# 25th ANNUAL REPORT RADIO CORPORATION

### OF AMERICA



YEAR ENDED DECEMBER 31, 1944

### RADIO CORPORATION OF AMERICA RCA BUILDING 30 ROCKEFELLER PLAZA NEW YORK 20, N. Y.

### BOARD OF DIRECTORS

Arthur E. Braun Bertram Cutler Gano Dunn Frank M. Folsom John Hays Hammond, Jr. James G. Harbord Edward W. Harden Edward F. McGrady DeWitt Millhauser Edward J. Nally David Sarnoff Niles Trammell

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JAMES G. HARBORD, Chairman of the Board David Sarnoff, President

DEWITT MILLHAUSER, Chairman of the Finance Committee

FRANK M. FOLSOM Vice-President in charge of RCA Victor Division

Vice-President in charge of RCA Laboratories EDWARD F. McGRADY

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HENRY A. SULLIVAN Controller LEWIS MACCONNACH Secretary

Vice-President in charge

of Labor Relations

### General Counsel

CAHILL, GORDON, ZACHRY & REINDEL JOSEPH V. HEFFERNAN, General Attorney

### **Transfer Agent**

The Corporation Trust Company, New York 5, N. Y.

### Registrars

Preferred Stock: The Chase National Bank of the City of New York, New York 15, N. Y.

Common Stock: The New York Trust Company, New York 15, N.Y.

### TO THE STOCKHOLDERS OF RADIO CORPORATION OF AMERICA

**E** NGAGED in the supreme task of helping to win the war, the Radio Corporation of America in 1944 reached new peaks of productivity and service in research, engineering, manufacturing, broadcasting and world-wide communications.

During the year, expansion of wartime activities continued throughout the RCA organization to meet naval and military requirements and the increased demands for radio and electronic apparatus. The foremost objective of the management and employees of RCA was the fullest use of scientific resources, production facilities and communication circuits toward the achievement of Victory for the United Nations.

War products delivered to the United States and its Allies by the RCA Victor Division during 1944 established an all-time record and exceeded 1943 deliveries by 16 per cent.

National Broadcasting Company continued daily to devote a substantial portion of its time to the task of aiding government war campaigns and in keeping the American people informed.

Radiomarine Corporation of America shipped 17 per cent more apparatus for use by the Army, Navy and the Merchant Marine during 1944 than in 1943.

RCA Communications, Inc., handled 150,000,000 words of radio traffic, a large percentage of which related to the war.

Scientists in RCA Laboratories concentrated on wartime research in radio and electronics, including new electron tubes, radar and other devices, which for security reasons cannot be revealed.

RCA having observed its 25th anniversary in 1944, entered its second quarter century with full energy devoted to aiding the successful conduct of the war, ever mindful of the interests of America and its people in a postwar world at peace.

### FINANCIAL REVIEW

The financial statements of consolidated income and earned surplus for the years ended December 31, 1944 and 1943, and balance sheets at those dates, together with the certificate of the public accountants, appear on pages 27 to 32.

**Income:** A condensed statement of income for the years 1944 and 1943, excluding foreign subsidiaries, follows:

	1944	1943
GROSS INCOME FROM ALL SOURCES	\$326,421,913	\$294,535,362
Cost of Operations	286,210,722	258,218,910
INCOME BEFORE FEDERAL INCOME TAXES	\$ 40,211,191	\$ 36,316,452
FEDERAL INCOME TAXES	29,947,900	26,124,000
NET INCOME AFTER ALL DEDUCTIONS	\$ 10,263,291	\$ 10,192,452
EARNINGS PER SHARE OF COMMON STOCK (Net income after providing for annual		
dividends on Preferred stock)	51.2 cents	50.5 cents

**Taxes:** Provision for Federal income taxes — normal, surtax and excessprofits — was \$29,947,900 compared with \$26,124,000 in 1943, an increase of \$3,823,900. The 1944 provision for these Federal income taxes represents 74.5% of the income before such taxes, against 71.9% for the year 1943. These taxes were equivalent, in 1944, to \$2.16 per share on the outstanding Common stock, compared with \$1.88 in 1943.

In addition to Federal income taxes, the total of state, local, social security and other taxes for 1944 was \$5,307,680, compared with \$4,723,049 in 1943.

**Dividends:** Regular dividends for 1944 amounting to \$3,152,801 were paid to holders of First Preferred stock.

A dividend of 20 cents a share, amounting to \$2,771,123, was declared on December 1, 1944, and paid on January 30, 1945 to the holders of record of the Common stock as of December 15, 1944.

These dividends on Preferred and Common stocks totalled \$5,923,924,

**Earned Surplus:** After providing for all dividends and adjustments, including the writing off against earned surplus of \$3,671,931, representing the entire amount of goodwill shown on the balance sheet at December 31, 1943, the total earned surplus at December 31, 1944 amounted to \$43,645,087, an increase of \$2,039,436 over earned surplus at the end of 1943.

**Working Capital:** Bank Loans (under V Loan Credit) were reduced \$10,000,000 during the year. On February 15, 1945, an additional amount of \$20,000,000 was repaid, reducing current borrowings under the V Loan Credit to \$35,000,000.

The following comparative figures show the net working capital at December 31, 1944 and 1943.

	1944	1943
CURRENT ASSETS (Cash, Government secur- ities, notes and accounts receivable, in- ventories)	\$190,629,493	\$189,312,778
CURRENT LIABILITIES (Accounts payable, provision for Federal Income taxes, divi- dends payable)	78,251,944	73,977,334
NET WORKING CAPITAL	\$112,377,549	\$115,335,444
BANK LOANS (under V Loan Credit)	55,000,000	65,000,000
EXCESS OF CURRENT ASSETS OVER CURRENT LIABILITIES AND BANK LOANS	\$ 57,377,549	\$ 50,335,444

During the three-year period from December 31, 1941 to December 31, 1944, the working capital after deducting Bank Loans (V Loan Credit) increased \$35,062,710, and amounted on December 31, 1944 to \$57,377,549.

**Foreign Assets:** The Corporation's investment in foreign subsidiaries at December 31, 1944 is carried at the net amount of \$2,833,154 on the consolidated balance sheet. Substantially 90% of the assets of foreign subsidiaries are located in Canada and Latin America.

**Fixed Assets:** Capital additions and improvements during the year in plant facilities and equipment for manufacturing, broadcasting, communications, research and additions to the patent capital account, amounted to \$3,374,494, compared with \$3,149,548 during 1943. At the year-end, total fixed assets (plant and equipment and patents) less reserves, were \$31,137,556, compared with \$33,514,754 for the previous year.

# The following tables show the sources and distribution of the consolidated income for 1944 and 1943 of Radio Corporation of America and its domestic subsidiaries:

In 1944	In 1943		
\$244,245,587	\$211,386,587	\$32,859,000	15.5%
56,994,065	60,847,401+	3,853,336*	6.3%*
22,715,125	18,764,549	3,950,576	21.1%
2,467,136	3,536,825	1,069,689*	30.2%*
\$326,421,913	\$294,535,362	\$31,886,551	10.8%
	\$244,245,587 56,994,065 22,715,125 2,467,136	\$244,245,587       \$211,386,587         \$56,994,065       60,847,401+         22,715,125       18,764,549         2,467,136       3,536,825	average         over 19           \$244,245,587         \$211,386,587         \$32,859,000           56,994,065         60,847,401+         3,853,336*           22,715,125         18,764,549         3,950,576           2,467,136         3,536,825         1,069,689*

### WHERE IT CAME FROM

<sup>†</sup> This figure includes \$12,335,066 of income of the Blue Network Co., Inc., for the first nine months of that year.

### WHERE IT WENT

Ī	In 1944	IN 1943	INCREASE 1944 OVER 1943	
COST OF RAW MATERIALS, SUPPLIES, SUSTAINING PROGRAM TALENT, RENT, SALES AND ADVERTISING; PAYMENTS TO ASSOCIATED BROADCASTING STATIONS; RESEARCH, ADMINISTRA- TION, AND OTHER OPER- ATING EXPENSES	\$176,259,958	\$156,135,582	\$20,124,376	12.9%
Wages and Salaries to Employees	96,190,483	86,534,505	9,655,978	11.2%
DEPRECIATION AND AMORTI- ZATION	5,088,612	5,925,235	836,623*	14.1%*
PROVISION FOR POST-WAR REHABILITATION AND FOR				
Other Adjustments of Wartime Costs	1,580,000	2,955,000	1,375,000*	46 <b>.</b> 5%*
INTEREST	1,783,989	1,945,539	161,550*	8.3%*
TAXES	35,255,580	30,847,049	4,408,531	14.3%
DIVIDENDS TO STOCKHOLD- ERS	5,923,924	5,953,623	$29,\!699^*$	.5%*
CARRIED TO SURPLUS	4,339,367	4,238,829	100,538	2.4%
TOTALS	\$326,421,913	\$294,535,362	\$31,886,551	10.8%

\* Decrease.

### EARNINGS FOR THE PAST TEN YEARS

YEAR	Gross Income	NET PROFIT BEFORE FEDERAL INCOME TAXES	Federal Income Taxes	NET PROFIT AFTER FEDERAL INCOME TAXES	Earnings Per Share on Common Stock
1935	\$89,228,898	\$6,026,673	\$899,800	\$5,126,873	\$.137
1936	101,186,310	7,293,037	1,137,100	6,155,937	.212
1937	112,639,498	11,142,158	2,117,300	9,024,858	.418
1938	99,968,110	9,095,772	1,683,700	7,412,072	.302
1939	110,494,398	10,149,511	2,066,700	8,082,811	.350
1940	128,491,611	13,364,656	4,251,500	9,113,156	.425
1941	158,695,722	26,566,316	16,373,600	10,192,716	.502
1942	197,024,056	28,077,287	19,074,850	9,002,437	.417
1943	294,535,362	$36,\!316,\!452$	26,124,000	10,192,452	.505
1944	326,421,913	40,211.191	29,947,900	10,263,291	.512

(The figures shown for all years prior to 1941 include Foreign Subsidiaries)

### RCA RETIREMENT PLAN

The adoption of an employees' retirement plan has been under careful study by the Board of Directors for a number of years. Subject to the approval of stockholders, the Board of Directors has adopted, effective December 1, 1944, a Retirement Plan for the employees of the Corporation and its subsidiaries. The stockholders are asked to approve this action of the Board of Directors at the Annual Meeting of Stockholders to be held on May 1, 1945.

The purpose of the Plan is to assure employees life incomes upon retirement. The benefits, which normally begin at age 65, supplement Social Security benefits. The retirement income provided under the Plan consists of a pension based upon service prior to December 1, 1944 and an annuity for service after that date. The pensions are to be paid from a trust fund established by contributions from the company and the annuities are to be purchased from an insurance company by equal contributions from the employees and the company.

The Plan has been approved by the Commissioner of Internal Revenue as to compliance with the provisions of the Internal Revenue Code. As of February 1, 1945, approximately 10,400 employees, or more than 85% of those eligible to participate, were included in the Plan. Further information concerning the Plan will be sent to stockholders with the notice of the Annual Meeting.

In adopting the Plan, the Board of Directors was influenced by the premise that the factor which contributes most to success in the majority of business enterprises is an efficient personnel. In recognition of this factor it has become to an increasing extent the accepted practice of American industry to provide formal plans by which an organization may protect itself and its personnel against declining efficiency resulting from advancing years. A retirement plan which provides benefits based upon length of service and for retirement at a fixed age offers encouragement to younger men to remain in the service of the enterprise during their most effective years and attracts others to enter its service. Systematic retirements under the plan keep the ranks younger and the lines of promotion open. Thus the interests of the corporation and its stockholders are promoted by maintaining vigorous, competent personnel, and by higher morale throughout the organization which results from the greater security which such a plan affords.

Every employee of the Corporation and its domestic subsidiaries is eligible for retirement benefits under the Plan adopted by the Board of Directors, subject only to the age and length of service requirements which apply equally to all. This policy was deliberately chosen by the Board of Directors in preference to that of limiting the benefits to employees earning more than a specified amount.

There is being charged annually against income a substantial amount for depreciation, amortization and obsolescence of physical plant and equipment. This enables the Corporation to recover the cost of expenditures previously made to purchase plant and equipment and thus be in a position to replace them when needed with facilities which incorporate the most recent improvements of a constantly advancing technology. The Board of Directors urges that, upon a similar principle, the stockholders approve the setting aside, through the Retirement Plan, of an amount to maintain maximum efficiency and aggressiveness of the personnel upon whom the future of the enterprise largely depends.

### MANAGEMENT AND PERSONNEL

With deep regret, the Directors learned of the death on July 8, 1944, of William A. Winterbottom, Vice President and General Manager and a Director of RCA Communications, Inc. Mr. Winterbottom was a pioneer in radiotelegraphy and contributed greatly to the advancement of worldwide radio communication. For "services of immense value" in the war effort, he was cited posthumously in a Certificate of Appreciation awarded by the United States Army Signal Corps.

Lieut. Col. Thompson H. Mitchell was elected Vice President and General Manager and a Director of RCA Communications, Inc., on August 4 to succeed Mr. Winterbottom. Colonel Mitchell, first associated with RCA in 1927, was serving in the United States Army Communications Service, at the time he rejoined the Company.

In February, 1945, the Board regretfully accepted the resignation of General Charles G. Dawes as a Director of Radio Corporation of America, a post he filled faithfully since 1938. Niles Trammell, President of National Broadcasting Company, was elected a Director to succeed General Dawes.

RCA personnel on December 31, 1944, numbered 38,435. Of this number, 51 per cent were women, and 49 per cent were men.

The high degree of cooperation that has characterized the relations of

management and personnel throughout the war years continued during 1944, resulting in another year of outstanding achievement in service and production for the armed forces. Efforts of the employees in RCA manufacturing plants and the research laboratories have been rewarded by the Government through the presentation of six Army-Navy "E" Flags, the U. S. Maritime Pennant, Victory Fleet Flag and a total of nineteen stars for continued excellence in accomplishment.

The year has been marked by closer coordination of all phases of personnel administration. Labor relations have been satisfactory. Absenteeism and labor turnover have been below industry levels in nearly every month of the year. As in many other industries, manpower shortage has been a serious problem in every community in which RCA has manufacturing plants.

A policy for re-employment of war veterans, including their re-training and placement, has been established and put into operation.

The President and Board of Directors express appreciation to all employees for their untiring and patriotic efforts, and for their many constructive suggestions, thereby enabling RCA to supply the finest radioelectronic apparatus and services to the United Nations, to the Government and to American citizens.

The President of Radio Corporation of America, who has been a Reserve Officer in the U. S. Army since 1924, was on active military duty from March to December, 1944. He served overseas for eight months, in England and in France as Special Consultant on Communications at Supreme Headquarters, Allied Expeditionary Force. The Board of Directors of the Corporation granted him leave of absence for this duty. During this period of active military service he was promoted from Colonel to Brigadier General, and received the War Department's Legion of Merit Medal for "exceptionally meritorious conduct in the performance of outstanding service." In the absence of the President, the Chairman of the Board performed the functions of the President's office.

A total of 7,946 RCA employees had joined the armed forces of the United States at the end of 1944. Of this number, 77 gave their lives in defense of the United States. Their heroism and sacrifice for their country will live in our memory as an inspiration in serving America in war and peace.

### FOR THE BOARD OF DIRECTORS:

JAMES G. HARBORD, Chairman DAVID SARNOFF, President

New York, N. Y., February 27, 1945.

Proxies for the Annual Meeting of Stockholders, to be held May 1, 1945, will be requested later.

A notice of the meeting, proxy statement and form of proxy will be mailed to stockholders on or about March 10, 1945.

### THE WHITE HOUSE WASHINGTON

October 12, 1944

Dear Colonel Sarnoff:

Events occurring in the world today remind me that it was twenty-five years ago -- while the soldiers were returning from the First World War -- that the Radio Corporation of America was formed. I remember well that officials of the Navy Department urged the organization of an American radio communication company so that this country would not again be dependent upon foreign companies for communication with other parts of the world.

Luring these twenty-five years your company has played an important part in achieving pre-eminence of the United States in radio. I congratulate you personally for splendid leadership. Your organization throughout the years has created new wonders and brought into being new services in all phases of radio activity for the benefit of the American people and for people everywhere.

I wish you and all members of the RCA family continued success in pioneering. With television as a new postwar industry of great promise in the fields of employment, entertainment and education, I know that under your guidance and vision RCA will continue to contribute to the economic and cultural values created by radio.

May the next twenty-five years see your fondest dreams in the fascinating world of radio come true.

Very sincerely yours,

function Macrone to

Colonel David Sarnoff, President, Radio Corporation of America, 30 Rockefeller Plaza, New York, N. Y.

### **REVIEW OF RCA OPERATIONS FOR 1944**

N DECEMBER 1, 1944, Radio Corporation of America observed completion of its first twenty-five years of service. Organized as the result of suggestions by officials of the United States Navy, in order to provide an all-American communications company, RCA began business on December 1, 1919. The business and property of the Marconi Wireless Telegraph Company of America were acquired by RCA, to which a charter had been granted on October 17, 1919, under the corporation laws of the State of Delaware.

The first quarter century of RCA marked a period of growth and progress in which RCA created and put into practical use many of the outstanding developments in the field of radio and electronics. The experience and special knowledge gained in every phase of radio activity through pioneering, invention, exploration of space and commercial operation have been of great value in solution of problems related to the war and in successful development of new weapons needed to overcome the enemy.

### General Ingles Sees Radio Progress Far Advanced

On the occasion of the Anniversary, Major General H. C. Ingles, Chief Signal Officer of the United States Army, in recognition of RCA's contributions to the advance of radio and its cooperation in the war effort said:

"The relationship between the Army and RCA that has existed so admirably during this war, of course, did not start during the war. It has existed for a long time. Many, many times in peacetime we have asked RCA to conduct an investigation or some research and development work which they have gone ahead with and, incidentally, gone ahead with on their own and at their own expense.



U.S. Navy Photo

A "TALKER" ABOARD A U. S. CARRIER RELAYS ORDERS TO GUN CREWS THROUGH ELECTRONIC EQUIPMENT.

"We have drawn very heavily on you for personnel in the armed services and that personnel which we have drawn has extended all the way through your organization. . . . RCA started reconversion for production for the war effort in 1939. It foresaw, which undoubtedly the Navy foresaw and which the General Staff in the War Department foresaw that this was a world conflict.... A great deal has been done for the armed forces in RCA Laboratories. The research and development work which they have carried on has greatly advanced the war effort and, incidentally, has greatly advanced the communication science for many years to come. I think that right now we are probably where we would have been along about the year 1950 or 1955."

### Admiral Redman Envisages Greater Accomplishments

Rear Admiral Joseph R. Redman, Director of Naval Communications, in congratulating RCA and its personnel for their part "in making the United States a leader of modern communications throughout the world," said:

"I believe the Radio Corporation of America is alert to the future problems, just as it always has been in the past and will not fail to retain its leadership in the international field of communications . . . you have contributed 25 years of fruitful work and have accomplished wonders. I am sure that the authors of the 'Arabian Nights' or 'Twenty Thousand Leagues Under the Sea' in their wildest imagination could not anywhere dream what the Radio Corporation will accomplish in the next twenty-five years."

In acknowledging General Ingles' and Admiral Redman's gracious and generous reference to the Company, Brigadier General Sarnoff assured them "that we shall try our best not to disappoint you in any expectations that you may have of us."

Recalling 1919 when RCA emerged from the First World War, General Sarnoff said, "We see clearly how our destiny as a Company also was one

U.S. Navy 1



U. S. Marine Corps Photo





THE RADIO OPERATOR ABOARD A "BLACK CAT" IS A BUSY AIR-MAN, AS THE NAVY'S CATALINA BOMBERS PROWL THE NIGHT SKIES OF THE PACIFIC.

of preparedness to help win the Second World War. In the years between the two wars we employed our talents and our opportunities to serve America and its people, and by so doing we have helped to serve mankind. Having seen the inventions of our laboratories and the products of our plants in action on land and sea and in the air, I am proud of the RCA Family.

"It is appropriate on this 25th Anniversary of RCA that we express our deep appreciation to the RCA employees, past and present, whose loyalty and skill have meant so much in developing the Company into the great organization it is today; and to the RCA Board of Directors for their counsel and their guidance through years of peace and war, to our stockholders for their support of our undertakings, to our clients and to the public for their expression of confidence through the use of our products and services, we extend our sincere appreciation.

"Our road ahead is marked by great responsibility but also by golden opportunity. The achievements of radio during the past twenty-five years will, I am certain, be greatly surpassed during the next twenty-five years. ... Our obligations to society in research and engineering, in production and communication, will be carried into future generations. Our heritage is radio — a science, an art and an industry of boundless possibilities. Our destiny is to create, so that we may serve civilization with such distinction that at the end of our next twenty-five years — the completion of half a century — RCA will still be at the forefront of radio progress in 1969."

### Radio in the War

Five years of global warfare have intensified the demands upon communication as a military necessity. Radio, because of its speed, mobility and ability to cover any distance regardless of geographic barriers is the greatest single factor in coordination of the widely scattered battleforces. Experience and leadership of the Radio Corporation of America as a "Pioneer in Progress" have placed the company in the forefront of wartime advances in the use of radio and in the application of electronics.

The year 1944 was one in which new possibilities in research and engineering, envisaged only a few years ago for the distant future, became practical realities as the scientists rushed developments to serve in the war. It was a year in which science was turned against the enemy who used it for aggression and destruction.

Radio in modern warfare has proved to be a powerful force in every offensive, at every spearhead of advance, at every beachhead and on every bombing mission. In every invasion, radio has helped to close the global pincers on the enemy in Europe, Africa, Asia and the Pacific. D-Day, June 6, 1944, revealed as no other day since the advent of broadcasting, the world-wide service that radio performs in delivering news to millions of people at the very instant it happens. Radio covered the English Channel and provided the victorious invaders of "Fortress Europe" with communication and protection that enabled coordination of the land, sea and air forces as they swarmed across the waters, in the skies and up the beaches of Normandy.

Similarly, radio has helped to shrink the vast distances of the South Pacific as the fleet and the air force joined with the army in clearing the way to the Philippines and to the direct attack upon Japan.

One of the outstanding factors in the success of such operations is radar. Only mention can be made of the word "radar" today; the details of its scientific operation and its unprecedented performance must remain secret until after the war. It is one of the great wartime developments of science in which RCA is proud to have had a leading role in research, development and practical application.

Return of peace will find new wartime inventions available for application to everyday life, offering new services of safety and comfort, entertainment and education. Already hundreds of new radio-electronic devices are used in industry. The electron tube is the key which has unlocked the science of electronics enabling it to serve outside the field of communications, for example, in electron microscopy and radio-frequency heating. Electronics is the servant of accuracy, speed and efficiency. Through its application the electron tube brings a new meaning to the word "automatic" in mechanical and electrical operations.

When Victory is won the conversion of radio-electronics from war to peace will offer the opportunity to make greater use and wider application of the efficiency and craftsmanship which have established the RCA monogram as a trademark of fine products and dependable service in radio receivers and transmitters, electron tubes, radiotelegraphy, broadcasting, television, FM, Victrolas and records.

### **Recording Operations Resumed**

In the Annual Report for 1943, reference was made to the strike of the American Federation of Musicians against the making of recordings, and to the demand of the union (through its president, James C. Petrillo) that a payment, measured by sales of Victor records and NBC transcriptions, be made by the company directly to the union for disbursement by it at its discretion. This demand was resisted for twenty-seven months. For thirteen months of that period the matter was before the National War Labor Board. When the Board acted the union declined to accept its order. It also declined to accede to the request of the President of the United States that the union accept the order. Meanwhile, and more than thirteen months before execution of a contract between RCA and the union, all but one of the other important record manufacturers had yielded to the union's demand.

RCA's fight against this demand had been carried in the face of this competitive disadvantage and to the point where no practical legal remedy remained. The company then faced the alternative of going out of the phonograph record business or of acceding to the demand of the union. It was felt that the interests of RCA stockholders, its employees and artists, and the public all lay in the continuance of that business, and accordingly the contract was executed, in November, 1944. Within 24 hours after the execution of the contract, RCA Victor Division resumed the recording of *Red Seal* and *Bluebird* records. NBC was equally alert in the resumption of its electrical transcription activities.

### **Frequency Allocation Proceedings**

In October, 1944, the Federal Communications Commission held a hearing with respect to a reallocation of frequencies in the radio spectrum. Voluminous evidence was presented by representatives of the Commission, the Radio Technical Planning Board, companies in the radio business (including RCA, NBC and RCAC) and others. In January, 1945, the Commission issued a report in which it proposed to assign to television 12 channels below 300 megacycles for commercial operation and a large band of higher frequencies for experimental work and future services.

The management of RCA believes this proposal to be a constructive step toward the postwar development of television. It confirms the faith of RCA-NBC scientists and engineers that their years of television research and engineering have succeeded in developing satisfactory and practical television, of tried and tested standards. If the proposal is adopted it will make possible the expansion of television as a service to the American people immediately upon the release of manpower and materials from war demands. RCA Victor Division is in a position to assume a leading role in that expansion through the manufacture of television transmitting and receiving equipment, and NBC stands ready to aid in the development of television on a national scale by the creation of a television network broadcasting service.

U. S. Signal Corps Photo

THE COMMUNICATIONS OFFICE, KNOWN IN NAVAL PARLANCE AS "THE SHACK," IS A NERVE CENTER OF THE MODERN FIGHTING SHIP. RADIO OPERATORS BUSY AT INTER-SHIP 'PHONES, SWITCHBOARDS, TYPEWRIT-ERS, SENDERS AND RECEIVERS MAINTAIN CONTACT WITH OTHER VESSELS OF THE FLEET AND LAND BASES.







RADIO PLAYS A VITAL ROLE IN RECONNAISSANCE CONDUCTED FOR THE ARTILLERY.

### NATIONAL BROADCASTING COMPANY

A SERVICE OF RADIO CORPORATION OF AMERICA



America's No. 1 Network

Radio programs presented during 1944 by the National Broadcasting Company surpassed those of any previous year in significance and interest to the public. The increased scope of NBC activities during 1944 was accompanied by a larger demand for its facilities on the part of advertisers and advertising agencies. The company's volume of business in 1944 exceeded that of any previous year.

Unquestionably D-Day—June 6, 1944—was the most dramatic day of the year. The Allied invasion of France was the subject of months of intensive

planning and preparation by NBC to furnish American listeners with complete, up-to-the-minute news coverage. An augmented NBC news staff in London sent reporters to France by sea and air along with the first invasion troops. From 12:41 EWT on the morning of the invasion, news from Normandy took precedence over all other programs, and all NBC commercial programs were cancelled for twenty-four hours.

### **Overseas** News Staff Enlarged

Every day of the year, news of the war on all fronts was gathered and broadcast by NBC's experienced staff of reporters and commentators, many of whom shared the dangers and hardships of the troops. NBC mourns the loss of a staff member — Tom Treanor, who was killed in action in France. Wright Bryan flew across the Channel on D-Day and brought back to England the first story of the invasion. He later was wounded, captured by the Germans and then freed by the Russians. NBC's Roy Porter was the only radio newsman to accompany the first B-29 bombing mission over the Japanese mainland. George Folster and Owen Flaherty landed with General MacArthur's troops at Leyte on October 20, and on Luzon in January of this year.

During 1944, NBC network programs presented a total of 2,173 shortwave pickups from overseas, compared with 1,702 in 1943. At the yearend, the NBC staff of commentators and reporters numbered fifty-eight, compared with thirty-six the year before, serving in strategic locations all around the globe. A large NBC news staff attended the conventions of both major political parties, and transmitted frequent broadcasts each day from the convention hall in Chicago.

Throughout the year the Company contributed time, talent and facilities for many programs devoted solely to the war effort. In addition, all programs heard regularly over the network, both commercial and noncommercial, devoted substantial time to announcements and information in support of the Government and America's fighting men. War loan drives were promoted by many special programs and announcements.

War-effort programs presented by NBC during 1944 were typified by: THE ARMY HOUR, now rounding out its third full year as the official weekly report of the U. S. Army to the American people. Short-wave pickups from various parts of the world are heard on this program.

THE PACIFIC STORY, a dramatic series portraying the geographical and historical background of the war in the Pacific.

WORDS AT WAR, a weekly series of dramatizations of war books.

DOCTORS AT WAR, produced by NBC in cooperation with the American Medical Association, primarily to tell the American people about the medical care provided for men and women in the armed services.

### Educational Broadcasts Cover Wide Field of Activity

Cultural developments throughout the world were featured in the educational group of programs comprising the NBC University of the Air. Among them were THE AMERICAN STORY, by Archibald MacLeish, which traced the growth of American literature; WORLD'S GREAT NOVELS, a series of book dramatizations with commentary by eminent authors; STORY BEHIND THE HEADLINES, interpreting the historical background of current events, produced by Cesar Saerchinger with the cooperation of the American Historical Association. HOME IS WHAT YOU MAKE IT, an easy-totake course in home economics; WE CAME THIS WAY, presenting the historical development of freedom and democracy; MUSIC OF THE NEW WORLD, featuring composers of the Western Hemisphere; THE DEPARTMENT OF STATE SPEAKS, a series of round-table discussions of international questions by high-ranking members of the State Department; THEY CALL ME JOE, featuring the contributions to America by the nations and races of the world; PURSUIT OF LEARNING, a program series on postwar education.

Other NBC non-commercial programs which attracted wide attention included ARTHUR HOPKINS PRESENTS, consisting of Broadway plays with the stars who created the original leading roles; ATLANTIC SPOTLIGHT, an international exchange program put on by NBC in collaboration with the British Broadcasting Corporation; UNIVERSITY OF CHICAGO ROUND TABLE, one of radio's oldest and best-known programs for the discussion of vital issues of the day; and CONSUMER TIME, now in its twelfth year in the service of the buying public.

The importance of radio as a means of carrying into the home the solace and inspiration of religion was never more apparent than in 1944. NBC's weekly NATIONAL RADIO PULPIT, oldest regular religious program on the air, and THE CATHOLIC HOUR, now in its fourteenth year, continued to reach large audiences. THE ETERNAL LIGHT was inaugurated as a regular weekly feature, with the cooperation of the Jewish Theological Seminary of America.

Headed by Maestro Arturo Toscanini, the NBC Symphony Orchestra the world's first full-size, full-time symphony orchestra created especially for broadcasting—began its eighth consecutive year of weekly concerts, its second under the sponsorship of General Motors Corporation. Other noted conductors of the orchestra during 1944 included Leopold Stokowski, Eugene Ormandy and Frank Black.

Commercially sponsored programs of fine music also included THE TELEPHONE HOUR, with many noted soloists, among them, Fritz Kreisler in his radio debut; VOICE OF FIRESTONE, with Richard Crooks and other guest artists; WESTINGHOUSE PROGRAM, featuring John Charles Thomas; HIGHWAYS IN MELODY (Cities Service); HOUR OF CHARM (General Electric); STRADIVARI ORCHESTRA (Matchabelli); AMERICAN ALBUM OF FAMILIAR MUSIC (Bayer); and MUSIC AMERICA LOVES BEST (RCA), on which Victor recording artists are heard each week.

In a new series of programs, ORCHESTRAS OF THE NATION, NBC presented the symphonic organizations of leading American cities. A popular five-day-a-week NBC feature was SERENADE TO AMERICA, with outstanding young concert artists. NBC's unique FIRST PIANO QUARTETTE, in its third year, won praise from many enthusiastic listeners.

The programs of light entertainment, sponsored by leading national advertisers and broadcast by NBC, continued to attract the largest weekly audiences of any network. Many millions of people, soldiers and sailors abroad as well as civilians at home, were cheered and heartened each week by such well-known NBC programs and stars as Bob Hope, Jack Benny, Fibber McGee and Molly, Edgar Bergen-Charlie McCarthy, Kay Kyser, Bing Crosby, Dinah Shore, Joan Davis and Jack Haley, Abbott and Costello, Hildegarde, Amos 'n' Andy, Eddie Cantor, Information Please, Truth or Consequences, Duffy's Tavern and Mr. District Attorney.

### "Welcome Home Auditions" for War Veterans

The five programs having the largest weekly audiences were all NBC shows, according to the independent Hooper year-end survey; in popularity rating, eight of the first ten and twenty-eight of the first forty programs were credited to NBC. A poll of the opinion of a large cross-section of the nation's radio listeners—230,000 families—revealed that in the fourteen largest cities of the United States, and in 860 of 1,077 cities with a population of 10,000 or more, the evening programs of NBC had a larger listening audience than those of any other network. These figures are a tribute not only to program excellence but also to the facilities and services of the individual stations which comprise the NBC network from coast to coast.

NBC has initiated "Welcome Home Auditions," providing to former members of the armed services free auditions in the fields of music, acting and announcing, and also in script-writing, engineering and program production. These auditions have met with an enthusiastic response on the part of the veterans. A detailed report on each "auditionee" is sent to the NBC station nearest his, or her home town.

During 1944, as in 1943, the NBC International Division operated under a non-profit contract with the Government for the full use of its facilities and personnel. In addition to its own international transmitters, WRCA and WNBI, NBC was entrusted by the Government with the operation of three others, making a total of five 50-kilowatt short-wave trans-

# "This is the National Broadcasting Company"









Led by Maestro Arturo Toscanini, ti year of weekly radio concerts. On Election Night the world's hurge of information in the country. The "walkie-talkie," because of its Harkness and other NBC commentat News from Normandy was flashed The official report of Many activities in "The Army New" are the DEC The opera "Cassion" was see of t Studios during the p Ser 





## Symphony Orchestry in 1944 bouw Rolling Basiling Dullis in second data for the South Durant stands and South South South South Durant in Network political Control (1997) Stale data for 1967 American South South South South South South South South South







# NBC...first in world news



Robert St. John



Lowell Thomas



Morgan Beatty



John W. Vandercook



John MacVane



Merrill Mueller



H. V. Kaltenborn



**George Thomas Folster** 

## ... tops in entertainment



Bob Hope



**Eddie Cantor** 



Fibber McGee and Molly

Edgar Bergen and Charlie McCarthy



Bing Crosby



Jay Jostyn—"Mr. District Attorney"



Jack Benny



Abbott and Costello

mitters on the East Coast operated by NBC. Working closely with the Office of War Information and the Coordinator of Inter-American Affairs, the International Division broadcast a daily average of eighteen hours in eight languages. Programs in German, Italian, French, Danish, Swedish and English were beamed to Europe; in Spanish and Portuguese to Latin America. After the liberation of France, NBC received many grateful letters from French listeners, of which the following quotation is typical: "Now that the wall that separated us has been breached, I offer you all the thanks of a listener who since the end of 1939 has listened daily to you, whose remarkable broadcasts enabled me to keep intact my faith in the final victory of the Democracies."

More than a hundred stations affiliated with NBC in a Pan-American network have rebroadcast NBC programs in Latin America. In reverse, a series of musical programs from Latin America was rebroadcast in this country over the NBC network. A genuine contribution to hemisphere solidarity is being rendered by this affiliation and exchange of programs.

### **Television Activity Increased**

Despite wartime handicaps, the Company greatly increased the schedule of television programs broadcast over NBC's pioneer New York television station WNBT. Many of these programs are relayed to, and broadcast by, WPTZ, Philadelphia, and WRGB, Schenectady, this being the world's first television network operation. Among the most appreciative viewers of these programs are convalescent veterans in nine Army and Navy hospitals in and around New York, in each of which a group of television receivers has been installed by RCA and NBC. Station WNBT is on the air regularly five nights a week with boxing, wrestling and other sports events from Madison Square Garden or St. Nicholas Arena, New York, "live talent" shows produced in the NBC television studio in Radio City, and news and entertainment films.

A weekly feature in which the television audience shows intense interest is THE WAR AS IT HAPPENS, consisting of up-to-the-minute releases of U. S. Army and Navy war films. Motion picture film was flown daily to New York from the national political party conventions in Chicago and transmitted promptly to the television audience. On election night, continuous visual bulletins and tabulations of returns were televised, supplemented by personal appearances of NBC commentators.

In order to stimulate the progress of frequency modulation (FM) broadcasting, NBC announced in January, 1944, that its regular network programs would be made available to the FM stations of its affiliates, as new FM transmitting facilities become available. Thus the public will be enabled to receive NBC programs on both standard and FM receivers. In August NBC's New York FM station changed its basis of operations from experimental to commercial, and its call letters from W2XWG to WEAF-FM. This station, the first established in New York by any network broadcaster, transmitted a daily average of six and one-half hours of FM programs during the past year.

### RCA LABORATORIES

A SERVICE OF RADIO CORPORATION OF AMERICA

### RESEARCH



The war's challenge to research and invention was intensified in 1944. RCA Laboratories completed more than one hundred war projects for the armed services during the year.

These projects, conducted for the Army, Navy and the Office of Scientific Research and Development, resulted in the creation of radio-electronic weapons which now are contributing to victories on many battlefronts. Behind their success is a background of scientific knowledge and skill accumulated by RCA scientists and engineers through years of

pioneering and research that have made possible great advances in radio and electronics. Knowledge and techniques were ready for instant application to war problems.

While the outstanding developments of RCA research and development engineers during 1944 were devices for the armed services, advances also were made in related work outside the category of confidential activities. For example, one of the major achievements in the field of electron tubes was the development by RCA scientists of additional miniature tubes and other types to perform new functions. These tiny tubes will shrink the size of many postwar radio products, including home and portable radios, phonographs, television receivers, hearing aids and business machines. They make possible greater flexibility of receiving set designs and the use of improved features without enlarging the cabinets.

Creation of special electron tubes has made possible construction of a television transmitter to operate at frequencies up to 300 megacycles, that is, a wavelength of one meter. It is the first time a transmitter with a power output of 5,000 watts has been devised for television broadcasting on a frequency so high in the radio spectrum.

Another achievement of RCA Laboratories is a highly efficient optical system for projecting television pictures. This will have important applications in home television receivers to produce brighter pictures as large as 18 by 24 inches. It also involves a remarkable development—that of molding lenses from plastic material to reduce costs and to make the system economically practicable for home receivers.

RCA LABORATORIES, PRINCETON, NEW JERSEY—ONE OF THE WORLD'S FOREMOST CENTERS OF RADIO AND ELECTRONIC RESEARCH.



Through development of electronic time-interval counters, RCA research engineers have created apparatus for measuring the velocity of projectiles with an accuracy of 1/100,000 of a second. As a result, Army and Navy guns are firing with more deadly effectiveness.

Radar remained on the list of war "secrets" in 1944, but its fame as a weapon continued to grow. When the history of this development is written, it will record that scientists of RCA Laboratories were in the forefront of radar developments.

Research and pioneering in RCA Laboratories have broadened the usefulness of the radio spectrum, thus making available additional wavelengths which will be applied in new services after the war. One of these applications will be to radio relays, in the development of which RCA scientists and engineers have been active since 1924 in laying the groundwork for network television. It is expected that radio relays and automatic radio relay systems will augment existing wire and cable facilities for all kinds of communications services in this country and abroad. They can provide network circuits for television, FM and other broadcasting services, and they may link automobiles, airplanes, boats, "walkie-talkies" and "handie-talkies" with the communication services of the Nation and the world.

The electron microscope, developed in RCA Laboratories, continued in 1944 to be of great usefulness in war research. In addition it opened constantly broadening horizons for research men in medicine, biology, chemistry, metallurgy and other fields. Two advanced models were introduced during the year. One was a streamlined version of the large electron microscope being utilized in war work. The other was a console model for the Nation's disease fighters, food processors and research men working in smaller laboratories.

The broadening front of research included studies of radio-frequency heating and electronic applications in industrial processes. An important development of RCA Laboratories in this field during 1944 was an allelectronic drying system, which reduces the time required for the production of penicillin.







Accelerated operations of the United Nations in every theater of war were backed by the increased output of extremely important war equipment from all plants of the RCA Victor Division in 1944.

A new all-time high record of war production achieved by RCA was made possible by the exceptional performance of the workers in the plants at Indianapolis, Bloomington and Monticello, Indiana; Camden and Harrison, New Jersey; Lancaster, Pennsylvania, and Hollywood, California. During the year, the new plant at Lancaster, which RCA

built for the U. S. Navy for the manufacture of urgently needed cathoderay, power and other special purpose tubes, was brought into full production.

In these plants, more than a thousand RCA engineers are working on research, development and production of radio and electronic equipment vital to the war effort. Results of their accomplishments are found in the fact that RCA has built more than 200 new types of electron tubes and more than 350 types of apparatus not manufactured by anyone prior to the war.

The complete story of RCA Victor's war achievements must remain secret for security reasons. It can be disclosed, however, that RCA Victor has been, and is, the designer and first producer of many radio altimeters



VICTOR RECORDS COME OFF THE PRESS, STAMPED WITH THE "MUSIC AMERICA LOVES BEST".





IN THIS ALTITUDE CHAMBER, AIRCRAFT EQUIPMENT PRODUCED BY RCA IS TESTED UNDER CONDITIONS OF PRESSURE EQUIVA-LENT TO THOSE PREVAILING AT AN ALTITUDE OF 40,000 FEET.

used by the Army, the Navy and the British. This essential device enables airmen to measure their distance from the ground so accurately that it makes possible more effective flying operations at night, through fog and other difficult weather conditions. It also increases the effectiveness of low-level, high-speed attacks and hedge hopping missions; and it is equally valuable in paratroop operations and in dropping supplies from the air.

Leadership of RCA Victor was maintained in the production of "battle announce" equipment which carries messages, orders and running accounts of battle to men and officers throughout a naval vessel.

It can be revealed that RCA Victor exceeded all previous records in producing sound-powered telephone equipment, of which it is one of the largest suppliers to the Army and Navy. This electronic device works by voice power alone, and insures communication even when a ship's electrical system is disabled.

Vastly increased quantities of miniature tubes were produced in 1944. These miniature tubes, first developed by RCA engineers and publicly introduced in 1940 in the camera-size "Personal Radio," made possible the walkie-talkies, the handie-talkies, and other electronic devices for planes, tanks and motor transport where weight and size of equipment are important factors.

RCA metal tubes continued in great demand by the armed services, to which practically the entire output was shipped in 1944. Since RCA's tube activities throughout the year were devoted primarily to the war effort, only a limited number of tubes could be made available to civilians.

In keeping with the Army and Navy's extensive training film program, RCA Victor continued to be a major supplier of film reproducing and recording equipment. In battle areas, on board ship, at isolated outposts and in camps and bases, servicemen are being entertained with RCA-built film and sound equipment. Through similar equipment, thousands of war workers in factories, offices and shipyards enjoy music while they work. Radio frequency power generators built by RCA aided American and Allied war industries to speed production and improve the quality of many products that require heat processing in their manufacture.

Global war has brought world-wide assignments to RCA servicemen, who are called upon to perform strenuous service wherever United States armed forces are stationed. The job of installing and servicing electronic equipment and of training military and naval operating personnel has come first. The next most important job has been to keep home-front equipment such as radio, motion picture, plant broadcasting and industrial electronic apparatus in good repair.

Despite material shortages, RCA Victor continued to supply an unprecedented demand for Victor *Red Seal* records, and *Victor Black Label* and *Bluebird* popular records. The armed services used a large number of records for morale and training purposes. The demand for Victor records far exceeded productive capacity.

The problem of eventual resumption of civilian production is being given careful consideration. As soon as the Government permits, the RCA Victor Division is prepared to begin reconversion to commercial production as quickly and efficiently as it converted to war production. In the meantime, the first and most important task is to spare no effort to produce the equipment necessary to help shorten the war.

#### International Activities

Effective February 1, 1945, the RCA International Division was created. This Division places RCA in a more advantageous position to provide for anticipated expansion of the company's activities in foreign trade, including export to and sale in foreign countries of products manufactured by RCA, as well as products of non-affiliated companies which will be sold through RCA's foreign distribution channels.

Products of RCA are well-established abroad under eight subsidiary companies—in Canada, England, Australia, India, Mexico, Chile, Brazil, and Argentina—and through hundreds of distributors in these and other countries. The activities of RCA foreign subsidiaries and coordination of their manufacturing and sales functions with those of RCA Victor Division are under the RCA International Division.

EXPERIMENTAL MODEL OF PROJECTION-TYPE HOME TELEVISION RECEIVER, DEVELOPED BY RCA, PRESENTS A CLEAR 18 BY 24-INCH PICTURE IN MOTION.



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### **RCA COMMUNICATIONS, INC.**

A SERVICE OF RADIO CORPORATION OF AMERICA

COMMUNICATIONS



During 1944, RCA Communications, Inc., established new direct circuits with India and Gambia, British West Africa. Direct service with Paris, which had been interrupted since the German occupation of France, was resumed late in the year.

At the request of United States military authorities, and in cooperation with them, RCAC established and operated its own stations at Naples, Rome, and in Southern France. The primary purpose of these stations is to handle the tremendous volume of Government, press, and troop messages passing between

Europe and the United States.

The close cooperation which has existed between RCAC and the military and other departments of the United States Government, was continued throughout 1944, and additional transmitting and receiving facilities were provided for exclusive Government use.

*Expeditionary Force Message Service (EFM):* This inexpensive standard-text radiotelegraph service, available for use by members of the armed forces of the United States all over the world and for their families and friends, continues to demonstrate its popularity and usefulness. In 1944, RCAC handled approximately 1,500,000 EFM messages, an increase of 23 per cent over the previous year. The cost of sending an EFM message is only 60 cents, regardless of origin or destination.

Radiophoto Services Circuits operated by RCAC between New York and San Francisco, and with London, Moscow, Cairo, Stockholm, Berne, Buenos Aires, and Melbourne, as well as from Honolulu to San Francisco, continued to carry a large volume of radiophotos for the press, United Nations government agencies, and private business organizations. Of particular value to commercial users was the radiophoto circuit to countries with which mail service has been suspended or delayed.

OPERATING TERMINAL OF THE INTERNATIONAL RADIO CIRCUITS IN THE CENTRAL OFFICE OF RCA COMMUNICATIONS IN NEW YORK COMMUNICATES WITH ALL PARTS OF THE WORLD.



International Program Transmission Service: RCAC carried a majority of the short-wave programs and news commentaries heard on the broadcasting networks. Program service with Cairo was established early in the year. Many programs which were heard for the first time on the Army Hour came via RCA with the cooperation of the United States Army and the Army Airways Communications System. Broadcast listeners in the United States heard programs from such far away places as Teheran, New Guinea, Greenland, Baffin Land, and Leyte.

The RCAC stations in the European war theatre relayed many programs originating at United States Army portable stations on the Anzio Beachhead and in Southern France. Again, with the cooperation of the United States Military Authorities, excellent facilities in the Pacific theatre were made available to the networks for their commentaries from Guam, Honolulu, Leyte, and other points. The number of these broadcast programs handled by RCAC facilities in 1944 increased more than 100 per cent over 1943.

RCAC employees were awarded the U. S. Army Signal Corps' Certificate of Appreciation for "outstanding assistance to the armed forces." Lieutenant Colonel Thompson H. Mitchell, Vice President and General Manager of RCAC, and Commander Fred R. L. Tuthill of RCAC were awarded the War Department's Legion of Merit Medal for "conspicuous achievements of lasting benefit to the military service." Dr. H. H. Beverage, Associate Research Director of RCA Laboratories in Charge of Communications Research, and C. W. Latimer, Vice President and Chief Engineer of RCAC, were presented the Signal Corps' Certificate of Appreciation for valuable contributions to the war effort.

*Volume of Traffic:* While the ordinary commercial type of international radiotelegraph traffic has been curtailed as a result of the war, it has been replaced by Government and other traffic pertaining to the war effort so that the aggregate volume of messages handled was larger than ever.



MUSICIANS IN NEW YORK WATCH A SHOS-TAKOVICH MUSICAL SCORE ARRIVE FROM MOSCOW VIA RCA RADIOPHOTO FOR AN AMERICAN PREMIER OVER NBC.

EARLY IN 1944, RCA ENGINEERS AND OPERATORS, UN-DER THE SUPERVISION OF THOMAS D. MEOLA (THIRD FROM LEFT), ESTABLISHED THE FIRST AMERICAN COMMERCIAL RADIO STATION ON THE CONTINENT OF EUROPE AT NAPLES. SEVERAL MONTHS LATER A SIMILAR STATION WENT ON THE AIR AT ROME.



### **RADIOMARINE CORPORATION OF AMERICA**

A SERVICE OF RADIO CORPORATION OF AMERICA

MARINE RADIO



Radiomarine Corporation of America continued in 1944 to maintain its leadership in production of marine radio apparatus, and in equipping and servicing merchant vessels. A new development of console equipment comprising a complete installation of transmitter, receiver, auto-alarm, and emergency gear was completed during the year. Ship radio apparatus of various types was made for the Navy and War Departments.

Communication ranges of the Liberty Fleet were increased considerably during 1944 by the addition

of modern high-frequency equipment. The American merchant fleet was also fitted with improved designs of radio direction finders which are an invaluable aid to navigation.

A significant development to increase safety of life at sea is Radiomarine's new radio lifeboat set which provides two-way radiotelephone and radiotelegraph communication. Batteries have been eliminated by the use of a hand-driven electric generator. Another lifeboat radio development in 1944 was a portable two-way radiotelegraph transmitter and receiver housed in a compact watertight cylinder, and employing a hand-driven electric generator.

U. S. Naval regulations restricting radio communication on the high seas continued in effect. Radiomarine was permitted, however, to operate all but five of its Atlantic, Gulf and Pacific coastal stations for radiotelegraph traffic.

On the Great Lakes, Radiomarine operated its radiotelegraph station at Cleveland, Ohio, and its radiotelephone and radiotelegraph station at Buffalo, N. Y. Traffic volume in the Great Lakes area during 1944 was

RADIO AUTOMATIC ALARMS MOVING ALONG THE INSPECTION LINE BEFORE DELIVERY TO SHIPS OF THE AMERICAN MER-CHANT MARINE.





"HOOKING UP" SMALL RADIO-TELEPHONE SETS PRODUCED FOR WARTIME USE AT SEA.



THIS RADIO CONSOLE, DEVELOPED AND PRODUCED BY RADIOMARINE, IS ONE OF THE MOST MODERN AND COMPACT SHIPBOARD INSTALLATIONS, OPERATING ON A WIDE RANGE OF WAVELENGTHS.

double that handled during the previous year. On the Mississippi River and tributaries, additional radiotelephone installations were made on vessels plying these waters. Ship-to-shore communication in the Mississippi area was handled through the Radiomarine radiotelegraph and radiotelephone station at St. Louis, Mo., with a considerable increase in traffic over the previous year.

By the middle of 1945, the United States will have put into service approximately 4,500 new merchant ships, including tankers. A large number of these vessels will carry the latest Radiomarine equipment, and the installations will be maintained at maximum efficiency through the facilities of Radiomarine's twenty-three service depots located in the principal ports of the United States.

### **RCA INSTITUTES, INC.**

A SERVICE OF RADIO CORPORATION OF AMERICA

RCA Institutes, Inc., oldest radio technical training school in the United States, substantially increased its enrollment in 1944. Many of the new students are veterans of the war, preparing for jobs as radiotelegraph operators, technicians and maintenance men. During the year, a special course in television was attended by 300 engineers and employees of numerous broadcasting stations.

Tune-in RCA's radio program "Music America Loves Best" On the NBC Network, Sundays at 4:30 p.m., EWT

### RADIO CORPORATION OF AMERICA AND DOMESTIC SUBSIDIARIES

STATEMENTS OF CONSOLIDATED INCOME AND EARNED SURPLUS FOR THE YEARS ENDED DECEMBER 31, 1944 AND 1943

	Year Ended Dec. 31, 1944	Year Ended Dec. 31, 1943
GROSS INCOME:	,	,
From Operations (Note 1) Other Income, including Interest and Dividends	\$324 <b>,7</b> 54,150	\$293,325,560
from Other Investments	1,627,513	1,169,552
Dividends from Foreign Subsidiaries	40,250	40,250
TOTAL GROSS INCOME FROM ALL SOURCES	\$326,421,913	\$294,535,362
Deduct:		
Cost of Goods Sold, General Operating, Devel-		
opment, Selling and Administrative Expenses	00 <b>00</b> 000 101	<b>0047 000 100</b>
(Notes 2 and 3) Depreciation (Note 4)	$\$277,758,121 \\ 4,263,612$	$\$247,393,136\5,100,235$
Provision for Post-War Rehabilitation and for	4,205,012	5,100,255
Other Adjustments of Wartime Costs	1,580,000	2,955,000
Amortization of Patents	825,000	825,000
Interest	$_{}$ 1,783,989	1,945,539
TOTAL	\$286,210,722	\$258,218,910
BALANCE BEFORE PROVISION FOR FEDERAL INCOME		
AND EXCESS PROFITS TAXES	\$ 40,211,191	\$ 36,316,452
Deduct:		
Normal Tax and Surtax	\$ 4,960,200	\$ 5,921,500
Excess Profits Tax (Net) (Note 9)	24,987,700	20,202,500
TOTAL	\$ 29,947,900	\$ 26,124,000
NET INCOME FOR YEAR, TRANSFERRED TO EARNED	• • • • • • • • • •	• • • • • • • • •
Surplus Earned Surplus at Beginning of Year	\$ 10,263,291	\$ 10,192,452
EARNED SURPLUS AT DEGINNING OF TEAR	41,605,651	33,325,489
Add:	\$ 51,868,942	\$ 43,517,941
Net Effect of Change in Method of Inventory Valuation Effective January 1, 1944 (Note 5) Difference Between Book Value (Cost) and Amount Received on Sale of Blue Network	1,372,000	
Company, Inc	<u> </u>	5,619,482
	\$ 53,240,942	\$ 49,137,423
Less: Goodwill Written Off, as Authorized by Direc-		
tors	3,671,931	\$
Difference Between Book Value (Cost) and Amount Received on Sale of RKO Securities		110.007
Provision for Federal Income Taxes in Connec- tion with Sales of the Blue Network Com-	• • • • • • • • • • • •	118,687
pany, Inc. and RKO Securities Excess of Cost of "B" Preferred Shares Called	• • • • • • • • • • • •	525,000
for Redemption over Stated Value	••••	934,462
	\$ 3,671,931	\$ 1,578,149
	\$ 49,569,011	\$ 47,559,274
Deduct: Amount		
Dividends— per share		
On First Preferred 3.50	\$ 3,152,801	\$ 3,152,807
On "B" Preferred 2.50		29,728
On Common	2,771,123	2,771,088
Total Dividends	5,923,924	\$ 5,953,623
EARNED SURPLUS AT END OF YEAR (Note 6)	\$ 43,645,087	\$ 41,605,651
See notes on pages 30 and 31.		

### RADIO CORPORATION OF AMERIC

### CONSOLIDATED BALANCE SHEE

### ASSETS

CURRENT ASSETS:	Dec. 31, 1944	Dec. 31, 1943
Cash in Banks and on Hand	\$ 60,174,778	\$ 60,471,539
<ul> <li>U. S. Tax Anticipation Notes and Government Bonds, at Cost</li> <li>Notes and Accounts Receivable, including Amounts due from and chargeable to U. S. Government—1944, \$28,901,212—1943, \$31,- 671,699 (Less Reserves—1944, \$1,796,831—</li> </ul>	35,910,400	37,008,643
1943, \$1,603,899)	42,177,789	44,982,540
Inventories (at the Lower of Cost or Market) (Note 5) TOTAL CURRENT ASSETS	52,366,526 \$190,629,493	$\frac{46,850,056}{\$189,312,778}$
NOTES AND ACCOUNTS RECEIVABLE MATURING BE-		<u>+,</u>
YOND ONE YEAR (Less Reserves — 1944, \$27,116—1943, \$178,034)	\$ 201,609	<b>\$</b> 404,994
Post-War Refund of Excess Profits Taxes	\$ 5,469,923	\$ 3,530,634
INVESTMENTS AND ADVANCES: Wholly-Owned Foreign Subsidiary Companies (Note 7) (Less Reserves-1944, \$1,000,000 	<b>\$</b> 2,833,154	\$ 3,158,263
Associated and Other Companies, at Cost (Note 7) (Less Reserves—1944, \$1,691,849—1943, \$1,697,847) TOTAL INVESTMENTS AND ADVANCES	<u>497,071</u> \$ 3,330,225	<u>372,392</u> \$ 3,530,655
PLANT AND EQUIPMENT:	\$ 3,330,225	<u>φ 3,330,033</u>
Factories, Radio Communication and Broadcast- ing Stations, Laboratories, Warehouses, Service Shops, Offices, etc.:		
Land, Buildings and Equipment at Cost Less: Reserve for Depreciation and Write-	\$ 81,223,135	\$ 81,147,363
down of Plant and Equipment	53,430,891	51,619,699
	\$ 27,792,244	\$ 29,527,664
PATENTS	<b>\$</b> 13,532, <b>7</b> 44	\$ 13,828,064
Less: Reserve for Amortization	10,187,432	9,840,974
	\$ 3,345,312	\$ 3,987,090
Goodwill	<u>\$</u>	\$ 3,671,931
DEFERRED CHARGES: Taxes, Insurance, etc.	\$ 1,895,438	\$ 1,140,490
TOTAL ASSETS	\$232,664,244	\$235,106,236

See notes on pages 30 and 31.

### AND DOMESTIC SUBSIDIARIES

AT DECEMBER 31, 1944 AND 1943

### LIABILITIES AND CAPITAL

CURRENT LIABILITIES:	Dec. 31, 1944	Dec. 31, 1943
Accounts Payable and Accruals Provision for Federal Income and Excess Profits	\$ 33,542,480	\$ 39,723,512
Taxes	41,150,141	30,694,533
Preferred Dividend Payable	788,200	788,201
Common Dividend Payable	2,771,123	2.771,088
BANK LOANS:	<b>\$ 7</b> 8,251,944	\$ 73,977,334
90 Day Notes Payable—Renewable Under V Loan Contract to September 10, 1945 (Inter- est at 2 <sup>3</sup> / <sub>4</sub> %) (Note 6)	55,000,000	65,000,000
TOTAL CURRENT LIABILITIES INCLUDING BANK LOANS	\$133,251.944	\$138,977,334
RESERVE FOR POST-WAR REHABILITATION AND FOR OTHER ADJUSTMENTS OF WARTIME COSTS		
(Note 1)	\$ 4,589,008	\$ 3,639,303
RESERVE FOR CONTINGENCIES	\$ 3,400,431	\$ 3.106,174
GENERAL RESERVE	\$ 5,441,301	\$ 5,441,301
CAPITAL STOCK (Note 8):		
<ul> <li>\$3.50 Cumulative First Preferred, No Par Value—</li> <li>Authorized —920,300 Shares</li> <li>Outstanding—900,824 Shares</li> <li>At a Stated Value of</li></ul>	\$ 14,574,441	\$ 14,574,441
Common, No Par Value— Authorized —18,500,000 Shares Outstanding—13,881,016 Shares		
At a Stated Value of	27,762,032	27,762,032
Total Capital Stock	\$ 42,336,473	\$ 42,336,473
EARNED SURPLUS (Note 6)	\$ 43,645,087	\$ 41,605,651
TOTAL LIABILITIES AND CAPITAL	\$232,664,244	\$235,106,236

See notes on pages 30 and 31.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS PAGES 27, 28 AND 29

NOTE 1: Agreement was reached in 1944 on renegotiation of war contracts for 1943 although formally signed agreements have not yet been received. The refunds agreed to, after deduction of applicable taxes, were approximately \$613,000 more than the specific provision made in the financial statements at December 31, 1943. This excess has been charged to the reserve for post-war rehabilitation and for other adjustments of wartime costs.

Specific provision has been made in the 1944 financial statements, for renegotiation refunds applicable to that year on a basis not materially different from the settlement for 1943. Since the 1944 renegotiation proceedings have not yet been initiated, the refund finally agreed upon may differ from the aforesaid provision.

NOTE 2: The financial statements are prepared on the assumption that the Retirement Plan for the employees of the Radio Corporation of America and Domestic Subsidiaries adopted by the Board of Directors in 1944, subject to the approval of stockholders, will become effective as at December 1, 1944. The income statement for 1944 includes charges of \$1,210,000 representing payment to a trust fund of 1/10th of the actuarial valuation of past service benefits at December 1, 1944, and \$160,000 paid to an insurance company, representing the estimated amount of the December 1944 employer and employee contributions for future service benefits, both of which contributions were paid by the Company for that month. If the Retirement Plan should not become effective and these costs were eliminated, the net income for 1944 would be increased by approximately \$90,000 after reflecting the effect of federal income and excess profits taxes and other factors.

NOTE 3: This item includes provision of \$280,000 for 1944 and \$240,000 for 1943 for reserves against carrying values of investments in wholly-owned foreign subsidiaries.

Note 4: As a result of revisions in 1944 of the estimated remaining useful life of equipment used for war production only, the 1944 provision for depreciation was approximately \$1,000,000 less than the amount which would have accrued on the basis of the estimates used in 1943.

NOTE 5: From January 1, 1944, inventory valuations have included certain manufacturing overhead costs which were previously not included. The net effect of this change was credited to earned surplus at that date. The net income for 1944 was not materially affected.

NOTE 6: On February 15, 1945, the V loan notes payable were reduced to \$35,000,000. As at December 31, 1944 the portion of the parent company's earned surplus not restricted as to the payment of dividends by the V loan contract amounted to approximately \$13,196,000.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS PAGES 27, 28 AND 29

NOTE 7: The carrying value of the investments in and advances to the whollyowned foreign subsidiaries is based on the value of their net assets in the consolidated balance sheet at December 31, 1940. These companies have been excluded from the consolidation from January 1, 1941. A summary of the net assets of these subsidiaries (converted at the prevailing exchange export rates at December 31, 1944 and 1943, with the exception of fixed assets which are converted at the rates prevailing when the expenditures were made) follows:

	December 31, 1944		December 31, 1943	
	Canada, Central and outh America	England and Australia	Canada, Central and South America	England and Australia
Cash	\$3,279,701	\$269,014	\$ 975,668	\$137,483
Other net current assets.	619,433	190,170	2,111,952	306,147
Fixed assets	1,231,611	41,121	1,262,613	62,397
Other	311,388	5,299	236,801	4,262
	\$5,442,133	\$505,604	\$4,587,034	\$510,289
Total	\$5,947	7,737	\$5.097,	323

The net income of these subsidiaries for 1944 and 1943 was \$937,527 and \$378,786 more than the dividends received from them during these respective years. These amounts are not reflected in the consolidated financial statements.

The investments in and advances to associated and other companies includes \$492,175 in 1944 and \$364,070 in 1943, with respect to a two-thirds interest in Corporacion de Radio de Chile, S. A.

The consolidated balance sheets include receivables of the parent company and domestic subsidiaries from foreign customers and governments of approximately \$2,300,000 and \$2,000,000 in 1944 and 1943, which are payable in U. S. dollars and against which it is believed adequate reserves have been provided.

NOTE 8: There are 16,193 shares of B preferred stock authorized but none are outstanding. The common shares shown as outstanding include the following shares reserved for issue to stockholders of predecessor company, 1944-25,400; 1943-25,574.

NOTE 9: The net provision for excess profits tax is after deduction for (a) the estimated post-war refunds of \$2,695,300 and \$2,156,300, and (b) debt retirement credits of \$80,000 and \$88,300 for 1944 and 1943, respectively.

### ARTHUR YOUNG & COMPANY ACCOUNTANTS AND AUDITORS 1 CEDAR STREET

NEW YORK 5, N. Y.

### To the Stockholders of Radio Corporation of America:

We have examined the consolidated balance sheet of RADIO CORPORATION OF AMERICA AND DOMESTIC SUBSIDIARIES at December 31, 1944 and the statements of consolidated income and earned surplus for the year then ended, have reviewed the system of internal control and the accounting procedures of the Companies and, without making a detailed audit of the transactions, have examined or tested accounting records of the Companies and other supporting evidence, by methods and to the extent we deemed appropriate. It was not practicable to confirm, by direct correspondence, the amounts due from and chargeable to the United States Government, as to the substantial accuracy of which we satisfied ourselves by other means. Due to war conditions, it was not practicable for the Company to check the book values of work in process at one of its principal plants (which was carried at approximately \$17,000,000 at December 31, 1944) against a valuation based on physical inventories thereof. From our review of the records supporting such book values, we believe that they are not in excess of the lower of cost or market. Our examination was made in accordance with generally accepted auditing standards applicable in the circumstances and included all procedures which we considered necessary.

We have accepted the reports of other independent accountants on the financial statements, at November 30, 1944, for certain foreign subsidiaries (having a gross investment carrying value of less than 1% of the consolidated assets) which have been used in preparing the summary financial statements of the foreign subsidiaries included in Note 7.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated income and earned surplus present fairly the position of Radio Corporation of America and Domestic Subsidiaries at December 31, 1944, and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent, (except for the change referred to in Note 5, which we approve) with that of the preceding year.

New York, N. Y. February 24, 1945.

arthur. Young Company



THE principal products and services of the Radio Corporation of America are provided by the following divisions and subsidiaries:

#### RCA Laboratories PRINCETON, N. J.

Research and Advanced Development in Radio, Television, Electronics, Sound Recording and Reproduction.

Administration of Patents and License Agreements. Laboratory and Technical Service to Licensees.

#### RCA Victor Division

CAMDEN, N. J.

Apparatus and Technical Service for the United States Government RCA Victor Receivers

Radio and Electron Tubes

- Broadcasting Transmitters and Studio Equipment
- Televison Receivers, Transmitters and Studio Equipment
- Two-way Radio Communication and Facsimile Systems

Aircraft and Airport Radio Equipment Police Radio Systems

Faradon Condensers

Parts for Radio and Electronic Equipment Radio Laboratory and Test Equipment

boratory and lest Equipment

- Victrolas (Radio-Phonographs)
- Victor Records-Red Seal, Black Label and Bluebird.
- Sound Film Recording and Reproducing Equipment for Motion Picture Studios and Theatres

Public Address Systems

- Sound Systems for Educational and Industrial Uses
- 16 MM. Sound Motion Picture Projectors for Educational and Home Use
- Equipment for Amateur Radio Stations
- Electron Microscopes
- Electronic Products for Home and Industrial Uses

Note: During the war, production of many of the products listed above is discontinued or greatly restricted.

#### National Broadcasting Company, Inc. 30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

National Network Program Service International Broadcasting Service Recorded Program Service National "Spot" Advertising Service Television Program Service FM Broadcasting Service

### RCA Communications, Inc.

66 BROAD STREET, NEW YORK 4, N. Y.

Radiotelegraph Service between United International Program Transmission Service States and Foreign Countries International Radiophoto Service

To send a radiogram from any city in this country to a point outside the United States, mark the message "Via RCA" and file it at any telegraph office.

### Radiomarine Corporation of America

75 VARICK STREET, NEW YORK 13, N. Y.

Marine Radiotelegraph and Radiophone Radiotelegraph Service between Ships Transmitters and Receivers and Shore Automatic Radio Alarms Radio Direction Finders

#### **RCA Institutes, Inc.** 75 VARICK STREET, NEW YORK 13, N. Y.

Technical Instruction in Radio, Television and Electronics

For information on RCA Products write to RCA Victor Division; on Broadcasting to National Broadcasting Company, Inc.; on Radiotelegraphy to RCA Communications, Inc.; on Marine Radio to Radiomarine Corporation of America; on Technical Training to RCA Institutes, Inc.

For general information on RCA and various activities of radio, write to Department of Information, Radio Corporation of America, 30 Rockefeller Plaza, New York 20, N. Y.



### RADIO CORPORATION OF AMERICA

RCA BUILDING - 30 ROCKEFELLER PLAZA - NEW YORK 20, N.Y.