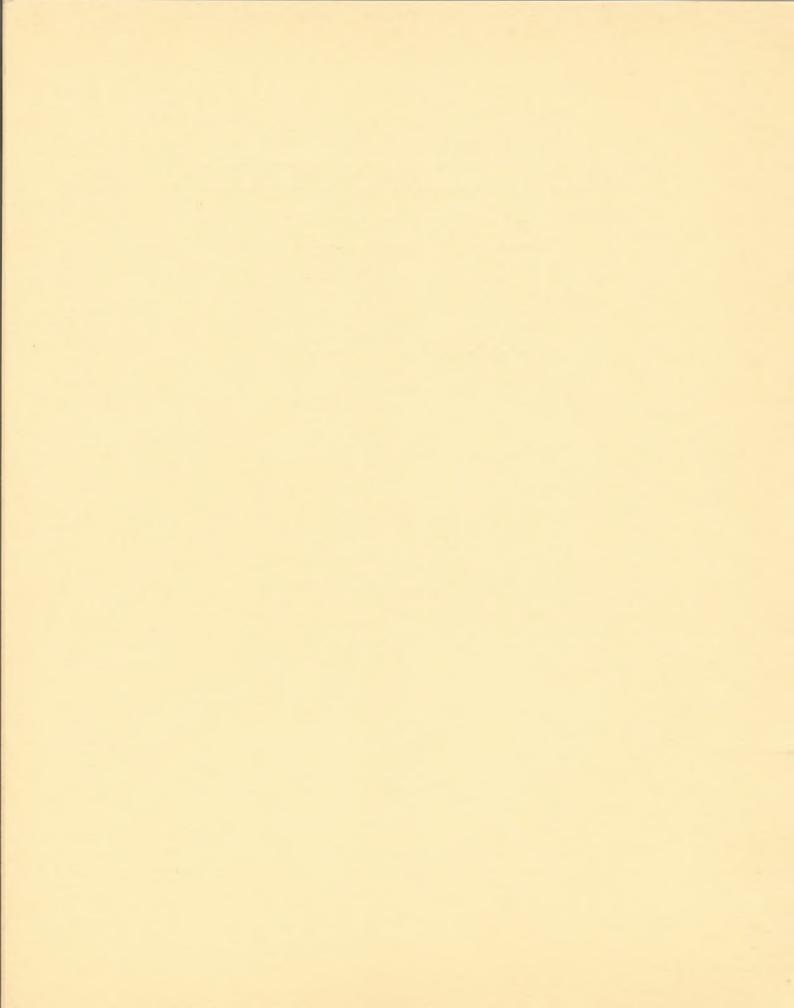
RADIO CORPORATION OF AMERICA

ANNUAL REPORT
1930





RADIO CORPORATION OF AMERICA

Annual Report for the Year 1930

RADIO CORPORATION OF AMERICA

233 Broadway

New York

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HENRY A. SULLIVAN
Comptroller

Lewis MacConnach Secretary TO THE STOCKHOLDERS OF RADIO CORPORATION OF AMERICA:

The gross income of Radio Corporation of America and its wholly-owned subsidiary companies from all sources for the year 1930 was \$137,037,596. The net income of the Corporation for the year was \$5,526,293.

The regular dividends on all classes of Preferred Stock, amounting to \$5,206,000, were paid during the year. No dividends have been paid on the Common Stock.

The net income for the year was \$320,293 in excess of dividend requirements of the preferred issues. The consolidated balance sheet appears on pages 30 and 31, and the consolidated statement of income and surplus appears on page 32.

Inventories of all RCA Companies at December 31st amounted to \$28,253,713 and were valued at cost or market, whichever was lower. The total amount is approximately \$3,000,000 less than that shown on the December 31st, 1929, balance sheet. The inventories at December 31st, 1930, however, are of a complete manufacturing and selling company, and include raw materials, supplies and work in process as well as finished goods.

The item of \$5,000,000 notes payable, shown on the balance sheet under the heading "Current Liabilities," represents current indebtedness of a subsidiary company to banks for the financing of its operations during periods when production is at its peak. This amount has been reduced by \$2,000,000 since January 1st, 1931.

The increase in mortgages and building loans payable, shown on the balance sheet under the heading "Funded Debt and Other Liabilities," represents financing of the new RCA Building at 51st Street and Lexington Avenue, New York City.

Stockholders of Radio Corporation of America at the close of the year numbered approximately 85,000. They resided in every State and Territory of the Union. At the end of the year there were 22,099 individuals employed by your Corporation and its wholly-owned subsidiary companies. This figure does not include employes in other companies in which RCA has substantial holdings.

The reduction in earnings, particularly marked during the first half of 1930, was due to the decline in consumer purchasing power as a result of the world-wide economic depression, the consequent readjustment of prices, and the widespread liquidation of radio sets forced upon a number of manufacturers by the need for disposing of substantial inventories. Moreover, earnings for the year 1930 were affected by the extraordinary expenditures incident to the year's program of unification, which included the rehabilitation and enlargement of the manufacturing plant at Camden, New Jersey.

Upon the completion of these plans towards the end of the year, your Corporation had integrated its manufacturing and sales activities and had established the facilities of research, engineering and manufacturing required by its program for development and diversification of activities in the communication, industrial, entertainment and educational fields.

Notwithstanding the impact of economic depression, which markedly diminished the returns from manufacturing and sales, substantial progress was made during the year by your Corporation and its subsidiaries as set forth in detail in the following pages of this report.

RADIO CORPORATION OF AMERICA

For convenience in administration of a business of such diversified character, Radio Corporation of America has become largely a holding company. It is engaged in coordinating its diversified interests in every field of radio development, in exercising general supervision over financial matters and research activities, in administering patent licenses and the collection of royalties and in protecting the broad legal rights of its various subsidiaries. In the radio sales and manufacturing fields your Corporation is represented by RCA Victor Company, Inc., and RCA Radiotron Company, Inc.; in the field of wireless telegraphic communication by R.C.A. Communications, Inc., and Radiomarine Corporation of America; in broadcasting by National Broadcasting Company, Inc.; and in sound record-

ing and reproduction for talking motion pictures by RCA Photophone, Inc., R.C.A. Institutes, Inc., trains students for radio work; E. T. Cunningham, Inc., distributes Cunningham radio tubes; and Radio Real Estate Corporation of America has charge of real estate holdings. All of these are wholly-owned subsidiary companies. In addition, RCA has interests in the motion picture production and exhibition fields through the Radio-Keith-Orpheum Corporation. An organization chart showing the activities and interests of your Corporation appears at the close of this report.

Perhaps no other industrial development made more instant appeal to the imagination of the American public than did radio. Receiving devices assembled by thousands of eager amateurs were added to the sets produced by the pioneer manufacturers of radio equipment during the first few years of the industry. Capital was made available readily to every new enterprise in this field. The initial market required but little exploitation and patent rights often were disregarded. The organization of some manufacturing companies, upon a speculative rather than upon an institutional basis, was followed by enforced liquidations, by the necessity of continuous litigation to preserve the property rights in patent holdings, and by resultant uncertainty in the public mind and confusion in the industry.

In the light of these facts your Corporation determined upon and put into effect a policy of licensing its established competitors in the radio manufacturing field. In taking this step the Radio Corporation of America did much to stabilize the industry, to give further impetus to the art and to reassure the public as to the quality of radio receiving equipment. To a large extent this policy placed the licensees upon a level of technical advantage with your Corporation, giving them the benefits of large research and laboratory facilities devoted to the further scientific development of radio. In effect, Radio Corporation of America became the principal research and developmental institution for the radio industry.

With the vastly expanded production programs undertaken by various factors in the industry and the progressively lower price ranges at which equipment was thus being manufactured, it became imperative for your Corporation to integrate into complete units the research, engineering, manufacturing and sales work that had for-

merly been divided with its different associates of the Radio Group.

Under the original plan of organization for the establishment of an effective and reliable communications service and the development of the new arts industries and services made possible by the mobilization of patents, Radio Corporation of America placed its orders for manufactured products with the General Electric Company and the Westinghouse Electric & Manufacturing Company. Your Corporation originally acquired only the rights to use, lease or sell under the patents of these companies.

Unification of Research, Engineering, Manufacturing and Sales

In order that production might be balanced more accurately with sales demand, that accumulated inventories and costly liquidations might be avoided and that your Corporation might be in the best possible competitive position to advance the various new

arts and industries promised by the progress of radio development, it was deemed necessary to acquire the manufacturing rights and facilities owned by the General Electric Company and the Westinghouse Electric & Manufacturing Company. Through the plan completed in 1930, your Corporation acquired exclusive licenses, with certain minor reservations, under all General Electric and Westinghouse patents granted by the Government of the United States, to manufacture the radio apparatus used and sold by RCA and its subsidiaries. It acquired, in addition, certain real estate, factories and other manufacturing facilities which had been employed by General Electric and Westinghouse in the manufacture of radio apparatus. It acquired the shares of stock held by those companies in National Broadcasting Company, Inc., RCA Victor Company, Inc., RCA Radiotron Company, Inc., RCA Photophone, Inc., and General Motors Radio Corporation. As a result of these acquisitions, RCA became the sole owner of the outstanding stock of the companies mentioned, excepting the General Motors Radio Corporation, in which it increased its stock ownership from 29.4 per cent to a total of 49 per cent. Your Corporation became entitled to all royalties payable by the licensees under the aforementioned radio patents.

The arrangement further provided for a substantial reduction in the cost to Radio Corporation of America of radio transmitting apparatus and radio transmitter tubes which the General Electric and Westinghouse Companies continue to manufacture for RCA.

It provided also for the cancellation of a liability to General Electric and Westinghouse of \$32,000,000, plus interest, due on cash advances made by these two companies in connection with the purchase of the Victor Talking Machine Company in 1929.

For the rights and properties thus acquired there were delivered to the General Electric and Westinghouse Companies 6,580,375.1 shares of Radio Corporation of America Common Stock, an amount equal to all of the Common Stock issued and outstanding at that time.

At the special meeting held on May 6, 1930, the Stockholders approved the plan and authorized an amendment of the Certificate of Incorporation of the Corporation which increased the authorized capital stock from 813,365 to 1,500,000 "B" Preferred shares and from 7,500,000 to 15,000,000 Common shares. The plan of unification was made effective as of January 1, 1930, and licenses under the patents were granted by Radio Corporation of America to its subsidiary companies for their respective fields of operation. The year's operations, as published in this report, give effect to this plan of unification.

None of the additional authorized "B" Preferred shares have been issued.

Developments of the year 1930, which began with from 11,000,000 to 12,000,000 radio sets already in operation in the United States, with vast manufacturing units competing for markets already affected by economic depression, fully justified the planning, effort and investment involved in effecting this union of naturally correlated activities.

With centralized control thus made effective, your Corporation during the past year was able to govern its production closely by the volume of sales, with the result that the year 1930 closed without leaving behind it a substantial inventory of receiving sets and with no general liquidation necessary in anticipation of forthcoming products.

Patents
and Licenses

As a means of providing further stimulus to the development of the radio art, your Corporation in 1930 offered to its licensees for broadcast receiving apparatus important enlargements of their licenses.

Licenses originally granted to manufacturers of radio receivers were limited to receivers of the tuned radio frequency type. Definite advantages have been demonstrated, however, in the super-heterodyne receiver, particularly for those of the radio audience who desire to reach numerous stations and who require an instrument which can sift out signals sharply, without sacrifice of tone quality. Superheterodyne receivers reached in 1930 a position of such commercial importance that supplemental licenses authorizing the manufacture of super-heterodyne sets were offered by RCA to its existing licensees. In addition, the enlarged licenses included rights for the manufacture of radio broadcast television receivers and apparatus for reproducing motion pictures and talking motion pictures in the home.

The supplemental licenses have been accepted by the large majority of licensees whose licenses otherwise would have expired during the current year. Others have accepted or given notice of acceptance of the extension provisions of the old licenses. On December 31, 1930, there were in all thirty-seven licensees under the receiving set patents of RCA, and fifteen licensees under the tube patents.

Purchases were made during the year of a number of additional patents and further rights were extended to the licensees without an increase in the royalty rate.

Late in the year the important tube patent of Langmuir No. 1,558,436, issued October 20, 1925, was sustained by the United States Circuit Court of Appeals in Philadelphia in a suit brought by the General Electric Company against the DeForest Radio Company. This case is now pending before the Supreme Court of the United States.

This patent covers the revolutionary improvement in vacuum tubes made by Dr. Irving Langmuir, Assistant Director of the Research Laboratory of the General Electric Company. The court held that this tube, covered by the Langmuir patent, "because of its stability, reproducibility and power, has made possible radio broadcasting, modern radio reception and long distance telephony," and that "next to the telegraph, the telephone and wireless," it "is probably one of the most far-reaching and beneficent in human progress."

Suits were brought against several manufacturers of radio tubes and broadcast receivers for the infringement of tube and receiver patents. In litigation against the Universal Wireless Communications, Inc., an injunction was obtained restraining the defendant from further infringement of patents under which RCA has certain exclusive rights.

Litigation affecting your Corporation, pending at the end of 1930, included a suit brought by the Department of Justice against the Radio Corporation of America and others under the Federal anti-trust laws. Every effort is being made on the part of your Corporation to expedite this suit so that there may be a prompt and final determination as to the legality of cross license agreements under which Radio Corporation of America now operates and under which it had operated for nearly eleven years prior to the filing of this litigation. These agreements were scrutinized closely by the Federal Trade Commission in an investigation which lasted through four years of time and required 18,000 pages of testimony, with the result that the complaint was dismissed without the Commission calling upon the defendants to introduce testimony on their own belialf. Nevertheless, if there remains doubt as to the legality of the cross licensing agreements, your Corporation is the first to desire to know their true status; and if, as it believes, its position is in accordance with the Federal laws, it feels that its place before the public and in the industry will be strengthened by having this finally and indisputably determined.

It has been, and remains, the belief of Radio Corporation of America that the royalty payments made by competitive manufacturers for the use of RCA patents have been less than they would have been had the patents remained in scattered hands. It is apparent that with patents and rights held by numerous patentees, the aggregate cost of royalty payments, even if all necessary licenses could have been obtained by any one manufacturer, would have throttled the growth of the radio industry and excessively enhanced the price of radio equipment. Your Corporation can state unreservedly that from the standpoint of public service, the mobilization of patents and rights incident to its formation liberated the radio art, made possible the development of a great American industry and resulted in the manufacture and distribution of approximately 14,000,000 radio sets to as many American homes during a single decade.

Large expenditures by your Corporation were made necessary during the year on account of litigation. This expense was entailed not only by suits to safeguard your patent rights and interests, but also by the suit instituted by the Department of Justice and other litigation resulting therefrom.

RCA VICTOR COMPANY, INC.

During 1930 the manufacturing activities of your Corporation in the receiving set and talking machine field were centralized at Camden, New Jersey. A program was undertaken and completed during this period to convert existing plants and add new facilities for the establishment of one of the most modern manufacturing organizations in the world, with adequate equipment for the production of practically every known device required for radio reception and sound reproduction, except radio tubes. Radio tubes are manufactured by your subsidiary, the RCA Radiotron Company, Inc.

The project undertaken and concluded during the year 1930 meant the welding of radio and the phonograph into a distinct form of electrical entertainment; the transplanting of widely separated research, technical and manufacturing units to a single place and practically under a single roof; the assembling of personnel from various plants into a complete unit and the removal of your Corporation's principal sales headquarters from New York to Camden, New Jersey. It involved the establishment of research, engineering and production facilities for the manufacture not only of sound-receiving equipment and of radio-phonograph devices, but of talking picture equipment for the home and of special devices for other fields of sight and sound communication by radio.

The industrial and service program of your Corporation has been organized on the basis of the utmost practicable diversification in the general fields of radio communication and electrical entertainment. No other policy could adequately protect the great capital investment necessary for the creation and development of the radio arts.

While the theoretical market for radio equipment is 28,000,000 families in the United States, the more practical comparison for single radio sets is with the number of telephones now installed in American homes or with the number of homes wired for electricity.

The number of homes in the United States in which telephones are installed is approximately 13,500,000.

The number of homes in the United States which are wired for electricity is approximately 20,000,000.

The number of homes in the United States now equipped with radio sets is estimated to be between 14,000,000 and 15,000,000.

It took 53 years since the beginning of telephone service to equip these homes with telephones.

It took 49 years since the beginning of the electric power industry to equip these homes with electricity.

It took 10 years since the beginning of the radio broadcast art to equip these homes with radio sets.

The fact that between 14,000,000 and 15,000,000 radio receiving sets are now in operation in as many American homes is sufficient indication of the phenomenal development of the radio industry in less than a decade of large-scale production. It is likewise an indication of the need for diversification in a market so highly organized and competitive. The world-wide financial depression that marked the past year prostrated to a great extent the immediate replacement market for the new and better types of sound-reproducing equipment and phonograph-radio devices. But the stability of your Corporation was emphasized through the various services and products supplied by its subsidiaries and other associated interests.

A new super-heterodyne broadcast receiver was designed in 1930, which in performance proved to be far superior to any super-heterodyne set previously marketed by your Corporation. Similar success attended the development of new tuned radio frequency instruments. Notwithstanding the extensive research and high quality of workmanship which went into these products, it was possible to offer them at materially lower prices than those heretofore prevailing.

Although all forms of entertainment service compete for public attention and the broadcasting services of the nation bring a constant flow of musical and other entertainment to the home, it is evident that the phonograph perfected by modern radio technique occupies a distinct place in this field. Unlike the mass entertainment program brought to the home by broadcasting, phonographic reproduction permits the selection of a program purely representative of individual taste available at the listener's choice and at his personal convenience. The phonograph record business continues to be an important branch of the activities of the RCA Victor Company.

An innovation of great interest in this field, and one which under normal market conditions undoubtedly would have had a widespread sales appeal, was introduced by RCA Victor during the past year. This was the home recording combination radio and phonograph. By means of a microphone and special discs it is possible with this instrument to record the voices of family and friends, or their musical renditions, and to intercept and record programs being received from radio broadcasts.

In addition to the progress made during 1930 in the development of the complete line of radio receivers at prevailing lower price ranges, RCA Victor Company, Inc., manufactured radio receivers and combination radio-phonograph sets for the General Electric Company, the Westinghouse Electric & Manufacturing Company, and the Graybar Electric Company, all marketed and distributed under the individual trade names of those companies. RCA Victor Company, Inc., on its own account, manufactured and distributed such apparatus under the trade names of RCA Radiola, Victor Radio, and Electrola.

The mica condenser business of the Wireless Specialty Apparatus Company of Boston, Massachusetts, was purchased and transferred to RCA Victor Company, Inc., during the year.

From the standpoint of research, technical development and production, your Corporation faces the upturn from extreme industrial depression with a consolidated organization, with a modern plant, with a complete range of products and with flexibility and control that will make production quickly responsive to stimulated or curtailed demand.

RCA RADIOTRON COMPANY, INC.

Coincident with the unification of radio receiving set manufacturing and sales activities, the engineering and manufacturing work of the General Electric and Westinghouse Companies and the sales work of RCA in the radio tube field were unified through the organization of RCA Radiotron Company, Inc., effective January 1, 1930.

A public advantage already resulting from this unification has been a reduction in the average price of Radiotrons by approximately 20 per cent. Early in 1930 the newly organized RCA Radiotron Company, Inc., established its headquarters at Harrison, New Jersey, in a large property, formerly the Edison lamp plant of General Electric, which was transferred to it under the unification plan. During the year this property was developed as a headquarters for the new organization and a center of research and development for radio receiving tubes. Completely equipped laboratories,

employing competent men selected principally from the laboratories of General Electric and Westinghouse, were prepared and research work is now being pressed forward.

RCA Radiotron Company, Inc., operates factories in Harrison, Newark and Cleveland, and warehouses and sales offices in New York, Cleveland, Chicago, San Francisco, Atlanta and Dallas.

Developments of this company within the year included three new tubes especially designed to make battery operated sets comparable in tone quality and volume to the modern sets now operated on standard lighting circuits. These tubes are also adapted for use in automobile receiving sets. Improvements were made in the principal types of tubes used in the standard AC radio receivers.

During the year there was an extension of the organization of Sales Service, which is maintained by RCA Radiotron, Inc., to supply sales aid to distributors and engineering service to manufacturers of radio sets, providing the latter with such specialized information regarding radio tubes as they may require. Tubes marketed through Radiotron channels of distribution are sold under the trade name "Radiotron".

E. T. CUNNINGHAM, INC.

Prior to 1930 the Radio Corporation owned a 55 per cent interest in the stock of E. T. Cunningham, Inc., distributors of Cunningham Tubes. During the year the balance of the stock of that company was acquired, thus making the company a wholly-owned RCA subsidiary. Tubes are marketed under the Cunningham trade name through the separate channel of Cunningham distributors.

R.C.A. COMMUNICATIONS, INC.

Expansion of the communications facilities of your Corporation resulted in the addition of seven new circuits to the network of R.C.A. Communications, Inc. Rate reductions were made on circuits to Germany, France, Portugal, Russia, Japan, South Africa (via London), Porto Rico and Venezuela.

Since its organization, RCA has established from New York thirteen direct circuits to Europe; two to Asia Minor; one to Africa; seven to South America; four to the West Indies; two to Central America and one to Canada, in addition to a domestic circuit linking New York and San Francisco. From San Francisco seven direct circuits extend to the Far East and to the Hawaiian Islands, while six additional circuits are employed from the Philippines and three from Hawaii. A circuit links San Francisco with Panama. Several new circuits connecting the United States with additional European countries are planned as part of the 1931 extension program.

In economy, as well as speed, R.C.A. Communications, Inc., has made a signal contribution to correspondents on both sides of the Atlantic and Pacific. Its reductions of rates have won for it many of its patrons. From the following tabulation, showing rate reductions per word caused by radio from the circuit terminal at New York, or San Francisco, may be seen the nature of this saving to the public:

Country	Rates Per Word Prior to Radio		Saving Per Word
Argentina	\$0.50	\$0.42	\$0.08
Belgium	.25	.23	.02
Brazil	.50	.42	.08
Chile	.50	.42	.08
Colombia	.50	.40	.10
Curacao	1.38	.46	.92
Czechoslovakia	.37	.31	.ó6
Dutch Guiana	1.38	.46	.92
France	.25	.23	.02
Germany	.36	.25	.II
Great Britain	.25	.20	.05
Italy	.31	.27	.04
Liberia	.98	.72	.26
Norway	.35	.24	. I I
Poland	.32	.25	.07

Country	Rates Per Word Prior to Radio		Saving Per Word
Porto Rico	.40	.30	.10
Portugal	-39	.30	.09
Russia	· 4 3	.30	.13
Spain	·33	.30	.03
Sweden	.38	.25	.13
Turkey in Asia	.46	.36	.10
Venezuela	1.00	.42	.58
China	.88	.73	.15
French Indo-China	1.11	.77	.34
Japan	I.2 I	.67	.54
Philippine Islands	.72	.53	.19
Honolulu	.25	.20	.05

An earthquake in the bed of the ocean snapped 12 cables in the North Atlantic on November 18th, 1929, and from then until the end of that year radio circuits handled a tremendously increased proportion of the transatlantic communications business. This factor, combined with the great activity of the stock market, made 1929 a phenomenal year. Despite the world-wide depression and consequent slackening of international trade in 1930, the volume of traffic handled by R.C.A. Communications approximately equaled that of 1929, pointing to a growing recognition on the part of American business men of the speed, directness and reliability of your Corporation's radio communication service.

In the technical field, the year 1930 brought recognition by foreign engineers of the diversity method of reception, developed by R.C.A. Communications, Inc. Germany was the first European nation to accept this technique as a practical advance in the communication field and construction of a diversity receiving station is now under way near Berlin. Other European nations studied and approved the method during 1930 and general acceptance of the idea will result in further improvements during 1931.

Diversity reception is accomplished by the erection of three antennae spaced approximately 1,000 feet apart. Observations over a long period have shown that the strength of the received signal varies considerably within a radius of 2,000 feet, and while the radio impulse at one of the three antennae may be faint, the other two will be clear and strong. By connecting the three antennae with a central receiver a signal of uniform strength representing the composite level

of the three antennae is obtained. "Fading" is no longer a menace to radio communications.

Direct circuits inaugurated by R.C.A. Communications, Inc., during 1930 were:

New York to Santiago, Chile January 13 New York to Panama May 1 San Francisco to Panama May 10 New York to Moscow November 13 New York to Prague, Czechoslovakia December 1 San Francisco to Shanghai December 6 New York to Santo Domingo December 24

Circuits which existed prior to 1930 are as follows:

TRANSATLANTIC

Great Britain	Poland	Portugal
Norway	Italy	Liberia
Sweden	Holland	Spain
France	Belgium	Syria
Germany	Turkey	

WEST INDIES, CENTRAL AND SOUTH AMERICA

Argentina	Porto Rico
Brazil	Dutch West Indies (Curacao)
Colombia	Cuba
Venezuela (Maracay)	Costa Rica
Venezuela (Maracaibo)	Porto Rico-New Orleans
) D.,,	h Cuiana

Dutch Guiana

TRANSPACIFIC

Hawaii	Hong Kong (via Philippines)
Japan	Hawaii-Japan
China (via Philippines)	Hawaii-Philippines
Philippines	Hawaii-Fiji Island
French Indo-China	Dutch East Indies
MISCELLANEOUS	DOMESTIC
Australia (via Montreal)	New York-San Francisco
Canada (Montreal)	

American shipping and commercial interests have been adequately and promptly served. Radio-telegraph patrons include various departments of the United States Government, press associations, newspapers, leading financial and business houses, shipping firms, importers and exporters, embassies and legations and a great many other organizations and individuals.

A controlling interest in the Cuba Transatlantic Radio Corporation was acquired by R.C.A. Communications early in 1930. In addition to the Havana-New York service, the Cuban company operates direct radio circuits to New Orleans, Panama, Spain, Germany and the Dominican Republic, and is developing an intra-island service in Cuba, with circuits connecting Havana, Santiago de Cuba and Cienfuegos already in operation.

The inauguration of direct service to China on December 6th marked the culmination of many years' effort and preparation and is regarded as one of the most important events of the year. The possibilities of this circuit are promising and with the expected cooperation of the Chinese Government, it should add materially to the volume of radio traffic across the Pacific.

Development in the field of facsimile transmission and reception made possible the installation of improved and standardized terminal equipment for international facsimile communications work. Pending the opening of a direct facsimile service with Germany, which is expected in the near future, a relay facsimile service via London is now available to and from New York and Berlin. Similar service between New York and Copenhagen via London also is available.

Former Accord for Consolidation of I.T.&T. and RCA Communications Now Dissolved In a public announcement jointly issued on March 6th, 1931, by International Telephone and Telegraph Corporation and Radio Corporation of America, the following statement was made:

"The accord made public by the two companies on March 30, 1929, for the consolidation of their respective communication interests when the law permitted, has been dissolved. This decision was necessitated by the fact that despite the increasing influence of communication mergers in foreign countries and the obvious advantage to American communications interests from consolidation of their services, no legislative action has been taken to eliminate these handicaps or to facilitate the consolidation. The managements of the two companies have, however, in no way altered their sincere conviction, announced in their public statement of March 30, 1929, that the unification of American record communication services would be to the interest of our country and people."

RADIOMARINE CORPORATION OF AMERICA

During the year 1930 Radiomarine Corporation of America conducted by far the largest portion of the marine radiotelegraph business of the Nation. In order to continue an efficient service, this company has been engaged throughout the past year in the further replacing of obsolete spark transmitters on merchant ships with modern tube transmitter equipment. This work has been of real benefit to the American broadcast audience, because the old spark transmitters crashed into the broadcast band and frequently caused annoying interference.

Radiomarine Corporation of America maintains at Chatham, Massachusetts, a highly developed marine communications station. Equipped with long, intermediate and short wave tube transmitting and receiving sets, it easily retains contact with ships having similar equipment during their complete crossing of the Atlantic. A similar station at San Francisco enables vessels to communicate with continental America from the far reaches of the Pacific. The Radiomarine Corporation maintains a chain of coastal stations situated at strategic points on the Atlantic, Pacific, Gulf and Great Lakes. The introduction of short wave marine radio has opened new vistas to the maritime world. Intermediate ship relays are no longer necessary. World cruising ships have kept in daily contact with American stations on the entire circumnavigation of the globe.

With the improvement of marine radiotelegraphy has come an increasing patronage from ocean travelers and from their friends or business associates on shore. Large liners frequently handle as many as 2,000 radiograms on a single round trip, in addition to the ship's routine business. One of the services of the Radiomarine Corporation is a broadcast each night of a complete press report to more than 100 subscribing vessels. RCA cooperates with the United States Public Health Service in supplying a free medical service to ships at sea that do not have a physician on board.

Progress continued throughout the year with the installation of the radio direction finder on merchant and passenger vessels. An automatic alarm was designed to receive distress signals when a radio operator is not in attendance at the receiving apparatus.

Work was also carried forward to give aviation the fullest possible assistance from radio. Radio equipment for airplanes and air-

port stations was built and installed. A combination radio telephone and telegraph 20-watt transmitter weighing only thirty pounds was developed for use by smaller airplanes, while a 50-watt transmitter for installation in larger and transport airplanes is now being developed and shortly will be ready for installation. These transmitters will make possible long range communication between airplanes and airports. A substantial number of orders was received for the new 200-watt airport radio transmitters, which have proved to be very satisfactory in service.

Radiomarine Corporation demonstrated in 1930 the use of facsimile radio transmission from shore to ship, transmitting bulletins and messages to the SS "America" off Fastnet Island, approximately 3,000 miles from New York. Facsimile communication with the "America," which was conducted experimentally, indicates that the transmission of a complete daily newspaper to ships at sea eventually may be possible. As soon as commercial shipboard apparatus can be developed this work may lead to a regular service, including the transmission of complete weather maps to ships at sea, another real aid to navigation.

NATIONAL BROADCASTING COMPANY, INC.

The National Broadcasting Company made further strides in 1930 in conducting its broadcasting service of entertainment, information, and education. As a result, the past year brought larger business support to your broadcasting system and a substantial increase in revenue over the year 1929. Operations of NBC are now on a profitable basis.

The National Broadcasting Company serves 72 of the country's most important radio stations. This vast network of stations gives a broadcasting service which in quantity, quality, coverage, and listener-interest is undoubtedly the greatest in the world. Stations are located in 55 major American cities, serving three different networks. In addition there are two Canadian outlets.

The principal studios of the National Broadcasting Company are located in New York, Washington, Chicago and San Francisco, which are the primary program centers of the country. The NBC outgrew its Chicago studio facilities and in the latter part of the year

built the most modern radio studios in the world in the Merchandise Mart. The new studios meet every present known broadcast need. They are designed to accommodate television when it comes out of the research and experimental laboratories.

Notwithstanding the increasing opportunities of commercial programs, the policy of the National Broadcasting Company has been guided by the desire to render every possible public service in the fields of information and education. News, religious, and educational features occupy distinct and important places in the program plan as a whole. Of these, educational programs predominate, with a total broadcasting time of from 60 to 70 hours per month. Three hundred and twenty-eight officials of the United States Government used the networks of the National Broadcasting Company last year, making a total of 850 radio addresses. The President of the United States appeared before the microphone 27 times.

Success was obtained during the year with the broadcasting of programs of foreign origin. In this respect, it may be said that the year 1930 brought all the nations of the world within broadcasting distance of each other. As the pioneer of international broadcasting, NBC devoted careful attention to the arrangement of programs of unusual interest from abroad, beginning early in the year with the address of King George V marking the opening of the London Naval Conference. Equally noteworthy was the broadcast of ceremonies attending the exchange of ratifications of the London Naval Treaty, with the President of the United States speaking from Washington, the Prime Minister of Great Britain speaking from London, and the Premier of Japan speaking from Tokyo.

Progress was made during the year in the study of the phenomenon of the radio wave itself. One of the major developments in radio transmission was accomplished by engineers of NBC and its associated companies. This was the delivery from the laboratory of broadcast synchronization. Synchronization is the possibility of two or more radio broadcasting stations sending out the same program on the same wavelength. NBC feels that synchronization ultimately will contribute to the solution of some of the complex technical problems now facing broadcasting, due to the present limitation in the number of wave lengths.

It is now apparent that broadcasting is established on the solid

basis of the services radio is able to render through music and speech and in this lies the assurance of permanency for the industry engaged in the manufacture of sound-receiving equipment.

RCA PHOTOPHONE, INC.

Electrical entertainment, brought to the motion picture industry by the synchronization of sight and sound on the screen through the latest developments of electrical and radio technique, made the silent film an anomaly during the past year. Both in the sound recording of pictures and in the equipment of theatres for sound reproduction, your Corporation, through its subsidiary, RCA Photophone, Inc., made progress in 1930.

RCA Photophone, Inc., was organized in 1928 to make use of the methods developed by the Radio Corporation of America and its associated companies for recording sound in the making of talking motion pictures and for the reproduction of such sound pictures.

At the close of the year, RCA Photophone, Inc., had equipped 1,690 theatres in the United States and 635 theatres in foreign countries with its system of talking picture reproducing apparatus. In addition, 413 non-theatrical installations of sound equipment have been made by RCA Photophone, opening new fields for such equipment in schools, clubs, colleges and other institutions.

Twelve producers of motion pictures in this country now employ exclusively the RCA Photophone system of recording sound.

During the year RCA Photophone, Inc., became a party to an arrangement made with certain German companies, under which American companies granted to the German companies certain rights, and similarly, the German companies granted certain rights in return. Among the advantages resulting from this arrangement were the clearing of patent disputes between the different parties in foreign countries.

At the close of the year, RCA Photophone, Inc., was established in the motion picture field both here and abroad, operating on an increasingly profitable scale, and engaged in developing new markets for the sale of portable sound reproducing equipment to non-theatrical sources.

RADIO REAL ESTATE CORPORATION OF AMERICA

For some time your Corporation, through its subsidiary, the Radio Real Estate Corporation of America, has owned the office building located at Broad and Beaver Streets in New York, which is occupied by R.C.A. Communications, Inc., and Radiomarine Corporation of America. A plot adjacent to this property has been assembled through the Radio Real Estate Corporation, giving it control over an area of approximately 45,302 square feet, or upwards of a square acre, in downtown Manhattan, about 250 feet from the Stock Exchange. Acquired in anticipation of the future expansion of radio communications, this tract is regarded as a valuable real estate possession.

Prior to negotiations leading to the Radio City project, which is discussed in a later section of this report, your Corporation made plans for the construction of a thoroughly modern office building at 570 Lexington Avenue, at the corner of Lexington Avenue and Fifty-first Street, near the Grand Central area in New York, in which it had intended to make its permanent home. However, subsequent crystallization of plans for the construction of Radio City made it apparent that the opportunity for occupancy of this community should not be sacrificed. Since the building on Lexington Avenue is situated in a section destined for more intensive real estate development, work has been carried forward in accordance with the original intention and the building will be occupied by RCA pending the completion of Radio City about three years hence. The executive offices of Radio Corporation of America will be removed from the Woolworth Building to 570 Lexington Avenue in April, of 1931.

The new Lexington Avenue structure has been named the RCA Building. Office space in the RCA Building is now being leased.

R.C.A. INSTITUTES, INC.

The training of service men, operators, dealers and a great many others desirous of obtaining instruction continued throughout the year at the schools and in the home study course of R.C.A. Institutes, Inc. This institution has been maintained in order that young men

aspiring for careers in radio might have opportunity for practical training, and so that radio manufacturers and others of the industry might be able to obtain skilled employes.

Schools of R.C.A. Institutes, Inc., are located in New York City, Boston, Philadelphia and Chicago. At the end of the year R.C.A. Institutes had 1,020 resident students and 11,820 correspondence course students. During the year 7,348 correspondence course students were enrolled.

RADIO-KEITH-ORPHEUM CORPORATION

Since the organization of Radio-Keith-Orpheum Corporation only two years ago and its association with Radio Corporation of America, RKO has shown substantial growth and development in the amusement and theatrical field.

Progress made by this company during its first year in the production of talking motion pictures and in the field of theatrical entertainment was intensified in 1930, its second year. In 1929, the company earned a net income before dividends on preferred stocks of \$2,523,558, and of \$1,669,564 after dividends. In 1930, the company earned \$4,173,210 before dividends on preferred stocks and \$3,385,628 after dividends, an increase in net income of \$1,716,064 after dividends.

An improved type of vaudeville entertainment has been provided by this organization and public response has demonstrated that the confidence of RKO in this branch of amusements has not been misplaced. Progress was made during the year by Radio Pictures, the wholly-owned motion picture producing subsidiary of RKO. The year witnessed the production of "Cimarron," regarded as one of the greatest current achievements in sound pictures, which is being exhibited during the present year and which has brought extraordinary public response.

In the theatrical field RKO has expanded its properties and added more than seventy theatres to its circuit.

When Radio-Keith-Orpheum Corporation offered to its stock-holders in 1930 the opportunity to subscribe for additional stock, Radio Corporation of America subscribed to its pro rata share. Its holdings are now approximately 25 per cent of the outstanding stock of RKO.

NEW DEVELOPMENTS

Radio City

Conviction that the future holds much of development and added usefulness for radio, has impelled your Corporation to consider the necessities and anticipate the requirements of the coming years.

Plans have been made and agreements have been executed for the occupancy by RCA, National Broadcasting Company, RCA Photophone, Radio-Keith-Orpheum and other affiliated interests, of Radio City in New York, an entertainment and cultural center which will be devoted to the electrical entertainment and allied arts. The project, financed by the John D. Rockefeller, Jr., interests, has been described as a "community of sound and vision", in the expectation that television, for which studio facilities will be constructed, will become part of its service. From this center will radiate musical and dramatic events to be distributed upon a national and even upon a world-wide basis, through broadcasting.

Three blocks at present devoted to business and residential uses in the heart of New York will be transformed into this institutional center for radio. The Radio Corporation of America and its subsidiary companies in the entertainment fields will occupy part of the development as the lessees of a series of studios, theatres and business offices.

The single architectural unit which will comprise the community will include large theatres from which will be drawn artists and actors suited for radio broadcast entertainment. Twenty-seven broadcast studios will be built, all designed with particular reference to acoustics and other broadcast requirements and some extending three stories in height. Actual construction work on Radio City will begin this Spring. Its completion is anticipated in about three years.

Talking
Pictures for the Home

It is apparent that with the equipment already developed by the electrical and radio industries for the recording and projection of sound, the field of talking motion pictures extends much beyond theatrical entertainment. Progress already made points toward an enlarged market for talking motion pictures in the schoolroom, the college, the church and, eventually, in the home. It is through these institu-

tions that the talking film, as a medium for information and education, promises its greatest usefulness.

Such services, it is believed, are not competitive with the purposes served by theatrical entertainment. The modern motion picture theatre is an institution of mass entertainment. Motion pictures are produced at present upon the basis of the widest popular appeal. But the progress already made in the sale of portable sound reproduction equipment is an indication of other wide fields which await development.

Your Corporation is in a position to begin production upon a commercial basis as soon as the associated services necessary for the growth of such an industry are sufficiently developed. Such services call for the continuous production of entertainment and educational films to meet home requirements; for a system of distribution which instead of serving some 20,000 public theatres may be able to serve eventually 20,000,000 "little theatres" of the home; for such technical and industrial development as will bring the cost of such film service on a continuous basis within the range of the great majority of the public.

Through the activities and interests covered by your Corporation, progress is being made in every division of this problem. Extensive research is being conducted to find methods of producing talking films more economically and technical development is being continued so that apparatus may be available eventually within popular price ranges.

Television Television has been brought definitely nearer to commercial development by the research and technical progress made by your Corporation during 1930.

Public interest in the new service promised through sight transmission by radio, and the new industry which the manufacture of television sets for the home now brings into view, requires a precise statement with regard to these developments. It must be recognized at the outset that while intelligence may be transmitted through either the ear or the eye, the services which radio may render through sound and vision do not compete with one another. Each has its peculiar and distinct function.

Sound broadcasting, upon a continually rising scale of public

interest, is still engaged in developing its major possibilities. Similarly, the sound equipment industry continues to be subject to further development technically and industrially. Sound broadcasting and sound reproducing equipment constitute a distinct division of the radio art.

While television during the past two years has been repeatedly demonstrated by wire and by wireless on a laboratory basis, it has remained the conviction of your own Corporation that further research and development must precede the manufacture and sale of television sets on a commercial basis. In order that the American public might not be misled by purely experimental equipment and that a service comparable to sound broadcasting should be available in support of the new art, your Corporation has devoted its efforts to intensive research into these problems, to the preparation of plant facilities and to the planning of studio arrangements whereby sight transmission could be installed as a separate service of nation-wide broadcasting.

It is felt that in the practical sense of the term, television must develop to the stage where broadcasting stations will be able to broadcast regularly visual objects in the studio, or scenes occurring at other places through remote control; where reception devices shall be developed that will make these objects and scenes clearly discernible in millions of homes; where such devices can be built upon a principle that will eliminate rotary scanning discs, delicate hand controls and other movable parts; and where research has made possible the utilization of wave lengths for sight transmission that would not interfere with the use of the already overcrowded channels in space.

It may be stated at the present time that your Corporation made further highly important progress in 1930 in scientific and research development along these lines. Radio Corporation of America will pursue this devolopment aggressively in the laboratory during 1931, without attempting to market such equipment commercially this year. Progress already made gives evidence of the ultimate practicability of a service of television and the position of your Corporation in this new and promising field, both as regards patent rights and technical facilities, is such that it may anticipate new and broader service opportunities.

PERSONNEL

Throughout the year your Corporation and its subsidiaries have had the loyal cooperation of their employes, who have discharged their respective tasks with efficiency and fidelity. RCA marine radio operators adhered to the traditions of their service and acts of bravery were performed by employes of your Corporation on the high seas.

By Order of the Board of Directors:

JAMES G. HARBORD

Chairman of the Board

DAVID SARNOFF
President

Printed by order of the Board Lewis MacConnach, Secretary New York City, March 10th, 1931

RADIO CORPORATION OF AMERICA

Consolidated Balance Sheet

ASSETS

Current Assets:		
Cash in Banks and on Hand	\$20,379,115.52	
Marketable Securities at Cost (December 31, 1930 Market Value in excess of Cost)	903,424.55	
Notes and Accounts Receivable (less Reserves)	20,898,425.22	
Inventories (at the lower of Cost or Market)	28,253,713.01	
TOTAL CURRENT ASSETS		\$70,434,678.30
Investments:		
Securities and Notes of and Advances to Associa Companies (at Cost, less Reserves)	ated and Other	32,279,525.64
Fixed Assets:		
Factories, Radio Communication and Broad- casting Stations, Warehouses, Service Shops, Offices, etc.—Land, Buildings and Equipment in Operation and Construction (at Cost)	\$97,368,618.44	
Less: Reserves	36,992,847.08	
Patents, Contracts, etc., at Cost, less Reserves	\$60,375,771.36 3,462,462.72	
TOTAL FIXED ASSETS		63,838,234.08
Deferred Charges:		
Taxes, Insurance, etc., paid in advance	. 	1,995,630.03
Total Assets	- 	\$168,548,068.05
	=	

AND SUBSIDIARY COMPANIES

at December 31, 1930

LIABILITIES AND CAPITAL

CURRENT LIABILITIES:	
Notes Payable	
Accounts Payable—Current	
Due to General Electric and Westinghouse Companies	
Miscellaneous Accruals and Payables 2,031,092.60	
Dividends Payable 1,304,957.38	
Total Current Liabilities	\$34,080,072.62
Funded Debt and Other Liabilities:	
Mortgages and Building Loans Payable . \$5,115,869.01	
Notes Payable (Serial Notes maturing \$50,000 annually)	
TOTAL FUNDED DEBT AND OTHER LIABILITIES	5,972,878.86
General Reserves	4,650,000.00
Deferred Income (applicable to future operations)	1,305,264.98
Capital Stock:	
"A" Preferred, 7%, Par Value \$50 (395,597.4 shares) \$19,779,870.00 "B" Preferred, \$5 Dividend, No Par Value (803,375.1 shares)*	
TOTAL CAPITAL STOCK	92,529,313.83
Surplus (All Earned)	30,010,537.76
TOTAL LIABILITIES AND CAPITAL	168,548,068.05
* Redemption Value \$100 per share.	

RADIO CORPORATION OF AMERICA AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENT OF INCOME AND SURPLUS FOR THE YEAR ENDED DECEMBER 31, 1930

Gross Income:	
From Operations	3
Other Income 4,775,688.28	3
Total Gross Income from all Sources	\$137,037,596.36
Less: Cost of Sales, General Operating, Development, Selling and Administrative Expenses	122,115,230.14
NET INCOME FOR THE YEAR (before Interest, Depreciation, Amortization of Patents, and Federal Income Taxes)	
Deduct:	
Interest	;
Depreciation 6,632,557.00)
Amortization of Patents 939,195.05	
Provision for Federal Income Taxes 300,000.00)
Total Deductions	9,396,072.78
NET INCOME FOR THE YEAR TRANSFERRED TO SURPLUS	\$5,526,293.44
Dividends:	
On "A" Preferred Stock \$1,373,300.00	
On "B" Preferred Stock 3,832,700.00	
Total Dividends	5,206,000.00
Surplus for the Year	\$320,293.44
Surplus at December 31, 1929	29,690,244.32
Surplus at December 31, 1930	\$30,010,537.76

ARTHUR YOUNG & COMPANY ACCOUNTANTS AND AUDITORS 1 CEDAR STREET

CABLE ADDRESS "ARTHYOUNG"

NEW YORK

NEW YORK
CHICAGO
PITTSBURGH
KANSAS CITY
MILWAUKEE
LOS ANGELES
DALLAS
DETROIT
TULSA
LONDON, ENGLAND
PARIS, FRANCE

CERTIFICATE OF AUDITORS

We have examined the books and accounts of the RADIO COR-PORATION OF AMERICA AND SUBSIDIARY COM-PANIES with the exception of the RCA Victor Co., Inc. and its Subsidiaries examined by Price, Waterhouse & Co., and the Foreign Subsidiaries of the R.C.A. Photophone, Inc. examined by local accountants. We have accepted for the companies not examined by us the Certified Accounts prepared by these accountants.

Subject to the foregoing, we hereby certify that the accompanying Consolidated Balance Sheet at December 31, 1930, and Consolidated Statement of Income and Surplus for the year ended that date are, in our opinion, properly prepared to exhibit the consolidated financial position of the Company as at December 31, 1930, and the result of its operations for the year ended that date.

ARTHUR YOUNG & CO.

New York, N. Y., February 25, 1931.

OFFICERS OF SUBSIDIARY COMPANIES OF RCA

RCA VICTOR COMPANY, INC.

DAVID SARNOFF, Chairman of the Board of Directors

E. E. SHUMAKER, President

H. C. GRUBBS, Vice President in Charge Sales Department

W. R. G. BAKER, Vice President in Charge Engineering and Mfg. Depts.

I. E. LAMBERT, Vice President and General Counsel

E. C. GRIMLEY, Treasurer and Comptroller

F. S. KANE, Secretary

RCA RADIOTRON COMPANY, INC.

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T. W. FRECH, President

W. T. L. COGGER, Vice President in Charge of Manufacturing

G. C. OSBORN, Vice President in Charge of Sales

F. H. CORREGAN, Secretary and Treasurer

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MERLIN H. AYLESWORTH, President

GEORGE F. McCLELLAND, Vice President and General Manager

A. L. Ashby, Vice President and General Attorney

JOHN W. ELWOOD, Vice President

GEORGE ENGLES, Vice President

FRANK M. RUSSELL, Vice President in Charge of Washington Office

DON E. GILMAN, Vice President in Charge of San Francisco Office

NILES TRAMMELL, Vice President in Charge of Chicago Office

MARK J. WOODS, Treasurer

Lewis MacConnach, Secretary

R.C.A. COMMUNICATIONS, INC.

JAMES G. HARBORD, Chairman of the Board of Directors

DAVID SARNOFF, President

W. A. WINTERBOTTOM, Vice President and General Manager

C. H. TAYLOR, Vice President in Charge of Engineering

SAMUEL REBER, Vice President and General Foreign Representative

ARTHUR B. TUTTLE, Treasurer

Lewis MacConnach, Secretary

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R.C.A. INSTITUTES, INC.

JAMES G. HARBORD, Chairman of the Board of Directors RUDOLPH L. DUNCAN, President FREDERICK R. BRISTOW, Vice President and Treasurer LEWIS MACCONNACH, Secretary

RADIO REAL ESTATE CORPORATION OF AMERICA

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E. T. CUNNINGHAM, INC.

DAVID SARNOFF, Chairman of the Board of Directors

E. T. CUNNINGHAM, President

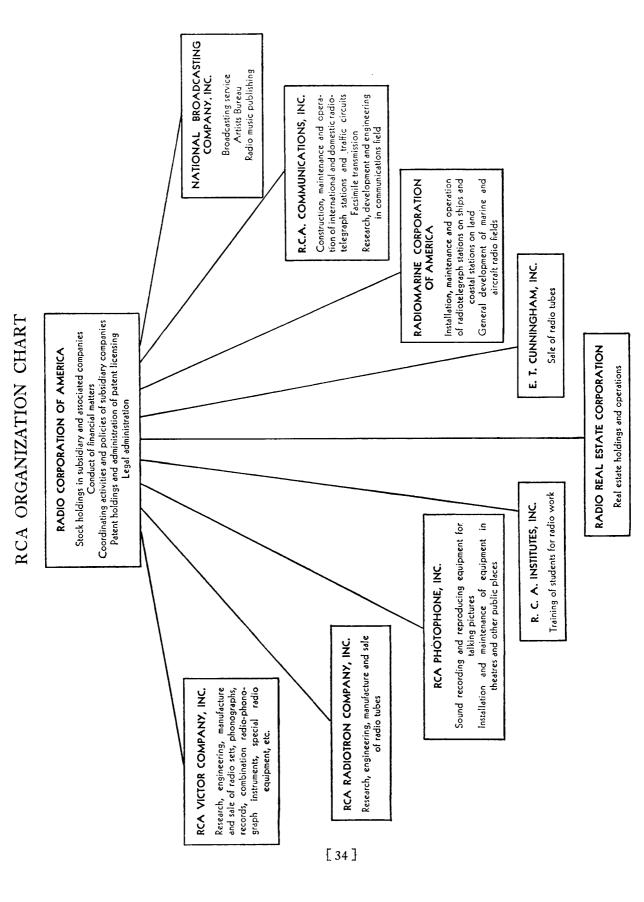
G. K. THROCKMORTON, Executive Vice President and General Manager

C. R. KING, Vice President

M. F. Burns, Vice President in Charge of Sales

F. E. HARTWELL, Treasurer

P. A. STRONG, Secretary



R.C.A. owns a 49% stock interest in General Motors Radio Corporation and a stock interest of approximately 25% in Radio-Keith-Orpheum Corporation



