lyon & Healy, 243 S. Wabash Ave., Chicago, Ill.  
Marr, David Co., Warsaw, N. Y.  
Schantz, A. J., Sons & Co., Orrville, O.  
Wurlitzer, Rudolph, Co., North Tonawanda, N. Y.

## PHOTOELECTRIC CELLS

Amperex Electronic Products, Inc., 79 Washington St., Brooklyn, N. Y.  
Continental Electric Co., 203 S. First St., St. Charles, Ill.  
DeVry, Herman A., Inc., 1111 Armitage Ave., Chicago, Ill.  
Duhem Mfg. Co., 135 Hayes St., San Francisco, Cal.  
Eby, Hugh H., Inc., 2066 Hunting Park Ave., Philadelphia, Pa.  
Electrical Research Products, Inc., 195 Broadway, N. Y. C.  
Erker Bros. Optical Co., 610 Olive St., St. Louis, Mo.  
G.-M. Laboratories, Inc., 1731-35 Belmont Ave., Chicago.  
Gates Radio & Supply Co., Quincy, Ill.  
General Electric Co., Schenectady, N. Y.  
Good-All Electric Mfg. Co., Ogallala, Neb.  
Hirsch, Gustav, Organization, 209 S. Third St., Columbus, Ohio.  
Loewenberg, F., 10 E. 40th St., N. Y. C.  
Lumotron Vacuum Products Division, General Scientific Corp., 4829 S. Kedzie Ave., Chicago.  
National Union Radio Corp. of N. Y., 570 Lexington Ave., N. Y. C.  
Pacnet Engineering Corp., 79 Madison Ave., N. Y. C.  
Picture-Fone Co., 806 Main St., Lima, Ohio  
RCA Manufacturing Co., Inc., Camden, N. J.  
Wenzel Co., 2059 S. State St., Chicago, Ill.  
Western Electric Co., 195 Broadway, N. Y. C.  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.  
Westinghouse Lamp Co., 150 Broadway, N. Y. C.  
Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark, N. J.  
World Bestos Corp., 52 Courtland St., Paterson, N. J.

## PICKUPS, CRYSTAL AND MAGNETIC

Astatic Microphone Lab., 830 Market St., Youngstown, O.  
Audak Co., 500 Fifth Ave., N. Y. C.  
Bogen, David, Co., 663 Broadway, New York, N. Y.  
Brush Development Co., The, E. 3311 Perkins Ave., Cleveland, Ohio  
Fairchild Aerial Camera Co., Long Island City, N. Y.  
Hetro Electrical Industries, Inc., 4611 Ravenswood Ave., Chicago, Ill.  
Life Time Corp., 1825 Adams St., Toledo, O.  
Miles Reproducer Co., 812 Broadway, N. Y. C.  
Pacnet Eng. Corp., 79 Madison Ave., N. Y. C.  
Presto Recording Corp., 139 W. 39th St., New York, N. Y.  
Proctor, B. A., Co., 17 W. 60th St., N. Y. C.

RCA Mfg. Co., Camden, N. J.  
Radiotone, Inc., 6103 Melrose Ave., Hollywood, Calif.  
Shure Brothers, 225 W. Huron Street, Chicago, Ill.  
Sundt Engineering Co., 4238 Lincoln Ave., Chicago, Ill.  
Unit Reproducers Mfg. Co., 999 E. Main St., Rochester, N. Y.  
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.  
Webster Electric Co., Racine, Wis.  
Western Electric Co., 195 Broadway, New York, N. Y.

## POTENTIOMETERS, INC.

(SEE ALSO METERS)  
Daven Co., The, 158 Summit St., Newark, N. J.  
General Radio Co., 30 State St., Cambridge, Mass.  
International Resistance Co., 401 N. Broad St., Philadelphia, Pa.  
Mallory, P. R., & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
Precision Resistor Co., 334 Badger Ave., Newark, N. J.  
Radio Television Industries Corp., 2 Linden St., Reading, Mass.  
Tech Laboratories, 703 Newark Ave., Jersey City, N. J.

## PUBLIC ADDRESS SYSTEMS

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.  
American Communications Corp., 1650 Broadway, New York, N. Y.  
Amplifier Co. of America, 17 W. 20th St., New York, N. Y.  
Atlas Sound Corp., 1451-39th St., Brooklyn, N. Y.  
Bell Sound Systems, Columbus, Ohio  
Bogen, David, Co., 633 Broadway, New York, N. Y.  
Chicago Sound Systems Co., 200 E. Illinois St., Chicago, Ill.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Los Angeles, Calif.  
Continental Engineering Co., 3613 N. Green Bay Ave., Milwaukee, Wis.  
Electrical Research Products, Inc., 195 Broadway, New York, N. Y.  
Electro Acoustic Products Co., 55 E. Wacker Drive, Chicago, Ill.  
Electronic Design Corp., Chicago, Ill.  
Miles Reproducer Co., 812 Broadway, New York, N. Y.  
Million Radio & Television Laboratories, 671 W. Ohio St., Chicago, Ill.  
Morlen Electric Co., Inc., 60 W. 15th St., N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Radolek Co. Division of Walter C. Braun, Inc., 601 W. Randolph St., Chicago, Ill.  
Remler Co., Ltd., 19th and Bryan Sts., San Francisco, Cal.  
Sound Products, 804 N. Curson Ave., Hollywood, Calif.  
Sundt Engineering Co., 4238 Lincoln Avenue, Chicago, Ill.  
United Sound Engineering Co., 2233 University Ave., St. Paul, Minn.  
Webster Electric Co., Racine, Wis.  
Western Electric Co., 195 Broadway, N. Y. C.

## QUARTZ CRYSTALS AND ACCESSORIES

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.  
American Piezo Supply Co., 3921 Agnes Ave., Kansas City, Mo.  
Bellefonte Eng. Labs., Bellefonte, Pa.  
Bendix Radio Corp., 60 E. 25th St., Chicago, Ill.  
Bliley Electric Co., Union Station Bldg., Erie, Pa.  
Burnett, William W. L., Radio Laboratories, 8414 Idaho St., San Diego, Cal.  
Collins Radio Co., Cedar Rapids, Ia.

## 1940 BUYING GUIDE

Commercial Radio Equipment Co., 216 E. 74th St., Kansas City, Mo.  
Hipower Crystal Co., 2035 Charleston St., Chicago, Ill.  
Hollister Crystal Co., Merriman, Kansas  
Insuline Corp. of America, 25 Park Place, New York, N. Y.  
Peerless Radio Mfg. Co., Albany, N. Y.  
Peterson Radio Co., Council Bluffs, Iowa  
Piezo Electric Labs., 612 Rockland Ave., New Dorp, S. I., N. Y.  
Precision Crystal Labs., Inc., P. O. Box 326, Springfield, Mass.  
Precision Piezo Service, 427 Asia St., Baton Rouge, La.  
Premier Crystal Laboratories, 719 Pulitzer Bldg., N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Scientific Research Laboratories, 124 Jackson Ave., Hyattsville, Md.  
Standard Piezo Co., 126 Cedar St., Carlisle, Pa.  
Valpey Crystals, Box 321, Holliston, Mass.  
Western Electric Co., 195 Broadway, N. Y. C.

## RECORDING EQUIPMENT AND ACCESSORIES, DISC

Acton, H. W., Co., 370 Seventh Ave., New York, N. Y.  
Allied Phonograph & Record Mfg. Co., 1041 N. Las Palmas Ave., Hollywood, Calif.  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.  
Allied Recording Products, 126 W. 46th St., N. Y. C.  
Ansley Radio Corp., 240 W. 23rd St., New York, N. Y.  
Audak Co., 500 Fifth Ave., N. Y. C.  
Bell Radio & Television, 115 E. 46th St., New York, N. Y.  
Bell Sound Systems, Inc., 61 E. Goodale St., Columbus, Ohio  
Bogen, David, Co., 663 Broadway, N. Y. C.  
Carter, E. P., 112 Cedar Ave., Pitman, N. J.  
Chicago Sound Systems Co., 200 E. Illinois St., Chicago, Ill.  
Cinema Sound Equipment Co., 8572 Santa Monica Blvd., Hollywood, Cal.  
Clark Phonograph Record Co., 215 High St., Newark, N. J.  
Continental Engineering Co., 3613 N. Green Bay Ave., Milwaukee, Wisc.  
Electrical Research Products, Inc., 195 Broadway, N. Y. C.  
Electro Acoustic Co., 2131 Bueter Rd., Fort Worth, Ind.  
Fairchild Aerial Instrument Corp., Van Wyck Blvd. & Jamaica Ave., Long Island City, N. Y.  
Gates Radio & Supply Co., Quincy, Ill.  
General Communication Products, Inc., Lexington Ave., at Vine, Hollywood, Calif.  
General Engineers, Upper Darby, Pa.  
General Products Co., 1801 Fannin St., Houston, Texas  
Harris Mfg. Co., 2422 W. 7th St., Los Angeles, Calif.  
Jackson Products Co., 504 Griffin St., Dallas, Texas  
Miles Reproducer Co., 812 Broadway, New York, N. Y.  
Mirror Record Corp., 58 W. 25th St., N. Y. C.  
Musicraft Records, Inc., 10 W. 47th St., N. Y. C.  
Neely, Norman B., 5334 Hollywood Blvd., Hollywood, Cal.  
Poinsettia, Inc., Pitman, N. J.  
Presto Recording Corp., 139 W. 9th St., N. Y. C.  
Procter Co., 17 W. 60th St., N. Y. C.  
RCA Mfg. Co., Camden, N. J.  
Radio & Film Methods, 101 Park Ave., N. Y. C.  
Radiotone, Inc., 7356 Melrose Ave., Hollywood, Cal.  
Rangertone, Inc., 201 Verona Ave., Newark, N. J.  
Shure Bros., 225 W. Huron St., Chicago, Ill.  
Sonora Electric Phonograph Co., 132 W. 22nd St., New York, N. Y.  
Sound Products, 704 N. Curson St., Hollywood, Calif.

Sound Projects Co., 3140 W. Walton Ave., Chicago, Ill.  
Speak-O-Phone Recording & Equipment Co., 23 W. 60th St., N. Y. C.  
Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y.  
Telefran Products Co., 2233 University Ave., St. Paul, Minn.  
Transformer Corp. of America, 69 Wooster St., New York, N. Y.  
Universal Microphone Ltd., 424 Warren Lane, Inglewood, Cal.  
Vocagraph Sound Systems, 164 N. May St., Chicago, Ill.  
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.  
Webster Electric Co., Racine, Wisc.

## RECTIFIERS

American Transformer Co., 175 Emmett St., Newark, N. J.  
Andrew, Victor J., 6492 S. Laverne Ave., Chicago, Ill.  
B-L Electric Mfg. Co., 19th & Washington Aves., St. Louis, Mo.  
Collins Radio Co., Cedar Rapids, Ia.  
Continental Electric Co., 715 Hamilton Avenue, Geneva, Ill.  
Ferranti Electric, Inc., 30 Rockefeller Plaza, N. Y. C.  
Mallory, P. R., & Co., 3029 E. Washington St., Indianapolis, Ind.  
Raytheon Mfg. Co., Waltham, Mass.  
Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill.  
Unitel Cinephone Corp., 43-37—33rd St., Long Island City, N. Y.  
United Transformer Corp., 150 Varick St., N. Y. C.  
Western Electric Co., 195 Broadway, N. Y. C.  
Westinghouse Electric & Mfg. Co., Bloomfield, N. J.

## RELAYS

Allan-Bradley Co., 1305 S. First St., Milwaukee, Wisc.  
Allied Control Co., 95 Liberty St., New York, N. Y.  
American Automatic Electric Signal Co., 1034 W. Van Buren St., Chicago, Ill.  
American Communications Corp., 1650 Broadway, New York, N. Y.  
Automatic Signal Co., E. Norwalk, Conn.  
Bunnell & Co., J. H., 81 Prospect St., Brooklyn, N. Y.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Hollywood, Calif.  
Clare Co., C. P., 4901 W. Lawrence St., Chicago, Ill.  
Continental Electric Co., Geneva, Ill.  
Coto-Coil, Inc., 229 Chapman St., Providence, R. I.  
Eby, Hugh, H., Inc., 2066 Hunting Park Ave., Philadelphia, Pa.  
General Control Co., 197 Sidney St., Cambridge, Mass.  
General Electric Co., Schenectady, N. Y.  
Guardian Electric Co., 1625 Walnut St., Chicago, Ill.  
Heinekin Machine Corp., 95 Liberty St., New York, N. Y.  
Kurman Electric Co., 241 Lafayette St., New York, N. Y.  
Leach Relay Co., 5915 Avalon Blvd., Los Angeles, Calif.  
Muter Co., 1255 S. Michigan Ave., Chicago, Ill.  
Oak Mfg. Co., 711 W. Lake St., Chicago, Ill.  
Roller-Smith Co., 233 Broadway, New York, N. Y.  
Sigma Instruments, Inc., Belmont, Mass.  
Standard Electrical Products Co., 317 Sibley St., St. Paul, Minn.  
Stromberg Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y.  
Struthers-Dunn, Inc., 139 N. Juniper St., Philadelphia, Pa.  
Triplet Electrical Instrument Corp., Bluffton, Ohio  
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.  
United Electronic Industries, 43-37—35th St., Long Island City, N. Y.  
Utah Radio Products Co., 820 Orleans St., Chicago, Ill.  
Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y.



Western Electric Co., 195 Broadway, New York, N. Y.  
Weston Electrical Instrument Corp., 612 Frøling-huysen Ave., Newark, N. J.

## RESISTORS

Allen-Bradley Co., 1326 South Second St., Milwaukee, Wisc.  
Atlas Resistor Co., 423 Broome St., N. Y. C.  
Carborundum Co., Niagara Falls, N. Y.  
Centralab Division of Globe Union Mfg. Co., 900 E. Keefe Ave., Milwaukee, Wis.  
Cinema Engineering Co., 7606 Santa Monica Blvd., Hollywood, Calif.  
Clarostat Mfg. Co., 285 N. 6th St., Bklyn., N. Y.  
Consolidated Wire & Associated Corp., Peoria St., Chicago, Ill.  
Continental Carbon, Inc., 13900 Lorain Ave., Cleveland, O.  
Daven Co., The, 158 Summit St., Newark, N. J.  
Electro-Motive Mfg. Co., 797 E. 140th St., N. Y. C.  
Erie Resistor Corp., 644 W. 12th St., Erie, Pa.  
General Radio Co., 30 State St., Cambridge, Mass.  
Hardwick, Hindle, Inc., 40 Herman St., Newark, N. J.  
Insuline Corp. of America, 25 Park Place, New York, N. Y.  
International Resistance Co., 401 N. Broad St., Philadelphia, Pa.  
Lectrohn, Inc., 5133 W. 25th Place, Cicero, Ill.  
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia, Pa.  
Mallory, P. R., & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.  
Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.  
Morrill & Morrill, 30 Church St., N. Y. C.  
Muter Co., The, 1255 S. Michigan Ave., Chicago, Ill.  
Ohmite Mfg. Co., 4835 W. Flourney St., Chicago, Ill.  
Precision Resistor Co., 334 Badger Ave., Newark, N. J.  
RCA Mfg. Co., Camden, N. J.  
Shallcross Mfg. Co., Collingdale, Pa.  
Speer Carbon Co., St. Mary's, Pa.  
Stackpole Carbon Co., St. Mary's, Pa.  
States Co., 19 New Park Ave., Hartford, Conn.  
Tech Laboratories, 7 Lincoln St., Jersey City, N. J.  
Tilton Electric Corp., 15 E. 26th St., New York, N. Y.  
Utah Radio Products Co., 812 Orleans St., Chicago, Ill.  
Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y.  
White Dental Mfg. Co., The S. S., 10 E. 40th St., N. Y. C.  
Wirt Co., 5221 Greene St., Philadelphia, Pa.

## RHEOSTATS

Centralab Division, Globe Union Mfg. Co., 900 E. Keefe Ave., Milwaukee, Wisc.  
Cinema Engineering Co., 7606 Santa Monica, Blvd., Hollywood, Calif.  
Cutler-Hammer, Inc., N. 12th and W. St. Paul Ave., Milwaukee, Wis.  
Erker Bros. Optical Co., 610 Olive St., St. Louis, Mo.  
General Electric Co., Schenectady, N. Y.  
Hardwick, Hindle, Inc., 40 Herman St., Newark, N. J.  
Hertner Electric Co., 12690 Elmwood Ave., Cleveland, Ohio.  
International Resistance Co., 401 N. Broad St., Philadelphia, Pa.  
P. R. Mallory Co., 3029 E. Washington St., Indianapolis, Ind.  
Ohmite Mfg. Co., 4835 W. Flourney St., Chicago, Ill.  
Precision Resistor Co., 334 Badger Ave., Newark, N. J.  
RCA Mfg. Co., Camden, N. J.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Ward Leonard Electric Co., 37 South St., Mt. Vernon, N. Y.  
Westinghouse Electric Mfg. Co., East Pittsburgh.

# 1940 BUYING GUIDE

## SEATS, THEATER

Air-Loc Seat Industries, Inc., 33 Holden St., Minneapolis, Minn.  
American Seating Co., Grand Rapids, Mich.  
Eastern Seating Co., Inc., 276 W. 43rd St., New York, N. Y.  
General Seating Co., 2035 Charleston St., Chicago, Ill.  
Heywood-Wakefield, Gardner, Mass.  
Ideal Seating Co., Grand Rapids, Mich.  
International Seat Corp., Union City, Ind.  
Kroehler Manufacturing Co., 666 Lake Shore Drive, Chicago, Ill.

## SOCKETS

Alden Products Co., 715 Center St., Brockton, Mass.  
American Phenolic Corp., 1250 W. Van Buren St., Chicago, Ill.  
Bud Radio, Inc., 5205 Cedar Ave., Cleveland, O.  
Cannon Electric Development, 420 W. 33rd Ave., Los Angeles, Calif.  
Cinch Mfg. Corp., 2335 W. Van Buren St., Chicago, Ill.  
Communication Products, 245 Custer Ave., Jersey City, N. J.  
Eby, Hugh H., Inc., 2066 Hunting Park Ave., Philadelphia, Pa.  
General Radio Co., 30 State St., Cambridge, Mass.  
Hammarlund Mfg. Co., 424 W. 33rd St., N. Y. C.  
Insuline Corp. of America, 25 Park Place, N. Y. C.  
Johnson, E. F., Co., Waseca, Minn.  
Jones, H. B., 2300 Wabansia Ave., Chicago, Ill.  
Mallory, P. R., & Co., 3029 E. Washington St., Indianapolis, Ind.  
Meissner Mfg. Co., Mt. Carmel, Ill.  
Micarta Fabricators, Inc., 4619 Ravenswood Ave., Chicago, Ill.  
National Co., Malden, Mass.  
RCA Mfg. Co., Camden, N. J.  
Remler Co., 2101 Bryant St., San Francisco, Calif.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Synthane Corp., Oaks, Pa.

## SWITCHES

Automatic Devices Mfrs., 4243 West Ogden Ave., Chicago, Ill.  
Centralab Division of Globe Union Mfg. Co., 900 E. Keefe St., Milwaukee, Wis.  
Franklin Mfg. Corp., A. W., 175 Varick St., New York, N. Y.  
Insuline Corp. of America, 25 Park Place, New York, N. Y.  
Mallory, P. R., & Co., 3029 E. Washington St., Indianapolis, Ind.  
Meissner Mfg. Co., Mt. Carmel, Ill.  
Muter Co., The, 1255 S. Michigan Ave., Chicago, Ill.  
Nordendale Mfg. Co., 2100 Fulton St., Chicago, Ill.  
Oak Mfg. Co., 711 W. Lake St., Chicago, Ill.  
Ohmite Mfg. Co., 4835 W. Flourney St., Chicago, Ill.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Stewart Mfg. Corp., F. W., 340 W. Huron St., Chicago, Ill.  
Utah Radio Products Co., The, 812 Orleans St., Chicago, Ill.

## TEMPERATURE CONTROL UNITS

Biley Electric Co., Union Station Bldg., Erie, Pa.  
Doolittle & Falknor, Inc., 1306 W. 74th St., Chicago, Ill.  
Piezoelectric Laboratories, New Dorp, S. I., N. Y.  
Precision Piezo Service, 427 Asia St., New Orleans, La.  
Tostenson, D. V., Moorhead, Minn.

## TRANSFORMERS

American Transformer Co., 175 Emmet St., Newark, N. J.  
Collins Radio Co., Cedar Rapids, Ia.

# 1940 BUYING GUIDE

Doolittle & Falkner, Inc., 7421 S. Loomis Blvd., Chicago, Ill.  
Ecco High Frequency Corp., 120 W. 20th St., New York, N. Y.  
Ferranti Electric, Inc., 30 Rockefeller Plaza, N. Y. C.  
Freed Transformer Co., 72 Spring St., N. Y. C.  
General Winding Co., 254 W. 31st St., New York, N. Y.  
International Transformer Co., 39 W. 20th St., N. Y. C.  
Konyon Transformer Co., 840 Barry St., N. Y. C.  
Newark Transformer Co., 17 Frelinghuysen Ave., Newark, N. J.  
Radio Receptor Co., 251 W. 19th St., New York, N. Y.  
Raytheon Mfg. Co., 190 Willow St., Waltham, Mass.  
RCA Mfg. Co., Camden, N. J.  
Ross, Charles, Inc., 244-250 W. 49th St., N. Y. C.  
Skaggs Transformer Co., 5894 Broadway, Los Angeles, Calif.  
Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill.  
Thordarson Electric Mfg. Co., 500 W. Huron St., Chicago, Ill.  
United Transformer Corp., 150 Varick St., N. Y. C.  
Webster Co., 5622 Bloomingdale Ave., Chicago  
Westinghouse Elec. & Mfg. Co., Pittsburgh, Pa.

## TRANSMISSION LINES

Acorn Insulated Wire Co., 225 King St., Brooklyn, N. Y.  
Alpha Wire Corp., 50 Howard St., New York, N. Y.  
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.  
Andrew, Victor J., 7221 S. Francisco Ave., Chicago, Ill.  
Bassett Research Corp., South Bend, Ind.  
Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.  
Brach Mfg. Corp., L. S., 55 Dickerson St., Newark, N. J.  
Consolidated Wire & Associated Corps., Peoria & Harrison Sts., Chicago, Ill.  
Continental Wire Co., 110 Lafayette St., New York  
Copperwald Steel Co., Glassport, Pa.  
Crescent Insulated Wire & Cable Co., Trenton, N. J.  
General Cable Corp., 420 Lexington Ave., New York, N. Y.  
Hoke Vertical Radiators, Petersburg, Va.  
Isolantite, Inc., 233 Broadway, N. Y. C.  
Phelps Dodge Copper Products Corp., 40 Wall St., New York, N. Y.  
Radio Receptor Co., 251 W. 19th St., New York, N. Y.  
Transducer Corp., Rockefeller Plaza, N. Y. C.  
Triangle Conduit & Cable Co., Elmhurst, N. Y.  
Western Electric Co., 195 Broadway, N. Y. C.

## TUBES, PHOTOELECTRIC

Amperex Electronic Products Corp., 79 Washington St., Brooklyn, N. Y.  
Arco Tube Co., 227 Central Ave., Newark, N. J.  
Continental Electric Co., Geneva, Ill.  
Eby, Hugh H., Inc., 2066 Hunting Park Ave., Philadelphia, Pa.  
Lowenberg, F., 10 East 40th St., N. Y. C.  
National Union Radio Corp., Newark, N. J.  
RCA Mfg. Co., Camden, N. J.  
Weston Electric Instrument Corp., Newark, N. J.

## TUBES, RADIO RECEIVING and RECTIFYING

Arcturus Radio Tube Co., 720 Frelinghuysen St., Newark, N. J.  
Champion Radio Works, 88 Holten St., Danvers, Mass.  
Crosley Radio Corp., 1329 Arlington St., Cincinnati  
General Electric Co., Bridgeport, Conn.  
Hygrade Sylvania Corp., 500 Fifth Ave., New York, N. Y.  
Hytron Corp., 23 Derby St., Salem, Mass.

Ken-Rad Tube & Lamp Corp., Owensboro, Ky.  
National Union Radio Corp. of N. Y., 570 Lexington Ave., N. Y. C.  
Philco Radio & Television Corp., Tioga and C Sts., Philadelphia, Pa.  
RCA Mfg. Co., Camden, N. J.  
Raytheon Mfg. Co., 190 Willow St., Waltham, Mass.  
Sparks-Withington Co., Jackson, Mich.  
Triad Mfg. Co., Inc., Middle and Fountain Sts., Pawtucket, R. I.  
Tung-Sol Lamp Works, Inc., 95 Eighth Ave., Newark, N. J.  
Zenita Radio Corp., 6001 Dickens Ave., Chicago, Ill.

## TUBES, TRANSMITTING

Amperex Electronic Products, 79 Washington St., Brooklyn, N. Y.  
Arco Tube Co., 227 Central Ave., Newark, N. J.  
Electronic Products Co., 5356 E. Ninth St., Los Angeles, Calif.  
Federal Telegraph Co., 200 Mt. Pleasant Ave., Newark, N. J.  
Heintz & Kaufman, Ltd., P. O. Box 69, S. San Francisco, Cal.  
Hytron Corp., 76 Lafayette St., Salem, Mass.  
Raytheon Mfg. Co., Waltham, Mass.  
RCA Mfg. Co., Camden, N. J.  
Taylor Tubes, Inc., 2341 Wabansia Ave., Chicago, Ill.  
United Electronics Co., 42 Spring St., Newark, N. J.  
Western Electric Co., 195 Broadway, N. Y. C.

## TURN TABLES

(SEE ALSO RECORDERS, DISC)

## VACUUM TUBE SOCKETS

(SEE SOCKETS)

## VACUUM TUBES, TRANSMITTING

(SEE TUBES, TRANSMITTING)

## VARNISHED CLOTHS AND PAPERS

Acme Wire Co., New Haven, Conn.  
Bakelite Corp., 247 Park Ave., New York, N. Y.  
General Cement Mfg. Co., 611 Lincoln Ave., Rockford, Ill.  
General Plastics, Inc., North Tonawanda, N. Y.  
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago  
Mica Insulator Co., 200 Varick St., New York, N. Y.  
National Vulcanized Fibre Co., Wilmington, Del.  
Spaulding Fibre Co., Tonawanda, N. Y.

## VIBRATORS

American Television & Radio Corp., 300 E. 4th St., St. Paul, Minn.  
Electronic Labs., Inc., 122 W. New York St., Indianapolis, Ind.  
RCA Mfg. Co., Camden, N. J.

## VOLTAGE REGULATORS

Acme Electric & Mfg. Co., Cuba, N. Y.  
American Transformer Co., 175 Emmett St., Newark, N. J.  
Freed Transformer Co., 72 Spring St., New York, N. Y.  
General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill.  
RCA Mfg. Co., Camden, N. J.  
Raytheon Mfg. Co., 190 Willow St., Waltham, Mass.  
United Transformer Co., 72 Spring St., N. Y. C.  
Ward-Leonard Electric Co., Mt. Vernon, N. Y.  
Westinghouse Lamp Co., Bloomfield, N. J.

## WIRE

(SEE CABLE)

# 1939 IN HEADLINES

*History at a Glance  
From the Columns  
of*



## JANUARY

- Jan. 3—Radio's Greatest Year Is Forecast; Billings at New High as All Webs Grow; Television Progressed.
- Jan. 4—NBC Billings Up 7.3%; Totals \$41,462,679 for the Past Year; CBS Off 4.8% NAPA and ARA Merge into One Organization.
- Jan. 5—Lohr Takes Stand in FCC Monopoly Probe to Explain Web Policies. Report to Congress Is Filed by McNinch.
- Jan. 6—NBC Ends Testimony With Lohr Citing Television Cost; CBS Next Week.
- Jan. 9—1938 Ad Agency Billings Reveals First Five in Status Quo on Two Networks; Minor Changes Down the List. FCC Hears Motion Under New Procedure.
- Jan. 10—Four Television Licenses Are Granted to General Electric. Share-Time Stations Are Cut Down by FCC. Procter & Gamble Again Leads NBC Breakdown of Billings with Expenditure of \$4,860,155.
- Jan. 11—American Association of Advertising Agencies Propose Counter Scale; AFRA Thumbs Down and Walks Out on Confab; Breach Widens. ASCAP (State Law) Cases Heard by Supreme Court. CBS Begins Its Testimony for FCC Probe Committee.
- Jan. 12—Financial Figures Given by White as CBS Resumes Testimony in Monopoly Probe.
- Jan. 13—AFRA Asks Strike Vote; Sets January 22 Limit for Membership to Decide.
- Jan. 16—Major (Baseball) Leagues 50% Sold; See Rest of Clubs Signed for Air by March 1.
- Jan. 17—New Radio Transmission Is Announced by Major Edwin H. Armstrong. Court Slaps at FCC in Pottsville Case (Referring to Its "Czaristic Power").
- Jan. 18—Brinckerhoff Deal for NAB Disk Library Falls Through. FCC Revives Web Deals Digging Up Data on Old (CBS) Stock Swap with Picture Company.
- Jan. 19—File Super-Power Report Setting 13-Point Plan as "Standard of Public Service"; Recommends One-Year Licenses; Rejects 500 KW. AFRA Situation Grows Tense; N. Y. Local Voting Tonight. Facsimile Network a Reality in Year.
- Jan. 20—More Two-Web Sponsors; 34 National Accounts Used Two or More Major Nets. N. Y. AFRA Local Votes to Support a Strike.
- Jan. 23—Compromise Looms Strongly in AFRA Strike Situation Despite Hectic Activity; Agencies Taking Full Precautions, However. Celler Libel Bill Will Benefit Radio. CBS Turned Down \$9,000,000 in Biz (According to Testimony at FCC Probe).
- Jan. 24—Much AFRA-4A Activity with Artist Union Seeking Separate Deals; Signing of Wrigley Breaks Dead-Lock; Strike Order Still Remote. Appropriating Body Blasts FCC Policies.
- Jan. 25—FDR for New FCC Setup; Writes Two Congressmen to Establish Definite Policies to Guide Clear Interpretations. "Static-Free" Stuff Is Worrying the Manufacturers. Four A's Holds Its Ground as AFRA Seeks Closed Shop.
- Jan. 26—Jack Benny-Jello Production Tops Field in Radio Editors' Poll Conducted by RADIO DAILY; Chase & Sanborn's Sunday Program is Runner-Up. Agencies Mull AFRA "Code"; AGRAP May Complicate Setup.
- Jan. 27—Procter & Gamble Enters Baseball Setup; Others Sign for Major Games. Hitch Looms in Plan for Quick FCC Reorganization.
- Jan. 30—Set Television Sports Events; William Morris-Paramount-DuMont Group Reported Signing Up Important Colleges; Schools Inaugurate Air Reps. AFRA Defers Strike; Meets Agencies Today. Concert Bureau Data Given FCC Quizzers.
- Jan. 31—Chicago Blizzard-Bound; Web Schedules Completely Disrupted as Actors and Others Are Unable to Reach Respective Stations.

## FEBRUARY

- Feb. 1—AFRA Four-A Dilemma: Tired But Friendly Committee Argue Respective Points in Second All-Night Negotiation; "Code" at Issue.
- Feb. 2—AFRA-Agency Pact Today; Agreement Indicated at Today's Meet as Agencies Pass

Buck to Networks on Question of AFRA Shop.  
 Joint Committee Releases Long-Heralded Rural Study.  
 Demands Canada Quit Berne Copyright Pact. NBC's January Billing Breaks Web Record.

Feb. 3—AFRA-Webs-Agencies Sign; Unique Pact Charges AFRA and Nets with Maintaining the AFRA Shop; Settle AGRAP Complications.  
 Lohr Says Webs Will Seek Closer Ties with Film Biz.  
 CBS January Billings Gain 5.7% Over December.

Feb. 6—McNinch-Wheeler Confer; First Step Will Be Measure Calling for Reorganization. Radio Gross Sales Exceed Magazines.

Feb. 7—Hold Up FCC's Budget; Wigglesworth Seizes Opportunity to Slam FCC and Chairman McNinch.  
 Film Studios Agreed Air Benefited Stars. NBC Asks Agencies to Sign and Abide by AFRA Code.  
 See Crosley Appeal from FCC Decision.

Feb. 8—NBC's Tele Scripts Ready for "Shooting."  
 Mutual on Probe Stand; Sykes Asks Who Will Get the "Profits"; Will Push Measure Banning "Inciters" (In N. Y. Legislature).

Feb. 9—CBS 1938 Net \$3,541,700; Income Statement Reveals Earnings Equal to \$2.07 per Share; Off from Preceding Year.  
 Start WHK Facsimile on Regular Schedule. 3 Producing Firms Sign the AFRA Code.

Feb. 10—Wheeler Bill to Senate; Provides for Three-Man Commission to Prevent Lost Motion; Wheeler States Views in Full.  
 Weber Testifying for Mutual Asks Free Run of Affiliates.  
 Install AP News at NBC on Public Service Basis.

Feb. 14—Agencies Meet Deadline; AFRA Signs 53 Agencies and 7 Producers in Last Minute Rush; All Strike Danger Precluded.

Feb. 15—Wheeler Opposition Starts; Broadcasters Fear too Much Power in One Man with Smaller FCC; Senator White Readying Bill. AFRA Signing MBS Outlets; Opens WOR Negotiations.

Feb. 16—MBS Ends Its Testimony; McCosker Suggests One or Two Year Maximum for Exclusivity Clauses; Don Lee Takes Stand February 21.  
 See Increase of Spot Business Due to Advertisement Ban on Films.  
 Study Gives CBS 87% of Rural Listeners.

Feb. 17—CBS Sets Deal for WBS; Web and Transcription Firm Agree on Basic Points for Columbia to Purchase Control.  
 New Financial Forms Issued to Licensees.

Feb. 20—Unions Eye Engineers; Both CIO and AFL Units Plan Drive Following Success of AFRA Move; ACA Expects Actor Backing.

Feb. 21—AFRA Readies Disk Code; Will Make Formal Presentation Soon as Agency Biz Is Out of the Way.  
 Commission Revokes KUMA, Yuma, License.

FCC Denies WLW's Super-Power Appeal. Pittsburgh Theaters Want Stars Withdrawn.

Feb. 23—Open Don Lee Testimony; Lewis Allen Weiss as Star Witness Reveals Hard Business Facts; Decries ASCAP-AFM Burden. Fort Wayne Expects Much Television Activity.  
 Senator White Introduces Bill Calling for Eleven-Man FCC.

Feb. 24—Shepard on Probe Stand; Colonial Is Second Regional Heard.  
 Playing of Records on Air Creates Sales, Survey Shows.

Feb. 27—Baird's Television Invasion; Important English Firm to Establish Giant Screen Projection Suitable for Theater Audiences.  
 Facsimile Receivers on Sale in New York Area.

Feb. 28—FCC's Complaint Department; Adopts New Procedure in Acting on Complaints Against Stations; Stronger Discipline Hinted. Additional Rural Survey Data by Joint Committee (Is Released).

### MARCH

Mar. 1—Industry Policies Stated; Strong Plea Against Any Censorship Voiced by NAB Board in Statement Also Favoring Larger FCC.  
 American Television Co. Receivers for Department Store Sale.

Mar. 2—Michigan Net Testimony; FCC Hears About "Lone Ranger."  
 North Dakota Ready to Pass Anti-ASCAP Measure.  
 Ball Clubs Up Ante Delaying Contracts.

Mar. 3—CBS-NBC Billings Vary; February Gross Gives NBC 7.2% Increase Over Same Month Last Year; CBS Figures Slightly Off.  
 Three-Year License Proposed in House of Representatives.

Mar. 6—Fort Wayne Television Center; Farnsworth Moving Entire Facilities and Will Erect Huge Transmitter; To Retain Philly Office.  
 Amos 'N' Andy Move To CBS.  
 AFRA Ends Dispute with Writers' Guild.

Mar. 7—White's Probe Measure; Introduces Far-Reaching Resolution Designed to Cover All Angles from the FCC Down.  
 High Frequency Policy on Renewals (Is Announced) by FCC.

Mar. 8—Elliott Roosevelt on Stand; Makes Plea for Indefinite License Term for Stations (Before FCC); Against Any Form of Censorship.  
 Revive St. Louis (Station) Feud as KSD Files Brief.  
 Liquor Ban Protest Growing in Canada.

Mar. 9—More Roosevelt Views; Head of Texas Web Expounds Ideas Before FCC.

Mar. 10—CBS Summer Policies (Are Announced) Network Boosts 52-Week Discount Rate to Advertisers; Provide Special Summer Hiatus System.  
 WLW to Cut Rate 10% Immediately.  
 General Mills Splits Webs for New Show. Baird Television (Will Raise) \$2,000,000 for Further Expansion.

- Mar. 13—Sykes Resigns March 31; Commissioner Has Tendered Resignation to President Roosevelt; Lewis or Wearin Seen as Possible Successor.  
Mutual Forms New Facsimile Network.  
Move to Abolish Canada License Fee (For Receiving Sets).
- Mar. 14—Few Agency Cast Cuts; Survey of 6 Major Agencies Reveals No Large-Scale Changes Resulted Because of Signing of AFRA Code.  
DuMont Television Opening Transmitter April 1.  
Clarify Language in "Radio" Measure (In New York State Assembly).
- Mar. 15—Atlantic Baseball Schedule: Sponsor 1,842 Games Over 39 Stations in 12 States; FCC Hears First ET Angles as Jerry King Takes Stand (In Monopoly Investigation).  
Sponsored AP News Still Being Sought.
- Mar. 16—Civil Liberties Testimony (In FCC Monopoly Probe): Afraid of "Hidden Censorship" But Advocates 3-Year License Term; Educator Gives FCC Ideas.
- Mar. 17—Goodrich Joins Parade: Capitulates to Radio in a Big Way with Half-Hour ETs Set for 100 Stations; 150 Later On.  
Oklahoma Introduces Anti-ASCAP Measure.  
British Home Office Today Takes Up Television Problems.
- Mar. 20—NBC Blue Gets Stronger; Four-Month Average on Billings Shows Discount Policy Was Successful; New Accounts on Larger Webs Aired.
- Mar. 21—NAB's Copyright Meet: Committee Opens Three-Day Session Preliminary to Drawing Up Plan for Convention Approval.  
AFRA Signs Don Lee; First Regional Web.  
Outlets Can Run Own Papers Says Moore Anent Facsimile.
- Mar. 22—NAB Copyright Action: Committee Passes Resolution Okaying Immediate ASCAP Negotiations; Society Is Amenable.  
Canadian Independents Ask Permit for Own Web.  
New Television Attachment for Radio Receivers (Announced by Wald Radio & Television Laboratories).  
IRNA Defends Web Contracts; Others Heard at FCC Probe.
- Mar. 23—CBS Reveals Television Setup.  
NAB Opens Meeting on Code-Practices.  
Introduce Tax Bill on Radio Biz Gross (In N. Y. State Assembly).
- Mar. 24—FCC Eyes Station Pacts: Contracts Involving the Transfer of Station Control Occupy FCC Probers All Day.
- Mar. 27—NAB Collates Code Ideas; Material Gathered at 3-Day Session Will Be Ironed Out and Approved for Convention Ratification.  
FCC Approves Plan to Reorganize Press Division.
- Mar. 28—RMA Co-Op Plans Ready; Outline "Sell Radio to Public" Theme for Campaign to Start April 17; Coordinating Features.  
New Anti-ASCAP Bill in Oklahoma Legislature.
- Mar. 29—Names F. I. Thompson as Sykes' Successor (On FCC).  
CBC Lists Wide Restrictions for Royal Visit Broadcasts.
- Mar. 30—Compare Air With Newspapers; Testimony on Value of Two Medias in Leading Markets Highlights FCC's Probe Hearing.  
Still Larger Television Screens Predicted by English Firm (Scophony).  
See Acetate ET Biz Ruined by New (N. Y. State) Bill.
- Mar. 31—Nets Question Statistics; Attorneys for Networks Query FCC Exhibits Relative to Billings and Similar Matters.  
Film Television Scanner Ironed Out by CBS.

## APRIL

- Apr. 3—"Mystery" FCC Exhibits: 3 Major Networks Trying to Fathom Motives Behind the FCC Layouts; All Highly Complicated.  
Vermont House Okays Anti-ASCAP Measure.
- Apr. 4—Radio Continues to Improve Say 61% of Leading Critics; Editors (In RADIO DAILY's SECOND ANNUAL FORUM) See Gains While Faults Seem Trivial.
- Apr. 5—CBS Resents "Statistics": Multiple Ownership as Set Up by FCC (In Monopoly Hearings) Is Attacked.  
Baird Theater-Television Showing Will Get Under Way May 15.  
Five Senators Back Ban on Liquor Ads.
- Apr. 6—Musician Union Pay-Off: Musicians' Salaries in New York to be Paid Through Unions.  
Labor Takes Stand Against Beer-Ad Ban.  
FCC Takes Up ET Business (In Monopoly Probe); Lloyd Egner Heard for NBC.
- Apr. 7—CBS Feature for Schools: U. S. (Office of Education) Sets Recording for Educational Purposes.  
Stewart-Warner Television Reality This Spring.  
Fox Films Sponsors Kentucky Derby Over CBS.  
ERPI-WBS Setup Described for FCC "Chain" Committee.
- Apr. 10—"Sell Radio" Year-Round (Campaign); NAB-RMA Complete Plans for Drive Opening Next Week; Special Disks Available for Summer.  
BBC New Television Budget Upped to \$2,500,000.
- Apr. 11—Fair Shows Centralized; Studios Being Built for Every New York Outlet; Full View for Visitors; Over 24 Sponsor-Exhibitors.  
Zenith Tells Dealers Television Still in Offing.
- Apr. 12—Shepard Resumes Stand; Believes Self-Regulation Best Move as Opposed to FCC Web Meddling; Rosenbaum Defends IRNA.  
Recording Men Meet to Form Trade Association.  
Lower House in New York Passes Libel Measure.
- Apr. 13—CBS New Biz \$6,313,829; (Web) Signs 14 New Contracts; 5 Renewals in Past 30 Days; Several Accounts Move Over from NBC.

- FCC Television Committee Opens Active Survey. One Year License Has Enough Votes (Among FCC Commissioners).  
WBS and TBT Give Testimony on ETs for "Chain" Probers.
- Apr. 14—More Testimony on Disks: Langlois Makes Plea for Dropping Rule on ET Announcements; Poppele Tells of WOR's Recording Business.  
FCC Television Committee Wary on "Standards."  
Canada Seeks Action on Short-Wave Setup.
- Apr. 17—\$5,000,000 Baseball Biz: Sponsored Games on 200 Stations as Season Opens Officially; Schedule Special Sendoffs.  
Gallery Privileges for Radio News Men (In Congress).  
Roosevelt Quits as Hearst Radio Executive.
- Apr. 18—U. S. Court Favors ASCAP; Renders Decisions on Points Involving States of Florida and Washington; Not Final Adjudication.  
First U. S. Television Schedule Is Completed by NBC.
- Apr. 19—FCC Hears Weber-AFM; Musicians' Union Head Defends Move in Obtaining \$2,000,000 More Annually from Industry.  
NBC First Quarter Business 78.5% Ahead of 1938; Strong Upturn in May Is Indicated for CBS.  
Network Practices Attacked in Mutual and TSN Testimony (Before FCC Chain Probers).
- Apr. 20—Bitter FCC Probe Climax; Mutual Asks Injunction Restraining Major Webs from Extending Pacts With Stations Beyond 1940.  
NBC-CBS Fail in Move to Exclude Probe Data.  
WNRC's Annual Radio Award Goes to U. S. and CBS Sustainer.
- Apr. 21—Seek Juvenile Standards; Joint Committee on Children's Shows Headed by Women Groups Plans Wide Improvement Campaign.  
House Okays Gallery; CBS Signs A. L. Warner.  
Home Video Accepted Says BBC's Director. Sarnoff Makes Urgent Plea for Radio-Television-Picture Cooperation.  
RCA Television Sets May 1; Prices \$300 to \$600.
- Apr. 24—Industry Eyes ANPA Meet.  
McDonald Television Fight Carried to NAB.
- Apr. 25—AP Nearer to News Sale; Matter of Commercial Radio News Referred to Board of Directors After Resolution is Passed.  
Major Film Concerns to Refuse Television Pictures.  
NAB Legislative Committee Finds Tough Schedule Ahead.  
CBS Deal for World Broadcasting System Now Definitely Off.
- Apr. 26—ANPA in Usual Squawk; Small Daily Owners Are in Attendance as "Free Space" Takes the Rap; RCA Shows Facsimile.  
See Several Changes in NAB Directorate.
- WMCA Closes Blackett-Sample-Hummert Contract to Repeat Network Serials.
- Apr. 27—Foods Still Lead Network Business; Steady Gain in the Past Several Years Keeps Food-Beverages on Top in First-Quarter Billings.  
Crosley Explains Television Setup; Has Already Built Receivers.  
Canada's Sets Jump 70% in Past Five Years.
- Apr. 28—Television Rounds the "Corner"; Production Cost Estimated by NBC at \$2,500 per Hour; Advertisers Interested Unofficially.  
ANPA Anti Air-News But Seeks to Cooperate.  
Local Independent Outlets Protest Wire Charges at New York World's Fair.

## MAY

- May 1—Television Stars at the Fair; Huge Crowds Attracted to Television on Grounds While Millions Hear Ceremonies on the Air. Baird Television Co. Eyes U. S. Equipment Sales.  
Executives Shifted in NBC Realignment.
- May 2—Two Types of Television Programs Mullied by RCA; Home and Theater.  
Rebroadcast Rules Up for New Hearing.  
Ohio "U" Sessions Quiet; Opening of Three-Day Educator Meet Reveals Give-and-Take Attitudes; Many Notables Present.  
Mutual April Billings Show 38.6% Increase.
- May 3—Web April Billings Up: Increase of 17.7% Revealed by CBS While NBC Continues Its Rise for 17th Consecutive Month.  
NBC Interval Plan (Introduced); No Discount Charges.  
RCA Nets \$1,448,110 During First Quarter.
- May 4—Song Writer-Publisher Battle Looms; SPA Sets June 1 as Date for Change in the Mechanical Rights Setup; See Strike Situation.  
Educational Shows "Of Age" Consensus of Ohio "U" Meet.  
CBS Wins Top Honor for Educational ET.  
5 Per Cent Sports Tax Approved in (N. Y. State) Senate.
- May 5—ASCAP Holds Television Rights of Its Members; Resolution by Board Says Society Will Administer Such Licenses But Not in Near Future.  
Television Covering United States Possible with New Technique: Boosters.  
General Electric Television (Begins) in Two Weeks; Other Manufacturers Set Plans.
- May 8—Summer-Business Optimism; New "Interval" and "Hiatus" Policies Indicate Increased Gross Revenue for 7th Successive Year.
- May 9—Lehman Signs (N. Y. State) Libel Bill; Extends to N. Y. Broadcasters Same Freedom as Press in Presenting All News Events.
- May 10—Radio Salutes the Fair; Networks and Local Stations Unite in Lending Full Cooperation to the "World of Tomorrow." (RADIO DAILY's New York World's Fair Issue).  
New Television Lighting System Devised by NBC Engineer.

- May 11—Fair Television Draws 300,000; Exhibit of RCA-NBC Attracts Most of the Television-Minded Visitors During First Nine Days. NAB Intervenes in Pennsylvania Suit Involving Web and Jolson.  
Chain Drug Business Increasing Air Ads.
- May 12—United Front Versus ASCAP; Broadcasters Mull Question of NAB Being Used as Clearing House for All Ascop Payments. Chavez Defends Bill for U. S. Owned Outlet. Volume Control Plan Adopted by Industry.
- May 15—\$1,000,000 Olympic Fund; Subscribed by 37 Countries for Air Coverage. British Television Solved Two Major Problems.  
See New York (As) Television Mecca Due to Big Population.  
CBS's Radio Sales in Expansion Setup.  
Four Florida Bills Aid the Broadcaster.
- May 16—General Mills in Philly Deal; Buying All Games of Philadelphia Nationals for \$200,000 on an Exclusive Five Year Basis. Suggests Television Pool of U. S. Experiments.  
General Electric Merges Its Radio and Television Activities.
- May 17—FCC Standards Hearing; Sets June 1 for Industry Argument; Also Issues Warning Anent Rules Disguising Commercials. Asks Advertisers Aid in Television Presentations.
- May 18—Sarnoff Backs Contracts; Defends Pacts With Net Affiliates and See High Program Standards Due to Network Policies. Mutual Assistance Plans Proposed for Television-Films.  
New York State Network Again in the Works.
- May 19—Webs Defer FCC Briefs; Both NBC and CBS Decide to Wait Until Probe Report Is Complete Since Time Is Now Short. Five Top Agencies Increase NBC Business 65 per cent Since January 1.  
Don Lee Television Setup Going to 441 Lines.
- May 22—Screen Actors Guild to Fight Equity on Television Jurisdiction. Concerted Rush on to Buy Television Talent. New Station Service Offered by Hooper. See Big NBC Summer Business; An Increase Indicated of \$1,899,622 over Last Season's All Time High; Summer Total Nears \$11,000,000.
- May 23—"Network Television" Hopes Rise; Following Success on One Mile Phone Wire Engineers Plan New Tests in Seeking Cable Substitute.  
FCC Now Digesting Probe; 10,000 Pages.
- May 24—OK Shortwave Sponsors; FCC Lifts Restrictions and Allows International Commercial Shows; Good Taste Must Prevail.
- May 25—Hold Off Television Standards; In Accord with Industry Testimony FCC Committee Avoids "Freezing" Until Further Developments.  
AP Board Discusses Sale of Radio News.
- May 26—Mull Short-Wave Rates; Nets in Some Confusion But Plan to Assist Interested Clients; Rate Structure in the Works. Experimental Split Budgets for CBS Coast Sustainers.  
Seek Interstate Law Change Due to Television.
- May 29—AP Okays News Sale Under Restrictions.  
Majestic Television License Issued by DuMont Laboratories.  
CBS Summer Business Leaps; Billings on Books Indicate 45% More Program Hours. While Facilities Purchased Reveal 60% Jump.
- May 31—NBC Renewal Business Booms; 10 Day Period Produces \$8,262,401 in Renewals. AP Compiling Reports on Sale of Air News. Television Experimenting with 16 mm. Films.

## JUNE

- June 1—AFM Mulls Remote Wires; Annual Report of President Weber Reveals Musicians' Union May Reconsider Band Books by Networks.  
FCC Clarifies Rule on Sponsored Time.
- June 2—Proposed-Rules Hearing: NAB Argues for Longer License Term and Against Capital Requirements; Super-Power an Issue. See Network Payroll Upped \$1,000,000 Due to Unions.  
American Television Co. New Set to Retail for \$185.
- June 5—Web May Revenue Soars; Major Networks in Record-Breaking Month, with NBC and CBS Hitting an All Time High.  
NAB Will Intercede Re Shortwave Ruling.
- June 6—FCC Hit on Two Fronts; Representative McLeod Asks Full Resignation of Commission for Recent Ruling on Shortwave Programs. Nielson "Audimeter" Makes Test Survey. Television Jurisdiction Tabled for Present.
- June 7—New York Major League (Baseball Clubs) Sulk; Reported Offering \$100,000 to Void Contract; Attendance Off Is Excuse; Ban Television.  
Bill Would Ban Playing Record Without Makers' Permission.  
CBS Absorbs Charges on Out-of-Town Wires.
- June 8—Auto Business Settles Down. New RCA Television Tube; No Receiver Change.
- June 9—Television Status Today; Activity Prevalent in Key Centers as Public Evinces Keen Interest Throughout the Country. (RADIO DAILY's Television Issue).  
Plan AFRA War-Chest as Financial "Reserve."
- June 12—Spot Business Very Promising; Station Representatives in Optimistic Symposium New NBC Policies Show Many Changes.
- June 13—NAB to Modernize Meeting; Plans Streamlined Convention Setup Utilizing Ad and Art Displays; Expect Record Audience. Three Cigarette Accounts in Extensive Time Splurge.
- June 14—Newspapers' Peace Move; Definite Trend Toward Amity Seen as Publishers Realize Radio News Makes Public News Conscious.

Large Television Screens Still Inveigle British.

June 15—Long Lines Regulation; Wire-Change Supervision Is Sought by FCC Which Concurs in Report Regarding Long Lines Regulation.  
Wage "Kick Back" Bill Is Signed by Governor Lehman of New York State.

June 16—Warners Bow Out of TBT; Transamerican Heads Arrange Deal Acquiring Picture Company Stock; Expansion Plans Already on Way.  
Two Television Improvements are Shown by Philco.  
AFM Votes Against Line Restrictions.

June 19—Southeast Expansion for Mutual Network.  
Form Lone Star Chain, of Six Texas Outlets. Large Television Screen in First U. S. Showing.

June 20—AFA Spotlight on Radio; New NAB Code Gets Hearing Today While Sales Managers Will Mull Their Problems; Other Activity.  
AFM Seeks Remote Credits; Also Full Television-Disk Powers.

June 21—Review New NAB Code.  
Objections to Be Made in Writing to NAB. RCA Bearing Brunt of Television Exploitation.

June 22—Push Author-Stage Show; CBS Web Is One of Interested Parties in Proposed Program Using "Name" Authors and Stage Stars.  
Canada Holds Rule on Non-Profit Television.

June 23—One-Year FCC Licenses; Fall Short of the Three-Year Term Sought by Broadcasters Who See It a Step Forward, However.  
Montana Outlets Sue ASCAP, Also Webs, Over Music Fees.  
Power or Time Increase (Possibilities) Off for 65 Stations.

June 26—Funds Voted for the FCC; \$1,800,000 Appropriation Is Over Last Year's But \$200,000 Less than Asked; Minor Arguments.  
Inter-Store Television Pictures on Commercial Basis.  
Engineering Rules (of FCC) Get Full Approval.

June 27—Super Wattage Decision: Court of Appeals Upholds the FCC on WLW Stand, Judges Declaring 500 kw. a Temporary Move.  
DuMont Speeds Television on 882-Line Set-up.  
First Hotel Commercial Signed for Series.

June 28—ASCAP-Montana Muddle: Society Rescinds Stations' Licenses Which May Pile Up Infringements of Comic-Opera Proportions.  
Pennsylvania Governor Signs Bill Amending Wire Law.

June 29—Radio as "Big Business"; Station-Web Assets at Billion Mark With Investment at \$46,777,987; 1938 Payroll \$45,663,757.  
NBC-RCA Television Schedule Revised for Summer.

June 30—Chicago Willing to Negotiate; Stations and Ad Agencies Make Offer to Confer with AFRA Until "Fair" Agreement Is Reached. First Television Network Links RCA with General Electric.

## JULY

July 3—Chicago Strike in Abeyance; AFRA Talks Starting Wednesday Will Plug Until an Agreement Is Reached; Local AFRA Board Elected.  
North Dakota ASCAP Law in Effect; KRMC Sued.

July 5—Radio Wins Media Study; Consumer Recall-Ability Media Test on Cigarette Advertising Finds Air Far Ahead of All Others.

July 6—FCC Defers Night Grants; Holds Up Applications on Regionals for Night-time Power Increases Asking 5000 Watts.  
ASCAP Readies Talks for Television Licenses. Chicago Stations and AFRA Start Lengthy Negotiations.  
"Service" Division Added to NBC Blue.

July 7—Web 1938 Net \$7,003,700; Three Major Networks Plus M & O Outlets Had Net Income of Nearly 10% on Gross of \$68,123,525.

July 10—NAB Ready to Tee Off; Attendees Several Hundred Strong.  
FTC Cites Stations Over Power Claims.  
Mutual Again Attacks Rival Web Contracts.

July 11—NAB Studies Copyright; Copyright Question Takes Precedence Over All Matters; Revamped Code Expected to Get Okay. Program Ratings to Be "More Accurate."

July 12—NAB Adopts New Code; Code Seeks to Avoid Controversial Issues; Develops Yardstick to Determine Talk Contents.  
New Rules Give CBC Added Radio Power.

July 13—OK Copyright Resolution; NAB Grants Miller and Committee Full Power to Negotiate with ASCAP; Possibility of Fall Meeting.  
Indies Elect Officials; Plan to Increase Scope of Activity.

July 14—NAB Code Date in September; Board Will Set Plan for Compliance in the Meantime; Nothing Drastic in Offing Says Miller.

July 17—FCC Holds Up International Rule; Bows to Censorship Charge Pending Further Hearings; Battle Waged Between Dempsey and Miller.  
RCA Wins Injunction in Record-Airing Suit.

July 18—Chicago-AFRA Break Talks; Strike Possibility Again Looming With Union to Make Decision Sometime Today.  
Minimum Red Web Requirements Upped.

July 19—WCKY—Sit Tight Policy; Unprecedented Situation with Legal Points Remaining in Air; October 1 Is Tentative Date for Switch.

July 20—Tax-Free Music Sentiment; Marked Change in Attitude Bolsters Decision of Recording Companies to Build Huge Libraries.

July 21—CBS Wins Vital Opinion: State of Virginia Concedes Radio as Being Interstate Commerce Not Subject to State Law.



NBC Television Talent Cost \$115,000 During First Year.

- July 24—U. S. Reviews ASCAP Suit; Anti-Trust Division Studying Move with a View to Pressing Action or Forcing a Compromise.
- July 25—Form Wired Television Group; Otterson Heads New Firm Planning to Install Wired Television System as a Feasible Method. See Coughlin Taking Steps to Avoid NAB Code Conflict.
- July 26—McNinch Ready to Quit; Hints He Will Resign Pending Okay from Roosevelt; Lack of Harmony and Poor Health the Reasons. New Orleans Stations, INS and AP Avert U. S. Contempt Order.
- July 27—Sponsors Up Air Budgets; Advertising Investments on Networks Show 11 Industries Advanced Billings \$3,227,739 in Six-Month Period. AFRA Presents Revised Code; Most Items Scaled Downward.
- July 28—Fly's Name Goes to Senate; Expected to Be Confirmed Quickly and Subsequently Be Elected FCC Head by Commissioners. "Brooklyn Cases" Reopened by FCC on Own Initiative.
- July 31—Shepard Adopts "Code"; Anticipates the NAB Effective Date by Inserting Contract Clauses Covering All Provisions.

## AUGUST

- Aug. 1—Victor Record Radio-Fee: Contracts Reported Being Drawn Up by RCA-Victor for Station Use; 50% Going to Disk Artist.
- Aug. 2—Network Billings Climb; CBS Has a Sock 69% July Increase with NBC Up 11% and Mutual Revealing a 29% Gain. AFRA Wage Scale for WNEW Equal to Some Top Watters.
- Aug. 3—AFM Again Mulls Radio; Pacts with Broadcasters All Run Out on September 29; Will Expect More Musicians Put to Work.
- Aug. 4—Miller Calls NAB Meet; Industry Convention in Chicago on September 15 to Combat Copyright Situation; War Chest (To Be Raised) for Tax-Free Music.
- Aug. 7—RCA Reveals Disk Plan; Informs Stations and Artists of Move to Obtain Fees After October 1, 1939 for Broadcasting Rights.
- Aug. 8—ASCAP Sit-Tight Policy; Paine Sees Nothing Society Can Do But Await "Outcome of Events"; NAB Committee Meets Wednesday. WOR Files Television Construction Permit for Midtown Station.
- Aug. 9—Web Television Plans Proceed; RCA-NBC Going Ahead with General Electric Tieup with First Link Ready in Fall; NBC Reports 185-Mile Pickup.
- Aug. 10—Mull Copyright War Chest; Committee Discusses All Problems Relating to ASCAP Showdown; May Seek \$1,000,000.
- Aug. 11—CIO Invades AFM Field; Musicians' Local Is Granted Charter in New Orleans; Plans to Maintain AFM Scale Says CIO. NAB Appoints Sidney Kaye Special Copyright Counsel.

- Aug. 14—Disk-License Fees Set; Victor Sets a Flat Monthly Scale Based on Class of Stations; Decca Following Suit. FCC Asks U. S. Supreme Court to End Lower-Court Edicts.
- Aug. 15—Disk-Air Battle Looms; Independent Stand of Disk Firms Disliked by Broadcasters; No Immediate Action Set.
- Aug. 16—Independents Fear Disk Fees; 50 Per Cent of Industry Faces Heavy Losses Through Record Licenses; NAB Still Non-Committal.
- Aug. 17—Huge Fall Television Drive; Greatest Television Activity to Date Set for Fall Season; Appropriations Lead All Other Nations. BBC to Increase U. S. Shows Due to Audience Reaction.
- Aug. 18—World Series to MBS; MBS Gets Exclusive Rights on Series with Gillette Co. Sponsoring; Record Commercial Web Indicated.
- Aug. 21—AFRA Sets Convention Agenda; Transcription Situation Is Most Pressing National Issue Facing Convention; Chicago Trouble Pertinent.
- Aug. 22—NAPA Enters Disk War; Organization to Resist Disk Firms' Licensing Plans; Issues Letters to RCA and All Stations.
- Aug. 23—NAB Drive for New Biz; Executive Committee Okays Expansion of Bureau of Advertising to Aid 200 Independent Stations. War Threat Upsets Network Schedules.
- Aug. 24—NAB Plans ASCAP Stand; Consolidation of Organization's Stand Against ASCAP and Tax Free Music Are Discussed; Disk Confab Today.
- Aug. 25—Radio's Biggest "Event": Industry Overboard in Greatest News Coverage in History; Commercial Go by the Board at Networks. AFRA Convention Opens with Stormy Session; Holt Reports.
- Aug. 28—Radio's Vigil Unrelaxed: 24-Hour Crisis Coverage Continues as Nets and Independents Scrap Over Trans-Atlantic Broadcasts. AFRA Convention Split on National ET Scale.
- Aug. 29—AFRA Setting Disk Scale; Will Seek to Set up National Pact for All Transcription Companies Despite California Delegates' Objections. War Not to Change Commercial Aspect.
- Aug. 30—Actor-Union Peace Fails; Negotiations in Jurisdictional Fight End Abruptly; AFRA Is Vivaly Concerned in the Matter.
- Aug. 31—Disc Fee Delay to December 1.

## SEPTEMBER

- Sept. 1—AFRA Joins Actor Fight; Formally Adopts Strike Resolutions Backing Parent Organization in Union Jurisdictional Mixup. Television Gains Impetus with Today's Schedule.
- Sept. 5—Network Grosses Climb; Major Weeks Reveal August Billings as Big Step Toward Cumulative Highs Despite War Scares.

Sept. 6—Webs Ease to Normalcy; Will Adhere to Commercial Program Schedules and Quit "Press Competition."  
FCC Denies Neutrality Rules; Big Capital Staff for CBS.

Sept. 7—U. S. Discusses Air Status; Maintains No "Censorship" Planned at Any Time. Although FCC Sets Trio to Study Situation. Rate Card Revision by NBC as of October 1.

Sept. 8—Agencies Retain Budgets; Inform Staffs and Clients of Normal Activity Being in Order; No Cuts Planned in Employee Ranks. Facsimile Newspaper Starts in Late Fall. AFRA Eyes ET Scale; Coast Members Worry.

Sept. 11—58 Shows Back to Nets; Heavy Schedule Returning Within 60 Days on Three Major Networks Dispels Fear of War Hurting Business.  
CBS Research Plan is 98 Per Cent Acceptable.

Sept. 12—FCC Discusses War News; Fly Meets NAB and Network Officials Who Explain Voluntary Measures for Handling Situation. WCAU Application for Television License Is Filed.

Sept. 13—Net's War News Platform Is Announced; CBS and NBC Formulate Courses Based on Outcome of Discussions with Washington Officials.  
FCC Amends Broadcasts Rule; No Log of Disk Song-Titles Is Required.

Sept. 14—NAB Code Starts October 1; Board Meeting Selects Operative Data for Industry Regulation; One Year Leeway for Cancellation.  
Unified Industry Prepares to Attack ASCAP Problem.

Sept. 15—Radio Tackles Copyright; Industry Agreed on Raising War Chest, Only Question Being Administration of the Huge Fund. Webs Sign AFRA Contract Covering 11 Western States.

Sept. 18—Radio's Own Music Setup; Industry Unanimously Okays Plans to Build up Tax-free Catalog; Assessments Approved.  
19 Stations Air AP News Commercially.  
ET Test Suit Seen in Thesaurus Truce.

Sept. 19—Nebraska Defends "ASCAP Law"; Test Case Before Three Federal Judges.  
Mutual Web Outlines Revised News Policy.

Sept. 20—NBC Disks Get Fox Okay; Network ET Service Makes Settlement with Music Men But Will Start Its Test Case Shortly.  
20 NBC-Blue Clients Using Disk Repeats.

Sept. 21—Gillin Hits ASCAP Setup; Radio Men in Third Day of Hearing Lash Music Organization's Methods Before Three-Judge Federal Court.  
NBC Perfecting Television Commercial Standards.

Sept. 22—Nebraska Decision by November 1: Both Sides End Argument with Briefs to Be Filed by October 6; ASCAP Admits Monopoly Case Developed.  
General Electric Patent Agreement Revises Television Status.

Sept. 25—Radio Courses Catch On.  
NBC Publishes Policy Covering War News.

Sept. 26—War ups Radio Budgets; Compensation for Foreign Market Loss Being Sought by Increase in Domestic Sales.  
War Clauses Appear in Many Contracts.  
Television Promotion Intensified by RCA.

Sept. 27—"Neutrality Time" Starts; CBS Nixes 3-Web Network for Norris as Broadcaster Headaches Begin; Al Smith Set for Sunday.

Sept. 28—FCC Hears WMCA Story; Station Witnesses Deny Secret Code Was Violated.

Sept. 29—Webs Opening 49 Shows; Revised October Schedule One of Heaviest in Networks' History; Programs Offer Wide Entertainment.

## OCTOBER

Oct. 2—Code Committee Meeting; First Conference Today Will Seek to Set up "Audience Relations" Manual for Stations.  
Another Client Offers \$1,000 Weekly Prize.

Oct. 3—Changing FCC Procedure; Decision by Commissioner Payne Indicates Drastic Effect on Legal Moves, Avoiding Delays and Expense.  
RCA and Farnsworth in Patent Exchange.

Oct. 4—Web Billings at New High; September Network Gross Revenues Assures Current Year Cumulative Totals Exceeding Previous Records.  
Music Publishers File Suits Against Two Montana Outlets.

Oct. 5—Protest Payne Decision; NBC Counsel Asks Review of Opinion Limiting Number of Intervenors Appearing Before Commission. Proposed Amendment Taxes Ohio Radio 10 Per Cent.

Oct. 6—Women for Less War Talk.

Oct. 9—Spot Business Is Still Gaining; Marked Increase Over 1938 Indicated in Opinion of Leading Reps Who See Healthy Trade Condition.  
NAB Code Drawbacks Voiced by John Patt.

Oct. 10—NAB Code Conflict Looms; Trade Association Seeks to Present Proper Picture to Public; Resignation by Some Stations Possible.  
ASCAP Copyright Committee Not Intended to Meet NAB.

Oct. 11—New Recording Method; Process Perfected by RCA-NBC Based on Higher Frequencies; Eliminates All Distortion Noises.

Oct. 12—FCC Backs Payne Ruling; Hope for Oral Argument on Question of Limited Intervenors Loses Out as Full Body Approves It. Women's National Radio Committee Talks Over Methods of Setting "Model" War News.

Oct. 13—Spot Versus Network in New York; Statistics Show \$776,000 in Billings by Spot Clients in Month Against \$5,860,315 on Webs.

Oct. 16—Avert Musicians' Strike; Talks with AFM Result in Outlet Taking Back Band; Further Confabs Scheduled for This Week.

Oct. 17—NAB Answers Drug Association; Points Out That Radio Regulations Are More

Stringent and Advertising Copy Subject to FTC Scrutiny.  
Fox Informs Outlets of Stand on Disk Fee.  
CBS Engineers Using New Television Methods.

Oct. 18—Petrillo and AFRA in Accord; Chicago AFM Local and Actor Union End Dispute Over ET-Announcers Question; Spielers Back to AFRA.

Television Airplane Reception 225 Miles from Transmitter.

Oct. 19—Settle Television Jurisdiction; AFRA-Equity-SAG Seen Near Accord on Joint Control Over Industry; Meeting with NBC Tuesday.

Oct. 20—Miller Defends NAB Code; Stinging Reply to Elliott Roosevelt After Reported Texas Resignations of NAB Membership. Federal Court Restrains Florida's ASCAP Law.

Oct. 23—Low Priced Show Survey.

Oct. 24—Ask Non-Commercial Net; LaGuardia Leads Group Before FCC Seeking Rebroadcast Licensing; Land-Lines an Issue. Yankee-Colonial Networks Explain Stand on NAB Code.

Oct. 25—Expect FCC Television Break; Conciliatory Attitude in Second Report with "Limited Commercials" Seen; U. S. Subsidy a Possibility. Rather Lose Movies Than Radio, Say 79 Per Cent (in "Fortune" Survey).

Oct. 26—New Type Survey Ready; Tape on Receiving Sets During Tests Reveals Much Interesting Data; High Accuracy Claimed. Radio Scores Victory Seeking Press Parity.

Oct. 27—ANA Radio Pro and Con; Some Criticism but Much Approbation While Discussions Include AFRA and Growth of CAB. See Television Gaining Momentum; CBS Pattern Experiments.

Oct. 30—Hail Fly's Talk on Code; FCC Chairman Suggests the Industry Give Code a Fair Trial; Faults Should be Overlooked Now. Radio Research Lags, Miller Informs ANA.

Oct. 31—Coast Television Market Looms; See Hollywood as the Second Largest Potential Video Center; Don Lee Boosts Televising Sked. Canada Now Hopeful of Beer Commercials.

## NOVEMBER

Nov. 1—Form New National Web; 100 Outlets Are Scheduled to Be Linked Via Permanent Lines; Operations Expected to Start December 15.

NAPA Hires Walker; New Drive Planned. Free Movie Plugs on Radio Reaching an All-Time High.

Nov. 2—800 Educators for Confab; Conference Set for December 6-8 Will Seek Method of Utilizing Available Broadcast Material. Spot Biz Pickup Indicated; Erwin, Wasey's Campaigns.

Nov. 3—" \$2,000,000 More"—AFM; Ask 50 Per

Cent Increase from Affiliates and 100 Per Cent Hike from Key Outlets as Basis for New Pact.

CBC Economy Move Halts All Expansion.

Nov. 6—NAB Wins Point on Code; Yankee and Colonial Webs Give Way on Controversial Issue; Board Confers with Shepard. Staticless Network Planned by Shepard. Petrillo Rules Out Between-Band Spots.

Nov. 7—Music Plan Before SEC; Broadcast Music, Inc. Files Its Data Giving February 1, as Subscription Deadline for Stock Issue.

AFM Television Committee Report Advises Local Supervision.

World Series Query Issued by FCC.

Nov. 8—AFRA Pact for New Web; Code Will Apply to Trans-Continental According to Actor-Union Officials; Television Committee. RCA 9-Month Gross Increases \$3,902,043.

WJW Trying to Iron Out Code and CIO Broadcasts.

Nov. 9—IRNA Member Appeal; Affiliates Informed Of AFM Demands While Warning Is Issued On ASCAP Seeking Separate Pacts.

CBS Earns Over \$2 A Share During Nine-Month Period.

Television Network Relay Being Built By General Electric.

Nov. 10—No Separate Pacts—ASCAP; Denies IRNA Statement Anent Move To Divide Industry.

FCC Sets Up Routine For Relief Of Staff.

FCC Finds Answer For Code Complaints.

Nov. 13—Plea For Television "Freedom"; McDonald Asks FCC For Continued Development, Unhampered By U. S. And Early Commercial Okay.

Nov. 14—See Pope Aiding Code; Pettingill Talks. "Pot Of Gold" Competition Forces Fancy Movie Action.

Rate Structure Set For NBC Shortwave.

Nov. 15—FCC Gets Television Report; Committee Favors Two Classifications Of Licenses To Aid Development; Limited Commercial Aspect.

Nov. 16—World-Wide Commercials; Westinghouse First to Offer Coverage.

Theatre Men Again Threaten Action Over Stars On Radio.

See Compromise In FCC Television Report.

Nov. 17—Unions Renew Television Feud; Equity Attacks Report That It Lost Field To AFRA And Screen Union; Plans To Organize Talent. FCC Grants 2 New Outlets; Affiliates Resent "Slur."

Nov. 20—IRNA Meets AFM (Today); May Ask For Extension Due To Laxity Of Affiliates Answering IRNA's Request For Statements. Detroit To The Front In Radio Production. AFRA Drive Started In Eight Key Centers.

Nov. 21—IRNA Counter-Proposal; Part Is Rejected by AFM But Other Points Will Be Discussed; Webs Confer With Musicians.

- "Insurance" Against Radio; New Plan Vs. "Pot Of Gold."
- Nov. 22—Webs Nix AFM Demands; "Leave Door Open" For Further Talks On Key Outlet Increases; IRNA Resumes Confab Tomorrow.  
Warning On Special Permits (By FCC Secretary Slowie); Other Decisions By The FCC.
- Nov. 24—IRNA-AFM At Impasse! Union Rejects Affiliates' Proposals, And Withdraws Its Own Demands; Awaits Industry's Next Move.  
Actor Unions Discuss Wage Scales For Television.
- Nov. 27—RCA License Drive December 1; NAB Appeal For Postponement Refused By RCA; AFM, NAPA & MPPA Will Cooperate With Broadcasters.  
RCA Sets Dividends; Pays Twenty Cents On Common.
- Nov. 28—Regional Power Boosts; Dozen Outlets Increased To 5000 Watts In Accordance With Havana Agreement Provisions.  
Broadcast Music Amends Its SEC Registration Plea.
- Nov. 29—N. Y. Stations' Music Meet; Stock Commitments Okay Says Miller Who Will List Subscribers Soon; Midwest Confab December 5.  
Television Networks Not Remote; See Small "Booster" Units.
- Nov. 30—RCA's New Television Camera; Described As Light And Easy To Use As Newsreel Outfit; FCC To View Equipment In Capital.  
Census Bureau Ready On Its Radio Details.
- ### DECEMBER
- Dec. 1—Leeway For Townsend Biz; Code Committee To Leave Decision To State Broadcasters Associations Re Political Status.  
RCA Disk License; Philly Adopts Plan.  
Chicago Race News On Air Gets Once-Over By U. S. Attorney.
- Dec. 4—Educators Gather In Chicago; Vanguard Arrives For School Confab Which Starts Tomorrow; CBS Holds Big Confab Of Its Own.  
FCC To Improve Its Practice Procedure.  
NBC's November Billings Retain Upward Trend.
- Dec. 5—TBS Sets Time Clearance.  
No-Wire Network O.K. In "Modulation" Test.
- Dec. 6—AFM Has Fantastic Plan; Reported Ready To Inform Networks That Key Stations Will Foot Bill Via Huge Musician Scale.
- Dec. 7—More Night-Power Boosts; Eight Regional Outlets To 5,000 Watts Okayed By FCC; 3 Daytime Stations Get Full-Time Grants.  
Boston's Music Meet Shows BMI Progress.  
Michigan Theater Man Advises Mutual Radio-Pix Confabs.
- Dec. 8—TBS Issues Station List; 92 Already Signed With More On Way To Pass 100 Mark When Net Opens Officially On January 1.  
Court Allows WNEW To Appeal RCA Case.  
War's Radio Facilities Nil, Reports CBS Commentator.
- Dec. 11—NIB Asks RCA To Confer; Independent Outlets Seek Get-Together In Effort To Delay License Fees For Playing Records.
- Dec. 12—Radio Before High Court; Supreme Court Will Review Merits Of Sanders Case For The FCC; Economic Injury Factor.  
DuMont Television Reveals Its New Developments.  
Nets Conclude Pacts With SAG And AGMA.
- Dec. 13—BMI Gathers Momentum; Third Of 10th NAB District Members Subscribe To Stock; Father Burk Hits Provisions Of Code.  
Cox Busy In Georgia; May Buy WSB-Dailies.
- Dec. 14—NAB's "Public" Campaign; Reminds All Stations Of Problems And Offers Brochure To Awaken Loyalty Of Listeners.  
Tells Actor Unions Need For Television Co-Op.
- Dec. 15—Yanks-Giants Up Dough; Reported Holding Out For \$150,000 With General Mills Having Option; Needs Additional Sponsor.  
AFM Sees Proposal Being Made By Radio.  
Stress On Rural Audiences By Many Leading Stations.
- Dec. 18—Drug Client Commitments; Continued Use Definitely Assured On Major Webs, With CBS Certain Of Increased Billings.  
FCC Again Requested To Ease ET Rulings.  
146 Member-Stations Buy NAB Music Stock.
- Dec. 19—Women Clubs Coordinate.  
Judge Slams Program Using Court Procedure.  
Buckeye Theaters Mean Business On "Pot O' Gold" Insurance.
- Dec. 20—Television Was 1939 High Spot; Viewed As Pacing All Other Aspects During The Year.  
Tobacco Accounts Up In 1940 Air Budgets.
- Dec. 21—CBS Reviews Great Year; Optimism Prevails Re 1940 Progress On All Fronts.
- Dec. 22—"Radio Xmas" Big Success; NAB-RMA Drive Gets Old Sets For The Poor.  
Station-Rep Changes, Few During Past Year.
- Dec. 26—Strong Education Year; Bigger Campaigns By Major Webs; CBS Resume.  
Public Television Hearing Will Be Held By FCC.
- Dec. 27—See AFM Solution Near; Unofficial Talks May Soon Result In Peace Move.
- Dec. 28—Web's Gala New Year's; Fancy Programs, Special Events To Greet 1940.  
WLW Expands Scope In Talent Bookings.  
TBS Completes Plan For West Coast Setup.
- Dec. 29—ASCAP Wins Nebraska Decision; Copyright Blow To Radio Business; May Appeal.  
"Better Year Ahead," Says Neville Miller.  
FTC Annual Report: 329 Citations.



# F O R E I G N

**Cuba**  
*Survey—Stations*



**Mexico**  
*Survey—Stations*



**South America**  
*Stations*



**International  
Broadcast  
Stations  
and  
Regulations**





**FOR  
WORLD WIDE  
RADIO NEWS  
EXECUTIVES  
IN RADIO  
READ  
RADIO DAILY  
REGULARLY**



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# THE DEPARTMENT of COMMERCE and its ACTIVITIES REGARDING RADIO

By

**JOHN H. PAYNE**

*Chief, Electrical Division*

*Washington, D. C.*

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**T**HE Bureau of Foreign and Domestic Commerce has as its main objective comprehensive service to American industry, principally along the line of business promotion. Because of the nature of this activity, it is frequently possible to supply information in regard to other phases of the radio industry, such as engineering, statistics, applications, etc., which may be asked either by students or laymen outside of industry.

Emphasis is placed on foreign business inasmuch as this is where the greatest service can be rendered. American companies, obviously, do not need assistance in their domestic business to the same extent that it can be of use in their foreign activities.

Radio assumes a leading position in the Electrical Division's activities, since it is the largest item or group of items classified as a unit, in our electrical exports. Recently, it has represented 25 to 30 per cent of the total exports of all electrical commodities from the United States to the rest of the world.

The Bureau serves industry through three rather distinct organizations—first, its 25 District and 53 Cooperative Offices located throughout the United States, through which it has facilities for intimate contact with all American individuals or businesses wishing to avail themselves of its services; second, through 300 Foreign Offices located in the capitals and principal cities of practically all countries of the world, making close foreign contacts on behalf of American industry; third, a highly specialized headquarters organization in Washington, providing experienced people in each phase of industry and in several commercial services.

For an exporter, a District or Cooperative Office can perform such services as these: indicate where there is a market for American goods; explain how best to enter a market; specify the terms on which goods are ordinarily sold in a particular market; provide data as to the competition to be encountered from foreign sources; furnish lists of buyers in the principal markets of the world; and render many other services.

The Foreign Offices are a vital factor for the Bureau's service. They constantly provide data on all the significant economic, commercial, and financial developments of the various countries. They report on the general business situation in a specific foreign market—the competition between American goods and the products of other countries—the import duties and restrictions that may be imposed—sales methods and credit terms—and the foreign-exchange situation, when pertinent. They conduct surveys covering specific commodities in definite foreign markets, and provide a variety of other current special data.

Because of the multiphase character of radio, the Electrical Division is not the only division of the Bureau interested in radio subjects. Whether the Electrical Division or the Bureau generally is addressed is unimportant, since reference and collaboration methods assure that all informed individuals will have contributed when the reply is prepared. For instance, radio from a public utility communication standpoint comes under the jurisdiction of the Transportation Division and radio advertising methods under the Specialties, which handles advertising methods and media in general. Through their cooperation, the Electrical Division is enabled to answer any inquiry within the scope of the Bureau's activities.

While the Industrial Divisions in Washington render specialized services to spe-

cific industries, there are in the Bureau seven divisions giving intensive study to various distinctive phases of foreign business characteristics. In response to inquiries from industry, they can supply information not otherwise obtainable on some of the highly specialized aspects of foreign trade.

These Divisions include:

**Commercial Intelligence**—compiles lists of foreign buyers or sellers. There are 32,000 such lists now available to American business. The Division maintains a "World Trade Directory" report giving commercial information on approximately 650,000 foreign buyers or sellers. Information on credit and collection conditions, and credit payment terms in foreign countries, through the "Credit Situation Abroad" service.

**Commercial Laws**—distributes information on the laws of all countries which relate to commerce and industry, including laws for transacting business, organization, commercial acts, and taxation, property problems (trade-marks, patents, copyrights, unfair competition, etc.), foreign insurance, factory, labor, and social-security laws affecting the cost of doing business abroad.

**Finance**—collects information regarding foreign banks and banking affairs, foreign monetary and exchange conditions, foreign trade financing in general, and related subjects. Is a prime source of statistics on (a) the balance of international payments of the United States; (b) foreign securities publicly offered in the United States; (c) American investments abroad; (d) foreign investments in the United States; and (e) data on related subjects such as war debts, etc.

**Foreign Tariffs**—current detailed records of customs tariffs, quotas, trade regulations, and commercial policy of all foreign countries, reports to American firms changes in this important field. Information on trade agreements concluded with foreign countries, and on all other phases of foreign customs requirements.

**Foreign Trade Statistics**—gathers, compiles, and disseminates statistics on American imports and exports. Also contributes to numerous general statistical studies sponsored by the Industrial Divisions to meet the indicated requirements of individual industries.

**Regional Information**—furnishes general information about economic conditions abroad. A high degree of specialization is attained in this Division through placing the work under the supervision of regional specialists in charge of the European, Far Eastern, Latin American, and Russian Sections.

**Transportation**—collects and analyzes data from both foreign and domestic sources on such subjects as ocean shipping, packing and packaging, tourism, materials handling, inland waterways, railway and motor transport, communications and postal services, warehousing, bills of lading, industrial traffic management, etc.

The Bureau maintains twelve Industrial Divisions, staffed by experts conversant with the details of each industry. These divisions bring the Bureau into direct touch with producers and exporters, making possible the establishment of mutually helpful relationships. For each industry, there is provided a specialized service, satisfying some of its peculiar and characteristic needs for statistical and other information. Essential information and data are collected under competent supervision, and is disseminated to the many trades in the most efficient ways that can be devised. Most of the material is provided by representatives of the Foreign Offices; the information covers a wide field of industrial and trade activities and is released to business in periodical and special bulletins.

The Electrical Division, one of the twelve similar industrial divisions, renders broad commercial services to the American electrical and radio industries. Its Radio Section serves the manufacturers of broadcasting and receiving equipment, as well as the broadcasting operators. Wide distribution of U. S. A. short wave programs has been established in cooperation with the Radio Manufacturers Association, whereby a compilation of all beamed American short wave programs is made available to publishers throughout the world.

The Division concentrates on obtaining and offering data which industry lacks the means of securing through its own endeavors. With respect to radio, the Division collects information regarding the widely varying conditions in other nations, in order to be able to inform American industry of world developments, prospective markets, needed adaptations, and other related matters.

Radio surveys have been made to develop the effectiveness of American short wave broadcasting throughout the world. Both its good qualities and its limitations as brought out in these surveys are passed on to the American short wave operators for their guidance.

Criticism from the radio or other electrical industries is solicited by the Division, in order that it may improve and make its services more useful to all interested in using them.



# INTERNATIONAL BROADCAST STATIONS IN THE UNITED STATES

*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 6,000 and 26,000 kilocycles, for broadcasting by International Agreement). Such stations, which are required to render a broadcast service which will reflect the culture of this country and promote international goodwill, understanding and cooperation, may include commercial or sponsored programs, which gives no more than the name of the sponsor and the general character of his product or service. After July 1, no such station will be authorized to install equipment or be licensed for operation with a power less than 50,000 watts.*

Licensee and Location	Call Letters	Frequency (Kc)	Power
Columbia Broadcasting System, Inc. Near Wayne, N. J.	WCBX	6120, 6170, 9650, 11830, 15270, 17830, 21570	10 kw
The Crosley Corp. Mason, Ohio	WLWO	6060, 9590, 11870, 15270 17760, 21650	10 kw C.P. 50 kw
General Electric Company South Schenectady, N. Y.	WGEA	9550, 15330, 21500	25 kw
General Electric Company South Schenectady, N. Y.	WGEO	6190, 9530, 21590	100 kw
General Electric Company San Francisco, Calif.	KGEI	6190, 9530, 15330	20 kw
Isle of Dreams Broadcasting Corp. Miami, Florida	WDJM	6040	5 kw
National Broadcasting Co., Inc. Bound Brook, N. J.	WRCA	9670, 21630	35 kw
National Broadcasting Co., Inc. Bound Brook, N. J.	WNBI	6100, 17780	35 kw
WCAU Broadcasting Company Newtown Square, Pa.	WCAB	6060, 9590, 15270, 21520, 25725	10 kw
Westinghouse Electric & Mfg. Co. Millis, Mass.	WBOS	6140, 95A70, 15210, 21540	10 kw
Westinghouse Electric & Mfg. Co. Saxonburg, Pa.	WPIT	6140, 9570, 11870, 15210, 17780, 21540	40 kw
World Wide Broadcasting Corp. Scituate, Mass.	WRUL	6040, 11730, 11790, 15130, 15250, 21460	20 kw
World Wide Broadcasting Corp. Scituate, Mass.	WRUW	11730, 15130, 25600	20 kw

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# — INTERNATIONAL — BROADCAST STATIONS

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*Regulations Governing Their Establishment and Operation, as of January 1st, 1940, Together with Available Groups of Frequencies.*

*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 6,000 and 26,000 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:

1. That there is a need for the international broadcast service proposed to be rendered.

2. That the necessary program sources are available to the applicant to render an effective international service.

3. 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 (Cairo Radio Regulations, Article 7).

4. 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.

5. That the production of the program service and the technical operation of the proposed station will be conducted by qualified persons.

6. That the applicant is technically and financially qualified and possesses adequate technical facilities to carry forward the service proposed.

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

## **Service: Commercial or Sponsored Programs**

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.

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 regulations of the Federal Communications Commission herein stated.

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 regulations of the Federal Communications Commission herein stated.

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 rules for international broadcast stations.

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 regulations of the Federal Communications Commission herein stated and is consistent with the purpose and intent of said regulations.

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 provisions for commercial program (stated above in regard to any commercial continuities) are observed and when station identifications are made, only the call letter designation of the international station is given on its assigned frequency, and provided further that in 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.

### Frequencies Allotted

The following groups of frequencies are allocated for assignment to international broadcast stations on an experimental basis:

<i>Group A</i>	<i>Group B</i>	<i>Group C</i>	<i>Group D</i>
6020 kc	9510 kc	11,710 kc	15,110 kc
6040	9530	11,750	15,150
6060	9570	11,770	15,170
6080	9590	11,790	15,190
6100	9650*	11,810	15,210
6140	9670*	11,830	15,230
6170*		11,850	
6190*		11,870	
		11,890	

<i>Group E</i>	<i>Group F</i>	<i>Group G</i>	<i>Group H</i>
15,250 kc	17,760 kc	21,460 kc	25,600 kc
15,270	17,780	21,480	25,625
15,290	17,800	21,520	25,650
15,310	17,830*	21,540	25,675
15,330		21,570*	25,700

<i>Group G</i>	<i>Group H</i>
21,590*	25,725
21,610*	25,750
21,630*	25,775
21,650*	25,800
	25,825
	25,850
	25,875

\*Any operation on this frequency prior to September 1, 1939, shall be in compliance with Article 7, Cairo General Radio Regulations.

### Separate Licenses

A separate license and call letter designation will be issued for each frequency except that where frequencies in two or more groups are required to maintain a particular international broadcast service to certain foreign country or countries, one frequency from each of the groups required may be authorized by one license and one call letter designation. In such cases these frequencies shall be used consecutively during a day as required and they shall not be used simultaneously either on the same transmitter or different transmitters.

Not more than one frequency in any group stated above will be assigned to a station.

### Power Requirement

No international broadcast station will be authorized to install equipment or licensed for operation with a power less than 50 kilowatts. (This provision shall become effective as applying to existing stations on July 1, 1940.)

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. 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.

### Frequency Control

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. (This provision shall become effective as applying to existing stations on January 1, 1941.)

# ★ C U B A ★

## — A SURVEY —

**General**—The number of sets in use in Cuba range from 100,000 to as high as 250,000 sets. Inasmuch as manufacturers in the United States have supplied most of the sets, United States exports are a reasonable accurate measurement of the market. The 1938 imports from the United States numbered 20,095.

**Television**—No developments except for experiments by an amateur. No transmitter is operating.

**Amateurs**—Amateurs are estimated to total between 250 and 300. The principal organization is the "Radio Club de Cuba," Lealtad 136, Habana. Decree No. 2132 of September 2, 1939, suspended for one month all amateur licenses, further extended to November 8. The suspension was announced to be to give the Government an opportunity to draw up regulations to govern this class of activity.

**Facsimile**—No facsimile service has been established. Newspapers have failed to evince sufficient interest in such a service.

**Short Waves**—Demand for sets is principally for those covering short waves. Reception of American and European stations, however, is not very satisfactory, partly because of local interference and partly because of severe fading. This has been improved somewhat by beam operation of American stations, although it is demonstrated that the South American beams do not give satisfactory service in Cuba. The reception of European stations is still the best.

Reception of foreign stations on the 49 meter band is extremely poor at all times. This is due in part to the fact that the frequency is not adaptable to the distance involved and also because of the high noise level. Cuban stations on all of the short wave bands come in very loud and clear and the tendency to overlap adjacent wave lengths appears to be stronger in the longer wave length band, crowding out foreign stations. The 32, 25, and 19 meter bands are good at certain times of the day. The use of tropical waves was not authorized for Cuba by the Cairo Conference of 1938.

**Broadcasting**—During the past year increased effort appears to have been expended in improving radio programs, and a number of stations have remodelled their equipment for more efficient opera-

tion. Several have moved to better sites outside the city. A chain is operated by station CMK, known as the Cadena Nacional Telefonica, with nine stations in the interior connected by private line. These are CMAR, CMGF, CMHW, CMJX, CMJC, CMKF, CMKR, and COGF. At the present time the equipment in use is not entirely satisfactory and material has been purchased for needed improvements.

Special efforts have been made by the Radio Bureau of the Department of Communications to cut down the number of stations and improve the character of programs and service, with some effective results, and further developments indicated.

**Programs**—Operators of Cuban stations claim that Cubans prefer local stations to foreign, and that there is a strong liking for so-called "typical music" such as rumbas and other native forms. Many American programs, especially musical, are well liked, especially if obtainable through Cuban stations. Increasing facilities for such rebroadcasts are being made available by American systems. This is considered an important factor in improving the general character of programs.

**Advertising**—Broadcasting time charges run from as low as \$5 an hour to \$50 an hour, and in a few instances as high as \$100 an hour. Considerable use is made of "menciones de 35 palabras" (announcements of 35 words). These are generally broadcast at program breaks, especially just before a popular program. Announcements may be used to a total of 10 or 15 minutes before the new program is started. Contract rates for repetition are arranged.

Listeners have indicated displeasure with the long advertising periods arising from this practice.

**Transcriptions**—There is only a comparatively small amount of use of transcriptions. Those familiar with Cuban broadcasting station operation state, however, that the use of transcriptions may expand somewhat in the near future as there appears to be more demand for transcription making equipment. It is customary for the advertiser to furnish his own transcriptions. Some are now being made in Cuba. Turntables are mostly 33 r.p.m.

# STANDARD STATIONS OF CUBA

Call Letters	Owner and/or Operator	Location	Frequency Kilocycles	Power Watts
<b>Province of Habana*</b>				
CMW	Troncoso y Gil	Habana	550	200
CMCY	Autran y Carbo Ltd.	Vedado (Transmitter, Marianao)	590	15000
CMCD	La Voz del Aire S. A.	Vedado (Transmitter, Regla)	630	15000
CMQ	Cambo y Gabriel S. A.	Habana (Transmitter, Aldecoa)	690	25000
CMK	Fausto Montiel	Habana	720	200
CMBL	Radio-Cadena Suaritos S. A.	Vedado	750	200
CMBC	Domingo Fernandez Cruz	Habana (Transmitter, Cascada Farm)	780	2500
CMCF	Oscar Gutierrez (Owner) Amado Trinidad (Lessee)	Habana (Transmitter, Guanabacoa)	810	5000
CMCM	Cia Transradio Columbia S. A.	Vedado	850	200
CMX	Francisco A. Lavin	Habana (Transmitter, Guanabacoa)	880	10000
CMZ	Ejercito Constitucional	Columbia	920	5000
CMCK	Luis Casas Romero	Habana (Transmitter, Puentes Grandes)	970	5000
CMBZ	Manuel y Guillermo Salas	Habana	1010	200
CMCH	Radio Popular S. A.	Habana	1050	200
CMBX	Vicente Espinosa	Habana	1050	200
CMCG	La Onda S. A.	Habana	1080	200
CMCU	Jorge Garcia Serra	Vibora	1110	200
CMBQ	Rufino Pazos Hernandez	Habana (Transmitter, Puentes Grandes)	1150	5000
CMCO	Enrique Lasanta	Habana	1210	200
CMOA	Juan Fernandez Duran	Habana	1210	200
CMCB	Metropolitan Radio de Cuba	Cerro	1250	200
CMBS	Enrique Artalejo	Habana	1250	200
CMBF	Compania Cubana de Radio y Television S. A.	Habana (Transmitter, Puentes Grandes)	1290	5000
CMBD	Luis Perez Garcia	Vedado	1290	200
CMCA	Augusto Testar y Jose Manuel Gonzalez	Habana	1350	200
CMC	Rafael Valdes	Habana	1350	200
CMCQ	Andres Martinez	Vibora	1410	200
CMBY	Pages y Compania	Habana	1410	200
CMCX	Juan de Dios Carreno (Owner) Luis J. Marti y Domingo Irisarri (Lessees)	Guanabacoa	1470	200
CMBG	John L. Stowers	Habana	1470	200
CMOX	Perez y Chisholm	Vedado	1510	200
CMCW	Jose Vilarino	Habana	1510	200
CMCJ	Rafael Rodriguez (Owner) Jose Fernandez Garcia (Lessee)	Habana	1550	200
CMCR	Aurelio Hernandez	Habana	1550	200
CMBH	Alberto Alvarez Ferrera	Habana (Transmitter, Guanabacoa)	1600	5000
COCO	Luis Casas Romero	Habana (Transmitter, Puentes Grandes)	8700*	5000
COCD	La Voz del Aire S. A.	Vedado (Transmitter, Regla)	6130	1000

Call Letters	Owner and/or Operator	Location	Frequency Kilocycles	Power Watts
COCH	General Broadcasting Co. (Owner) Amado Trinidad (Lessee)	Habana (Transmitter, Guanabacoa)	9437	5000
COCQ	Cambo y Gabriel	Habana (Transmitter, Aldecoa)	8845**	5000
COCM	Cia. Transradio Columbia S. A.	Vedado	9833	1000
COCX	Francisco A. Lavin	Habana (Transmitter, Guanabacoa)	9200***	1000
*Special Authorization; regularly on 6010 Kilocycles				
**Special Authorization; regularly on 9670 Kilocycles				
***Special Authorization; regularly on 11650 Kilocycles				
<b>Province of Pinar del Rio</b>				
CMAB	Francisco Martinez	Pinar del Rio	1240	200
CMAR	Jose A. Luzon	Pinar del Rio	940	200
<b>Province of Matanzas</b>				
CMGH	M. Garcia Alvarez	Matanzas (Transmitter, Maicas Farm)	1190	200
CMGF	Bernabe R. de la Torre	Matanzas	1120	200
CMGE	Gebaro Sabater	Cardenas	1370	200
COGF	Bernabe R. de la Torre	Matanzas	11800	1000
<b>Province of Santa Clara</b>				
CMHW	Guillermo Domenech	Santa Clara	950	200
CMHI	Amado Trinidad	Santa Clara	830	10000
CMHT	Fernando E. Soto del Valle	Trinidad	920	200
CMHO	Enrique Lasanta Oliver (Owner) Felix Gonzalez (Lessee)	Cienfuegos	1020	200
CMHA	Abelardo Menocal	Sagua la Grande	1090	200
CMHP	Candido de los A. Guevara	Placetas	1100	200
CMHJ	Romualdo Ugalde	Cienfuegos	1160	200
CMHK	Virgilio Villanueva	Cruces	1210	200
CMHB	V. E. Weis y O. Ramirez	Sancti Spiritus	1240	200
CMHD	Manuel Alvarez	Caibarien	1270	200
CMHM	Jose R. Femenias	Cienfuegos	1450	200
CMHX	Francisco Chavary	Santa Clara	1480	200
<b>Province of Camaguey</b>				
CMJX	Rodolfo Gonzalez Solis	Camaguey	900	200
CMJA	Rafael Valdes Jimenez	Camaguey	860	200
CMJF	Gertrudis de la Cruz Perez	Camaguey	930	200
CMJW	Andres Moran Cisneros	Camaguey	1070	200
CMJI	Gilberto Gessa	Ciego de Avila	1130	200
CMJE	Primo A. Casals	Camaguey	1230	200
CMJO	Bonifacio Ildefonso	Ciego de Avila	1260	200
CMJK	Jones Castrillon y Cia.	Camaguey	1020	500
CMJH	Luis Marauri	Ciego de Avila	1360	200
CMJC	Fernando Terron Bolanos	Camaguey	1390	200
COJK	Jones Castrillon y Cia.	Camaguey	8663.9	1000
<b>Province of Oriente</b>				
CMKS	Candido Savon Suarez	Guantanamo	860	200
CMKD	Emisora CMKD	Santiago	910	1000
CMKL	Alberto Alvarez	Bayamo	950	200
CMKG	Emilio Grau Medina	Santiago (Transmitter, San Matias Farm)	1000	200
CMKW	Claudio Alvarez Soriano	Santiago	1050	1000
CMKM	Raimundo Comas Soler	Manzanillo	1080	200
CMKH	Virgilio Arciero	Guantanamo	1110	200
CMKX	Oscar Vidal Benitez	Banes	1190	200
CMKC	Roberti Miguel Gonzales	Santiago	1250	200
CMKO	Manuel Angulo Farran	Holguin	1280	200
CMKR	Jaime Nadal	Santiago	1400	200
CMKZ	Joaquin Venero Obregon	Palma Soriano	1430	200
CMKF	M. J. de Gongora	Holguin	1460	200
CMKQ	Angela Viciado Quintero	Santiago	1490	500
COKG	Emilio Grau Medina	Santiago	8942	1200

\* Under location in this province, section of the city of Havana is given.

# ★ MEXICO ★

## — A SURVEY —

**General**—Present estimates indicate that there are 400,000 to 450,000 sets in use.

Sales are generally parallel to United States exports. The marked decline in radio sales during 1938 is attributed to the high and fluctuating rate of exchange. During the first 6 months of 1939 radio sales were about 50 per cent higher than during the same period of 1938 and were considered normal. It is estimated that 85 per cent of the demand is supplied by United States manufacturers and the remaining 15 per cent represents imports from other countries, especially Europe, and domestic production.

**Transmitting Equipment**—Most transmitters, as well as the replacement parts and accessories, are of American origin. However, the latest large installation, Station XEQ, was made with German equipment. This is probably due to facilities offered through barter trade. Broadcasting stations are increasing in number and the smaller stations are gradually increasing the volume and capacity of the transmitting equipment.

Point-to-point communication is prohibited commercially, as this is a Government monopoly.

There is no police radio. Several attempts have been made to interest the Police Department, and it is reported that it is considering an installation in the Federal District. The absence of a radio system is probably partly due to the fact that every road leaving most Mexican cities is generally guarded by a police sub-station which records all automobiles entering and leaving the city, and to the high cost of this equipment.

The number of amateur broadcasting stations have been considerably reduced because of the law now requiring that only Mexicans may be licensed with the exception of those operating under 10, 5 and 3 meter bands, which are considered as experimental work and residents of Mexico, not necessarily Mexicans, can secure the permits for operation.

Airplane transmitting equipment is used by one commercial aviation company in Mexico and the Mexican War Department. As a general rule the equipment in the planes is supplied and installed by the plane manufacturer and the broadcasting equipment is bought in the United States.

Transmitting tubes are generally of American manufacture and are of the type best suited for the transmitter for which intended.

Transmitting equipment is imported almost entirely from the United States.

**Patents and Trade Marks**—There is no patent interference with the sale of American radio sets and tubes in Mexico. There is no reported evidence of trade-mark piracy in the radio trade or in the trade in general in Mexico.

**Television**—There has been no development whatsoever in television in Mexico. It is believed that the high cost of the equipment involved will greatly restrict potentialities.

**Facsimile**—No radio facsimile service exists at the present time. News pictures from Europe often appear in the local press as having been received via telegraph in the United States and then flown to Mexico.

**Short Wave**—Short wave is becoming more popular every day due in part to the fact that United States stations and European ones have during the past year increased their broadcasts in the Spanish language. Short wave programs from the United States are popular and their reception is good. Other western and European stations are heard regularly and are popular. Progressive improvement in Mexican broadcasting stations and other transmitters have improved reception and eliminated interference.

Reception on the 49-meter band is not very good because there are too many stations operating on this frequency. There are not as many stations operating on the 31-meter band and, therefore, the reception is better than on the 49-meter band. Reception on the 25-meter band is the best. Reception on the 19-meter band is good at mid-day and during the early evening, on the 16-meter band good during the early morning and at noon time, and on the 13-meter band good during the very early hours of the morning. There have been no developments on the Tropical bands. It is believed that there are not more than 12 or 15 ultra short wave radios throughout the entire country.

**Broadcasting** The control of all communications is placed by the General Communications Law in the Department of Communications and Public Works. This law defines commercial broadcasting and commercial broadcasting establishments and limits their activities so as not to compete with the Government-owned systems of communications such as Posts and Telegraphs or with the commercial telephone companies.

Actual regulation and administration is exercised by the Radio-Communication Office which functions under the Department of Telegraphs and Posts of the Secretariat of Communications and Public Works. According to Regulations licenses are granted only to Mexican citizens, except in the field of cultural and experimental broadcasting. With regard to commercial broadcasting, there is apparently no legal difficulty in the way of foreign nationals who wish to enter the broadcasting field in Mexico provided they form a Mexican corporation and comply with Mexican laws, but operators must be licensed and Mexican citizens. The term of a concession for commercial broadcasting has been limited by the aforementioned Regulations to twenty years.

All broadcasting stations, regardless of their nature, must be licensed by the Secretariat of Communications and this Department must previously approve the electrical equipment to be used. This Department also reserves the right to determine the location of the station. Foreign programs transmitted to the Mexican licensed commercial broadcasting station by telephone or radio may be broadcast only upon receipt of the previous authorization from the Department of Communications and Public Works.

**Programs**—General daily hours of operation are from 7 or 8 a.m. to midnight. Some stations operate after midnight.

Preference is for what might be termed a "National Program," made up of vocal and instrumental Mexican music, news, classical musicals, comedies, dramas and comic dialog. Modern dance music is also very popular in Mexico. However, programs from the United States and other countries are increasing in popularity in Mexico.

There is no chain broadcasting at present, although special hookups are arranged for outstanding occasions, such as a Presidential address. On Sunday from 10 to 11 p.m. there is a national hookup dedicated to the country and broadcast by the Department of Automono de Prensa y Publicidad. Authority to require chain operation for the transmittal of the official bulletins which every station is required to broadcast is given in the regulations.

**Advertising**—The largest users of radio advertising time appear to be breweries, medicinal manufacturers, manufacturers of beauty preparations

and cigarette manufacturers. These four industries whose products cover the Republic, advertise on a national scale and so buy radio time from stations widely scattered throughout the Republic. Other radio users are largely localized. In the Federal District advertisers concentrate on the available markets furnished by a population of 1,447,274, and advertise in addition to the above mentioned articles, others such as shoes, clothing, furniture, foodstuffs, jewelry, etc. Stores buy radio time to advertise special sales.

Programs advertising medicinal products must be previously approved by the Mexican Department of Public Health.

Some of the prevailing methods of advertising are: programs with live talent, electric recording and phonograph records; news items; contests; sports; special events; hours such as "Information Please" in the United States; current sayings; children's rhymes and many other methods.

One of the leading commercial broadcasting companies (XEW) quotes the following rates:

28 minute periods: midnight to 2 a.m., 100 pesos; 2 a.m.-12:30 p.m., 60; 12:30 1:30 p.m., 80; 1:30-3 p.m., 130; 3-6 p.m., 85; 6-7, 110; 7-7:30, 140, rising progressively to 250 pesos from 9 to 10, and decreasing to 125 from 11 to midnight.

35-word announcements: midnight to 12:45 p.m., 6 pesos; 12:45-3:15, 14; 3:15-5, 8; 5-6, 10; 6-11, 40; and 11-12, 18 pesos.

150 word rates are about double the 35-word rates, with intermediate 50- and 75-word tariffs. No quotation is given for 50-word announcements before 7 p.m. or for the longer ones after that hour. Before and after news broadcasts, rates range from 8 to 50 pesos for 40 words, according to hour, the rate being 20 per cent less for those after news except from 6 to 8 p.m., when it is the same, 30 pesos.

All broadcasting stations in Mexico with the possible exception of one or two Government-owned stations carry advertising.

**Recordings**—The use of transcriptions and recording is very prevalent, especially at the dull time of the day. There is no general rule or customary arrangement for advertising transcriptions as far as can be ascertained. The turntable speeds 33 and 78 r.p.m. Most of the records that are played in Mexico are either from the United States or European countries.

**Regulations** The wiring restrictions prevalent in Mexico would in no way affect the design of American receiving sets, intercommunicators and television receivers.

Mexican radio regulations published in this series in "Mexico-Supplement Regulations," dated July 11, 1939, are still in force.



# STANDARD STATIONS OF MEXICO

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XEMU	Cia. Radiodifusora de P. Negras(2)	Piedras Negras, Coahuila	580	250
XEZ	Jorge L. Palomeque	Merida, Yucatan	630	2000
XEBX	Benito Garza Ortegon	Sabinas, Coahuila	640	250
XEAO	Chavez y Castro Sucs	Mexicala, Baja California	660	250
XELO	Cia. Radiodifusora de P. Negras	Tijuana, Baja California	670	10000 (Auth.: 50000)
XET	El Pregonero del Norte S. A.	Monterrey, Nuevo Leon	690	5000
XEWE	Jesus Gonzalez A. (3-5)	Silao, Guanajuato	720	20
XEQ	Radio Panamericana S. A.(3)	Mexico City, Distrito Federal	730	50000
XEH	Radio Tarnava S. de R. L.	Monterrey, Nuevo Leon	740	100 (Auth.: 250)
XEPN	Cia. Radiodifusora de P. Negras(1)	Piedras Negras, Coahuila	50000	(Auth.: 100000)
XEAA	Alberto Gonzalez	Mexicali, Baja California	750	200
XEAM	Manuel L. Salinas	Matamoros, Tamaulipas	750	25
XEN	Guillermina P. de del Conde	Mexico City, Distrito Federal	780	1000
XEBZ	Refugio Esparza Vda. de Valezzi	Mexico City, Distrito Federal	810	100
XEDF	Ruperto Villarreal(2)	Nuevo Laredo, Tamaulipas	810	100
XEBG	Angel B. Fernandez	Tijuana, Baja California	820	1000
XERC	Carlos Dragonne Narro (L. Manzano)	Mexico City, Distrito Federal	830	500
XERA	Cia. Mex, Radiodifusora Fronteriza	Villa Acuna, Coahuila	840	180000 (Auth.: 850000)
XEMO	Fernando Federico Ferreira	Tijuana, Baja California	860	5000
XEFB	Jesus Quintanilla	Monterrey, Nuevo Leon	870	200
XEW	Cadena Radiodifusora Mexicana	Mexico City, Distrito Federal	890	100000
XENT	Cia. Industrial Universal S. A.	Nuevo Laredo, Tamaulipas	910	50000 (Auth.: 150000)
XEBH	Carlos Balderrama	Hermosillo, Sonora	930	500
XEFO	Partido Revolucion Mexicana	Mexico City, Distrito Federal	940	5000
XEAW	Cia. Internacional Dif. de Reynosa	Reynosam Tamaulipas	960	100000
XEAC	Jorge I. Rivera	Tijuana, Baja California	980	5000
XEFE	Rafael T. Carranza	Nuevo Laredo, Tamaulipas	980	250
XEK	Arturo Martinez	Mexico City, Distrito Federal	990	200
XES	Difusora Portena, S. de R. L.	Tampico, Tamaulipas	990	100 (Auth.: 250)
XEAF	Francisco G. Elias	Nogales, Sonora	990	750
XEBI	Pedro C. Rivas	Aguascalientes,		
		Aguascalientes	1000	250
XEU	Fernando Pazos	Vera Cruz, Vera Cruz	1010	500
XEFQ	Pedro L. Diaz	Cananea, Sonora	1010	50

Call Letters	Owner	Location	Frequency Kilocycles	Power Watts Actual
XEJ	Pedro Meneses, Jr.	Juarez, Chihuahua	1020	1000
XEB	El Buen Tono S. A.	Mexico City, Distrito Federal	1030	20000 (Auth.: 100000)
XEBA	Javier Velasco	Ciudad Guzman, Jalisco	1080	20
XEBK	C. Guajardo and J. M. Cortes	Nuevo Laredo, Tamaulipas	1080	100
XEDP	Departamento Publicidad y Propaganda (6)	Mexico City, Distrito Federal	1080	500
XERB	Radiodifusora Internacional S.A. (3)	Tijuana, Baja California	1090	50000
XECL	Alfonso A. Lacarra (3)	Mexicali, Baja California	1110	1000
XEJP	Salvador Monterrubio R.	Mexico City, Distrito Federal	1130	100
XEC	Luis E. Enciso	Tijuana, Baja California	1150	100
XEL	Financiera de Inversiones	Mexico City, Distrito Federal	1150	250
XEBP	Alejandro Stevenson, Jr.	Pte. Torreon, Coahuila	1150	250
XEDW	Hector Silva Canto	Minatitlan, Vera Cruz	1150	300
XEXH	Gobierno del Estado de Oaxaca (4-6)	Oaxaca, Oaxaca	1150	400
XEFM	Sucs. R. Ortiz Gonzalez	Leon, Guanajuato	1160	20
XED	Cia. Radiofonografica S. A.	Guadalajara, Jalisco	1160	1000
XEP	Esteban Parra	Juarez, Chihuahua	1160	500
XEAS	Manuel R. Rodriguez	Saltillo Coahuila	1160	100
XEXX	Universidad Nacional de Mexico (2-6)	Mexico City, Distrito Federal	1170	1000
XEE	Alejandro Stevenson, Jr.	Durango, Durango	1210	50
XEFV	Dario Cordoba	Juarez, Chihuahua	1210	50
XEAT	David G. Cervantes	Hidalgo del Parral, Chihuahua	1210	250
XEBL	Ignacio L. Sais	Mazatlan, Sinaloa	1220	500
XEDA	Pedro Riestra Diaz	Anaya, Distrito Federal	1220	200
XETF	Jose Rodriguez Lopez	Vera Cruz, Vera Cruz	1220	12
XEG	Rodolfo Junco de la Vega	Monterrey, Nuevo Leon	1230	250
XEHK	Carmen Villasenor (4)	Guadalajara, Jalisco	1230	125
XECA	Nicolas M. Picot	Tampico, Tamaulipas	1230	250
XEHR	Manuel R. Canale (4)	Puebla, Puebla	1230	250
XEOX	Felipe G. de Leon (4)	Mochis, Sinaloa	1230	250
XEBU	Feliciano Lopez Islas	Chihuahua, Chihuahua	1240	50
XEBC	Fernando Corona (4)	Morelia, Michoacan	1240	100
XEME	Perfecto Villamil Cisero (2)	Merida, Yucatan	1240	400
XEAD	Alejandro A. Diaz (4)	Aguascalientes, Aguascalientes	1240	500
XECW	Juan Cedas M. (4)	Cordoba, Vera Cruz	1240	250
XEDL	Francisco Vidal (4)	Navojoa, Sonora	1240	250
XEKS	J. Antonio de la Pena (4)	Saltillo, Coahuila	1240	100
XEXT	Gobierno del Estado de Nayarit (4-6)	Tepic, Nay.	1240	1000
XEAI	Carmen Gutierrez (2)	Mexico City, Distrito Federal	1250	500
XEXB	Gobierno del Estado de Veracruz (1-6)	Jalapa, Vera Cruz	1270	250
XEXE	H. Ayuntamiento de Texcoco (6)	Texcoco, Mex.	1270	17
XEMX	Alfonso Trasloskeros Avalos (1)	Mexico City, Distrito Federal	1280	100
XEKR	Exposicion Viajera (4)	Mexico City, Distrito Federal	1280	100
XEX	El Heraldo del Comercio S. A.	Monterrey, Nuevo Leon	1310	500
XEAG	Diodoro Zuniga	Cordoba, Vera Cruz	1310	250
XEAU	Manuel Acuna Varela (4)	Tijuana, Baja California	1310	250
XEFW	Flores y Martinez	Tampico, Tamaulipas	1310	300

Call Letters	Owner	Location	Power	
			Frequency Kilocycles	Watts Actual
XETB	Aurelio G. Zaragoza	Torreón, Coahuila	1310	500
XEBO	Alfonso Martínez	Irapuato, Guanajuato	1330	25
XEAP	Emilio Manzanilla	Ciudad Obregon, Sonora	1340	50
XEBW	Ángel Mora T. (3)	Chihuahua, Chihuahua	1340	250
XEBS	Maria Remedios Delgado	Mexico City, Distrito Federal	1340	200
XEDH	Vicente Hernández	Villa Acuna, Coahuila	1340	200
XEFC	Julio Molina Pont.	Merida, Yucatan	1340	100
XELW	Salvador Galinda de la Torre (3)	Guadalajara, Jalisco	1340	250
XEXD	Gobierno del Estado de Veracruz (1-6)	Orizaba, Vera Cruz	1340	350
XEBJ	Fernando Elizalde (4)	Victoria, Tamaulipas	1340	100
XEI	Tiburcio Ponce	Morelia, Michoacan	1370	125
XECZ	Zeferino Z. Jimenez	San Luis Potosí, San Luis Potosí	1370	100
XELZ	Maria Cardona de Zetina	Mexico City, Distrito Federal	1370	100
XEM	Pedro Meneses, Jr. (3)	Chihuahua, Chihuahua	1390	500
XEDE	Aurelio G. Zaragoza (4)	Torreón, Coahuila	1400	100
XESM	Salvador Sanmartín (4)	Vista Alegre, Distrito Federal	1400	200
XEAJ	Emilio Manzanilla (4)	Navajoa, Sonora	1400	100
XEA	Luis A. Maury (4)	Campeche, Cam.	1400	250
XEDS	Alejandro A. Schober (4)	Mazatlan, Sinaloa	1400	500
XERH	Gabriel Hernández Llergo (4)	Mexico City, Distrito Federal	1430	500
XEFI	Ramiro G. Uranga	Chihuahua, Chihuahua	1440	1000
XEF	Gilberto Gil	Ciudad Jurez, Chihuahua	1450	100
XEDR	Modesto Ortega	Guaymas, Sonora	1490	100
XECH	Rodolfo Llamas (3)	Toluca, Mex.	1490	250
XEJR	Anastasio Gomez Gallardo (4)	Hidalgo del Parral, Chihuahua	1490	100
XEQK	Ángel H. Ferreiro (4)	Mexico City, Distrito Federal	1500	400

### Short Wave Stations (Cultural and Official)

XEBT	El Buen Tono, S. A.	Mexico City, Distrito Federal	6000	500
XEWI	Institucion Mundial de la V. I. (5)	Mexico City, Distrito Federal	6015	400
XEUW	Fernando Pazos Sosa	Vera Cruz, Vera Cruz	6020	20
XEKW	Jose Martínez Ramírez (4)	Morelia, Michoacan	6030	500
XEXO	Gobierno del Estado de Oaxaca (4-6)	Oaxaca, Oaxaca	6035	50
XETW	Flore y Matinez	Tampico, Tamaulipas	6045	100
XEBF	Pedro Coronel Aburto (2)	Jalapa, Vera Cruz	6090	100
XEUZ	Partido Revolucion Mexicana (2)	Mexico City, Distrito Federal	6130	100
XEDQ	Cia. Radiofonografica S. A. (2)	Guadalajara, Jalisco	6155	100
XEXA	Dpto. Publicidad y Propaganda (6)	Mexico City, Distrito Federal	6175	100
XECR	Sria. de Relaciones Exteriores (2-6)	Mexico City, Distrito Federal	7380	20000
XEWW	Cadena Radiodifusora Mexicana	Mexico City, Distrito Federal	9500	10000
XEFT	Jose Rodriguez Lopez	Vera Cruz, Vera Cruz	9550	12
XETA	El Pregonero del Norte S. A. (3)	Monterrey, Nuevo Leon	9555	1000
XEYU	Universidad Nacional de Mexico (3-6)	Mexico City, Distrito Federal	9600	250
XEQQ	Radio Panamericana S. A. (4)	Mexico City, Distrito Federal	9680	5000
XEBR	Carlos Balderrama (2)	Hermosillo, Sonora	11820	150
XEUZ	Partido Revolucion Mexicana (2)	Mexico City, Distrito Federal	11880	100
XEWI	Institucion de la V. I. (5)	Mexico City, Distrito Federal	11900	400
XEWW	Cadena Radiodifusora Mexicana	Mexico City, Distrito Federal	15160	10000

(1) Temporarily suspended. (2) Established 1937. (3) Established 1938. (4) Established 1939. (5) Cultural Station. (6) Official Station.

# STATIONS OF ——— — SOUTH AMERICA

## ARGENTINA

<i>Call Letters</i>	<i>Station Name and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
LU2	Bahia Blanca, Bahia Blanca	900	2500
LU7	General San Martin, Bahia Blanca	1240	2500
LR1	El Mundo, Buenos Aires	1070	5000
LR2	Argentina, Buenos Aires	910	10000
LR3	Belgrano, Buenos Aires	950	32000
LR4	Splendid, Buenos Aires	990	16000
LR5	Excelsior, Buenos Aires	830	29250
LR6	Mitre, Buenos Aires	870	24000
LR8	Paris, Buenos Aires	1150	6200
LR9	Fenix, Buenos Aires	1030	5000
LR10	Cultura, Buenos Aires	790	11500
LRA	del Estado, Buenos Aires	750	10000
LS1	Municipal, Buenos Aires	710	5000
LS2	Prieto, Buenos Aires	1190	30000
LS3	Ultra, Buenos Aires	630	5100
LS4	Portena, Buenos Aires	670	10000
LS5	Rivadavia, Buenos Aires	1110	5000
LS6	del Pueblo, Buenos Aires	1350	6000
LS8	Stentor, Buenos Aires	1230	14500
LS9	Voz del Aire, Buenos Aires	1270	6000
LS10	Callao, Buenos Aires	590	6000
LU4	Comodoro Rivadavia, Comodora Rivadavia	640	1000
LV2	Central, Cordoba	960	5000
LV3	Cordoba, Cordoba	620	2000
LT7	Provincia Corrientes, Corrientes	1340	1000
LV10	de Cuyo, Mendoza	1210	500
LU6	Atlantica, Mar del Plata	1300	500
LR11	Universidad Nacional de La Plata, La Plata	1390	500
LS11	Provincia de Buenos Aires, La Plata	1310	30000
LT5	Chaco, Resistencia	1160	1160
LU12	Rio Gallegos, Santa Cruz	680	1000
LT1	del Litoral, Rosario	780	5000
LT3	Sociedad Rural de Cerecalistas, Rosario	1080	510
LT8	Rosario, Rosario	840	5000
LV1	Graffigna, San Juan	730	1000
LV5	Los Andes, San Juan	1090	1500
LV4	San Rafael, Mendoza	690	1000
LT9	Roca Soler, Santa Fe	1200	500
	del Instituto Social de la Universidad Litoral,		
LT10	Rosario	1320	500
LV11	del Norte, Santiago del Estero	1170	2500
LV7	Tucuman, Tucuman	820	1000
LV12	Aconwuija, Tucuman	580	5000

### **Short Wave Stations**

LRA2	del Estado, Buenos Aires	6180	---
LRX	El Mundo, Buenos Aires	9660	7000
LRA1	del Estado, Buenos Aires	9660	7000
LRA3	del Estado, Buenos Aires	11730	---
LRU	El Mundo, Buenos Aires	15290	7000

# BOLIVIA

<i>Call Letters</i>	<i>Station Name and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
CP21 . . .	Radio Club, La Paz . . . . .	850	50
CP24 . . .	El Condor, La Paz . . . . .	900	1000
CP19 . . .	Cultura, La Paz . . . . .	950	50
CP31 . . .	Libertad, La Paz . . . . .	1000	50
CP4 . . .	Illimani, La Paz . . . . .	1040	10000
CP10 . . .	La Paz, La Paz . . . . .	1090	50
CP32 . . .	Bolivia, La Paz . . . . .	1150	50
CP16 . . .	Los Andes, La Paz . . . . .	1200	50
CP14 . . .	La Noche, La Paz . . . . .	1250	50
CP18 . . .	Kosmos, La Paz . . . . .	1300	50
CP29 . . .	Fides, La Paz . . . . .	1350	100
CP3 . . .	Nacional, La Paz . . . . .	1400	5000
CP8 . . .	America, La Paz . . . . .	1450	50
CP13 . . .	El Oriente, Santa Cruz . . . . .	1250	100
CP27 . . .	Pilot, Sucre . . . . .	1350	50
CP28 . . .	Central, Cochabamba . . . . .	1360	165

## Short Wave Stations

CP11 . . .	Oruro, Oruro . . . . .	6100	250
CP15 . . .	El Condor, La Paz . . . . .	6120	250
CP2 . . .	Nacional, La Paz . . . . .	8600	500
CP12 . . .	Fides, La Paz . . . . .	6150	250
CP5 . . .	Illimani, La Paz . . . . .	6200	1000
CP30 . . .	El Oriente, Santa Cruz . . . . .	6135	250
CP1 . . .	Chuquisaca, Sucre . . . . .	9500	250
CP22 . . .	Internacional, Potosi . . . . .	6130	250

## Authorizations

CP26 . . .	Colon, La Paz . . . . .	730	100
CP17 . . .	Libertad, La Paz . . . . .	800	50
CP33 . . .	The Strongest, La Paz . . . . .	1500	175
CP2 . . .	El Norte, La Paz . . . . .	1550	50
CP34 . . .	Nacional, La Paz . . . . .	8600	1500
CP36 . . .	Nacional, La Paz . . . . .	9505	1000
CP24 . . .	Cultura, La Paz . . . . .	9510	250
CP6 . . .	Illimani, La Paz . . . . .	9520	1000
CP23 . . .	Libertad, La Paz . . . . .	9550	250
CP35 . . .	Bolivia, La Paz . . . . .	9590	500
CP25 . . .	El Norte, La Paz . . . . .	9700	500
CP7 . . .	Illimani, La Paz . . . . .	15300	1000

# BRITISH GUIANA

<i>Call Letters</i>	<i>Station Name and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
VP3BG*	British Guiana United Broadcasting Co., Georgetown . . . . .	6130 & 4885	—
VP3MR*	.....	6090	—

\* Operated on an experimental license and considered amateur station.

# CHILE

<i>Call Letters</i>	<i>Station Name and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
CA63 . . .	Tarapaca, Iquique . . . . .	630	250
CA127 . . .	La Voz del Norte, Antofagasta . . . . .	1270	100
CA141 . . .	Antofagasta, Antofagasta . . . . .	1410	1000
CB57 . . .	Societe Nacional de Agricultura, Santiago . . . . .	570	10000
CB62 . . .	Chilena, Santiago . . . . .	620	1000
CB64 . . .	La Union, Recreo, Vina del Mar . . . . .	640	1000

<i>Call Letters</i>	<i>Station Name, Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
CB68	Metro, Vina del Mar	680	1000
CB76	Cooperativa Vitalicia, Valparaiso	760	10000
CB78	Cooperativa Vitalicia, Santiago	780	1000
CB82	El Diario Ilustrado, Santiago	820	1000
CB84	del Pacifico, Valparaiso	840	1000
CB89	Emisoras Otto Becker, Santiago	890	1000
CB90	El Mercurio, Valparaiso	900	1000
CB93	Hucke, Santiago	930	10000
CB96	La Voz del Norte, Coquimbo	960	200
CB97	Siam, Santiago	970	1000
CB101	Mayo, Santiago Universidad Tecnica Federico Santa Maria, Valparaiso	1010	1000
CB103	Valparaiso	1030	4000
CB106	Sud America, Santiago	1060	5000
CB111	Los Castanos, Vina del Mar	1110	1000
CB113	Quillota, Quillota	1130	100
CB114	del Pacifico, Santiago	1140	5000
CB116	Valparaiso, Valparaiso	1160	1000
CB118	Baquedano, Santiago	1180	10000
CB120	La Union, Valparaiso	1200	1000
CB124	Espana, Valparaiso	1240	250
CB126	Consorcio Espanol de Seguros, Santiago	1260	1000
CB130	La Americana, Santiago	1300	—
CB132	Wallace, Valparaiso	1320	1000
CB134	El Hogar, Santiago	1340	1000
CB138	El Mercurio, Santiago	1380	5000
CB140	Onda Azul, San Antonio	1400	100
CB144	Moraga, Santiago	1440	—
CB147	Zenith, Valparaiso	1470	1000
CC58	El Diario Austral, Temuco	580	500
CC64	El Sur, Concepcion	1080	100
CC67	Talca, Talca	670	100
CC84	Cultura, Talcahuano	840	100
CC96	Curico, Curico	960	100
CC109	Rancagua, Rancagua	1090	100
CC117	Zenith, Concepcion	1170	100
CC125	Temuco, Temuco	1250	100
CC127	Aliviol, Chillan	1270	100
CC133	La Disension, Chillan	1410	100
CC141	Patria, Concepcion	1410	100
CC143	Atlantide, Talca	1430	100
CC145	Colmena, Rancagua	1450	100
CD69	Sur, Valdivia	690	1000
CD103	Magallanes, Magallanes	1030	100
CD111	Austral, Magallanes	1110	1000
CD112	Osorno, Osorna	1120	100
CD121	Austral, Osorna	1210	—
CD132	Valdivia, Valdivia	1320	100
CD136	La Voz del Sur, Magallanes	1360	100

### **Short Wave Stations**

CB960	La Americana, Santiago	9600	100
CB970	Cooperativa Vitalicia Santiago	9700	1000
CB1170	Emisoras Otto Becker, Santiago	11700	150
CB1174	Hucke, Santiago	11740	4000
CB1180	Societe Nacional de Agricultura, Santiago	11800	1000
CB1185	El Mercurio, Santiago	11850	2500
CD1190	Sur, Valdivia	11900	1250

# BRAZIL

Call Letters	Station Name and Location	Frequency Kilocycles	Power Watts
PRD4 . . .	Club de Araraquara, Araraquara, Sao Paulo . . .	1370	500
PRA4 . . .	Sociedade de Baia S. A., Sao Salvador, Bahia..	740	10000
PRG8 . . .	Bauru Radio Club, Bauru, Sao Paulo . . . . .	1210	250
PRG5 . . .	Club do Para, Belem, Para . . . . .	670	2000
PRC7 . . .	Sociedade Radio Mineira, Belo Horizonte, Minas Geraes . . . . .	690	3000
PRH6 . . .	Sociedade Radio Guarany, Belo Horizonte, Minas Geraes . . . . .	1340	3000
PRI3 . . .	Inconfidencia, Belo Herozinte, Minas Geraes..	850	25000
PRC4 . . .	Club de Blumenau, Blumenau, Santa Catharina	1330	250
PRC9 . . .	Sociedade Radio, E. de Campinas, Campinas, Sao Paulo . . . . .	1170	500
PRF7 . . .	Club de Campos, Campos, Rio De Janeiro . . . .	1330	250
PRG6 . . .	Sociedade Mantiqueira, Cruzeiro, Sao Paulo..	640	500
PRB2 . . .	Club Paranaense, Curitiba, Parana . . . . .	1420	2000
PRE9 . . .	Ceara Radio Club, Fortaleza, Ceara . . . . .	1320	2000
PRB5 . . .	Club Hertz, Franca, Sao Paulo . . . . .	1240	250
PRG4 . . .	Club de Jaboticabal, Jaboticabal, Sao Paulo..	1250	250
PRG7 . . .	Sociedade Jahuense, Jahu, Sao Paulo . . . . .	1010	250
PRI4 . . .	Governo de Estado de Parahyba, Joao Pesson, Parahyba . . . . .	1110	10000
PRI2 . . .	Club de Marilia, Marilia, Sao Paulo . . . . .	1090	250
PRD8 . . .	Club Fluminense, Nictheroy, Rio de Janeiro . . .	1320	1000
PRE6 . . .	Sociedade Fluminense, Nictheroy, Rio de Janeiro . . . . .	1470	1000
PRH4 . . .	Sociedade Difusora 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 . . .	Cultura Pecos de Caldas, Pecos de Caldas, Minas Geraes . . . . .	1160	250
PRC2 . . .	Sociedade Gaucha, Porto Alegre, Rio Grande do Sul . . . . .	680	5000
PRF9 . . .	Emp. Radiodifusora Alegrense, Porto Alegre, Rio Grande do Sul . . . . .	1440	3000
PRH2 . . .	Sociedade Radio Farroupilha, Porto Alegre, Rio Grande do Sul . . . . .	600	25000
PRH2 . . .	Sociedade Radio Guararapes, Recife, Pernambuco . . . . .	570	10000
PRA7 . . .	Club de Ribeirao Preto, Ribeirao Preto, Sao Paulo . . . . .	730	500
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
PRC8 . . .	Sociedade Guanabara, Rio de Janeiro, Federal District . . . . .	1360	5000
PRD2 . . .	Sociedade Radio Cruzeiro do Sul, Rio de Janeiro, Federal District . . . . .	1060	10000
PRD3 . . .	Instituto Educacao do Distrito Federal, Rio de Janeiro, Federal District . . . . .	1400	1000
PRE2 . . .	Sociedade Vera Cruz, Rio de Janeiro, Federal District . . . . .	1430	5000
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

<i>Call Letters</i>	<i>Station Name and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
PRG3 . . .	Tupy S. A., Rio de Janeiro, Federal District . . .	1280	10000
PRH8 . . .	Ipanema S. A., Rio de Janeiro, Federal District . . .	1130	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
PRD7 . . .	Club de Sorocaban, Sorocaba, Sao Paulo . . . . .	1080	500
PRD9 . . .	Sociedade de Sorocaba, Sorocaba, Sao Paulo . . . . .	970	250
PRA5 . . .	Sao Paulo, Sao Paulo, Sao Paulo . . . . .	1260	5000
PRA6 . . .	Sociedade Radio Educadora Paulista, Sao Paulo, Sao Paulo . . . . .	760	10000
PRB6 . . .	Sociedade Radio Cruzeiro do Sul, Sao Paulo, Sao Paulo . . . . .	1200	5000
PRB9 . . .	Sociedade Record, Sao Paulo, Sao Paulo . . . . .	1000	25000
PRE4 . . .	Sociedade Cultura "Voz do Espaco," Sao Paulo, Sao Paulo . . . . .	1300	10000
PRE7 . . .	Sociedade Radio Comos, Sao Paulo, Sao Paulo . . . . .	1410	5000
PRF3 . . .	Difusor Sao Paulo, Sao Paulo . . . . .	960	5000
PRG2 . . .	Tupy S. A., Sa Paulo, Sao Paulo . . . . .	1040	25000
PRG9 . . .	Excelsior, Sao Paulo, Sao Paulo . . . . .	1100	25000
PRH3 . . .	Piratinga, Sao Paulo, Sao Paulo . . . . .	620	5000
PRH9 . . .	Sociedade Bandeirante de Radiodifusao, Sao Paulo, Sao Paulo . . . . .	840	5000
PRE5 . . .	Sociedade Triangulo Minciro Uberaba, Minas Geraes . . . . .	1390	500
PRC3 . . .	Sociedade Pelotense, Pelotas, Rio Grande do Sul . . . . .	580	250

### **Short Wave Stations**

PRF5 . . .	Comp. Radio Internacional Brasil, Rio de Janeiro . . . . .	9500	12000
PRA8 . . .	Club de Pernambuco, Recife, Pernambuco . . . . .	6010	5000

## **COLUMBIA**

<i>Call Letters</i>	<i>Station Name—Executive in Charge -Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HJ1ABA . . .	Voz de Barranquilla—Elias Pellet B., Barranquilla . . . . .	1330	251
HJ1ABH . . .	Emisora Atlantico—Andres G. Jimeno, Barranquilla . . . . .	1080	251
HJ1ABK . . .	Voz de la Patria—Mario L. Hernandez, Barranquilla . . . . .	1310	251
HJ1ABN . . .	Voz de la Victor—G. Paez Reina, Barranquilla . . . . .	1190	1000
HJ3CAB . . .	Emisora Nueva Granada—Roberto Raimirez, Bogota . . . . .	1120	1960
HJ3CAE . . .	Voz de Bogota—Gustavo Uribe, Bogota . . . . .	1220	5000
HJ3CAI . . .	Voz de la Victor—Manuel J. Gaitan, Bogota . . . . .	1160	1501
HJ3CAK . . .	Emisora Cundinamarca—Enrique Sanchez, Bogota . . . . .	590	250
HJ3CAL . . .	Ecos del Tequendama—Pedro P. Martinez Q., Bogota . . . . .	1290	251
HJ3CAZ . . .	Voz de Colombia, S. A.—Cipriano Rios Hoyos, Bogota . . . . .	1040	1128
HJ7CAB . . .	Santander—Francisco Bueno, Bucaramanga . . . . .	1230	280
HJ7CAE . . .	Bucaramanga—Emilio Montoya, Bucaramanga . . . . .	1130	251
HJ5EAB . . .	Voz del Valle—Eduardo Cordoba, Cali . . . . .	1150	251
HJ5EAC . . .	Voz de Colombia—Rafael Angulo, Cali . . . . .	1300	300
HJ5EAE . . .	Cali—Jose T. Canderon M., Cali . . . . .	1090	251
HJ5EAF . . .	Voz de Higueronia—Oscar Mallarino, Cali . . . . .	1340	251
HJ1ABF . . .	Laboratorios Fuentes—Rafael Fuentes L., Cartagena . . . . .	1240	251
HJ1ABR . . .	Cartagena—R. Lequerica G., Cartagena . . . . .	1400	262
HJ2BAC . . .	Voz de Cucuta—Pompilio Sanchez, Cucuta . . . . .	1270	251
HJ6FAC . . .	Manizales—Alberto Hoyos, Manizales . . . . .	1390	251



<i>Call Letters</i>	<i>Station Name—Executive in Charge—Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HJ6FAX	Emisora Electra—Antonio Pinzon, Manizales. Voz de la Montana—Francisco A. Cuartas.	1260	251
HJ4DAC	Medellin	1360	251
HJ4DAK	Voz de Antioquia—Carlos Escobar P., Medellin	1250	1000
HJ4DAQ	Emisora Claridad—Alberto Estrada, Medellin. Voz del Triunfo—Luis Eduardo Ramirez,	1320	1800
HJ4DAR	Medellin	1380	251
HJ4DAT	Nutivara—Marco Turio Ospina, Medellin. Universidad de Antioquia—Colodmiro	1370	251
HJ4DAU	Ramirez, Medellin Universidad de Antioquia—Julio Sanchez,	1490	250
HJ1ABM	Monteria	1210	—
HJ8HAB	Narino—Jorge Rosero Rivera, Pasto	1350	251
HJ1ABC	Sincelejo—Eugenio Quintero, Sincelejo.	550	30

### **Short Wave Stations**

HJ6FAH	Voz de Armenia—Hoyos & Gutierrez, Armenia Voz de Barranquilla—Elia Pellet B.,	4875	600
HJ1ABB	Barranquilla	4785	600
HJ1ABG	Emisora Atlantico—Andres C. Jimeno, Barranquilla	4042.3	600
HJ3CAD	Emisora Nueva Granada—Roberto Ramirez, Bogota	4845	720
HJ3CAF	Voz de Bogota—Gustave Uribe, Bogota.	4855	501
HJ3CAH	Voz de la Victor—Manuel J. Gaitan, Bogota. Voz de Colombia, S. A.—Cipriano Rios Hoyos,	4895	720
HJ3CAX	Bogota	6122	750
HJ7CAB	Santander—Francisco A. Bueno, Bucaramanga	4775	750
HJ7CAD	Bucaramanga—Emilio Montoya, Bucaramanga	9630	650
HJ5EAD	Voz del Valle—Eduardo Cordoba, Cali. Laboratorios Fuentes—Rafael Fuentes L.,	4825	720
HJ1ABE	Cartagena	4835	525
HJ1ABP	Cartenga—R. Lequerica G., Cartagena	9616	608
HJ2BAB	Voz de Cucuta—Pompilio Sanchez, Cucuta. Ecos del Combeima—Lamus & Rivera y	4815	500
HJ6FAI	Barrios, Ibague	4795	501
HJ6FAB	Manizales—Alberto Hoyos, Manizales	6190	720
HJ4DAE	Voz de Antioquia—Carlos Escobar P., Medellin	6145	1000
HJ4DAP	Emisora Claridad—Alberto Estrada, Medellin. Voz de Pereira—Cesar y Mario Arango M.,	4885	501
HJ6FAC	Medellin	6054.3	501
HJ4DAG	Government of the National Intendency of Choco, Quibdo	6200	150
HJ2BAJ	Voz de Santa Marta—Julio Sanchez T., Santa Marta	4865	501

## **ECUADOR**

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HCJB	C. W. Jones, Quito	978	50
HC2RB	Eric Williams, Guayaquil	1250	100
HC2JSB	Juan S. Behr, Guayaquil	1100	200
HC2ROZ	Jose B. Ortiz, Guayaquil	900	100
HC2CW	Alfonso Wilmot, Guayaquil	1350	200

### **Short Wave Stations**

HCJB	C. W. Jones, Quito	12460	1000
HCJB	C. W. Jones, Quito	4107	200
HCJB	C. W. Jones, Portoviejo	4005	80
HCLPM	Leonardo Ponce, Quito	5725	500
HCETC	M. Mantilla, Quito	9351	25
HC1GQ	F. C. del Sur, Quito	4821	150

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
HC2JSB	Juan S. Behr, Guayaquil	7854	300
HC2CW	Alfonso Wilmot, Guayaquil	9130	200
HCODA	O. de Garcia, Guayaquil	9447	200
HC1IM	W. B. Heimann, Ibarra	4020	150
HC2ET	J. S. Castillo, Guayaquil	9200	375
HCK	Prop. del Estado, Quito	4818	250
HC2RL	Dr. R. Levi, Guayaquil	6647	200

## PARAGUAY

Call Letters	Station Name—Owner and Location	Frequency Kilocycles	Power Watts
ZP1	Radio El Pais—Artaza Hnos., Asuncion	970	150
ZP9	Radio America—Artaza Hnos., Asuncion	920	2000
	Radio Continental—Isern & Sacarello, Asuncion	730	200
ZP4			
ZP5	Radio Paraguay—Alfonso Sa, Asuncion	1360	100
ZP6	Radio Livieres—Livieres & Copi, Asuncion	1300	100
	Radio Charitas—Juventud Antoniana, Asuncion	1200	200
ZP11			
ZP13	La Voz del Aire—Julio Picozzi V., Asuncion	1430	250
ZP3	La Voz del Aire—Julio Coriulot, Encarnacion	900	100

### Short Wave Stations

ZP1	Radio El Pais—Artaza Hnos., Asuncion	14558	500
ZP8	Radio Continental—Iser & Sacarello, Asuncion	11850	500
	Radio Continental—Friedmann Hnos., Villarrica	11725	1000
ZP14			

## PERU

Call Letters	Station Name—Operator—Location	Frequency Kilocycles	Power Watts
OAX4A	Peruvian Government, Radio Nacional, Lima	854	10000
	Empresa Peruana Parlante Bolivar y Carcovich, Lima	1200	250
OAX4B			
OAX4E	Ing. Juan P. Goicochea, Lima	960	200
OAX4J	Radio Internacional, S. A., Lima	1320	250
OAX4L	Radio Miraflores, S. A., Lima	1250	200
OAX5B	J. Antonio Umberto F., Ica	1280	200

### Short Wave Stations

OAX4Z	Peruvian Government, Radio Nacional, Lima	9562	10000
OAX4T	Peruvian Government, Radio Nacional, Lima	6082	15000
	Empresa Peruana Parlante Bolivar y Carcovich, Lima	6230	250
OAX4G			
OAX4I	Radio Internacional, Lima	9520	200
OAX4P	J. Antonio Umberto F., Huancayo	5968	250
OAX5C	J. Antonio Umberto F., Ica	9590	150
OAX7A	Carlos Lizarraga Fisher, Cuzco	6128	100
OAX1A	J. Carlos Mountjoy D., Chiclayo	6150	200
OAX2A	Rafael Larco Hoyle, Trujillo	6000	250
OAX6B	Maximo J. Landa, Arequipa	11710	150

## URUGUAY

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
CW47	Julio J. Rabassa, Canelones	1480	300
CW37	R. Bernotti, Colonia	1400	4500
CW25	Artola, Evangelista & Co., Durazno	1430	500
CW33	O. F. Barreiro, Florida	1200	75

<i>Call Letters</i>	<i>Station Name—Owner—Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
CW29 . . .	Pedro Telesca, Mercedes . . . . .	1080	50
CW43 . . .	Volante y Harispuru, Minas . . . . .	1470	100
CX4 . . . .	Direccion de Agronomia, Montevideo . . . . .	610	1000
CX6 . . . .	Government Station, Montevideo . . . . .	650	10000
CX8 . . . .	Ramon Puyal, Montevideo . . . . .	690	500
CX10 . . . .	Ferrera, Gestoso & Cia., Montevideo . . . . .	730	1000
CX12 . . . .	Luis A. Artola, Montevideo . . . . .	770	5000
CX14 . . . .	El Espectador, Montevideo . . . . .	810	5000
CX16 . . . .	S.A.D.R.E.P., Montevideo . . . . .	850	10000
CX18 . . . .	El Espectador, Montevideo . . . . .	890	1000
CX20 . . . .	Carlos L. Romay, Montevideo . . . . .	930	2000
CX22 . . . .	Harispuru Hermanos, Montevideo . . . . .	970	250
CX24 . . . .	S.A.D.R.E.P., Montevideo . . . . .	1010	2500
CX26 . . . .	Figuera, Canepa & Cia., Montevideo . . . . .	1050	2000
CX28 . . . .	L. A. Gori Salvo, Montevideo . . . . .	1090	3000
CX30 . . . .	Barlecce, Silva & Larrea, Montevideo . . . . .	1130	500
CX32 . . . .	Bianchi & Patron, Montevideo . . . . .	1170	500
CX34 . . . .	Figuera, Canepa & Cia., Montevideo . . . . .	1210	500
CX36 . . . .	Vazquez & Walder, Montevideo . . . . .	1250	500
CX38 . . . .	S.O.D.R.E., Montevideo . . . . .	1290	5000
CX40 . . . .	Julio J. Rabassa, Montevideo . . . . .	1330	500
CX42 . . . .	Hector Vernazza, Montevideo . . . . .	1370	500
CX44 . . . .	S.A.D.R.E.P., Montevideo . . . . .	1410	500
CX46 . . . .	Vitale & Bertacchi, Montevideo . . . . .	1450	1500
CX48 . . . .	Vazquez & Cia., Montevideo . . . . .	1490	1500
CX50 . . . .	Dr. B. Ayala, Montevideo . . . . .	1530	300
CW47A . . . .	Fassola Hnos. & Munoz, Minas . . . . .	1460	100
CW35 . . . .	S.A.D.R.E.P., Paysandu . . . . .	1240	250
CW39 . . . .	Miguel Pena, Paysandu . . . . .	1320	100
CW19A . . . .	J. D. Garcia, Rivera . . . . .	1340	50
CW19 . . . .	Harispuru & Machado, Rocha . . . . .	1340	50
CW23 . . . .	Domingo Giordana, Salto . . . . .	820	250
CW27 . . . .	Ernesto Popelka, Salto . . . . .	680	250
CW31 . . . .	Salvador E. Pera, Salto . . . . .	1120	250
CW41 . . . .	Harispuru & Bruccoleri, San Jose . . . . .	1360	50

### **Short Wave Stations**

CXA1 . . . .	S.A.D.R.E.P., Montevideo . . . . .	11945	2500
CXA2 . . . .	Racine & Cassiols, Montevideo . . . . .	6000	2500
CXA3 . . . .	H. L. A. Landeira, Montevideo . . . . .	6075	2500
CXA4 . . . .	Government Station, Montevideo . . . . .	6125	1500
CXA5 . . . .	Figueira, Canepa & Cia., Montevideo . . . . .	9485	2500
CXA6 . . . .	S.O.D.R.E., Montevideo . . . . .	9550	2500
CXA7 . . . .	Figueira, Canepa & Cia., Montevideo . . . . .	11735	2500
CXA8 . . . .	Isaac Roisenvitz, Montevideo . . . . .	9625	2500
CXA9 . . . .	El Espectador, Montevideo . . . . .	9440	2500
CXA10 . . . .	S.O.D.R.E., Montevideo . . . . .	11895	2500
CXA11 . . . .	Francisco Gomez Ciblis, Montevideo . . . . .	5920	2500
CXA12 . . . .	Francisco Gomez Ciblis, Montevideo . . . . .	11945	2500
CXA13 . . . .	Jaime Yankelevich, Montevideo . . . . .	6155	2500
CXA14 . . . .	Isaac Roisenvitz, Montevideo . . . . .	15160	2500
CXA15 . . . .	Jaime Yankelevich, Montevideo . . . . .	9735	2500
CXA16 . . . .	Figueira, Canepa & Cia., Montevideo . . . . .	15380	2500
CXA17 . . . .	Figueira, Canepa & Cia., Montevideo . . . . .	17800	2500
CXA18 . . . .	S.O.D.R.E., Montevideo . . . . .	15300	2500
CXA19 . . . .	El Espectador, Montevideo . . . . .	11695	2500
CXA20 . . . .	S.A.D.R.E.P., Montevideo . . . . .	970	2500
CXA21 . . . .	S.O.D.R.E., Montevideo . . . . .	26500	2500
CXA22 . . . .	S.O.D.R.E., Montevideo . . . . .	29500	2500
CXA23 . . . .	S.O.D.R.E., Montevideo . . . . .	43500	2500
CXA24 . . . .	S.O.D.R.E., Montevideo . . . . .	5800	2500

# VENEZUELA

Call Letters	Station Name—Owner—Location	Frequency Kilocycles	Power Watts
YV1RK	—Jose A. Higuera, Maracaibo	1250	250
YV1RC	La Voz de la Fe—P. A. Bermudez Villalobos, Maracaibo Radiodifusora Maracaibo—Luis Mantellini,	1400	—
YV1RE	Maracaibo	1153	—
YV1RA	Ecos del Zulia—Luis Garcia Nebot, Maracaibo	1300	200
YV1RF	Ondas del Lago—Romulo Govea, Maracaibo La Voz del Tachira—Jesus M. Diaz Gonzalez,	1120	250
YV2RB	San Cristobal	980	—
YV3RE	Barquisimeto—Amilcar Segura, Barquisimeto La Voz de Lara—A. Ramos Maggi,	1475	—
YV3RC	Barquisimeto La Voz de Carabobo—Hermann Dagwitz,	1270	150
YV4RA	Valencia	1350	500
YV4RE	Valencia—Huberto & Oscar Croquer, Valencia La Voz de Aragua—Humberto & Oscar	1400	—
YV4RG	Croquer, Maracay	1153	100
YV4RI	—Teodoro Ache, Valencia	1450	—
YV4RL	—Atilio Crmezzano, Maracay Ondas Populares—Gonzalo Veloz Mancera,	1430	—
YV5RG	Caracas Radiodifusora Venezuela—Dagwitz & Siblesz,	1010	250
YV5RB	Caracas	1200	5000
YV5RA	Caracas—Almacen Americano, Caracas La Voz de Venezuela—Dr. Manuel de Coya,	960	5000
YV5RE	Caracas	1110	300
YV5RQ	—Victor M. Soto, Caracas Estudios Universo—Mario Garcia Arocha,	882	1200
YV5RS	Caracas	1300	2000
YV5RI	La Voz de la Esfera—Suegart & Co., Caracas Emisora Vargas—Gonzalo Veloz Mancera,	1370	1000
YV5RZ	La Guaira	1050	—
YV5RL	—Cesar Banuls, Caracas	1167	—
YV6RA	Bolivar—Miranda & Beherens, Ciudad Bolivar Ecos del Orinoco—E. Torres Valencia, Ciudad	1400	250
YV6RD	Bolivar	1450	—

## Short Wave Stations

YV1RJ	Falcon—Jose Angel Mendoza, Coro	4970	—
YV1RL	Popular—Jose A. Higuera Miranda, Maracaibo	4860	—
YV1RO	Trujillo—Pedro J. Torres, Trujillo La Voz de la Fe—P. A. Bermudez Villalobos,	4780	—
YV1RT	Maracaibo Radiodifusora Maracaibo—Luis Mantellini, H.,	4770	—
YV1RU	Maracaibo	4810	—
YV1RV	Ecos del Zulia—Luis Garcia Nebot, Maracaibo	4800	250
YV1RX	Ondas del Lago—Romulo Govea, Maracaibo	4890	—
YV1RY	Coro—Roger Leyba, Coro	4910	—
YV1RZ	Valera—Jorgo L. Febres Jolambi, Valera La Voz del Tachira—Jesus M. Diaz Gonzales,	4850	—
YV2RN	San Cristobal	4870	—
YV3RN	Barquisimeto—Amilcar Segura, Barquisimeto La Voz de Lara—A. Ramos Maggi,	4820	—
YV3RX	Barquisimeto La Voz de Carabobo—Hermann Dagwitz,	4990	—
YV4RO	Valencia Valencia—Humberto & Oscar Croquer,	4950	—
YV4RP	Valencia	4930	—
YV4RQ	Puerto Cabello—Rafael Angel Segura, Puerto Cabello	5020	—
YV4RX	La Voz de Aragus—Humberto & Oscar Segura, Maracay Ondas Populares—Gonzalo Veloz Mancera,	4840	—

<i>Call Letters</i>	<i>Station Name—Owner—Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
YV5RH	Caracas	4830	—
	Radiodifusora Venezuela—Dagwitz & Siblesz.		
YV5RM	Caracas	6158	2500
YV5RN	Caracas—Almacen Americano, Caracas	5040	1000
YV5RK	Reserved for the Government, Caracas	5000	—
	La Voz de Venezuela—Dr. Manuel de Goya.		
YV5RO	Caracas	4940	—
YV5RS	—Victor M. Soto, Caracas	4960	—
	Estudios Universo—Mario Garcia Arocha.		
YV5RR	Caracas	4830	600
YV5RY	La Voz de la Esfera—Suegart & Co., Caracas	4790	—
YV6RT	Bolivar—Miranda & Beherens, Ciudad Bolivar	4900	
	Ecos del Orinoco—E. Torres Valencia, Ciudad		
YV6RU	Bolivar	4880	—

## BRITISH HONDURAS

<i>Call Letters</i>	<i>Operated by and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
ZIK2	Government, Belize	10600	200

## COSTA RICA

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
TI5CV	Carlos Videche Aguilar, Alajuela	575	100
TI4NRH	Amando Cespedes M., Heredia	725	750
TIRH	Rafael Hine Ch., San Jose	970	500
TIEP	Eduardo Pinto H., San Jose	830	3000
TIFA	Francisco Arie, San Jose	1000	250
TIGPH	Gonzalo Pinto H., San Jose	1225	500
		650	1000
TISMG	Guillermo Zuniga R., San Jose	1030	500
TILJ	Lola Monge Peralta, San Jose	775	450
TILS	Luis Saenz Mata, San Jose	880	5000
TING	Narciso Garcia, San Jose	750	375
TIPG	Claudia, Martinez Nussbaumer, San Jose	625	5000
TIRCC	Carlos Borge, San Jose	1200	500
TIRS	Rogelio Sotela B., San Jose	925	200
TIGQ	Gonzalo Garcia Q., San Jose	690	2000
TIGP	Gonzalo Pinto H., San Jose	605	250
TIXD	Andrea Vinegas, San Jose	800	1000
TIAFB	Mayid Barzuna, San Jose	900	150
TIOS	Guillermo Castro Saenz, San Jose	940	500
TINBC	Oscar Martinez Nussbaumer, San Jose	1070	5000
TIMC	Jorge Mario Cardos M., Cartago	670	700

### Short Wave Stations

TI4NRH	Amando Cespedes, Heredia	9692	750
TIEP	Eduardo Pinto H., San Jose	6700	1000
TIGPH	Gonzalo Pinto H., San Jose	5824	1000
TIPG	Claudia Martinez Nussbaumer, San Jose	9615	2000
TIRCC	Carlos Borge, San Jose	6180	500
TIRH	Rafael Hine Ch., San Jose	6150	250
TILS	Luis Saenz Mata, San Jose	6165	200
TIRVM	Ruben Venegas Mora, Las Juntas de Abangarez	6035	500

## GUATEMALA

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
TGW	Government, Guatemala City	1520	5000
TGI	Government, Guatemala City	1320	300
TGX	A. Mejicano Novales, Guatemala City	1400	500
TGQ	Government, Quezaltenango	1440	300

### **Short Wave Stations**

TGWA . . .	Government, Guatemala City . . . . .	9685, 11760, 15170, 17800	10000
TGWB . . .	Government, Guatemala City . . . . .	6480	1000
TGWC . . .	Government, Guatemala City . . . . .	2320	1000
TG2 . . .	Government, Guatemala City . . . . .	6180	300
TG2X . . .	Government, Guatemala City . . . . .	5940	250
TGS . . .	Government, Guatemala City . . . . .		150 or 300
TGX . . .	A. Mejicano Novales, Guatemala City . . . . .	6130	500
TGQA . . .	Government, Quezaltenango . . . . .	6400	300

## **HONDURAS**

### **Short Wave Stations**

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HRN . . .	Rafael Ferrari & Paul John, Tegucigalpa . . . . .	5875	750
HRD . . .	Juan Ordenez & Habencia Fernandez, La Ceiba . . . . .	6235	200
HRP1 . . .	Filberto Diaz Zelaya, San Pedro Sula . . . . .	6351	350

## **NICARAGUA**

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
YNOP . . .	Ernesto Andrea, Managua . . . . .	5758	1000
		1230	100
YNLG . . .	Benjamin L. Guerra, Managua . . . . .	6610	400
		920	1000
YN1GG . . .	Ernesto Gutierrez U., Managua . . . . .	6535	400
YNPR . . .	A. Majewsky & R. Sengelmann, Managua . . . . .	8590	800
YNRS . . .	R. Sengelmann, Managua . . . . .	6760	800
YN7AG . . .	Fafael T. Arjona, Masaya . . . . .	7870	50
YNDG . . .	Dionisio E. Gallo, Leon . . . . .	7660	1000
YNJAT . . .	J. A. Tijerino, Leon . . . . .	9660	1000

## **PANAMA**

<i>Call Letters</i>	<i>Station Name--Owner--Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
	La Voz de la Victor—J. Jaen Jaen Cia., Panama City . . . . .	780	25
HOC . . .			
HP5C . . .	Miramar—Radio Panama, S. A., Panama City . . . . .	730	100
	La Voz de la Victor—J. Jaen Jaen Cia., Colon . . . . .	1440	250
HP50 . . .			

### **Short Wave Stations**

HOA . . .	Ron Dalley—Emisora Ron Dalley, Panama City Teatro "Estrella de Panama"—J. Jaen Jaen Cia., Panama City . . . . .	2340 11700	300 300
HP5A . . .			
HP5B . . .	Miramar—Radio Panama, S. A., Panama City . . . . .	6030	100
HP5G . . .	Ron Dalley—Emisora Ron Dalley, Panama City La Voz del Pueblo—M. Lombardo Vega, Panama City . . . . .	11780 6122	100 150
HP5H . . .	La Voz de Panama—Cia. Servicio Publico de Radio, Panama City . . . . .	9590 1360	150 100
HP5J . . .			
	La Voz de la Victor—J. Jaen Jaen Cia., Colon . . . . .	6005	250
HP5K . . .			

# EL SALVADOR

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
YSS	Government, San Salvador	660	500
YSP	Government, San Salvador	780, 1560	115

## Short Wave Stations

YSD	Government, San Salvador	7894	400
YSM	Government, San Salvador	11710	400
YSP	Government, San Salvador	10400	250

# BAHAMAS

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
ZNS	Government, Nassau	790	1000
ZNS-2	Government, Nassau	6090	400

# DOMINICAN REPUBLIC

Call Letters	Owner and Location	Frequency Kilocycles	Power Watts
HIG	Andres Cordero Puello, Ciudad Trujillo	900	100
HIH	Domingo Dominguez, San Pedro de Macoris	1391	75
HIT	Fabio A. Sanabia, Ciudad Trujillo	1050	100
HIX	Dominican Government, Ciudad Trujillo	800	1000
HIZ	Frank Hatton, Ciudad Trujillo	1370	100
HI1A	Rafael Western, Santiago de los Caballeros	1410	75
HI4D	Dr. Luis D. Santamaria, Ciudad Trujillo	1010	20
HI4M	Jorge L. Rodriguez, Ciudad Trujillo	1150	20
HI7P	Jose M. Roques Roman, Ciudad Trujillo	1300	25
HI1J	Fauste M. Donastorg, San Pedro de Macoris	930	40
HI5N	J. Belisario Curiel, Moco	1440	100
HI6Y	Alfonso Cuervo, Ciudad Trujillo	1400	25
HI4V	Luis Raul Botancca R., San Francisco de Macoris	850	25
HI5G	Jose J. Secin, La Vega	700	30
HIJ	Frank Hatton, Ciudad Trujillo	1190	50
HI8Q	Abbes & Garcia, Ciudad Trujillo	1475	200
HI5E	H. Chavez, Ciudad Trujillo	1220	15

## Short Wave Stations

HIG	Andres Cordero Puello, Ciudad Trujillo	6280	100
HIH	Domingo Dominguez, San Pedro de Macoris	6814	75
HIT	Fabio A. Sanabia, Ciudad Trujillo	6630	100
HIN	Frank Hatton, Ciudad Trujillo	11260	750
HIX	Dominican Government, Ciudad Trujillo	6131	1000
		7640	1000
HIZ	Frank Hatton, Ciudad Trujillo	6316	100
HI1A	Rafael Western, Santiago de los Caballeros	6182	75
HI3C	Moises Garip, La Romano	6105	30
HI4D	Dr. Luis D. Santamaria, Ciudad Trujillo	6555	20
HI7P	Jose M. Roques Roman, Ciudad Trujillo	6800	25
HI1J	Fauste M. Donastorg, San Pedro de Macoris	5865	40
HI2D	Accion Catolica Dominicana, Ciudad Trujillo	6900	100
HI1S	Generoso Sarnelli, Santiago de los Caballeros	6420	100
HI3U	Fernando Bertran, Santiago de los Caballeros	6015, 6218	100
HI5N	J. Beliserio Curiel, Moca	6150	100
HI1L	Maria Josefa Tavares, Santiago de los Caballeros	6480	100

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HI9B . . . .	Jacinto L. Sanchez, Santiago de los Caballeros	6050	100
	Luis Raul Botances R., San Francisco de		
HI4V . . . .	Macoris . . . . .	6450	25
HI5G . . . .	Jose J. Secin, La Vega . . . . .	6660	30
HI8Q . . . .	Abbes & Garcia, Ciudad Trujillo . . . . .	6206	200
HI5E . . . .	H. Chavez, Ciudad Trujillo . . . . .	9550	15
HI8J . . . .	Antonio Batista C., La Vega . . . . .	6383	30
HI1X . . . .	Dominican Government, Ciudad Trujillo . . . . .	6340	900
HI2X . . . .	Dominican Government, Ciudad Trujillo . . . . .	11960	900
HI3X . . . .	Dominican Government, Ciudad Trujillo . . . . .	15280	900

## HAITI

<i>Call Letters</i>	<i>Station Name--Owner--Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
HHW . . . .	--Ricardo C. Widmaier, Jr., Port-au-Prince . . . . .	1230	55

**Short Wave Stations**

HHK . . . .	Rdio-Haiti--Government, Port-au-Prince . . . . .	6200, 9620, 1820, 17850, 21.670	25000
	--Societe Hatienne de Radiodiffusion,		
HH2S . . . .	Port-au-Prince . . . . .	6070	100
HH3W . . . .	--Ricardo C. Widmaier, Jr., Port-au-Prince . . . . .	9600	30

## FRENCH MARTINIQUE

<i>Call Letters</i>	<i>Owner and Location</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
---- . . . .	Edouard Boullanger, Jr., Martinique . . . . .	1500	200

### Short Wave Station

---- . . . .	Antoine Seri, Fort-de-France . . . . .	9700	1500
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## NETHERLAND WEST INDIES

<i>Call Letters</i>	<i>Operator</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
PJCE . . . .	Curacaosche Radio Vereeniging . . . . .	5930	150

## NEWFOUNDLAND

<i>Call Letters</i>	<i>Operator</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
VONF . . . .	Broadcasting Corporation of Newfoundland . . . . .	640	12000
VOWR . . . .	Wesley United Church . . . . .	700	500
VOCM . . . .	. . . . .	1000	100
VOAR . . . .	Seventh Day Adventists . . . . .	950	25

### Short Wave Stations

VONG . . . .	Broadcasting Corporation of Newfoundland . . . . .	5980	----
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## ST. PIERRE-MIQUELON

<i>Call Letters</i>	<i>Operator</i>	<i>Frequency Kilocycles</i>	<i>Power Watts</i>
FQN . . . .	French Government . . . . .	609	2500



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