
RCA
Pamphlet Collection
what it is
what it does

WorldRadioHistory

what it is

what it does

answers to questions often asked

RADIO CORPORATION OF AMERICA

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

Copyright 1947, Radio Corporation of America

WorldRadioHistory

FOREWORD

WHEN the Radio Corporation of America was formed in 1919, it began operations with 457 employees. Today, RCA employs 40,000. For more than a quarter of a century, the loyalty and skill of its workers have kept pace with the challenges of science and the ever-changing commercial status of radio in its evolution toward continued improvement.

RCA is a symbol of radio progress throughout the world. Dedicated to pioneering in every phase of radio as a science, art and industry, it has been the mission of RCA to serve the nation in peace and in war. Through radio communications, it has entertained and informed people everywhere, in every walk of life.

In attaining these goals, RCA has achieved new records in service to

©CIA A 57612

WorldRadioHistory

the public. It has spun an international communications system around the earth linking more than sixty countries. It gave to America its first nation-wide radio networks, and led in the development of world-wide broadcasting. The voice of the United States has been put within listening range of every person on earth. In industry, thousands of new electron tubes have been developed to perform many tasks that lift man's burdens, enhance his safety and add to his pleasures. Short waves and microwaves have been harnessed for new services that add to America's preeminence in radio. The phonograph has been electronized. RCA scientists created the all-electronic system of television, first in black-and-white and then in color. They created shoran and pioneered in radar, loran, radio relay stations, FM (frequency modulation), radio heat, and the electron microscope.

The monogram RCA on any instrument is a mark of quality and scientific craftsmanship. It is a symbol of the Radio Age, representing the "know-how" gained from research and engineering over more than a quarter century. Behind all RCA products and services stands RCA Laboratories, one of the foremost centers of radio and electronic research in the world. New ideas cultivated in these Laboratories lead to new discoveries and inventions. They keep radio and electronics advancing for increased utility in the home, on the highways, on the seas, on the airlines and in industry—wherever radio and electronic devices are used.

As one of America's great industrial organizations, RCA recognizes the value of scientific research and its important role in peace and security.

Like science, radio is a limitless frontier. The search for new knowledge is unending. Through the vision of its scientists, the talent of its engineers, the confidence of its stockholders, and the ability of its management and employees, the Radio Corporation of America stands upon the threshold of the future, prepared to advance in service to America and the world.

WorldRadioHistory

RCA Building, Radio City, New York, is a world-center of radio. It is the home of the Radio Corporation of America and the National Broadcasting Company.

what it is

what it does

What is "RCA"? The letters "RCA" are the initials of the Radio Corporation of America, the parent of: RCA Victor Division, National Broadcasting Company, Inc., RCA Laboratories Division, RCA Communications, Inc., Radiomarine Corporation of America, RCA International Division, RCA Institutes, Inc., RCA Service Co., Inc., RCA Distributing Corporation, and five or six foreign companies.

What led to the formation of RCA? Prior to and during the first World War, the United States depended largely upon foreign-owned cables and wireless stations for communication with many important parts of the world. Great Britain was the communication center of the world. The war revealed to Americans that radio offered a new and competitive system; a starting opportunity for dissemination of intelligence. Development of radio would give the United States preeminence in radio communication, independent of other countries.

To accomplish this, RCA was formed as a result of suggestions by officials of the United States Navy. Arrangements were made to acquire the assets of the Marconi Wireless Telegraph Company of America. A charter was granted RCA under the corporation laws of the State of Delaware on October 17, 1919. The business and property of the American Marconi Company were acquired by RCA on November 20, 1919. On December 1, 1919, RCA began business as an all-American organization. Its charter provides that no person shall be eligible for election as a Director or officer of the Corporation who is not at the time of such election a citizen of the United States. The charter also specifies that the Corporation may, by contract or otherwise, permit such participation in the administration of its affairs by the Government of the United States as the Board of Directors deem advisable. A clause in the charter provides that at least 80% of the RCA stock outstanding shall be held by citizens of the United States.

The first Chairman of the Board of RCA was Owen D. Young; the first President, Edward J. Nally; David Sarnoff was Commercial Manager.

Where are the executive offices of RCA? Headquarters of Radio Corporation of America are in the RCA Building, 30 Rockefeller Plaza, New York City. This building is the tallest skyscraper in Rockefeller Center, popularly known as "Radio City."

WorldRadioHistory

BOARD OF DIRECTORS OF RCA

JAMES G. HARBORD

DAVID SARNOFF

ARTHUR E. BRAUN

GANO DUNN

EDWARD F. McGRADY

FRANK M. FOLSOM

EDWARD W. HARDEN

NILES TRAMMELL

EDWARD J. NALLY

JOHN T. CAHILL

JOHN HAYS HAMMOND, JR.

BERTRAM CUTLER

WorldRadioHistory

What is the nature of RCA's business, as outlined in its original charter? To send and receive signals, messages and communications; to create, install and operate a system of communication which may be international; to improve and prosecute the art and business of electric communication; to radiate, receive and utilize electromagnetic waves; to create, manufacture and sell consumer goods, and to hold and own patents and patent rights in radio, electronics and other fields.

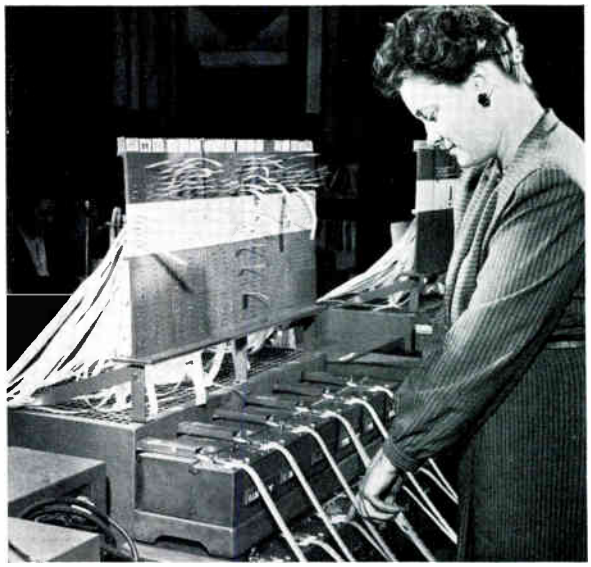
What are the industrial activities of RCA? Radio Corporation of America is one of the world's foremost radio organizations. Through its various divisions and wholly-owned subsidiaries, it is engaged in various phases of radio: research and engineering, design and development, manufacturing, domestic and foreign sales, communications, broadcasting and technical training.

Is RCA engaged in electronics? Yes; RCA has pioneered in the science of electronics, and its Laboratories are a foremost center of radio-electronic research, the key of which is the radio or electron tube. The RCA Victor Division, one of the world's leading manufacturers of electron tubes, makes a wide variety of electronic apparatus.

Does RCA have a centralized display of its products and services? Yes; the RCA Exhibition Hall at 36 West 49th Street, New York, displays the latest RCA radios and Victrola radio-phonographs, television receivers, electron tubes, electron microscope, phonograph records and marine radio equipment. In addition, animated exhibits explain the operation of domestic broadcast networks and of world-wide radiotelegraph circuits. Admission to the RCA Exhibition Hall is free.

How many people are employed by RCA and its subsidiaries? On April 1, 1947, RCA and associated companies had 40,633 employees.

A 12-inch cathode-ray tube for a shipboard radar installation is inserted in its protective metal casing.



Tapes carrying radiotelegraph messages from overseas are relayed through this machine to their destinations in this country.

WorldRadioHistory

Super-sensitive image orthicon television cameras in various stages of assembly.

Girl workers complete the wiring of loud speakers for radio receivers.

What are RCA's personnel and labor policies? The management recognizes that the loyal cooperation of employees is of basic importance to the success and progress of RCA. The company maintains, in all of its units, competent personnel administration, and a wide variety of educational training, social, and recreational facilities is provided. Employment is on the basis of merit and efficiency as determined by such factors as character, dependability, skill, intelligence, and physical fitness.

It is the company policy to pay as high wages, under as favorable hours and working conditions in similar classes of work, as those prevailing in the areas in which the company's plants are located or operations are carried on. In instances where employees choose to bargain collectively, the employing company deals willingly and frankly with their authorized representatives. At present, there are in force a number of contracts between the various companies and 37 separate bargaining agencies. Of these, all but seven independent unions are affiliated with the A. F. of L., or C.I.O.

Members of a dramatic cast read their roles before a microphone in a Radio City studio.

WorldRadioHistory

Edward F. McGrady, who for four years had been Assistant Secretary of Labor, in 1938 became RCA's Vice President in charge of Labor Relations and a member of the Board of Directors.

Who owns the Radio Corporation of America? Ownership of RCA is widely distributed among approximately 215,000 stockholders, in every state of the Union. No stockholder of record holds as much as 2% of the total outstanding voting securities of the Corporation. Less than 6% of the stock is held by foreign stockholders.

What is RCA's capital structure? There are two classes of RCA stock:

	Shares Outstanding
$3.50 Cumulative First Preferred	900,824
Common	13,881,016

Do RCA stocks pay dividends? Regularly quarterly dividends have been paid on the Preferred stock. In 1946 these dividends amounted to $3,152,800. Dividends at the rate of 20 cents per share have been paid annually on the Common stock during the past ten years. The Common stock dividend in 1946 amounted to $2,771,337. Total 1946 dividends paid to RCA stockholders amounted to $5,924,137.

In 1946 net earnings were approximately 3.5 times dividend requirements on the First Preferred stock. During the ten-year period, 1937 to 1946, inclusive, net earnings averaged approximately 3 times these requirements. In the same ten-year period, dividends on Common stock have totaled $27,709,896 and the company's earned surplus has been increased by $38,764,394.

Television receiver operation is explained by an instructor at RCA Institutes.

Infra-red lamps dry the fluorescent screen of a television picture tube while being processed.

WorldRadioHistory

What was RCA's volume of business in 1946? The Consolidated Gross Income of Radio Corporation of America and its domestic subsidiaries for the year 1946 was $236,980,770.

WHERE IT CAME FROM

RCA*	$159,959,655
NBC	61,067,034
RCA Communications and Radiomarine	19,946,709
Less Inter-Company Transactions	*3,992,628***
Total	$236,980,770

WHERE IT WENT

Cost of Raw Materials, Supplies, Sustaining Program Talent, Rent, Sales and Advertising; Payments to Associated Broadcasting Stations; Research, Administration, and Other Operating Expenses	$124,442,329
Wages and Salaries to Employees	90,990,036
Depreciation and Amortization	3,243,439
Interest	230,971
Taxes	5,292,942
Portion of expenses incurred for Post-War Rehabilitation and for Other Adjustments of Wartime Costs	1,796,000
Dividends to Stockholders	5,924,137
Carried to Surplus	5,060,916
Total	$236,980,770

*The parent company (which includes the manufacturing business) and domestic subsidiaries not listed above.
**Italic figures denote decrease.

What is RCA's record of earnings for the past 10 years? The earnings of Radio Corporation of America and its domestic subsidiaries during the ten-year period from 1937 to 1946 inclusive, were as follows:

YEAR	GROSS INCOME	NET PROFIT BEFORE FEDERAL INCOME TAXES	FEDERAL INCOME TAXES	NET PROFIT AFTER FEDERAL INCOME TAXES*	PERCENTAGE OF GROSS INCOME		EARNINGS PER SHARE ON COMMON STOCK
					PROFIT BEFORE TAXES %	PROFIT AFTER TAXES %	
1937	$112,639,498	$11,142,158	$2,117,300	$9,024,858	9.9	8.0	.418
1938	99,968,110	9,095,772	1,683,700	7,412,072	9.1	7.4	.302
1939	110,494,398	10,149,511	2,066,700	8,082,811	9.2	7.3	.350
1940	128,491,611	13,364,656	4,251,500	9,113,156	10.4	7.1	.425
1941	158,695,722	26,566,316	16,373,600	10,192,716	16.7	6.4	.502
1942	197,024,056	28,077,287	19,074,850	9,002,437	14.3	4.6	.417
1943	294,535,362	36,316,452	26,124,000	10,192,452	12.3	3.5	.505
1944	326,421,913	40,211,191	29,947,900	10,263,291	12.3	3.1	.512
1945	279,503,615	30,484,068	19,167,000	11,317,068	10.9	4.0	.588
1946	236,980,770	14,346,353	3,361,300	10,985,053	6.1	4.6	.564
ANNUAL AVERAGE	$194,475,505	$21,975,376	$12,416,785	$9,558,591	11.3	4.9	.455

*The figures for 1945 and 1946 are after adjustments for tax credits and charges to the reserve for post-war reconversion expense, as set forth in the financial statements for those years. For 1937 to 1940, the figures include foreign subsidiaries.

WorldRadioHistory

What are the working capital and net worth of RCA? RCA's working capital (the excess of current assets over current liabilities) at December 31, 1946, amounted to $74,685,739. RCA's net worth on the same date was stated at $101,876,817.

The total assets, liabilities and capital of Radio Corporation of America and its domestic subsidiaries, as shown by its consolidated balance sheet on December 31, 1946, were as follows:

ASSETS

Current Assets		
Cash and Government Securities		$ 32,956,950
Notes and Accounts Receivable (less reserves)		36,842,250
Estimated Recovery of prior years Excess Profits Taxes		3,108,000
Inventories		55,842,929
Total Current Assets		$128,750,129
Investments in Foreign Subsidiaries and other Associated Companies		$ 3,471,307
Plant and Equipment (less reserves)		49,466,753
Patents (less reserve)		4,954,517
Other Assets		2,983,541
Total Assets		$189,626,247

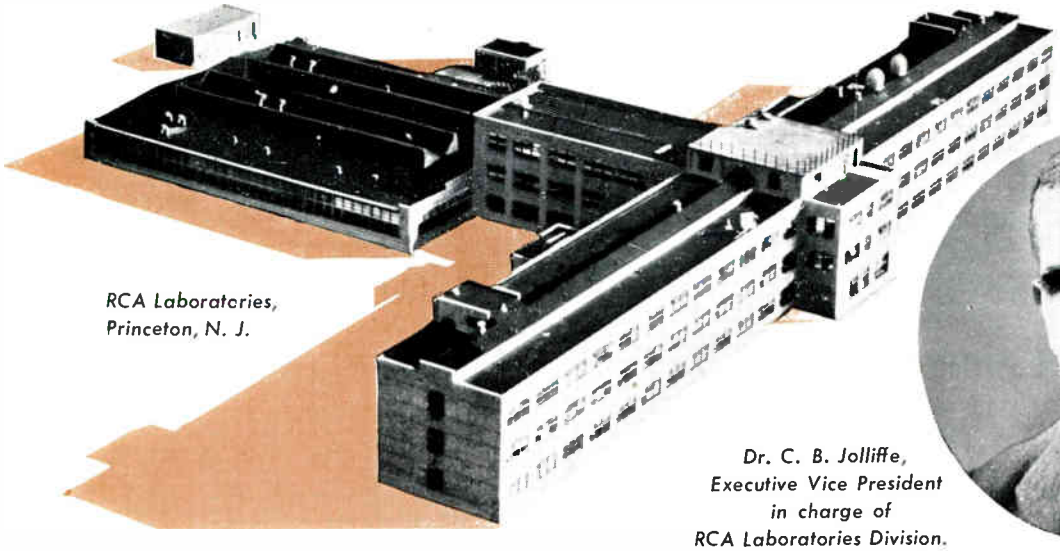
LIABILITIES AND CAPITAL

Current Liabilities		
Accounts Payable and Accruals		$ 35,835,330
Provision for Federal Income Taxes		14,669,523
Dividends Payable		3,559,537
Total Current Liabilities		$ 54,064,390
Bank Loans		$ 30,000,000
Reserve for Contingencies		$ 3,685,040
Net Worth consisted of		
General Reserve	$ 5,441,301	
Capital Stock, at a stated value of	42,336,473	
Earned Surplus	54,099,043	
Total Net Worth		$101,876,817
Total Liabilities and Capital		$189,626,247

NOTE: The Assets, Liabilities and Capital, as tabulated on this page, are merely a summary of the Consolidated Balance Sheet of RCA on December 31, 1946. For complete facts and figures, please refer to the Annual Report of Radio Corporation of America for the year 1946.

WorldRadioHistory

RESEARCH and ENGINEERING



RCA Laboratories,
Princeton, N. J.

Dr. C. B. Jolliffe,
Executive Vice President
in charge of
RCA Laboratories Division.

What is the policy of RCA toward scientific research? The Radio Corporation of America has always recognized that research is a true guarantee of continued progress and a bulwark of national security. Consequently, since the formation of RCA, research has been a major activity. Research is centered in RCA Laboratories Division. The main laboratory building is in Princeton, N.J., with outlying locations in New York; Riverhead and Rocky Point, Long Island; Chicago, and Washington, D. C. As befitting one of the foremost centers of radio and electronic research in the world, the search for knowledge at RCA Laboratories is continuous.

What is the purpose of RCA Laboratories? The primary aim of RCA Laboratories is to increase the usefulness of radio and electronics to the Nation, to the public and to industry. Scientific investigations conducted by RCA are directed toward gaining new knowledge, toward improvement in methods and devices for every branch of radio, electronics and their production and operation processes, and toward the creation of new products and services.

While developing projects speedily applicable to commercial needs, and conducting research to provide a constant flow of new technical knowledge, RCA continues close cooperation with the military services of the United States, conducting specific research to help guarantee the scientific and technological preparedness and security of the Nation.

Is RCA research confined to radio? Modern radio is closely allied with many branches of science such as electronics and acoustics, and as radio progresses, new sciences are continually being brought within its horizon. RCA has extended its research into many fields such as optics and chemicophysics. Studies which have resulted from this work, or as by-products of radio and television research, include fluorescent and phosphorescent materials, the electron microscope, specialized work in plastics and the application of

WorldRadioHistory

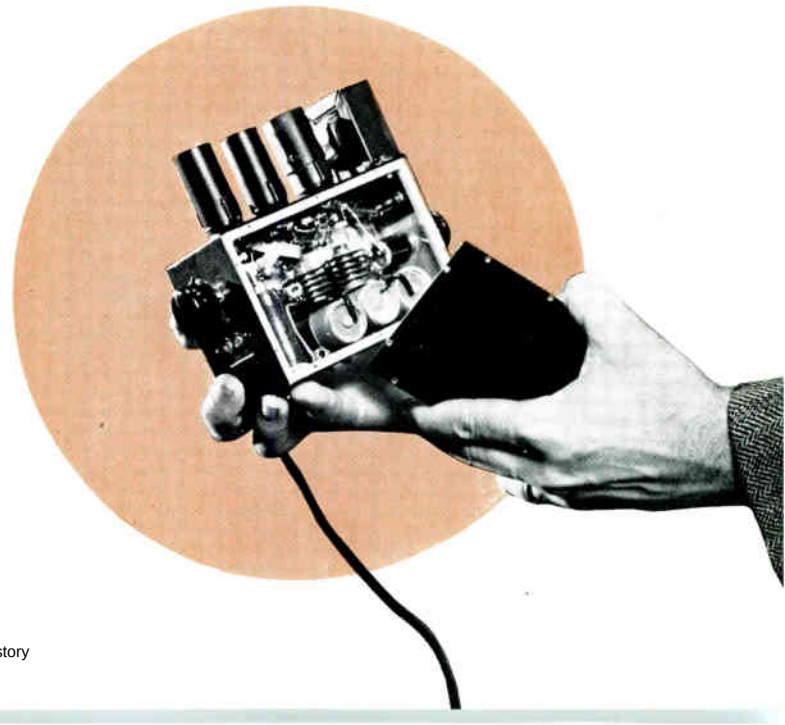
radio frequency to industrial heat-treating processes.

Are the research and engineering activities of RCA limited to RCA Laboratories? As a logical adjunct to research, each company and division of RCA has its own engineering department to assist in the solution of engineering problems, to conduct applicable product engineering and to exercise immediate engineering supervision over technical operations. These engineering departments include staffs at the National Broadcasting Company headquarters in Radio City as well as at each NBC-owned broadcasting station, at each plant of the RCA Victor Division, at RCA Communications, Radiomarine Corporation of America, and RCA International Division. In addition, RCA Service Company and the faculty of RCA Institutes consist almost entirely of engineering personnel.

Does RCA maintain close liaison with government agencies? In addition to work performed for the armed forces by the Research Department, one section of RCA Laboratories Division, the RCA Frequency Bureau, has as its sole function the maintenance of close liaison and cooperation with the Federal Communications Commission, the State Department and other Government agencies. This bureau secures frequency assignments for RCA and affiliated companies, provides data and compiles required government reports, and is represented at national and international telecommunication conferences.

Does RCA publish information concerning the results of its research and engineering? Scientists and engineers of RCA are active contributors to leading technical journals, and also present technical papers at engineering meetings throughout the country. In addition, RCA Laboratories Division publishes the quarterly technical journal, RCA REVIEW. A Technical Book Series, technical pamphlets and indexes, also issued by RCA REVIEW department, are included in RCA's technical publications.

Does RCA make its inventions and patents available to other manufacturers? RCA makes available to competitive manufacturers in radio and related fields its inventions and patents by means of patent licenses at moderate royalty rates. By this means the accomplishments of RCA scientists are promptly made to serve the government and the public in the most efficient manner. To assist its licensees, RCA Laboratories Division maintains an Industry Service Laboratory through which licensees are kept informed of new technical developments, advised how best to apply them, and given assistance in the solution of technical problems. In addition to several completely-equipped laboratories, a mobile field laboratory provides test and measuring equipment which can be employed under all conditions in any location, for studies in relation to television, frequency modulation, facsimile and standard broadcasting.



This simple converting device enables black and white television receivers to receive color programs in monochrome.

WorldRadioHistory

What are some of the outstanding developments of RCA research? RCA pioneering research has been responsible for many of the outstanding contributions in radio and electronics. High on the list of developments is electronic high-definition black-and-white television, rapidly expanding into an important service to the public. Further research in television produced the RCA simultaneous all-electronic color television system now in the advanced laboratory stage. Pursuing original investigations in ultra-high frequencies, new applications have been made in the spectrum of micro-waves, including uses in television, radar, and in automatic radio-relay stations. Recent radio tube developments provide transmitters having high power at frequencies of more than 500 megacycles for television service; this ceiling is rapidly being raised. Sound being the backbone of radio, widespread research has been conducted in acoustics with fruitful results.

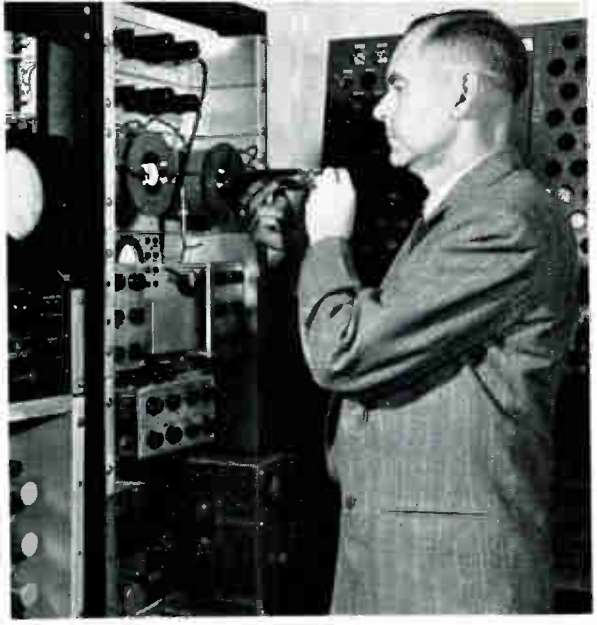
Trinoscope projector which makes possible reproduction of television programs in natural color by RCA's simultaneous all-electronic color system.

Research in television, which led into the realm of electron optics, has brought numerous outstanding developments, including the RCA electron microscope, which enables the human eye to see deeply into the submicroscopic world. Recent research in this field has made it possible to obtain consistently, in a late laboratory model of the microscope, magnifications as high as 100,000 diameters.

Many types of vacuum tubes have been created for myriad uses in radio and industry. The new supersensitive pick-up tube, or "eye", for the television camera — the image orthicon — makes it possible to televise scenes even when illumination is provided by a single candle.

Explorations in radio have pointed the way to useful developments applicable to other fields. For example, early work in the realm of microwaves led to development of various radar devices including the RCA altimeters which were widely used in aircraft during the war. Many types of special tubes also were developed for wartime radar applications. Research is progressing toward the adaptation of some of these tubes to peacetime uses such as television in the ultra-high-frequency ranges. Intensive development work is proceeding on the Teleran air navigation and traffic control system. A wartime development —the storage tube—shows great promise of peacetime use in this and other applications. Efforts in television research to find a way of eliminating reflections from glass, led to RCA's chemical process for making low-reflection glass and the Magicote process that greatly increases the efficiency of lenses. Extensive investigations in the field of radiothermics — the application of heat generated

WorldRadioHistory



Tube-testing equipment in use at the RCA Laboratories, Princeton, N. J.

Inserting a high-power, high-frequency television transmitting tube in its housing.

by high-frequency radio waves — have led to numerous new developments such as the electronic sewing machine.

A new antenna, consisting of three distinct radiating systems, has been developed and installed on top of the Empire State Building, in New York, thus providing transmitting facilities for NBC's standard television transmitter, WNBT, and for a 288-megacycle experimental television transmitter as well as a transmitter for the FM band. This unique antenna has much higher transmitting efficiency and lower wind resistance than the one it replaced.

An FM circuit, called a "ratio detector", has been developed by RCA. It aids in eliminating interference and its use reveals superior merit over circuits previously used for FM reception, particularly in low-priced receivers.

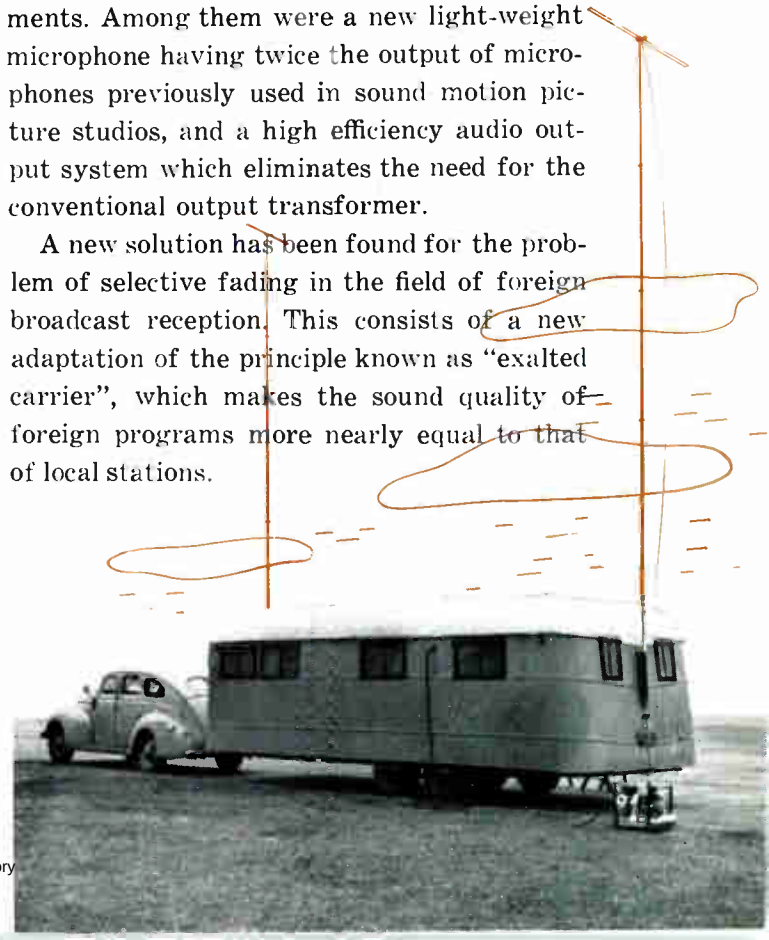
For use in solving various mathematical problems frequently found in radio, acoustic and chemical research, an electronic computing device has been developed which is capable of solving ten simultaneous equations. In little more time than is needed to set up a problem on its dials, the computer provides the answer that, by conventional methods, would require hours of laborious effort.

Research in the field of electronic counters has resulted in making available a commercial counter capable of measuring time in units as small as one millionth of a second.

The RCA radiophoto system, another product of RCA research, brings pictures in a few minutes over long distances. Facsimile transmission and reception multiplexed with sound is still another RCA development.

Research in the field of acoustics during 1946 resulted in several outstanding developments. Among them were a new light-weight microphone having twice the output of microphones previously used in sound motion picture studios, and a high efficiency audio output system which eliminates the need for the conventional output transformer.

A new solution has been found for the problem of selective fading in the field of foreign broadcast reception. This consists of a new adaptation of the principle known as "exalted carrier", which makes the sound quality of foreign programs more nearly equal to that of local stations.



RCA's mobile laboratory can travel anywhere in the country for field tests of radio, frequency modulation and television signals.

WorldRadioHistory

PIONEERING IN RADIO

SOME RCA "FIRSTS" IN THE RADIO FIELD

World-wide communication inaugurated by RCA in 1920 was greatly extended in 1921 with the opening of "Radio Central" on Long Island, featuring the 200-kilowatt Alexanderson alternators.

Dempsey-Carpentier fight on July 2, 1921, broadcast by RCA from Boyle's Thirty Acres in Jersey City, as the first world's heavyweight championship on the air.

High-speed transmitters and automatic receivers installed on ocean liners in 1923 to handle increased radio traffic.

Short waves applied in 1924 to RCA transatlantic communication featuring vacuum tubes rated at 20 kilowatts.

First radiophoto transmitted by RCA across the Atlantic was of Charles Evans Hughes, sent on July 6, 1924, from New York to London where it was radioed back across the sea and recorded in New York.

First rebroadcast from London heard on February 14, 1925, through RCA stations WJZ, New York, and WRC, Washington.

Broadcasting transmitters of RCA participated in 24 station hook-up handling Coolidge inaugural in 1925, first event of its kind on the air.

Initial international broadcast program transmitted from Chelmsford, England, picked up at Belfast, Maine, and relayed by short wave to New York, for rebroadcast by RCA's station WJZ, March 1925.

Radio facsimile messages, maps and pictures sent by RCA radiophoto system on May 7, 1925, from New York to Honolulu.

Picturegram of a check sent from London to New York by RCA radiophoto on April 20, 1926, was honored and cashed in New York.

National Broadcasting Company organized as a service of RCA on September 9, 1926, to conduct nationwide network broadcasting.

World series broadcast for the first time by WJZ in October 1926.

Radio receiving sets and tubes designed for complete alternating current operation, introduced by RCA for home use in 1927.

The Radiomarine Corporation of America—a service of RCA—was organized on January 1, 1928 to operate in the marine communication field.

RCA Communications, Inc., organized January 3, 1929, to conduct RCA's international radiotelegraph service.

New noiseless system of recording introduced to the motion picture industry by RCA in 1931.

Self-contained, portable ultra-high frequency knapsack transmitter built by RCA in 1932 for use in broadcasts of outdoor events and for military scouts in the field.

RCA, at the Navy's request, began development work on sonar, an underwater sound system, in 1934, following considerable independent research by RCA scientists and engineers. Sonar was credited by the Navy with the destruction of nearly 1,000 enemy submarines in the Atlantic during World War II.

Electron multiplier tube developed by RCA Laboratories demonstrated in 1935, multiplies amplification hundreds of thousands of times within a single tube.

Automatic SOS alarm for use on vessels not having a radio operator on constant watch, introduced by RCA in 1935.

First ultra-high-frequency automatic relay circuit opened by RCA in 1936, between New York and Philadelphia, transmits simultaneously facsimile and multiple radiotelegraph messages.

First full-size symphony orchestra organized exclusively for broadcasting introduced by NBC under Arturo Toscanini, conductor, in 1937.

A radio altimeter embodying radar principles was developed by RCA in 1937 during research on collision prevention apparatus.

Dr. V. K. Zworykin of RCA Laboratories, in December 1939, at the annual meeting of the American Association for the Advancement of Science, announced that he was working on the development of an electron microscope; in April 1940 he announced the completion of the instrument which has attained magnifications of more than 100,000 diameters.

Utilizing the space-saving advantages of its miniature tubes, RCA introduced the pocket-sized "personal" radio receiver in 1940.

Radiophotos, the first ever received in New York from Moscow, picked up by RCA on July 8, 1941.

RCA Alert Receiver turned on and off by a special signal from broadcast transmitter, rings bell, lights electric lamp or blows siren to summon listeners, demonstrated on July 28, 1941, for possible use in civilian defense.

WorldRadioHistory

Ground broken on August 8, 1941, for new RCA Laboratories at Princeton, N. J., to be the foremost center of radio and electronic research in the world; cornerstone laid on November 15, 1941.

RCA electron microscope at the University of Pennsylvania magnified the influenza virus 65,000 times, making possible the first photograph ever taken of the virus, as announced on November 22, 1941.

Advanced types of miniature tubes, not much larger than an acorn, were introduced by RCA beginning in 1942. These small tubes were developed to meet the demands of wartime military equipment but their use in peacetime is expected to make possible smaller radio and television receivers and more effective hearing aids.

The electron micro-analyzer, growing out of research on the electron microscope, was a new scientific development at RCA Laboratories in 1943. This instrument makes possible the determination of the atomic composition of sub-microscopic particles of matter.

First direct radiophoto circuit between Australia and United States opened by RCA (March 20, 1942); between New York and Cairo (June 24, 1942); New York and Stockholm (February 22, 1943); New York and Berne (September 21, 1943); direct radiotelegraph circuits between New York and Dakar (March 10, 1943); between New York and Naples (February 1, 1944). For the New York-Italy circuit, RCA set up the first American owned and operated commercial station on the continent of Europe.

Radio-frequency equipment for the bulk dehydration of penicillin was developed and installed by RCA at the plant of E. R. Squibb and Sons at New Brunswick, N. J., on May 5, 1944.

Development of necessary tube and transmitter to provide, for the first time, five kilowatts of output power at 300 megacycles for a television transmitting or relay station was announced by RCA in October, 1944.

Special equipment to measure the muzzle velocity of projectiles was developed by RCA Laboratories in 1944.

RCA International Division was formed February 5, 1945, "to supervise foreign sales and other activities of the Company and its subsidiaries outside the United States."

Capable of operating over distances of 1,000 miles or more, new lifeboat radio equipment that automatically transmits SOS and radio direction finder signals was announced by Radiomarine Corporation of America, April 3, 1945.

After eleven years of research, RCA introduced a non-breakable high-fidelity phonograph record which was demonstrated to the press on August 30, 1945.

Two radio relay systems, developed by RCA Laboratories in collaboration with the Camp Cole Ground Signal Agency, which provide as many as eight channels on a single carrier, were demonstrated October 1, 1945, by the U. S. Signal Corps.

A new FM radio circuit, called the Ratio Detector, invented by Stuart W. Seeley, manager of RCA Industry Service Laboratory, was revealed at a meeting of the I.R.E., October 3, 1945.

First link in an automatic microwave relay system using equipment developed by RCA, was announced jointly by the Western Union Telegraph Company and RCA on October 22, 1945. With radio beams working in both directions between terminals, the system provides 270 multiplex circuits.

A new system of air navigation, proposed by RCA, based on wartime developments in radar and television and known as "Teleran," was described before a technical symposium in New York City on December 8, 1945.

Shoran, a precision radar system developed by RCA as an aid to blind bombing in war, was revealed on January 22, 1946, to have widespread peacetime applications as a "yardstick" for world-mapping of uncharted areas. So precise is shoran that it can measure distances up to 250 miles with almost pinpoint accuracy.

Development of an improved projection kinescope or picture tube with a gain of about 50% in light efficiency, obtained by coating the back of the tube's luminous surface with a layer of metal 2 to 8 millionths of an inch thick, was revealed by RCA research engineers at a meeting of the Institute of Radio Engineers on January 24, 1946.

Army headquarters, on April 21, 1946, revealed use in the Pacific theatre of the sniperscope, an effective night-fighting device which uses an electronic infrared image tube developed by RCA Laboratories in 1930, during television research on the Image Orthicon. A corresponding combat-aid, the snooperscope, was used by the armed forces as an invisible spotlight for reconnaissance and for night signaling. Car drivers equipped with image-tube binoculars could speed along roads in total blackouts as if in daylight.

The "Pocket Ear," developed in 1946 by NBC, is a miniature radio receiver, small enough to carry in a coat pocket and conveying sound through a replaceable ear plug. Used for communication between control rooms and studio stages, it provides a means of "talk-back" free from the trailing wires inherent in former systems.

The "Selectron", a new electron tube with a "memory", developed by RCA Laboratories for use in a calculating machine that will solve complex mathematical problems with lightning-like speed, was revealed to the I.R.E. on March 4, 1947.

WorldRadioHistory

B R O A D C A S T I N G

Niles Trammell, President, National Broadcasting Company.

Studio 8H, in Radio City, with a seating capacity of 1,100, is the world's largest broadcasting auditorium.

How did the idea of broadcasting to the public originate? David Sarnoff is credited with first proposing that programs be broadcast over the air for public consumption. In 1916, when he was Assistant Traffic Manager of the Marconi Wireless Telegraph Company of America, Mr. Sarnoff suggested the manufacture of "radio music boxes" so that purchasers could enjoy "concerts, lectures, music, recitals, etc." His memorandum to E. J. Nally, Vice President and General Manager of the Company, said: "I have in mind a plan of development which would make radio a household utility in the same sense as a piano or a phonograph. The idea is to bring music into the house by wireless. . . . For example, a radio telephone transmitter having a range of say 25 to 50 miles can be installed at a fixed point where instrumental or vocal music or both are produced. . . . The receiver can be designed in the form of a simple 'radio music box' and arranged for several different wave lengths, which should be changeable with the throwing of a single switch or pressing of a single button. . . . The same principle can be extended to numerous other fields — as for example — receiving lectures at home which can be made perfectly audible; also events of national importance can be simultaneously announced and received. This proposition would be especially interesting to farmers and others living in outlying districts removed from cities. By the purchase of a 'radio music box' they could enjoy concerts, lectures, music, recitals, etc., which may be going on in the nearest city within their radius. . . .

WorldRadioHistory

Should this plan materialize, it would seem reasonable to expect sales of 1,000,000 'radio music boxes' within a period of three years."

Demonstration of the practical value of the Sarnoff plan was delayed by the World War. However, on November 2, 1920, when the Westinghouse station, KDKA, Pittsburgh, broadcast the Harding-Cox election returns, the "radio music box" became front-page news and again in 1921, when RCA station WJY broadcast the Dempsey - Carpentier championship fight at Jersey City.

When did RCA enter the broadcasting field? WDY, the RCA station at Roselle Park, New Jersey, was licensed September 19, 1921, and went on the air December 14 of that year as a pioneer broadcaster in the New York area. Public interest in radio increased rapidly as more events of national importance were broadcast. Addresses by Presidents Harding and Wilson were followed in 1924 by broadcasts from national conventions of both political parties, and first word of the election of Calvin Coolidge in November of that year reached millions of homes through the medium of radio.

Entrance hall of NBC's Western Divisian headquarters in Hollywood, Calif.

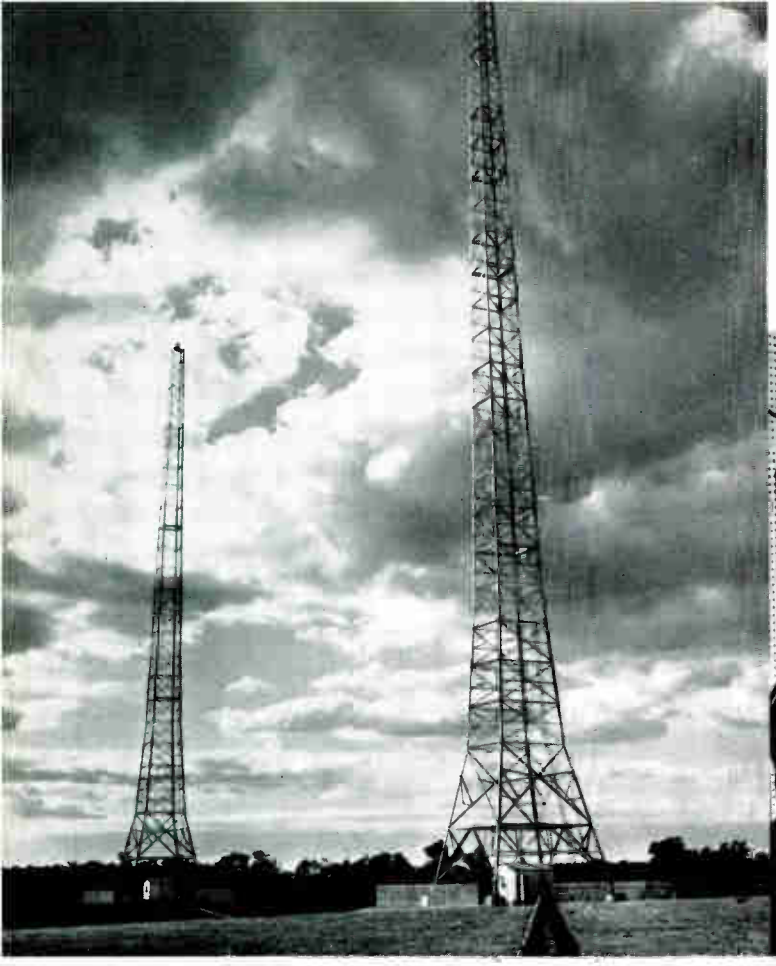
How long has the National Broadcasting Company been on the air? The National Broadcasting Company was organized in September, 1926, as a service of RCA. It was the aim of NBC "to provide the best programs available for broadcasting" to the 5,000,000 homes which statistics indicated were then equipped with radios.

To accomplish this NBC had two stations in New York. WJZ, originally operated by the Westinghouse Electric & Manufacturing Company at Newark, N. J., had been acquired by RCA in 1923 when the station was moved to New York City atop Aeolian Hall on 42nd Street. Station WEAF (now WNBC), New York, was purchased by RCA in 1926 from the American Telephone and Telegraph Company. NBC also owned Station WRC in Washington, D. C. In addition to the three Company-owned stations, there were sixteen stations owned by others affiliated with the original NBC network.

Did NBC have a coast-to-coast network when it started? No, there was no coast-to-coast network until January 1, 1927, when the first transcontinental hook-up was arranged by NBC to broadcast a football game in the Rose Bowl at Pasadena, California.

How many stations are now affiliated with the NBC network? The NBC network now comprises 167 stations. Six of these are owned by the Company: WNBC (formerly WEAF), New York; WRC, Washington; WTAM, Cleveland; WMAQ, Chicago; KOA, Denver; KPO, San Francisco. Of the Company's 161 affiliated stations, 156 are in the United States, three in Canada, one in Honolulu and one in Manila.

WorldRadioHistory



From these lofty towers on Long Island, the programs of WNBC, key station of the NBC network, are broadcast.

One of the newsroom studios of NBC from which news, gathered by reporters all over the world, is broadcast.

How is the NBC network interconnected? The network consists of over 16,000 miles of leased telephone circuits especially engineered for the transmission of broadcast programs. These circuits are available for NBC use for 24 hours a day and they are used for periods varying from 16 to 18 hours a day in different parts of the country. In addition to these circuits, temporary facilities are purchased on a per-occasion basis, primarily for program transmission for pick-ups outside NBC studios.

Where are the NBC studios located? The National Broadcasting Company's main offices and studios are located in the RCA Building, Radio City, New York. NBC also has offices and studios in Washington, Cleveland, Chicago, Denver, Hollywood, and San Francisco.

What is the seating capacity of NBC studios in Radio City? The seating capacity of all NBC studios in Radio City exceeds 3,000. The largest broadcasting studio in the world, 8H, alone seats more than 1,100 persons.

How may tickets be obtained for admission to broadcast programs? By writing at least two weeks in advance to the Guest Relations Division of NBC. Cards of admission, if available, will be supplied.

Does the NBC network carry the most popular programs? Yes, the most popular programs on the air today are heard over the NBC network. Surveys conducted by impartial fact-finding organizations in 1946 credited NBC with seven out of the first ten highest rated programs and twenty-nine out of the first fifty.

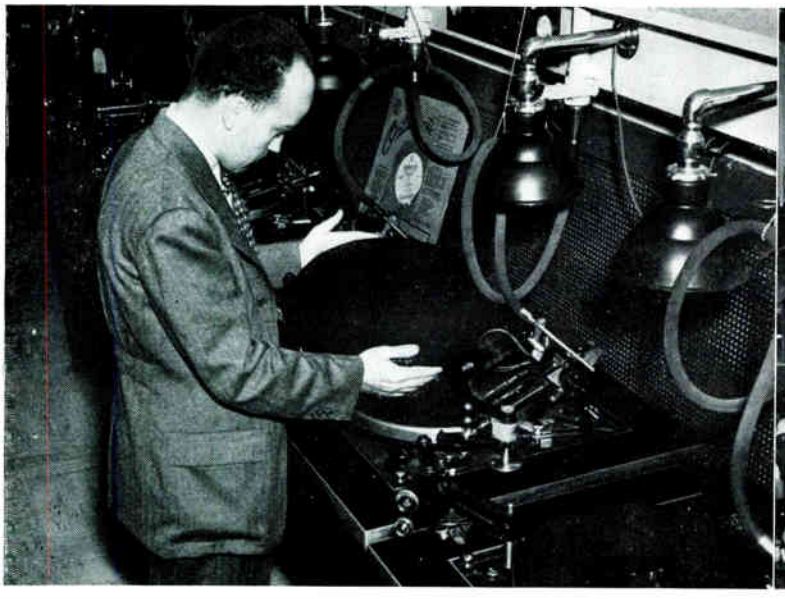
WorldRadioHistory

What proportion of NBC programs are sponsored by advertisers? Approximately half of the total program hours of the NBC network are commercially sponsored. The remaining half are filled with non-commercial programs; that is, programs for which NBC and its affiliated stations supply time, facilities and frequently program content, but receive no remuneration.

How many sponsored programs are there on the NBC network? At the end of 1946, there were 101 sponsored programs in 237 program periods each week on the NBC network. In addition, during certain hours every day, each of the six stations owned by NBC broadcasts local programs sponsored by advertisers in its own community.

If one has an idea for a radio script or program, how may it be presented for consideration? NBC welcomes new ideas for radio programs as well as constructive criticism intended to improve programs already on the air. All program ideas must be submitted in writing to the Program Department and must be accompanied by a signed release form which is readily obtainable from the Program Department. They will not be accepted orally. Ideas for programs, as well as specific scripts, are given prompt consideration by the Script Division.

Does the NBC network conduct auditions to find new talent, and if so, how does one arrange for an audition? NBC has an extensive system of auditions set up for the express purpose of getting a proper appraisal on talent. The audition system is open to anyone who applies. A specialist in drama and another in music first conduct interviews with applicants; then hear auditions of those with proper background and experience. Those who are approved in the preliminary audition are then heard by dramatic and musical producers, are placed on a list which is made available to advertising agencies and are given full consideration in casting NBC programs. Application should be made to the Production Division of the Program Department. This applies to actors, announcers, and vocalists. All instrumentalists are considered by the Music Division of the Program Department.



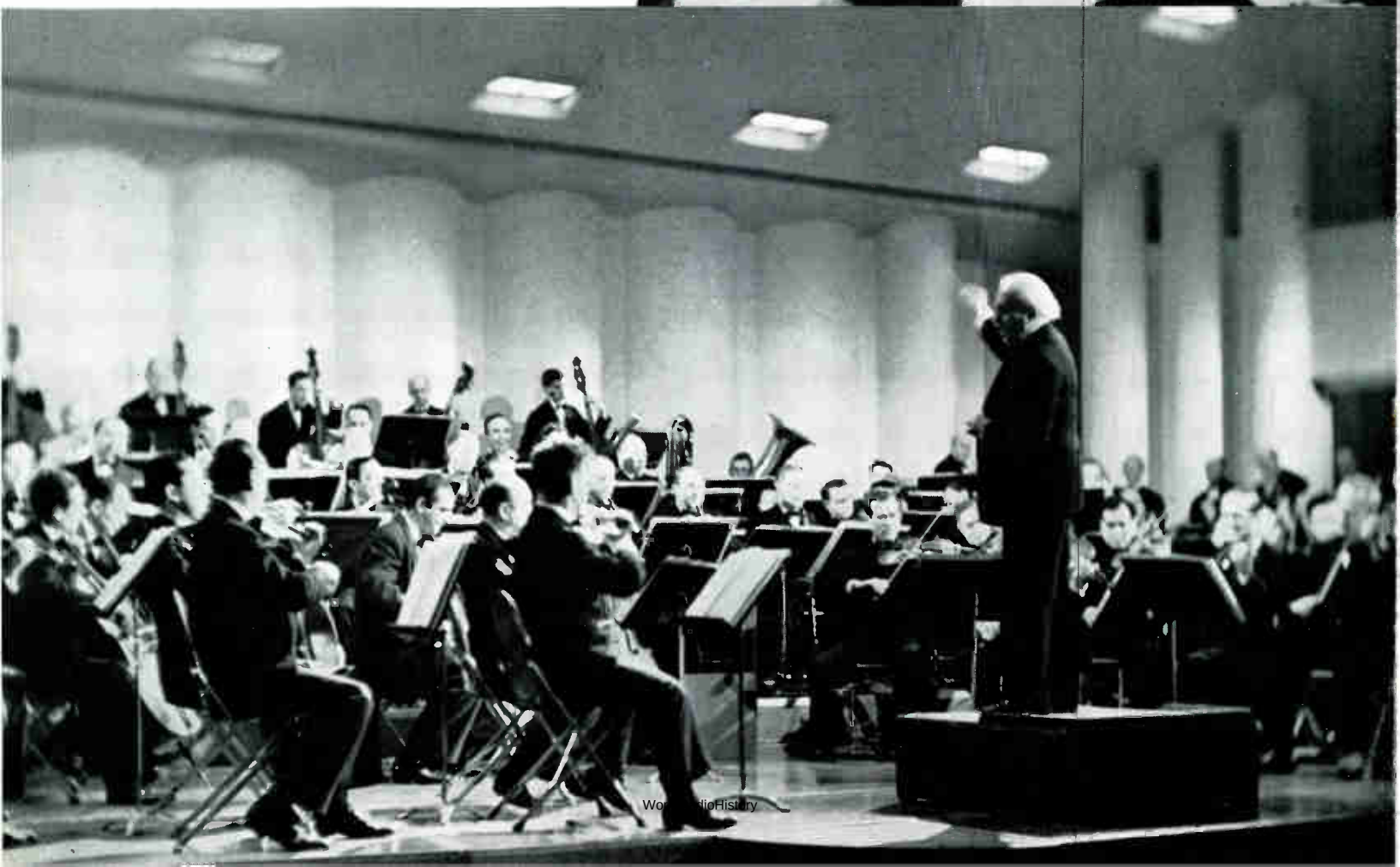
On machines, such as these, radio programs are recorded on discs for later rebroadcasting.

Audience in a Radio City studio enjoys one of the weekly programs sponsored by RCA.

WorldRadioHistory

Where does NBC get its news? From NBC's accredited reporters on all world news fronts and from Associated Press, United Press and International News Service teletype machines which give 24-hour service to the NBC News Room. NBC maintains offices and news bureaus in London, Paris, Moscow, Berne, Manila, Honolulu, Tokyo, Puerto Rico, Rio de Janeiro, Cairo, Rome, Stockholm, and Buenos Aires.

Maestro Arturo Toscanini directing the NBC Symphony Orchestra.



WorldRadioHistory

How many NBC programs originate overseas? Eight hundred and eighty-one programs were originated in foreign lands and broadcast over the NBC network during 1946. Throughout the year, the NBC staff of news analysts, commentators, and reporters regularly broadcast up-to-the-minute, first-hand reports from strategic locations all over the globe.

What was the first international broadcast? On February 14, 1925, RCA stations WJZ, New York, and WRC, Washington, D. C., rebroadcast a program sent on long waves (1,600 meters) from Chelmsford, England. The signals were picked up at Belfast, Maine, and relayed by short wave to New York. On March 12, 1925, WJZ, New York, and WRC, Washington, rebroadcast, for the first time in America, the sound of Big Ben atop the House of Parliament, London.

Does NBC broadcast by short wave to foreign countries? Yes; NBC has been a pioneer in broadcasting by short wave to the people of Europe and Latin America. During and since the war, all short-wave broadcasts from the United States to other countries have been supported and supervised by the U. S. Department of State, in a systematic schedule of programs entitled "The Voice of the United States of America." Under this arrangement, the three short-wave transmitters at Bound Brook, N. J. owned by the Company are pooled with thirty-three others under Government control, and programs produced in eight languages by the NBC International Division are beamed on regularly daily schedules to listeners abroad. The languages employed are English, French, German, Italian, Swedish, Danish, Spanish and Portuguese. Programs handled during 1946 covered a wide field of interests, with emphasis on music and accurate news reports. Special events reported to the international audience ranged from UN meetings to blow-by-blow descriptions of the heavyweight championship bouts.

Is NBC active in frequency modulation (FM) broadcasting? Yes; musical programs are broadcast on a regular schedule over the NBC frequency modulation (FM) station in New York. The Company has been granted construction permits for FM stations in Washington, Chicago, Denver and San Francisco; an application is pending before the Federal Communications Commission for one in Cleveland.

Does NBC make recorded programs available to stations for broadcast? Yes. The activities of the NBC Radio-Recording Division fall into four principal categories: (1) NBC Thesaurus, musical program service composed of 4,000 or more selections of every type music, leased to more than 370 radio stations on a contract basis; (2) NBC Syndicated Programs, dramatic, variety, musical and other types of continuous programs designed for local and regional advertisers; (3) NBC Custom-built Programs, written, produced, recorded, manufactured and distributed for advertisers who want their own recorded program; (4) NBC Documentary Recordings, designed especially for educational use. Division offices and facilities in New York, Washington, Chicago, Hollywood and San Francisco enable NBC to give nationwide recording service to radio stations, advertising agencies and advertisers. NBC recorded programs are heard on more than 900 radio stations throughout the United States, Canada and in foreign countries. Large numbers of NBC custom-built programs are being used by the U. S. Armed Forces Radio Service, the Veterans Administration, recruiting branches of the Army, Navy and Marine Corps, and the American Red Cross.

[illegible] light from Madison Square Garden and a baseball game at Ebbets Field, Brooklyn, were projected on a 15 x 20-foot screen in the New Yorker Theatre. . . . Scenes at Camp Upton, Long Island, were automatically relayed by radio to New York establishing a record as the first remote pick-ups handled by radio relay stations. *(January 24.)*

Color television pictures in motion were put on the air by NBC in the first telecast in color by mechanical means from a television studio. *(February 20.)*

RCA-NBC made successful tests with first projection-type color television receiver using mechanical methods. *(May 1.)*

NBC's television station WNBT became the first commercially licensed transmitter to go on the air. *(July 1.)*

1942

First mass education by television was initiated by RCA-NBC in training thousands of air-raid wardens in the New York area. *(January 23.)*

1943

NBC televised major sports and other events at Madison Square Garden for wounded servicemen in television-equipped hospitals in the New York area. *(October 25.)*

1946

Two systems of airborne television designated as "Block" and "Ring," developed for secret wartime purposes by scientists and engineers of the U. S. Navy, RCA and NBC, were demonstrated publicly for the first time at Anacostia, D. C. *(March 21.)*

An all-electronic, simultaneous color television system, a development of RCA Laboratories, was demonstrated to the press at Princeton, N. J. *(October 30.)*

1947

Using a power of 50 watts on a frequency of 520 megacycles, RCA demonstrated its all-electronic color television system to the FCC at the Community Club, Penn's Neck, N. J., about half a mile from the experimental television studios at RCA Laboratories. *(January 29.)*

Color television pictures on a 7½-by-10-foot theater screen, using the RCA all-electronic simultaneous color television system, demonstrated publicly for first time at The Franklin Institute, Phila. *(April 30.)*

WorldRadioHistory

RCA-NBC "FIRSTS" IN TELEVISION

1923

Dr. V. K. Zworykin, now Director of the Electronic Research Laboratory of RCA Laboratories, applied for patent on the iconoscope, television's electric "eye." *(December 29.)*

1929

Dr. V. K. Zworykin demonstrated an all-electronic television receiver using the kinescope, or picture tube, which he developed. *(November 18.)*

1930

Mobile television vans operated by RCA-NBC appeared on New York streets for first time. *(December 12.)*

1938

Scenes from Broadway play, "Susan and God," starring Gertrude Lawrence, telecast from NBC studios in Radio City. *(June 7.)*

1939

RCA and NBC introduced television as a service to the public at opening ceremonies of New York World's Fair, featuring President Roosevelt as first Chief Executive to be seen by television. *(April 30.)*

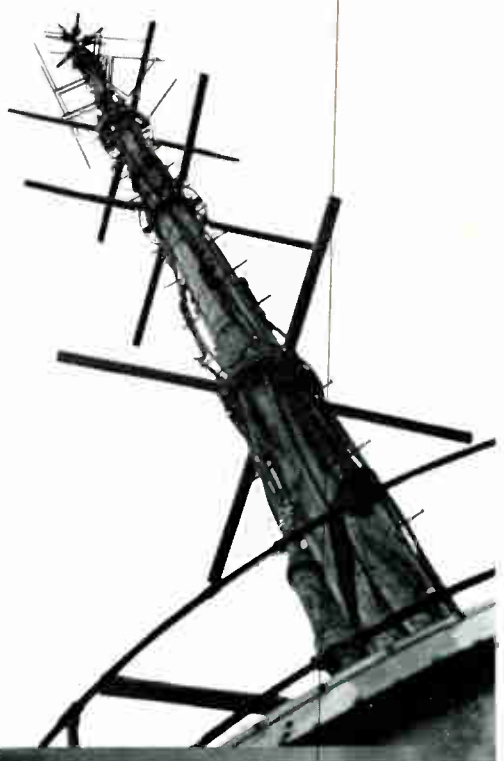
Improved television "eye," the "Orthicon," was introduced by RCA. *(June 7.)*

Major league baseball was telecast for the first time by NBC, covering a game between the Brooklyn Dodgers and Cincinnati Reds at Ebbets Field. *(August 26.)*

First college football game — Fordham vs. Waynesburg—televised by NBC in New York. *(September 30.)*

TELEVISION

Television antenna of station WNBT, atop the Empire State Building in New York.



Does NBC operate television as a service to the public? Yes; WNBT in New York, the nation's pioneer television station, is owned by NBC and transmits programs from a transmitter atop the Empire State Building. WNBT inaugurated its schedule of television programs by televising the official opening of the New York World's Fair on April 30, 1939. President Roosevelt's appearance on that program was the first of a long line of dignitaries and public officials to be seen by the television audience. Others have been King George and Queen Elizabeth of England, Governors, Senators, Congressmen, Mayors, and Army and Navy leaders.

An NBC television camera focuses on a session of the United Nations.

WorldRadioHistory

How many NBC programs originate overseas? Eight hundred and eighty-one programs were originated in foreign lands and broadcast over the NBC network during 1946. Throughout the year, the NBC staff of news analysts, commentators, and reporters regularly broadcast up-to-the-minute, first-hand reports from strategic locations all over the globe.

What was the first international broadcast? On February 14, 1925, RCA stations WJZ, New York, and WRC, Washington, D. C., rebroadcast a program sent on long waves (1,600 meters) from Chelmsford, England. The signals were picked up at Belfast, Maine, and relayed by short wave to New York. On March 12, 1925, WJZ, New York, and WRC, Washington, rebroadcast, for the first time in America, the sound of Big Ben atop the House of Parliament, London.

Does NBC broadcast by short wave to foreign countries? Yes; NBC has been a pioneer in broadcasting by short wave to the people of Europe and Latin America. During and since the war, all short-wave broadcasts from the United States to other countries have been supported and supervised by the U. S. Department of State, in a systematic schedule of programs entitled "The Voice of the United States of America." Under this arrangement, the three short-wave transmitters at Bound Brook, N. J. owned by the Company are pooled with thirty-three others under Government control, and programs produced in eight languages by the NBC International Division are beamed on regularly daily schedules to listeners abroad. The languages employed are English, French, German, Italian, Swedish, Danish, Spanish and Portuguese. Programs handled during 1946 covered a wide field of interests, with emphasis on music and accurate news reports. Special events reported to the international audience ranged from UN meetings to blow-by-blow descriptions of the heavyweight championship bouts.

Is NBC active in frequency modulation (FM) broadcasting? Yes; musical programs are broadcast on a regular schedule over the NBC frequency modulation (FM) station in New York. The Company has been granted construction permits for FM stations in Washington, Chicago, Denver and San Francisco; an application is pending before the Federal Communications Commission for one in Cleveland.

Does NBC make recorded programs available to stations for broadcast? Yes. The activities of the NBC Radio-Recording Division fall into four principal categories: (1) NBC Thesaurus, musical program service composed of 4,000 or more selections of every type music, leased to more than 370 radio stations on a contract basis; (2) NBC Syndicated Programs, dramatic, variety, musical and other types of continuous programs designed for local and regional advertisers; (3) NBC Custom-built Programs, written, produced, recorded, manufactured and distributed for advertisers who want their own recorded program; (4) NBC Documentary Recordings, designed especially for educational use. Division offices and facilities in New York, Washington, Chicago, Hollywood and San Francisco enable NBC to give nationwide recording service to radio stations, advertising agencies and advertisers. NBC recorded programs are heard on more than 900 radio stations throughout the United States, Canada and in foreign countries. Large numbers of NBC custom-built programs are being used by the U. S. Armed Forces Radio Service, the Veterans Administration, recruiting branches of the Army, Navy and Marine Corps, and the American Red Cross.

WorldRadioHistory

RCA-NBC

"FIRSTS" IN TELEVISION

1923

Dr. V. K. Zworykin, now Director of the Electronic Research Laboratory of RCA Laboratories, applied for patent on the iconoscope, television's electric "eye." *(December 29.)*

1929

Dr. V. K. Zworykin demonstrated an all-electronic television receiver using the kinescope, or picture tube, which he developed. *(November 18.)*

1930

Television on 6 x 8-foot screen was shown by RCA at RKO-Proctor's 58th Street Theater, New York. *(January 16.)*

NBC began operating W2XBS, pioneer experimental television station in New York. *(July 30.)*

1931

Empire State Building, world's loftiest skyscraper, was selected as site for RCA-NBC television transmitter.

1932

RCA-initiated field tests with 120-line, all-electronic television. *(May 25.)*

1936

Television outdoor pickups demonstrated by RCA at Camden, N. J., on 6-meter wave across distance of a mile. *(April 24.)*

1937

RCA announced development of electron projection "gun" making possible television pictures on 8 x 10-foot screen. *(May 12.)*

Mobile television vans operated by RCA-NBC appeared on New York streets for first time. *(December 12.)*

1938

Scenes from Broadway play, "Susan and God," starring Gertrude Lawrence, telecast from NBC studios in Radio City. *(June 7.)*

1939

RCA and NBC introduced television as a service to the public at opening ceremonies of New York World's Fair, featuring President Roosevelt as first Chief Executive to be seen by television. *(April 30.)*

Improved television "eye," the "Orthicon," was introduced by RCA. *(June 7.)*

Major league baseball was telecast for the first time by NBC, covering a game between the Brooklyn Dodgers and Cincinnati Reds at Ebbets Field. *(August 26.)*

First college football game — Fordham vs. Waynesburg—televised by NBC in New York. *(September 30.)*

RCA receiver in plane over Washington picked up telecast from NBC station in New York, 200 miles away. *(October 17.)*

Portable television equipment demonstrated to FCC by RCA on December 1, 1939, supplemented with motor truck mobile stations.

1940

RCA demonstrated to the FCC, at Camden, N. J., a television receiver producing images in color by electronic and optical means employing no moving mechanism. *(Feb. 6.)*

WorldRadioHistory

New York televised from the air for the first time by a plane equipped with RCA portable television transmitter. *(March 6.)*

Television pictures on 4½ x 6-foot screen demonstrated by RCA at annual stockholders meeting in Radio City. *(May 7.)*

Television program broadcast from NBC station, New York, received on USS President Roosevelt while 250 miles at sea on return voyage from Bermuda. *(May 14.)*

Coaxial cable used for first time in television program service by NBC in televising Republican National Convention at Philadelphia and transmitting scenes over New York station. *(June 24.)*

Election returns on November 5, 1940, telecast for the first time as RCA-NBC showed teletypes of press associations reporting the news, as well as commentators at the microphone.

1941

Demonstrating television progress to the FCC, RCA exhibited the projection-type home television receiver featuring a screen 13½ x 18 inches. . . . Television pictures including a prize fight from Madison Square Garden and a baseball game at Ebbets Field, Brooklyn, were projected on a 15 x 20-foot screen in the New Yorker Theatre. . . . Scenes at Camp Upton, Long Island, were automatically relayed by radio to New York establishing a record as the first remote pick-ups handled by radio relay stations. *(January 24.)*

Color television pictures in motion were put on the air by NBC in the first telecast in color by mechanical means from a television studio. *(February 20.)*

RCA-NBC made successful tests with first projection-type color television receiver using mechanical methods. *(May 1.)*

NBC's television station WNBT became the first commercially licensed transmitter to go on the air. *(July 1.)*

1942

First mass education by television was initiated by RCA-NBC in training thousands of air-raid wardens in the New York area. *(January 23.)*

1943

NBC televised major sports and other events at Madison Square Garden for wounded servicemen in television-equipped hospitals in the New York area. *(October 25.)*

1944

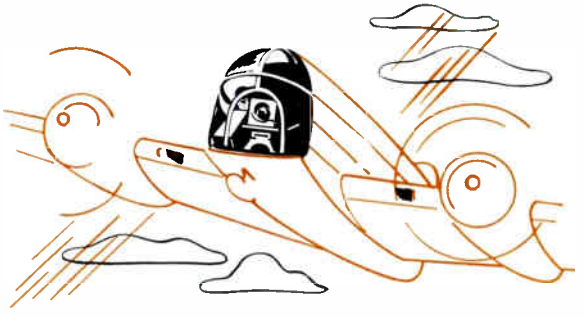
NBC announced plans for nation-wide television network to be completed possibly by 1950. *(March 1.)*

1945

RCA demonstrated projection-type television home receiver featuring screen approximately 18 x 24 inches. *(March 15.)*

RCA Image Orthicon tube of supersensitivity was introduced as solution to major problems in illumination of television programs and outdoor pickups. *(October 25.)*

Greatly improved black-and-white television pictures and color television in three dimensions featuring live talent were demonstrated by RCA at Princeton, N. J. The color system was mechanical; the black-and-white all-electronic. *(December 13.)*



1946

Two systems of airborne television designated as "Block" and "Ring," developed for secret wartime purposes by scientists and engineers of the U. S. Navy, RCA and NBC, were demonstrated publicly for the first time at Anacostia, D. C. *(March 21.)*

An all-electronic, simultaneous color television system, a development of RCA Laboratories, was demonstrated to the press at Princeton, N. J. *(October 30.)*

1947

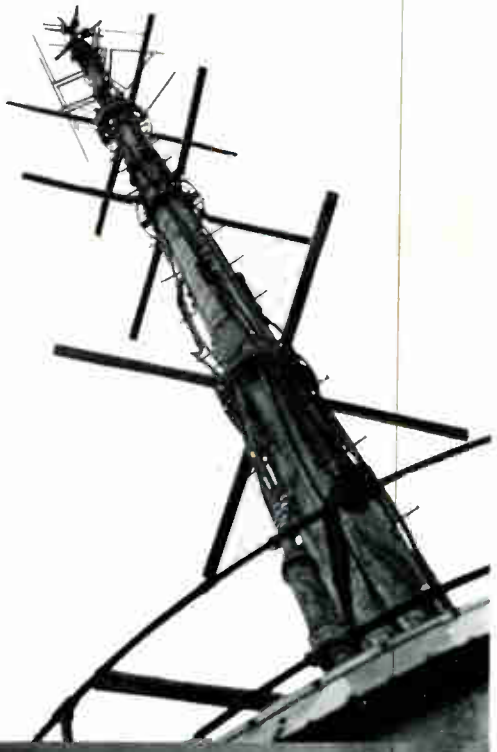
Using a power of 50 watts on a frequency of 520 megacycles, RCA demonstrated its all-electronic color television system to the FCC at the Community Club, Penn's Neck, N. J., about half a mile from the experimental television studios at RCA Laboratories. *(January 29.)*

Color television pictures on a 7½-by-10-foot theater screen, using the RCA all-electronic simultaneous color television system, demonstrated publicly for first time at The Franklin Institute, Phila. *(April 30.)*

WorldRadioHistory

T E L E V I S I O N

Television antenna of station WNBT, atop the Empire State Building in New York.



Does NBC operate television as a service to the public? Yes; WNBT in New York, the nation's pioneer television station, is owned by NBC and transmits programs from a transmitter atop the Empire State Building. WNBT inaugurated its schedule of television programs by televising the official opening of the New York World's Fair on April 30, 1939. President Roosevelt's appearance on that program was the first of a long line of dignitaries and public officials to be seen by the television audience. Others have been King George and Queen Elizabeth of England, Governors, Senators, Congressmen, Mayors, and Army and Navy leaders.

An NBC television camera focuses on a session of the United Nations.

Image orthicon cameras record the opening session of Congress from the visitor's gallery in the House of Representatives.

President Truman was seen via NBC television on several occasions in 1946, and on January 6, 1947 the television audience from Virginia to Massachusetts saw and heard his "State of the Nation" address before the joint session of Congress in the House of Representatives. On January 3, 1947 the opening ceremonies of the 80th Congress were broadcast from the House over the NBC television network.

Such programs are indicative of NBC's policy of providing a well-rounded television program schedule, including a wide variety of entertainment programs, news, sports events and motion pictures.

Is NBC planning to expand television? Currently NBC's second television station is under construction in Washington, D. C. Additional stations, for which licenses have been granted, are to be built in Chicago, Cleveland and Los Angeles. Enlarged and improved studio facilities are under construction at Radio City in New York. As facilities are expanded the ability to expand program service becomes a reality. All these improvements point the way to the finest possible television program service.

Is there a television network? Television programs originating in New York City have been broadcast in Schenectady, New York, as far back as January 12, 1940 by Station WRGB, owned by the General Electric Company. More recently the Philco Station, WPTZ, has aired New York-originated programs in the Philadelphia area, and programs originated in Philadelphia, by Philco, have been rebroadcast in New York. NBC programs have also been broadcast in Washington, D. C., by DuMont station WTTG.

Currently the NBC network consists of three stations, WNBT, New York; WPTZ, Philadelphia and WRGB, Schenectady. By July 1, 1947 station WNBW will be added in Washington, D. C. The year-end of 1947 should see several New England stations on the network as well as a station in Baltimore.

Regional networks will be a reality in many sections of America within the next twelve to eighteen months. These will ultimately be joined into an NBC national television network.

WorldRadioHistory

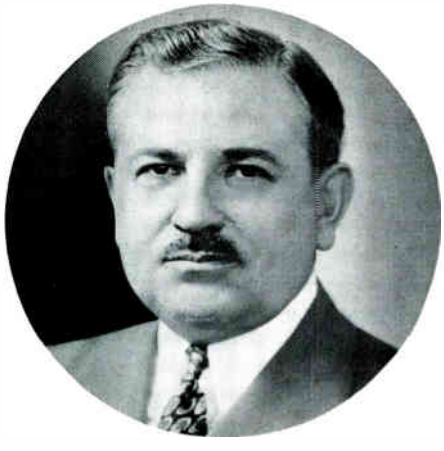
Are NBC's television programs sponsored by advertisers? At the year-end, 1946, more than half of NBC's television programs were regularly sponsored by commercial advertisers. There are now fourteen sponsors who advertise their products on NBC television. The demand for use of NBC's television facilities by advertisers is greater than the Company's ability to supply sight-and-sound facilities. Though many clients look upon their present activity in television as an experiment, the programs, in the main, are highly entertaining and meet with genuine public acceptance.

News events are televised from a special truck carrying crew, cameras and microwave relay equipment.

A technician makes an adjustment on an image orthicon camera equipped with four lenses.

Television programs are directed from this control room overlooking a studio in Radio City.

MANUFACTURING



Frank M. Folsom, Executive Vice President in charge of RCA Victor Division

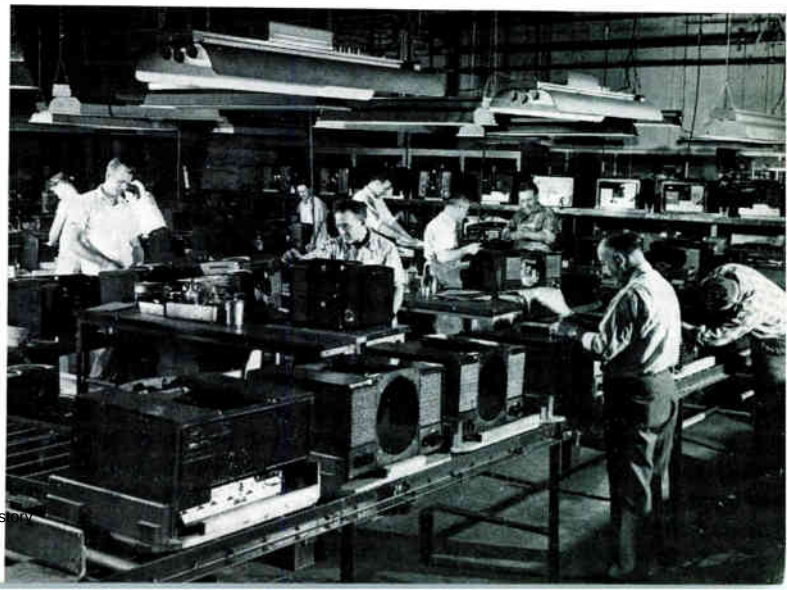
When was the manufacturing division of RCA organized? When Radio Corporation of America was formed in 1919, its primary activity was in international and marine radio communications. Shortly thereafter radio broadcasting began. RCA then commenced the sale of radio products manufactured by General Electric Company and Westinghouse Electric & Mfg. Co. So rapid were the developments in the newly created art and industry that by 1929 it became necessary for RCA so to organize its business that it could combine manufacture with sales under unified management.

Therefore, to obtain manufacturing facilities, RCA in 1929 acquired the Victor Talking Machine Company. In the latter part of 1934 the various units engaged in the manufacture and sale of RCA products were brought together under unified management in the RCA Manufacturing Company. On December 31, 1942, RCA Manufacturing Company, Inc., was merged into Radio Corporation of America, and became the RCA Victor Division of the Corporation.

What is the origin of the famous RCA Victor Dog trademark? One of the most famous trademarks in advertising history is the painting by Francis Barraud, entitled "His Master's Voice." This portrait of the listening black-and-white fox terrier, "Nipper," has endeared itself to millions of people throughout the world wherever RCA Victor products are sold.

"Nipper" was a real dog belonging to the artist who painted the picture in England. The Victor Talking Machine Company acquired rights to the painting, and this trademark, gracing Victrola phonographs, RCA Victor records, RCA Victor radios, electron tubes and other home products, has become one of the best known and loved symbols of dependable quality in the world.

Where are RCA Victor manufacturing plants located? The RCA Victor Division plants are located in Camden and Harrison, New Jersey; Indianapolis, Bloomington and Monticello, Indiana; Canonsburg and Lancaster, Pennsylvania; Detroit, Michigan; Pulaski, Virginia; and Hollywood, California.



Television receivers on production lines at the RCA Victor plant, Camden, N. J.

WorldRadioHistory

M A N U F A C T U R I N G

What are the products and services of the RCA Victor Division?

Special Apparatus & Technical Services for U. S. Government
RCA Victor Radios (AM and FM)
Books on Music Appreciation featuring RCA Victor Records
Brenckert Motion Picture Projection Equipment
RCA, Cunningham and RCA Victor Electron Tubes
RCA Batteries
RCA Flashlights
Television Receivers, Transmitters and Associated Equipment
Television Receiver Installation and Maintenance Service
Victrola Radio-Phonographs
RCA Victor Records, Albums, Needles
Radio and Electronic Parts and Accessories
Contract Maintenance Services for Theatre Motion Picture Apparatus, Industrial Sound Systems and Industrial Electronic Equipment
Antenna Systems
Aviation Radio Equipment
Radar
Battle Announce Systems
Broadcast Station Equipment (AM and FM)
Capacitors, Coils, Speakers, Transformers, Plastics
Communications Equipment
Direction Finders
Electronic Fire Control Equipment
Electron Microscopes
Facsimile Equipment
Faradon Condensers
Film Recording Service Studios (New York and Hollywood)
High-Frequency Heating Equipment
Industrial Electronic Products
Industrial Sound Equipment
Inter-Communication Equipment
Microphones
Motion Picture Theatre Furnishings and Equipment
Motion Picture Theatre Sound Systems
16-mm Sound Film Projectors
Police Radio Equipment
Public Address and Plant Broadcasting Equipment
Recording Equipment (Film and Disc)
Scientific Equipment
Sonar Apparatus
Sound Discs for Slide Films
Sound-Powered Telephones
Sound Systems & Components
Test and Measuring Equipment
Tube Parts and Machinery
Application Engineering, Installation Supervision Services

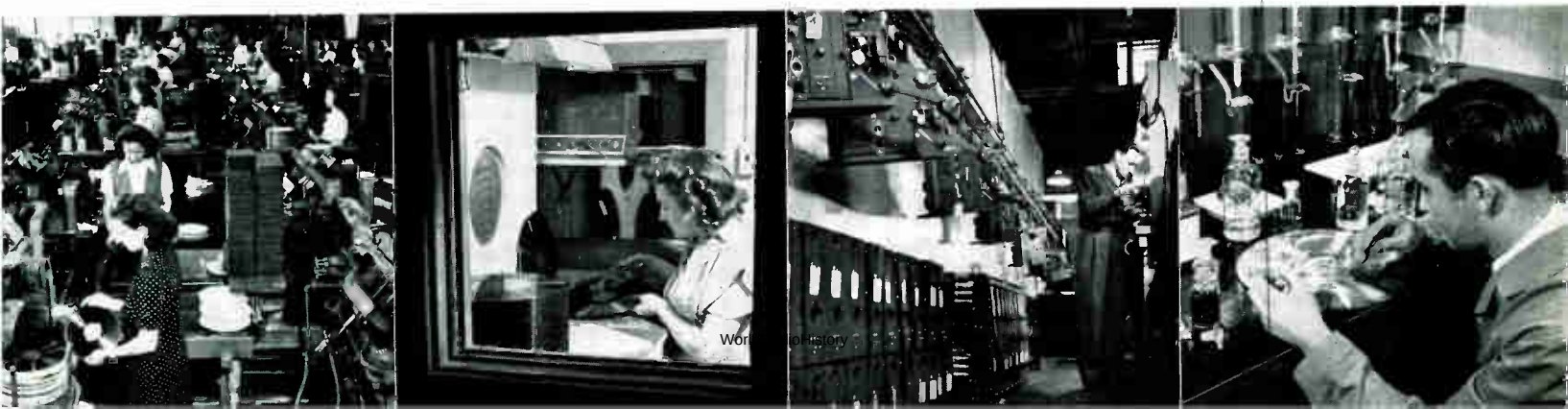
How many phonograph records has RCA Victor made? In 1946, RCA Victor pressed its billionth phonograph record. RCA Victor—and its predecessor in the phonograph field, the Victor Talking Machine Company—has spent millions of dollars on the continuous development of the Victrola phonograph, on improvement of recording methods, in obtaining the world's finest artists, and in promoting wider use of recorded music. Since 1901, "The Music America Loves Best," in every category of taste, has been available on RCA Victor records.

Pressing phonograph records at the Indianapolis plant of RCA Victor.

Records are tested to insure finest tonal quality.

16mm. film projectors move down a production line.

Inspecting a master record at the Indianapolis plant.



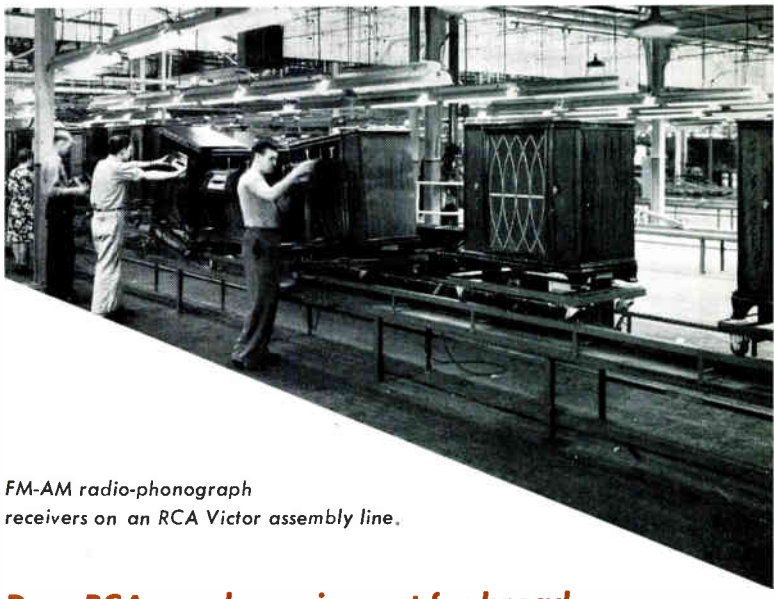
Solving a manufacturing problem.

What products does RCA Victor make for schools and colleges? RCA Victor makes a wider range of audio-visual equipment for schools and colleges than any other company. Among these are school sound systems, 16-mm sound motion picture projectors, disc recording equipment, wire recorders, and public address apparatus. Then there are: broadcast equipment such as standard AM and FM radio transmitters, television transmitters and studio equipment. Also, the famous RCA electron microscope, electron tubes, electronic test and scientific equipment, FM and AM radio receivers, Victrola radio-phonographs and RCA Victor records. RCA technical publications provide authoritative information in the radio and electronic field.

Where can I buy an RCA Victor instrument for my home? Leading retailers throughout the country — a total of about 25,000 stores — sell RCA Victor radios, Victrola radio-phonographs, tubes, records and other RCA Victor products. "Only RCA Victor makes the Victrola." Distribution of television sets is still limited to certain sections of the country. As new television stations come on the air, more and more people will be in a position to enjoy benefits and entertainment from television. Up to 1947, RCA Victor had sold more than 22,000,000 radios, Victrola phonographs and Victrola radio-phonographs. RCA Victor instruments are noted for styling and tone. The "Golden Throat" is the finest tone system in RCA Victor history.

What is RCA motion-picture sound? RCA scientists have pioneered many fundamental improvements in the recording and reproduction of sound on film. A number of these technical advances have merited the famous "Oscar" awards of the Academy of Motion Picture Arts and Sciences.

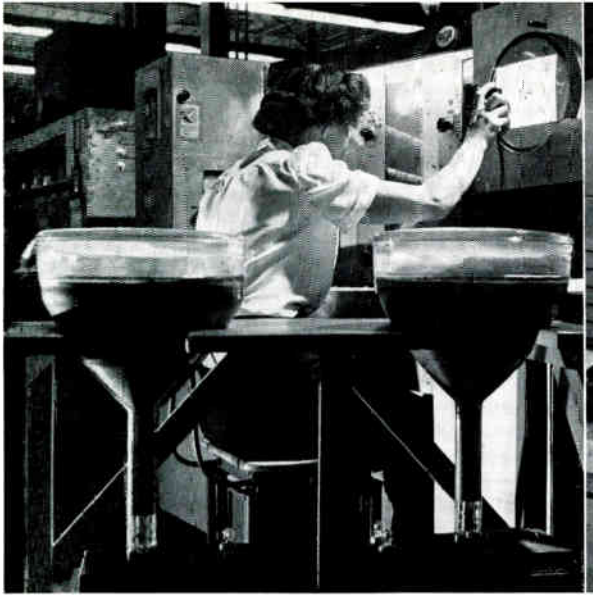
Throughout the world, in peace and war, theatres equipped with RCA sound equipment reproduce motion pictures that have been recorded with RCA sound in many of the world's most renowned motion picture studios.



FM-AM radio-phonograph receivers on an RCA Victor assembly line.

Does RCA supply equipment for broadcast stations? AM, FM and television transmitters, antennas, studio equipment, control apparatus, and precision instruments for use by broadcasters are manufactured and sold by RCA. A new line of improved FM (frequency modulation) broadcast transmitters has been available since early in 1946. A

WorldRadioHistory



Testing kinescopes, or television picture tubes, used in receiving sets.

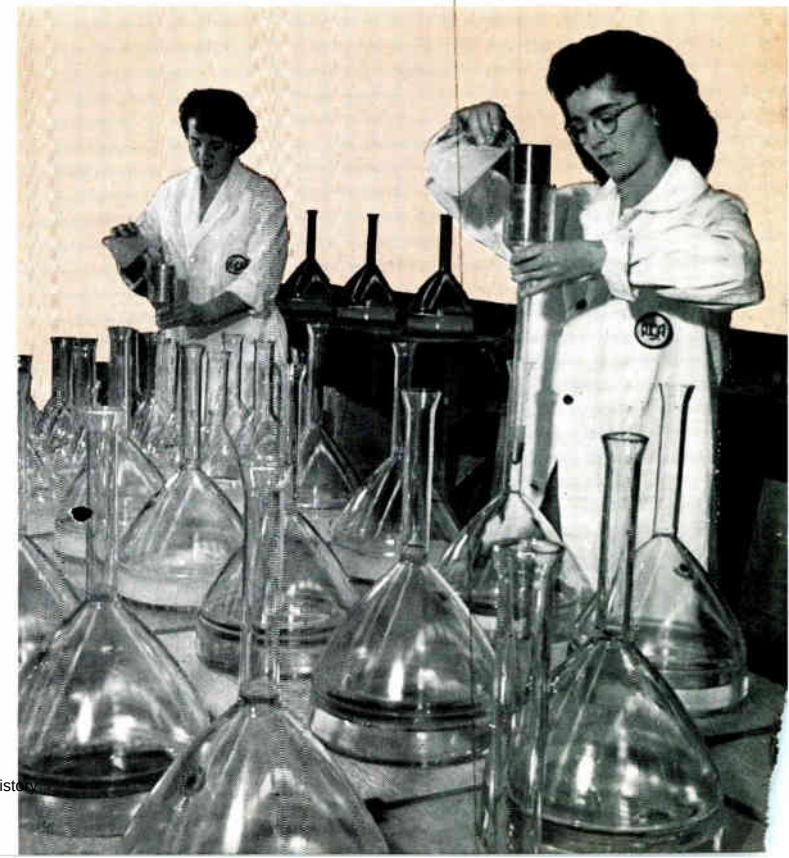
New image orthicon television camera tubes receive a final performance check.

complete new line of communications apparatus for mobile and fixed stations is now available.

Is the RCA electron microscope in commercial use? Yes, more than 200 RCA electron microscopes already are in use and hundreds more soon will be available for research projects. The electron microscope makes it possible to see infinitesimal particles such as bacteria, cells and fibres, and to determine their shape and size. Minute analysis of chemical and metallurgical structures also is obtained. In 1942, the electron microscope made possible useful magnification of 50,000 diameters; in 1945, a useful magnification of more than 100,000 diameters was achieved.

What is the new RCA Victor non-breakable record? The new non-breakable record is the result of eleven years of research, technical exploration and engineering development. The final formula includes a compound composed almost entirely of vinyl resin plastic which produces a durable, long-life record. Because of this plastic compound, the surface sound on the new record is substantially reduced.

Does RCA have a full line of radio batteries? Yes, a complete line of batteries specially engineered for radio has been added to the list of RCA products. Tests have proved that the new batteries far exceed the minimum requirements of the U. S. Bureau of Standards, thus assuring maximum service and long operating life in portable and farm-type radios. RCA batteries have won immediate acceptance in the radio trade and with users of battery operated radios.



Pouring phosphor solution into television picture tubes to form the fluorescent screens.

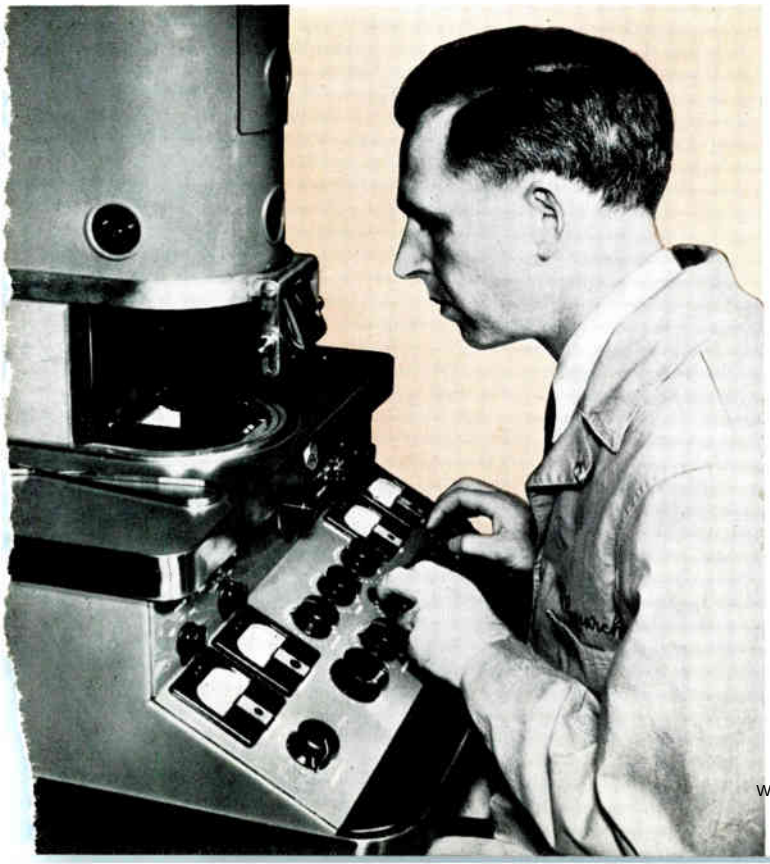
WorldRadioHistory

MANUFACTURING

What is an electron tube? The electron tube was formerly known as a radio tube until its uses expanded far beyond radio. It is a highly flexible device which produces electrons, liberates them, harnesses them, and puts them to work in many ingenious ways. It has given man infinitely greater control of electrical and mechanical devices and has opened vast new fields in the science of electronics. RCA tube developments have spearheaded many major advances in the field of radio and electronics. The heart of all radio and electronic apparatus is the electron tube, and "The Fountainhead of Modern Tube Development is RCA."

Cathode-ray tubes used in television are manufactured at the RCA plant, Lancaster, Pa.

Does RCA sell plant broadcasting equipment? Yes, more than 2,000 plants in the United States today provide "music while you work." RCA has pioneered in developing the use of music in factories, which is only one important function of RCA plant broadcasting systems. By this means all employees can be reached simultaneously with important messages, announcements, safety precautions, news reports and lunchtime entertainment.



RCA electron microscope in a food research laboratory.

Does RCA make electronic heating devices? Yes, RCA is a leader in the development and manufacture of electronic apparatus for generating high-frequency power for industrial heating processes. These high-frequency devices, operating in many industries, are improving product quality, saving materials, and reducing precious processing time from hours to minutes. The electronic method also cuts operating and maintenance costs, and greatly reduces floor-space requirements. Some of the processes for which high-frequency electronic equipment has been designed are preheating of plastics for molding, bonding of plywood, heat treating and drying of textile yarns, seaming of thermoplastic materials and case-hardening, annealing, brazing and soldering of metals.

WorldRadioHistory

What is the RCA Service Company? This company was formed as a subsidiary organization to facilitate the installation, servicing and maintenance of all RCA products. Because of its extensive maintenance and engineering contract-service operations, its scope is far wider than that of the usual installation and service department.

What instruments has RCA developed for use in aviation? Utilizing radar principles, RCA has developed two forms of highly accurate altimeters, both of which are widely used by the Army, Navy and commercial airlines. The FM (frequency modulation) type altimeter is particularly useful when a plane is flying at altitudes below a few hundred feet and is approaching an airport through overcast. The pulse type altimeter can be used at high altitudes such as those encountered in stratosphere airline operations and has made possible the new "pressure area navigation system" which enables airliners to take advantage of prevailing winds.

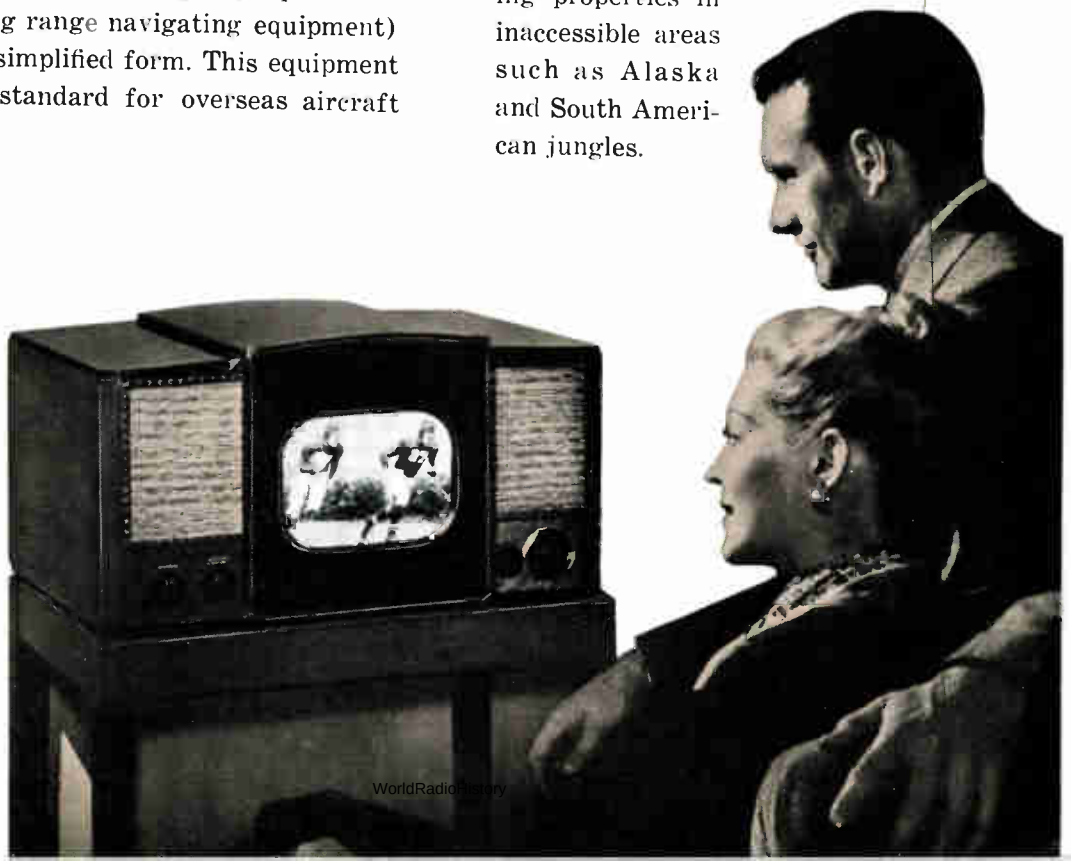
RCA also is manufacturing large quantities of Loran (long range navigating equipment) in a compact simplified form. This equipment is becoming standard for overseas aircraft operation.

In the field of two-way aircraft receivers, RCA has developed the smallest light-plane receiver that has been made, a development made possible to a great extent by RCA's miniature tubes.

Loop-direction finders which have become standard equipment on all commercial airlines, as required by the Civil Aeronautics Board, are now being produced by RCA for both large and small planes. Automatic direction finders also are now in production.

A pioneer in both private and commercial aviation radio, and an important supplier of radio and radar equipment for military aviation, RCA is maintaining its leadership in this industry.

What is Shoran? Shoran, which began as an entirely new radar bombing technique, is now finding wide commercial application for precision surveying purposes. Together with Sonar, it is being used by the Coast and Geodetic Survey for under-water charting of harbors and determining the silting of large reservoirs such as Hoover Dam. In addition it is used for surveying locations of offshore oil wells and mining properties in inaccessible areas such as Alaska and South American jungles.



This table model RCA Victor television receiver presents a picture of 52 square inches.

WorldRadioHistory

INTERNATIONAL

Meade Brunet,
Vice-President of RCA and Managing Director,
RCA International Division.

Does RCA have an international business? Yes; RCA's international business is conducted through the RCA International Division. In more than 100 countries, RCA products, from miniature tubes to complete broadcast stations, are placed in the hands of customers through well-organized channels of distribution. To develop further its overseas trade, RCA has consolidated its international sales, foreign operating companies, licensing and other activities in the RCA International Division, with offices at 745 Fifth Avenue, New York 22, N. Y.

What subsidiary companies does RCA have in other countries? They are: RCA Victor Argentina, S.A., in Buenos Aires; RCA Photophone of Australia, Proprietary Ltd., in Sydney; RCA Victor Radio, S.A., in Rio de Janeiro, Brazil; RCA Victor Company, Ltd., in Montreal, Canada; Corporacion de Radio de Chile, S.A., in Santiago; RCA Photophone, Ltd., in London, England; Photophone Equipments, Ltd., in Bombay, India; RCA Victor Mexicana, S.A., in Mexico, D.F.

A Latin American store features RCA products in modern window displays and outdoor signs.

Watching the telecast of a bullfight in Mexico City.

WorldRadioHistory

What products and services are handled by RCA's international subsidiaries? In Canada, Argentina and Chile, RCA manufactures phonograph records, cabinets and radios, including special apparatus as well as home receivers. Plastic products are also manufactured in the Argentine plant.

In Mexico, only phonograph records are manufactured at the present time. The Mexican Company also handles distribution of RCA motion picture sound equipment and engineering products in that market. The Brazilian Company is the distribution organization for products manufactured by the RCA Victor Division.

The Australian, Indian and English subsidiaries handle distribution of RCA motion picture sound equipment, including local assembly of reproducers, installation and servicing of theatre installations, and technical service to motion picture studios and their film recording licensees.

Does RCA export products from this country? Yes; products manufactured by RCA are marketed abroad. In addition, the International Division handles distribution in export of coin-operated phonographs which provide a stimulus for increased record sales. RCA distributes in the international market a complete line of theatre equipment, also a number of electrical home appliances other than radio, such as electric washers, ironers, vacuum cleaners and refrigerators.

Radios, tubes and batteries packed for export to Latin America.

Architect's drawing of projected RCA plant in Mexico City.

WorldRadioHistory

COMMUNICATIONS

Thompson H. Mitchell,
Executive Vice President,
RCA Communications, Inc.

What is RCA Communications, Inc.?

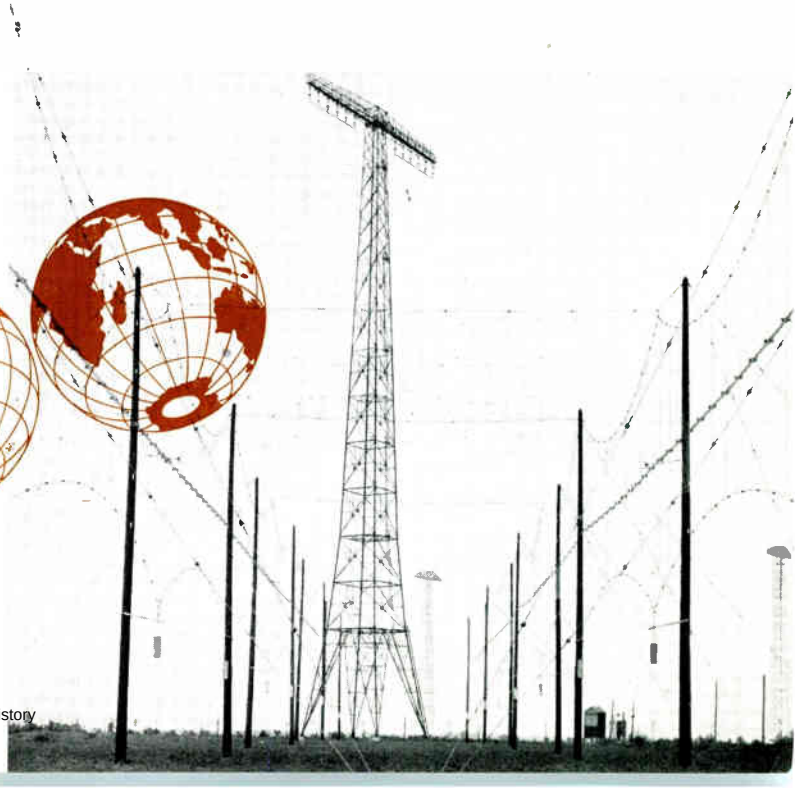
Following its organization in 1919, Radio Corporation of America promptly undertook the task of establishing an independent 100 per cent American, world-wide radiotelegraph system. RCA's international communication service therefore was one of its first activities. Its growth by 1929 warranted its organization as a separate company instead of remaining a department of the Corporation. RCA Communications, Inc., is, however, wholly-owned by Radio Corporation of America and is engaged primarily in international radiotelegraph (Radiogram) communication as a service to the public.

What is the extent of RCA's radiotelegraph service?

RCA Communications provides direct radiotelegraph service with the countries listed below:

Argentina
Australia
Austria
Belgian Congo
Belgium
Bermuda
Brazil
Bulgaria
Chile
China
Colombia
Cuba
Curacao
Czechoslovakia
Dominican Republic
Ecuador
Egypt
Finland
France
French Equatorial Africa
French Indo-China
French West Africa
Germany
Great Britain
Greenland
Guatemala
Haiti
Hawaii
Holland
Iceland
India
Italy
Iran
Japan
Korea
Lebanon
Liberia
Martinique
Mexico
Netherlands East Indies
New Caledonia
New Zealand
Okinawa
Panama
Philippines
Poland
Portugal
Puerto Rico
St. Pierre-Miquelon
Spain
Surinam
Sweden
Switzerland
Tahiti
Tangier
Turkey
U. S. S. R.
Venezuela
Yugoslavia

To countries where no direct route is available, RCA is able to provide service of superior quality, since messages filed "Via RCA" are subject to fewer relays.



Rows of towers mark the location of RCA's international radiotelegraph center at Rocky Point, L. I.

WorldRadioHistory

Radiotelegraph messages are received from abroad and transmitted to foreign points through these automatic tape relay machines at RCA Communications, 66 Broad Street, New York.

How does one send a Radiogram? In the United States, RCA has offices in New York, Washington, D. C., and San Francisco. Also every Western Union telegraph office in the United States is an acceptance and delivery agency for radiograms "Via RCA". When radiograms are filed in Western Union offices, the sender should mark on each message the free routing indicator "Via RCA", after the city of destination. Radiograms are accepted for any foreign country to which ordinary telegraph service is available.

Where are RCA's main transmitting and receiving stations? RCA's main transatlantic stations are located on Long Island with the receiving station at Riverhead and the transmitters at Rocky Point. Supplementary transmitting stations are located at New Brunswick and Tuckerton, N. J., and Marion, Mass. All are linked directly with New York and are operated by remote control from the company's Central Radio Office at 66 Broad Street. Incoming signals received at Riverhead pass automatically to the Central Radio Office.

The main transpacific office of RCA is at 28 Geary St., San Francisco, Calif. Pacific transmitting and receiving stations are located respectively at Bolinas and Point Reyes, Calif.

Similar RCA installations are also in Honolulu, Manila, Ciudad Trujillo (Dominican Republic), Port-au-Prince (Haiti), San Juan (Puerto Rico), Havana, and Tangier. The New York, San Francisco, Honolulu, Manila and Tangier stations comprise a trunk-line belt of RCA semi-automatic relay stations, girdling the globe.

What technical advances have been made recently in the field of International Radiotelegraphy? During 1946, RCA launched its so-called "Pandora Plan", providing for the adaptation of automatic tape relay and telegraph printing methods to radio circuits. Since the inception of transoceanic radiotelegraph service, overseas messages traditionally have arrived at the radio terminal or at "gateway" cities in Morse code form, necessitating their manual transcription on ordinary typewriters before final delivery could be accomplished. These manual transcription methods caused some time delay in message delivery service. The successful installation and operation of the "Pandora Plan" has eliminated the necessity for these manual, time-consuming procedures. Overseas messages today are received, for the most part, in the form of perforated tape which, without further processing, is used to effect prompt delivery over tie-line circuits to ultimate addressees anywhere in the United States.

WorldRadioHistory

The application of the "Pandora Plan" has been extended to all overseas installations of RCA Communications, and to many foreign operating agencies. The net result of RCA's pioneer efforts in establishing the "Pandora Plan" on a world-wide basis, has been to set in motion a universal trend toward automatic tape relay and telegraph printing methods throughout the world.

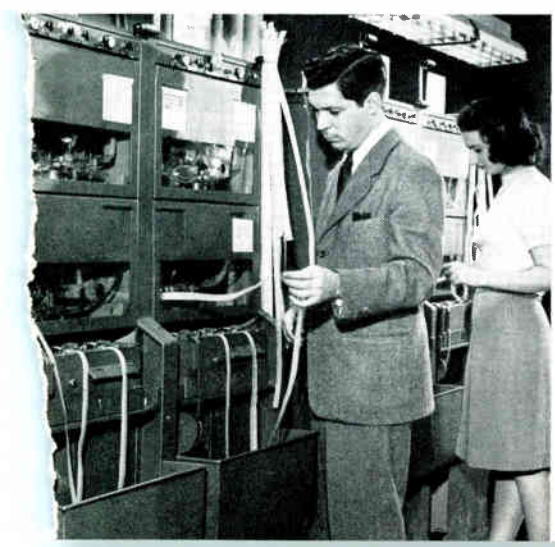
Is RCA's service confined to radiotelegraph messages? No; three additional services are operated by RCA Communications. Program Transmission Service is provided for the exchange of broadcast programs between the United States and foreign countries. Broadcast programs which originate in foreign studios are received by RCA and distributed to the requesting American broadcasting companies for transmission to the American public. Similarily, broadcast programs originating in American studios are transmitted overseas via RCA Program Transmission Service circuits to the requesting foreign broadcast agencies. More than three-quarters of the foreign programs heard by the American public are brought to the United States and fed to the major broadcasting networks by the RCA Program Transmission Service.

RCA also operates direct radiophoto service between New York and London, Cairo, Buenos Aires, Berne, Paris, Rome, Stockholm, Vienna, Nuremberg and Bombay. The San Francisco office of RCA Communications, operates direct radiophoto circuits with Honolulu, Manila and Melbourne.

Does RCA offer special radiotelegraph service to the press? Yes; to facilitate a freer exchange of news between the United States and other countries, RCA has inaugurated a new type of "Volume Press Service". It encourages press associations and newspapers to send and receive regularly "Via RCA" large quantities of news at a very low rate per word. Spare multiplex channels are used for the transmission of "Volume Press" and operation is semi-automatic throughout, with no manual re-processing necessary at intermediate offices. It is this by-product of "Volume Press" which makes possible an extremely low rate for what is practically a direct customer-to-customer service.

RCA also provides "Scheduled Press Transmission Service" which enables press associations and newspapers to make use of RCA transmitting facilities on a time basis and to reach a number of destinations simultaneously.

Some of the newly developed tape relay machines at RCA Communications Central office which automatically route inbound and outbound radiotelegraph messages, punched on tapes, to their destinations.



...RadioHistory

MARINE RADIO

C. J. Pannill, President, Radiomarine Corporation of America.

Radio room of S. S. America, equipped with latest Radiomarine installation.

Shipboard radio receivers nearing final assembly stage.

Radio direction finders are standard equipment on many ocean-going ships.

What is the Radiomarine Corporation of America? Radiomarine — a service of RCA — is engaged in the development, production, and servicing of marine radio communication equipment and electronic navigational devices. Many American flag merchant ships, as well as thousands of work boats and pleasure craft, are equipped with Radiomarine apparatus. It produces modern shipboard radar, loran receivers, radiotelegraph transmitters and receivers, automatic radio alarms, radio direction finders, lifeboat radios and radiotelephones. Special equipment is made for Government Departments. Radiomarine engineers have contributed much to the development and design of high-grade marine radio and electronic apparatus.

When was Radiomarine Corporation of America organized? Marine radio communication has been a service of RCA since the founding of the corporation in 1919. As this business expanded, the Radiomarine Corporation of America was formed on December 31, 1927, as a wholly-owned subsidiary of RCA entirely devoted to marine radio activities.

WorldRadioHistory

Does Radiomarine operate branch offices outside of New York City? Radiomarine has 21 service depots and offices located in principal seaports of the United States. Many of these service stations have been established over 25 years. They render a competent maintenance, repair and inspection service on all types of radiotelegraph, radiotelephone and marine electronic apparatus, including radar and loran. This work is done by experienced personnel holding operator's licenses issued by the Federal Communications Commission. These offices serve the Atlantic, Pacific, and Gulf areas as well as the Mississippi and Great Lakes. Service is also available in foreign ports by arrangement with foreign concerns.

Does Radiomarine maintain other services? Radiomarine, in addition to its many other activities in the marine radio field, is engaged in commercial shore-to-ship and ship-to-shore radiotelegraph and radiotelephone communication, maintaining 11 coastal stations and two affiliated stations on the Atlantic, Pacific and Gulf Coasts, the Mississippi River, and the Great Lakes. This service includes radiotelephone at Buffalo and St. Louis and the handling of radiograms, weather reports for the Government, press bulletins and transmission of free medical advice for the benefit of sick and injured personnel on vessels which do not carry a doctor.

When was radio first used at sea? The history of radio is linked with the sea. The main use foreseen for wireless in the Nineties was for communication to and from ships. This idea prevailed so strongly that Marconi went to London, the center of world shipping, to demonstrate and to promote his invention. Along the English coast the Italian inventor conducted experiments and endeavored to prove the worth of his wireless, yet it was not until the wreck of the S. S. Republic in 1909, and the S. S. Titanic disaster in 1912, that radio's great value was appreciated.

Radar Console

Direction Finders

Radar Antenna

Ship-to-Shore Radiotelephone

WorldRadioHistory

TECHNICAL TRAINING

Class in radio theory at RCA Institutes.

What is RCA Institutes, Inc.? RCA Institutes is a technical school. The vocational part is devoted to the maintenance and operation of radio receiving and transmitting equipment; the technological part includes this training and in addition trains the students in the design of radio and associated electronic equipment. Completely equipped laboratory and classroom facilities are maintained at 75 Varick Street, New York City.

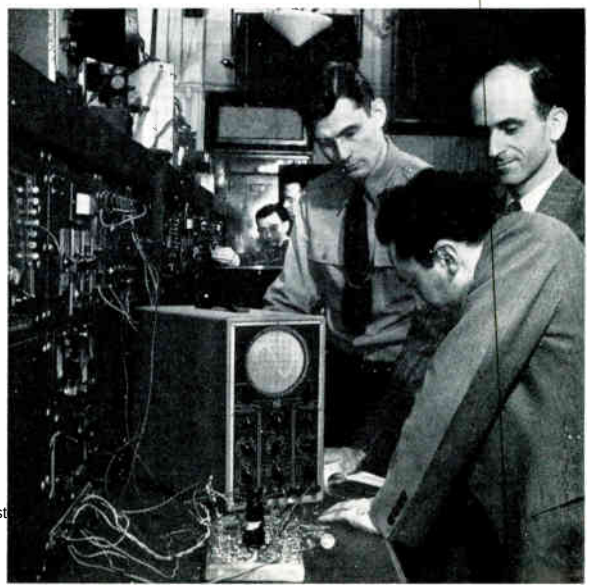
Is the year at RCA Institutes divided according to "college terms"? Classes are in session for fifty weeks each year, closing only for two weeks preceding Labor Day. New terms start approximately the first of March, June, September and December. Detailed information regarding this calendar is given in the school catalog.

Does RCA Institutes operate day or evening classes? Both day and evening classes are conducted. Day vocational courses are either 6, 9 or 12 months in duration. Day technology courses are 1½ or 2 years long, depending on the choice made. Evening courses require approximately twice these intervals, because classes meet fewer hours each week. Home study courses are not conducted.

How much does it cost to take a course at RCA Institutes? The cost of tuition varies with the length of the course. Tuition fees are paid weekly in most cases. Complete information concerning the school tuition fees and expenses and a detailed survey of the instruction are contained in the illustrated catalog which may be obtained on request.

Does RCA Institutes have a course in television? Yes; instruction in television receiver maintenance, adjustment and operation, is given. The design, maintenance and operation of a complete television system are covered in the last quarter of the General Course.

What are the qualifications for a student to enter RCA Institutes? Some high school education is necessary for all courses. Candidates wishing to take the General Course but who lack sufficient high school work may qualify by taking the Institute's preparatory course which includes high school algebra, geometry and physics. The courses at RCA Institutes are open to men and women, 17 years of age and older, who have an interest in the technical phases of radio and electronics.



Students at RCA Institutes conduct an experiment with latest test equipment.

WorldRadioHist

FOR ADDITIONAL INFORMATION

•

Should further information be desired on the following subjects, please write to:

RADIO MANUFACTURING	RCA Victor Division Camden, N. J.
BROADCASTING	National Broadcasting Company, Inc. 30 Rockefeller Plaza New York 20, N. Y.
RADIOTELEGRAPH	RCA Communications, Inc. 66 Broad Street New York 4, N. Y.
MARINE RADIO	Radiomarine Corporation of America 75 Varick Street New York 13, N. Y.
INTERNATIONAL SALES	RCA International Division 745 Fifth Avenue New York 22, N. Y.
TECHNICAL TRAINING	RCA Institutes Inc. 75 Varick Street New York 13, N. Y.
GENERAL INFORMATION ON RCA AND VARIOUS ACTIVITIES OF RADIO	Department of Information Radio Corporation of America 30 Rockefeller Plaza New York 20, N. Y.

Tune in RCA's radio program, "The RCA Victor Show," on the NBC Network Sundays at 2:00 p.m., New York time.

WorldRadioHistory

INDEX

PRINTED BY
WATTS PRINTING COMPANY
NEW YORK

PRINTED IN U.S.A.

WorldRadioHistory

WorldRadioHistory

SURPLUS - 1
LIBRARY OF CONGRESS
DUPLICATE

WorldRadioHistory

NARTB LIBRARY

THE NORTH TEXAS RADIO-TELEVISION AUDIENCE

1953

CONDUCTED BY DR. FOREST L. WHAN, KANSAS STATE COLLEGE

WorldRadioHistory

GIFT OF
NAB LIBRARY
TO THE
BROADCAST PIONEERS LIBRARY
1771 N STREET, N.W., WASHINGTON, D. C. 20036
FEB 1976

WorldRadioHistory

JE869

NARTB LIBRARY

THE NORTH TEXAS RADIO-TELEVISION AUDIENCE OF 1953

A Study of Adult Radio-Television Listening Habits in the North Texas Area

JANUARY, 1953

PART 1

THE RADIO AUDIENCE

Conducted by

DR. FOREST L. WHAN
Committee on Radio-TV Policy
Kansas State College
Manhattan, Kansas

Copyright, 1953, by A. H. Belo Corporation

WorldRadioHistory

TR01

TABLE OF CONTENTS—PART I

WorldRadioHistory

FOREWORD

This is a study of the radio-television listening habits and preferences of adult people, combined with diary-recorded listening of all persons above the age of four years, in the North Texas Area. The North Texas Area was arbitrarily defined for this study as embracing one hundred and eleven counties in Northeastern Texas, forming an area approximately 450 miles from east to west and 300 miles from north to south. The counties embraced are shown by the map on Page 4. The Bureau of Census reported 1,000,215 families living in the area at the time of the 1950 census.

The study is patterned after similar studies conducted over a sixteen-year period in Kansas, Iowa, other midwestern states and states in New England. The addition of the North Texas Area to those covered by these surveys not only uncovers basic information on Radio-Television habits and preferences of Texas people, but permits comparison of audiences in the Southwest with those of the Midwest and East.

Because methods used in the survey were identical with those long used in other states, a description of those methods, analysis of sample, reproduction of questionnaire and reproduction of diary-sheet have been placed in the Appendix to Part I of this report.

Briefly, the study consisted of two parts: (1) personal interviews held with adults in the homes of 9,167 randomly selected families in all parts of the area, and (2) diary reports of two days' listening to radio and viewing TV, from 725 randomly selected homes. In both portions of the study each county, city, village and farm area received its proportionate share of the sample, based on the federal census report for 1950. Stratification for selection of sample was made on a basis of geography, urbanization, economic standards within urban areas, and types of roads in farm areas.

The diary portion of the study differed in three basic respects from standard diary procedure: (1) each family was reached by a personal interviewer, who left diaries after explaining how they worked; (2) each family was asked to keep a diary record of listening or viewing (by quarter-hours) on EACH SET (separately) for the two days immediately following the interview; and (3) diary reports covered a two-day, rather than a seven-day, period. Validity of this type of diary procedure is explained in the Appendix to Part I.

Grateful acknowledgment is extended to Prof. John D. Ebbs of Texas A&M College, under whose personal supervision the interviewers were hired and worked, and to whom the diary records were returned.

Interviewing was done between Jan. 19 and 31, 1953, with the exception of less than 5 per cent of the total—interviewing done late because of conditions beyond the control of those in charge. In all, 5,418 of the families lived in "cities" of more than 2,500 population; 1,879 lived in village of less than 2,500 population; and 1,870 lived in farm homes. On a basis of the federal census report for 1950, the study reached better than one of each 110 homes in the area.

Because two media were examined by the study, the report is published in two parts; Part I on radio listening, and Part II on television viewing. Free distribution of the volumes, until supply is exhausted, is available to commercial organizations, governmental agencies, libraries and schools—one copy to an organization. Requests from commercial firms should be directed to the copyright owner; other requests should be directed to the author.

A random sample within stratified areas, which includes more than 9,100 cases, reaching one of every 110 homes in the area, and which represents the counties and types of residence in direct proportion to census-reported homes, must be regarded as statistically reliable. Reliability tests run on each question of the study bear out this conclusion. The figures found in the following pages can be regarded as representing the habits and preferences of the population of the area at the time of the study. Further, diary reports were received on listening to each radio and each television set, recorded coincidentally with listening by all members of the family over four years of age. Proof of the reliability of the diary sample will be found in the Appendix to Part I of this report.

F. L. WHAN,
Committee on Radio-TV Policy,
Kansas State College,
Manhattan, Kansas.

WorldRadioHistory

PART I
THE RADIO AUDIENCE

LISTENER CLASSIFICATION USED IN THE REPORT

In all tables and charts which follow, columns headed "Total Area" or "Area" give figures for all families or all individuals interviewed, unless otherwise designated in the table. Whenever sex of respondent was found to affect replies to a question, "Area" figures were the results of weighting, giving each sex its correct value in the total.

Those columns headed "Urban" refer to individuals or families living in communities with more than 2,500 population; those headed "Village" refer to families or individuals in towns with less than 2,500 population; those headed "Farm" deal with replies from homes on farms, whose chief source of income was from farming. Columns headed "Rural" combine village and farm reports.

The term "Dallas-Fort Worth" refers to all interviewed or all diary reports received from families living within the boundaries of these two large cities. "Other urban" figures refer to information coming from all cities excepting Dallas and Fort Worth in the North Texas area.

In tables classing individuals according to sex, education, age or standard of living, the following definitions apply. "College" gives figures for individuals who have attended college, without regard to length of such attendance; those headed "High School" give similar figures for persons who have not attended college, but have had some high school training; those headed "Grade" refer to persons who have no formal education above the elementary grades. It should be noted that these educational definitions do not parallel those used by the Federal Bureau of Census. Age and sex classifications are self-explanatory, excepting that these were judged by the interviewer at time of interview, rather than coming from replies by respondents. Standard of Living was also judged by the interviewer at the time of interview, each family being judged either "High," "Medium," or "Low" on a basis of the home and its contents.

One final classification used is geographical in nature. Interviewing was assigned on a county-by-county basis, with correct proportions of total interviews and diaries going to each county, and within each county to each city, to village and to farm families. These county-by-county figures were used in locating ownership of television sets, automobiles and auto-radios. The North Texas Area counties differ greatly in both size and density of population. Proportionate distribution of the 9,167 interviews, therefore, gave relatively small representation to some of the thinly populated counties, making figures in these counties subject to large sampling-error deviations. Maximum possible deviations for such counties are reported in the "Reliability Table" in the Appendix.

The map on Page 4 locates the boundaries of the North Texas Area, and the various counties surveyed. It also locates towns and cities in which are located radio or television stations of the area. The table which follows the map lists all radio and all television stations located in the area at the time of the survey*, together with their power, frequency or channel, call letters, and date on which they began operation.

**Source: Broadcasting Yearbook and Telecasting Yearbook, 1953, with data corrected to January 1, 1953.*

LOCATION AND POWER OF RADIO AND TELEVISION STATIONS

The following table lists all stations operating in the North Texas Area at the time of the 1953 audience survey, together with the location of transmitter, date first on the air, frequency and power. Location of the towns with radio or television stations is shown on the preceding map, Page 4. The source of information given in the following table was **Broadcasting Yearbook** and **Telecasting Yearbook,** 1953, corrected to Jan. 1, 1953.

TOWN	*CALL LETTERS*	*FIRST ON AIR*	*FREQUENCY*	*POWER*
RADIO STATIONS:				
Abilene	KRBC	1936	1470 kc	5,000 w day 1,000 w night
	KWKC	1948	1340 kc	250 w unlimited
Athens	KBUD	1948	1410 kc	250 w day
Atlanta	KALT	1950	900 kc	1,000 w day
Ballinger	KRUN	1947	1400 kc	250 w unlimited
Bonham	KFYN	1948	1420 kc	250 w day
Brady	KNEL	1935	1490 kc	250 w unlimited
Breckenridge	KSTB	1947	1430 kc	1,000 w day
Brownwood	KBWD	1941	1380 kc	1,000 w day

WorldRadioHistory

TOWN	CALL LETTERS	FIRST ON AIR	FREQUENCY	POWER
Center	KDET	1949	930 kc	1,000 w day
Childress	KCTX	1947	1510 kc	250 w day
Clarksville	KCAR	CP	1350 kc	500 w day
Cleburne	KCLE	1947	1120 kc	250 w day
	KCLE-FM	1949	94.3 mc	0.32 kw unlimited
Coleman	KSTA	1947	1000 kc	250 w day
Colorado City	KVMC	1950	1320 kc	500 w day
Corsicana	KAND	1937	1340 kc	250 w unlimited
Crockett	KIVY	1950	1570 kc	250 w day
Dallas	KGKO	1953	1480 kc	1,000 w day
				500 w night
	KIXL	1947	1040 kc	1,000 w day
	KIXL-FM	1947	104.5 mc	34 kw unlimited
	KLIF	1947	1190 kc	5,000 w day
				1,000 w night
	KRLD	1926	1080 kc	50,000 w unlimited
	KRLD-FM	1948	92.5 mc	40 kw unlimited
	KSKY	1941	660 kc	1,000 w day
	WFAA	1922	820 kc	50,000 w unlimited*
			570 kc	5,000 w unlimited*
	WRR	1920	1310 kc	5,000 w unlimited
	WRR-FM	1949	101.3 mc	68 kw unlimited
Denison	KDSX	1948	950 kc	500 w unlimited
Denton	KDNT	1938	1440 kc	1,000 w day
				500 w night
	KDNT-FM	1949	106.3 mc	0.76 kw unlimited
Fort Worth	KCNC	1947	870 kc	250 w day
	KCUL	1949	1540 kc	5,000 w day
				1,000 w night
	KFJZ	1936	1270 kc	5,000 w unlimited
	KWBC	1946	970 kc	1,000 w day
	KXOL	1947	1360 kc	1,000 w unlimited
	WBAP	1922	820 kc	50,000 w unlimited*
			570 kc	5,000 w unlimited*
	WBAP-FM	1949	100.5 mc	50 kw unlimited
Gainesville	KGAF	1947	1580 kc	250 w day
Gladewater	KSIJ	1949	1430 kc	1,000 w day
Graham	KSWA	1948	1330 kc	500 w day
Greenville	KGVL	1946	1400 kc	250 w unlimited
Hamilton	KCLW	1948	900 kc	250 w day
Henderson	KGRI	1947	1000 kc	250 w day
Hillsboro	KHBR	1948	1560 kc	250 w day
Jacksonville	KEBE	1947	1400 kc	250 w unlimited
Kilgore	KOCA	1936	1240 kc	250 w unlimited
Lampasas	KHIT	1948	1450 kc	250 w unlimited
Longview	KFRO	1934	1370 kc	1,000 w unlimited
	KLTI	1948	1280 kc	1,000 w day
	KLTI-FM	1948	105.9 mc	9.8 kw unlimited
Lufkin	KRBA	1938	1340 kc	250 w unlimited
	KRBA-FM	1948	95.5 mc	2.9 kw unlimited
	KTRE	1947	1420 kc	1,000 w unlimited
Marlin	KMLW	CP	1010 kc	250 w day
Marshall	KMHT	1947	1450 kc	250 w unlimited
Mineral Wells	KORC	1946	1140 kc	250 w day
Mount Pleasant	KIMP	1948	960 kc	1,000 w day

** WFAA shares time on both frequencies with WBAP of Fort Worth, each programming full day on one or other of the frequencies.*

WorldRadioHistory

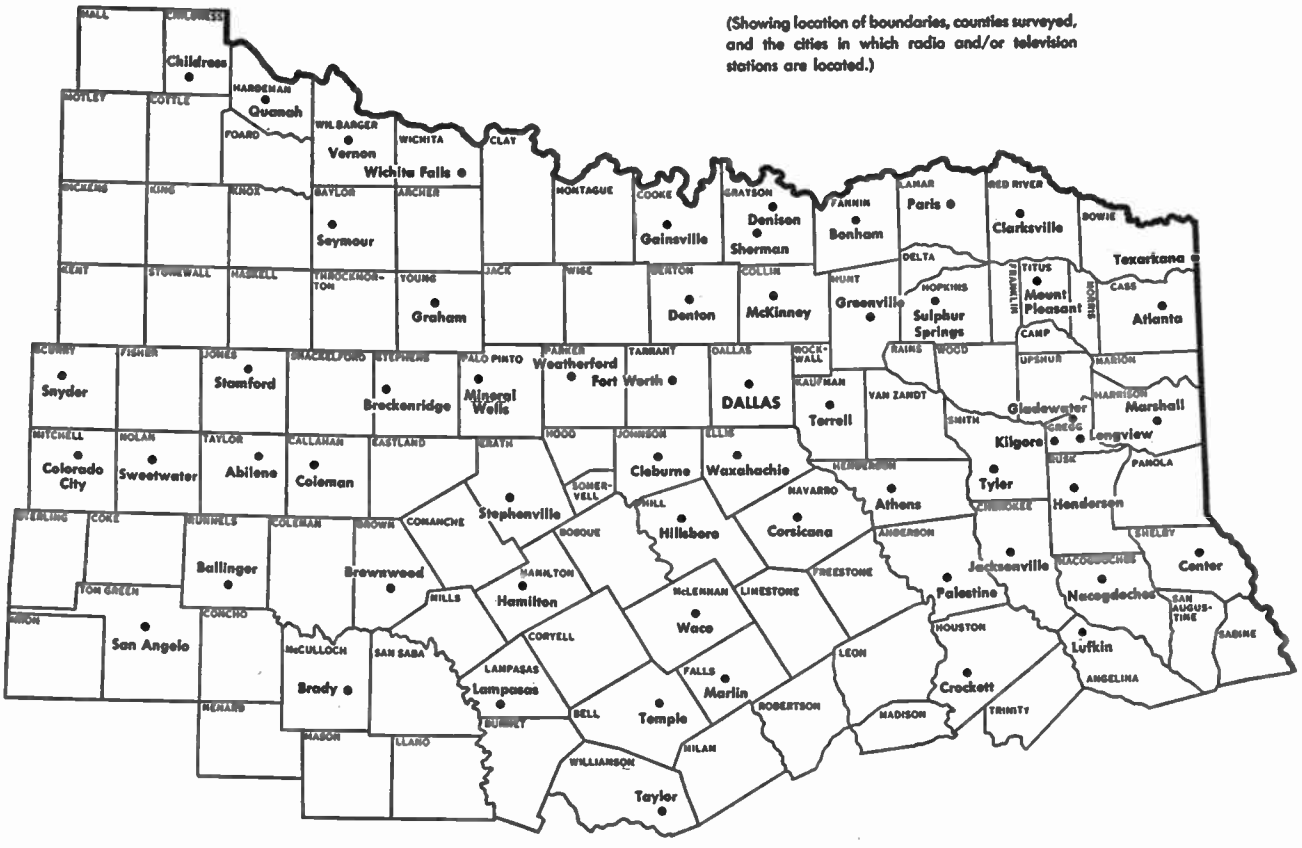
TOWN	CALL LETTERS	FIRST ON AIR	FREQUENCY	POWER
Nacogdoches	KOSF	1947	1230 kc	250 w unlimited
	KSFA	1947	860 kc	1,000 w day
Palestine	KNET	1936	1450 kc	250 w unlimited
Paris	KFTV	1950	1250 kc	500 w day
	KPLT	1936	1490 kc	250 w unlimited
Quanah	KOLJ	1951	1150 kc	500 w day
San Angelo	KGKL	1928	960 kc	5,000 w day
				1,000 w night
	KTXL	1947	1340 kc	250 w unlimited
Seymour	KSEY	1950	1230 kc	100 w unlimited
Sherman	KRRV	1936	910 kc	1,000 w unlimited
	KTAN	1947	1500 kc	250 w day
Snyder	KSNY	1949	1280 kc	500 w day
		CP	1450 kc	250 w unlimited
Stamford	KDWT	1947	1400 kc	250 w unlimited
Stephenville	KSTV	1947	1510 kc	250 w day
Sulphur Springs	KSST	1947	1230 kc	250 w unlimited
Sweetwater	KXOX	1939	1240 kc	250 w unlimited
Taylor	KTAE	1948	1260 kc	1,000 w day
Temple	KTEM	1936	1400 kc	250 w unlimited
	KTEM-FM	1948	107.5 mc	1.9 kw unlimited
Terrell	KTER	1950	1570 kc	250 w day
Texarkana	KCMC	1932	1230 kc	250 w unlimited
	KCMC-FM	1947	98.1 mc	40 kw unlimited
	KTFS	1946	1400 kc	250 w unlimited
Tyler	KGKB	1930	1490 kc	250 w unlimited
	KTBB	1947	600 kc	500 w day
				1,000 w night
Vernon	KVWC	1939	1490 kc	250 w unlimited
Waco	KWTX	1946	1230 kc	250 w unlimited
	WACO	1922	1460 kc	1,000 w unlimited
Waxahachie	KWHA	CP	1390 kc	500 w unlimited
Weatherford	.....	CP	1220 kc	250 w day
Wichita Falls	KFDX	1947	990 kc	10,000 w day
				1,000 w night
	KTRN	1949	1290 kc	5,000 w day
				1,000 w night
	KWFT	1939	620 kc	5,000 w unlimited
	KWFT-FM	1948	99.9 mc	9.7 kw unlimited
Television STATIONS:*			Channel	
Dallas	KRLD-TV	1949	4	27.3 kw visual
				13.6 kw aural
	WFAA-TV	1949	8	27.0 kw visual
				13.5 kw aural
Fort Worth	WBAP-TV	1949	5	17.6 kw visual
				8.2 kw aural
San Angelo	KGKL-TV	CP	3	6.4 kw visual
				3.2 kw aural
	KTXL-TV	CP	8	11.0 kw visual
				5.5 kw aural
Waco	KANG-TV	CP	34	5.0 kw visual
				3.0 kw aural
Wichita Falls	KFDX-TV	CP	3	60.0 kw visual
				36.0 kw aural
	KTVW-TV	CP	22	18.5 kw visual
				9.3 kw aural

** Other CPs have been granted since January 1, 1953, to TV applicants.*

WorldRadioHistory

NORTH TEXAS AREA

(Showing location of boundaries, counties surveyed, and the cities in which radio and/or television stations are located.)



RADIO SET OWNERSHIP AND USE

Homes With Radios, Near Saturation Reached—Nearly every family in the North Texas Area has access to a radio set located within its own home. The following table reports the percentage of families reached by the interview portion of the survey with radio sets in the home. It shows that better than 97 per cent have radios, and that nearly all of the families have at least one set kept in working order. Figures do not include televisions sets, sets in automobiles or sets owned by the family, but located in barns or other places outside the home. Figures in the table are percentage of all families reached in each classification by the survey.

HOMES WITH RADIO RECEIVERS

(Percentages based on 9,167 homes reached by interview)*

Per cent of all homes with:	*Total Area*	*Dallas Ft. Worth*	*Other Urban*	*All Rural*
Radio set or sets which will work	97.6%	96.0%	98.4%	98.0%
Radio, but none in working order	0.1	0.2	0.1	0.1
No radio set in the home	2.3	3.8	1.5	1.9
	100.0	100.0	100.0	100.0

Not only do most North Texas Area homes have radio receivers, but approximately 43 per cent of them have two or more sets. The following table analyzes from the standpoint of NUMBER of radio sets in the home, comparing large urban, smaller urban and rural homes. Figures include both AM and FM receivers, but do not include television sets (reported later), automobile sets, or other sets owned outside the home. Percentages in the table are based on the total number of homes reached in each classification, including homes without radios in the percentage base.

WorldRadioHistory

OWNERSHIP OF MULTIPLE SETS IN THE HOME

(Percentages based on 9,167 homes reached by interview)*

Per cent of homes equipped with:	*Total Area*	*Dallas Ft. Worth*	*Other Urban*	*All Rural*
1 or more radio sets	97.7%	96.2%	98.5%	98.1%
2 or more radio sets	42.9	45.1	52.6	33.7
3 or more radio sets	13.2	14.4	18.6	8.1
4 or more radio sets	3.9	4.5	5.6	2.1

**Parallel figures for combined urban, for village and for farm homes may be found in the Appendix.*

Listening Done by Rooms in the Home—The 692 "Diary Families" reported separately the listening done to each radio set owned. At the same time they reported on the room in which the radio set was located when used.

The following table analyzes these reports, showing two things: (1) the per cent of all reported radio sets located in the rooms named, and (2) the per cent of total reported radio listening taking place in these rooms. Percentages are based on the figures shown at the top of the columns. Proof of the reliability of the diary sample will be found in the Appendix.

LOCATION AND USE OF RADIO SETS IN THE HOME

(Percentages based on figures shown at top of columns. Figures from Diaries)

	Per Cent of 1,561 Radio Sets, Located In:	*Per Cent of 30,738 Quarter-hours Listening, Done In:*
Living rooms	42.7%	39.1%
Kitchens	15.7	16.5
Bedrooms	21.8	27.0
Dining rooms	3.3	2.9
Other rooms of home	3.0	4.3
Sets "moved about"	13.5	10.1
	100.0	100.0

USE OF AUTOMOBILE RADIOS

One type of "out-of-home" listening was investigated by the 1953 North Texas Area Survey. Each respondent for a family owning an automobile was asked the following series of questions:

"Does your family have a radio set in its automobile?"

"About how far would you say YOU, personally, rode in your car YESTERDAY?"

"By the way, did you use the radio while riding YESTERDAY?"

In order to discover something about the accuracy of recalled "yesterday's listening" and to reach additional men riders, each man "head of household" in the diary sample was asked to fill out similar questions at the end of EACH day the diary was kept, about listening done that day to radios in automobiles. In all, 9,018 women and men were questioned by interviewers, and 929 reports were received from men owners of radio-equipped cars in the diary sample.

The following four tables analyze: (1) percentages of homes reached by interview, owning a radio-equipped car; (2) percentage of radio-equipped car owners reached by interview and by diary, making USE of CARS on the day in question; (3) the percentage of riders in both samples, reporting the use of the car RADIO while riding; and (4) analysis of daily use of auto radios by distance traveled. In the last three of the four tables, comparative figures are offered on "recalled YESTERDAY'S" listening and on the diary record "TODAY'S" listening by men. The four tables show:

(1) More than half of all families in the North Texas Area own radio-equipped automobiles; two thirds of the auto owners having cars with radios.

(2) About two thirds of the women and better than three fourths of the men RIDE in those cars on an average day.

(3) Better than half of all riders, regardless of sex, use the car RADIO on an average day.

(4) One out of three of the riders makes use of the radio within the first five miles of riding.

(5) Better than half of the riders use the radio within the first twenty-five miles of driving.

(6) Approximately two thirds use the radio within the first 50 miles of driving.

WorldRadioHistory

(7) Three fourths of the women and 85 per cent of the men use the car radio if driving over 100 miles during the day.

(8) Recalled "yesterday's" riding was 7 per cent lower than recorded "today's riding"—however, recalled listening to the radio "yesterday" was slightly greater than that recorded "today," particularly in the case of urban men.

It should be noted that this survey dealt only with the validity of recalled yesterday's car radio USE, and offers no information on the validity of recalled stations heard or periods of the day at which listening was done.

With over half the families of the area owning radio-equipped automobiles this high daily use of the auto radio represents increased daily listening over and above that done in the home. It represents therefore, PLUS LISTENING over station ratings given elsewhere in this report—which are based on "in home" recorded diary listening or "in home" listening reported to the interviewer.

OWNERSHIP OF RADIO-EQUIPPED AUTOMOBILES

(Based on replies from 9,018 families interviewed in radio-equipped homes)*

Owning a Radio-Equipped Automobile:	*All Families Questioned*	*Car-Owning Families*
All families questioned	57.1%	67.8%
Dallas families	61.5	77.3
Fort Worth families	57.5	71.3
Other urban families	61.7	71.6
All rural families	51.3	60.1

USE OF AUTOMOBILES BY ADULTS

(Percentages based on replies of automobile owners)

Per Cent of Radio-Equipped Automobile Owners Riding:	"I Rode in Our Car Yesterday" *3,857 Women Car-Radio Owners Interviewed*	"I Rode in Our Car Yesterday" *1,226 Men Car-Radio Owners Interviewed*	"I Rode Today" *929 Men Car-Radio Owners Diary Reporting*
All families questioned	65.3%	78.1%	84.0%
Dallas and Fort Worth families	58.2	77.4	86.0
Other urban families	70.4	80.2	85.1
Village families	67.0	80.9	81.4
Farm families	64.6	73.5	83.2

USE OF CAR RADIO BY THOSE RIDING IN RADIO-EQUIPPED CARS

(Percentages based on replies from riders in radio-equipped cars: 2,518 women and 879 men interviewed; 496 diary reporting men)

	"I Used the Car Radio Yesterday" *Women Interviewed*	"I Used the Car Radio Yesterday" *Men Interviewed*	"I Used it Today" *Men Diary Reporting*
All reporting	52.6%	60.8%	59.7%
Dallas and Fort Worth	53.8	70.4	63.9
Other urban	54.6	61.5	57.6
Village	49.0	58.0	54.6
Farm	50.3	53.2	64.1

**For parallel figures on villages and farm families, see the Appendix*

USE OF CAR RADIO—BY DISTANCE TRAVELED IN RADIO-EQUIPPED CARS

(Percentages based on replies from riders in radio-equipped cars: 2,518 women and 879 men interviewed; 496 diary reporting men)

While Riding:	"I Used the Car Radio Yesterday" *Women Interviewed*	"I Used the Car Radio Yesterday" *Men Interviewed*	"I Used It Today" *Men Diary Reporting*
Up to 5 miles	32.6%	38.3%	34.6%
From 6 to 25 miles	59.5	58.5	58.8
From 26 to 50 miles	68.2	74.5	68.7
From 51 to 100 miles	63.9	63.8	82.0
More than 100 miles	77.9	84.7	85.2

WorldRadioHistory

Reports on listening to the car radio by persons interviewed offer an opportunity to compare the use of the car radio by days of the week. No significant differences were found in the use of the car radio on weekdays, Monday through Friday. However, Saturday and Sunday use of the car radio did differ significantly from use on weekdays, and is reported in the table below. Percentages in each column are based on the number of reports received for the days named, representing differences reported by women and men combined.

USE OF THE CAR-RADIO—DAYS OF THE WEEK COMPARED

(Percentages based on number of reports shown at top of each column)

	"Yes, I Listened to My Car Radio Yesterday"		
While Riding:	*3,050 Weekday Reports*	*70 Sunday Reports*	*277 Saturday Reports*
Up to 5 miles	34.1%	27.3%	29.6%
From 6 to 25 miles	59.1	54.5	62.9
From 26 to 50 miles	71.1	50.0	64.1
From 51 to 100 miles	63.8	55.5	68.5
More than 100 miles	81.3	60.0	78.3

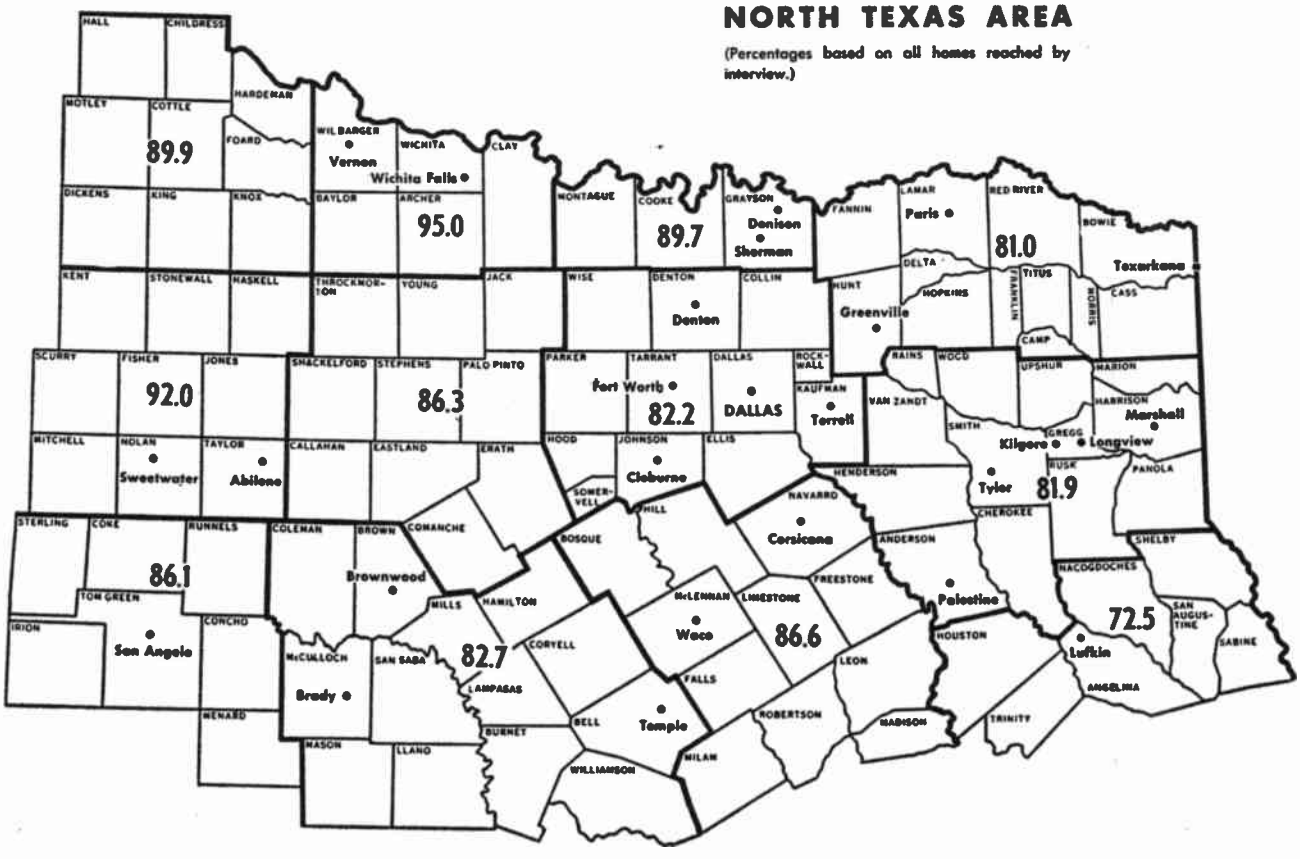
Location of Automobiles and Radio-Equipped Cars—With a great amount of radio listening occurring in automobiles making short trips each day, and with some stations covering only a portion of the North Texas area, location of automobiles equipped with radios becomes an important item. Because of small samples in thinly populated counties, county-by-county figures on automobile ownership or car radio ownership are subject to relatively large sampling-error deviations. By combining a number of counties into larger areas, more accurate figures are obtainable. The following two maps report such ownership for arbitrarily drawn areas.

The two maps show: (1) The percentage of homes reached by interview which reported automobile ownership; (2) the percentage of all homes reached which reported owning radio-equipped cars. Percentages in each map are based on all homes reached by interview, including nonradio homes in the percentage base.

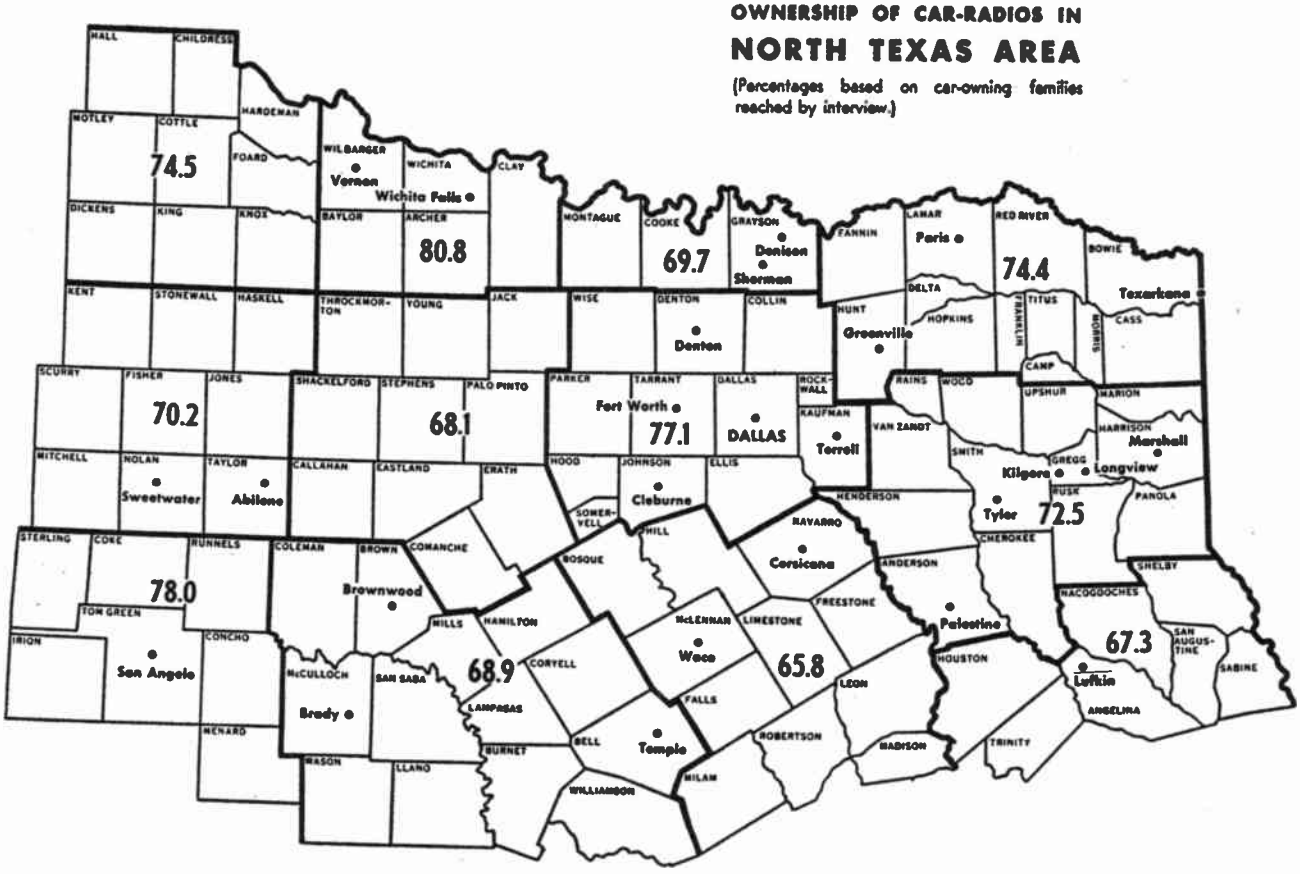
OWNERSHIP OF AUTOMOBILES IN

NORTH TEXAS AREA

(Percentages based on all homes reached by interview.)



WorldRadioHistory



Other Out-of-Home Listening—One other type of "out-of-home" listening was investigated by the 1953 North Texas area survey. After respondents had reported on car-radio listening, each respondent was asked:

> **"Do any members of your family hear any OTHER radios regularly, outside the home?" (If so) "Where are these heard?"**

Although many persons could not answer for members of their family, approximately one person out of twelve responded with an unqualified "Yes, some members of my family do hear other radios regularly outside the home."

This is ADDITIONAL LISTENING to figures reported later from interview and diary reports on "in home" use of sets.

The following table analyzes the replies to the above question of all families reached by interview. Percentages are based on all questioned by the survey, including those living in nonradio homes.

FAMILIES WHOSE MEMBERS REGULARLY HEAR NON-CAR RADIOS OUTSIDE THE HOME

(Percentages based on 9,167 families reached by personal interview)*

	"Do Some Members of Family Regularly Hear Noncar Radios Outside the Home?"		
	"YES"	*"NO"*	*"Don't Know"*
All families questioned	8.1%	84.8%	7.1%
Dallas and Fort Worth	7.6	87.7	4.6
Other urban	8.8	82.1	9.1
Village	7.9	85.3	6.8
Farm	7.6	85.2	7.2

**Horizontal lines total 100.0%*

WorldRadioHistory

Location of Noncar Sets Regularly Heard Outside the Home—With nearly one tenth of the families reporting that some members regularly hear radios (not in automobiles) outside the home, the question of location of these sets is of interest. Each person was asked, "Where do they hear these sets?"

The following table analyzes replies of the 704 families answering this question. Percentages in the table are based on this number, and not on the total number of families reached by interview. A figure of 13.0 per cent in the table is equal to approximately 1.0 per cent of all families interviewed. Columns total more than 100.0 per cent because of multiple replies.

The table shows that nearly half of this "out-of-home" (nonauto) radio listening takes place at the "place of work," with listening at neighbor's and relative's making up another one-quarter of the total.

THE PLACE OF NON-CAR OUT-OF-HOME LISTENING

(Percentages based on replies from 704 families naming places radio usually heard; 13.0 per cent in table equals 1.0% of all families)*

Place Radio Is Heard:	*Total Area*	*Dallas Ft. Worth*	*Other Urban*	*Village*	*Farm*
Place of work	46.1%	42.9%	51.7%	47.8%	38.4%
At neighbor's	22.3	38.7	12.1	19.0	19.6
At relative's	10.3	14.1	7.5	7.6	13.5
At school	12.3	3.7	15.4	8.3	21.1
On trips	8.1	3.1	10.0	9.1	9.8
At the club	0.6	0.6	0.8	0.8	..
Downtown	3.7	..	3.3	9.1	3.8
Farm buildings	0.6	..	..	0.8	2.3
All other places	0.7	..	0.8	1.5	..

**Columns total more than 100.0 per cent because of multiple replies.*

IN-HOME LISTENING

Multiple-Set Use in the Home—Another type of listening (missed by much radio-television audience research) is extra listening within the home through simultaneous use of two or more sets tuned to different stations. The old idea of a "family set" is antiquated. Approximately 43 per cent of the families in the North Texas area have more than one radio set in the home. If these sets are used simultaneously at times, and are tuned to different stations, they may add significantly to the audience for individual programs.

In order to test the simultaneous use of radio sets in multiple-set homes, the Diary study placed a SEPARATE diary on EACH set found in diary homes—each radio set and each television set having its own separate report. Analysis of these reports permits examination of simultaneous use of radio sets in multiple-set homes, where the radios were tuned to different stations.

The following table reports the AMOUNT of simultaneous use of sets per day per family. Figures are in quarter-hours, being the total number of quarter-hours of multiple-set use (tuned to different stations) that was reported, divided by the total number of multiple-set homes (including those where no simultaneous use took place).

QUARTER-HOURS OF LISTENING BY AVERAGE FAMILY TO TWO OR MORE SETS

(Figures are in quarter-hours, being total number of quarter-hours when two or more sets in a home were tuned to different stations, divided by all multiple-set homes)

The Average Family Uses Two of Its Sets Simultaneously:

On an average weekday . . . . . 2.26 quarter-hours

On an average Saturday or Sunday . . . . . 2.41 quarter-hours

Simultaneous Use of Radio Sets by Quarter-Hours—The following table shows that sets are used simultaneously in some homes at every quarter-hour between 5:30 a.m. and midnight on weekdays, and from before 7:00 a.m. until 10:30 p.m. on Saturdays and Sundays. Percentages are based on total number multiple-set homes in the diary portion of the study, and represent the portion of these homes using two or more radio sets simultaneously, but tuned to different station.

WorldRadioHistory

FAMILIES USING TWO SETS SIMULTANEOUSLY BY QUARTER-HOURS

(Percentages are based on total number of multiple-set homes keeping the diaries)

A.M.	*Weekdays*	*Saturday and Sunday*
5:00- 5:15	..	..
5:15- 5:30	0.2%	..
5:30- 5:45	0.5	..
5:45- 6:00	0.7	..
6:00- 6:15	0.9	..
6:15- 6:30	1.6	..
6:30- 6:45	1.4	..
6:45- 7:00	1.8	1.1%
7:00- 7:15	3.4	3.3
7:15- 7:30	3.4	2.3
7:30- 7:45	3.2	4.4
7:45- 8:00	3.0	5.5
8:00- 8:15	4.3	6.6
8:15- 8:30	2.3	3.3
8:30- 8:45	2.0	3.3
8:45- 9:00	3.0	3.3
9:00- 9:15	4.1	7.7
9:15- 9:30	4.1	4.4
9:30- 9:45	4.8	2.2
9:45-10:00	3.9	2.2
10:00-10:15	4.8	1.1
10:15-10:30	4.1	1.1
10:30-10:45	5.0	4.4
10:45-11:00	4.5	3.3
11:00-11:15	4.5	7.7
11:15-11:30	5.2	5.5
11:30-11:45	3.6	4.4
11:45 12:00	4.8	4.4
P.M.		
12:00-12:15	5.9	6.6
12:15-12:30	5.2	4.4
13:30-12:45	4.1	8.8
12:45- 1:00	3.9	3.3
1:00- 1:15	3.0	3.3
1:15- 1:30	2.0	5.5
1:30- 1:45	1.8	4.4
1:45- 2:00	2.0	3.3
2:00- 2:15	2.5	2.2
2:15- 2:30	2.3	4.4
2:30- 2:45	2.0	1.1
2:45- 3:00	1.6	1.1

P.M.	*Weekdays*	*Saturday and Sunday*
3:00- 3:15	2.3%	1.1%
3:15- 3:30	2.5	1.1
3:30- 3:45	2.3	1.1
3:45- 4:00	1.6	2.2
4:00- 4:15	1.4	2.2
4:15- 4:30	1.4	2.2
4:30- 4:45	1.4	2.2
4:45- 5:00	1.6	2.2
5:00- 5:15	3.9	3.3
5:15- 5:30	3.9	3.3
5:30- 5:45	4.1	5.5
5:45- 6:00	3.6	2.2
6:00- 6:15	6.1	5.5
6:15- 6:30	5.0	7.7
6:30- 6:45	4.5	8.8
6:45- 7:00	5.0	6.6
7:00- 7:15	5.2	4.4
7:15- 7:30	6.4	3.3
7:30- 7:45	5.5	2.2
7:45- 8:00	5.0	2.2
8:00- 8:15	5.0	6.6
8:15- 8:30	4.5	4.4
8:30- 8:45	4.3	5.5
8:45- 9:00	4.5	3.3
9:00- 9:15	3.2	3.3
9:15- 9:30	1.6	2.2
9:30- 9:45	1.1	3.3
9:45-10:00	1.8	3.3
10:00-10:15	1.8	5.5
10:15-10:30	0.9	4.4
10:30-10:45	0.7	..
10:45-11:00	0.9	..
11:00-11:15	0.5	..
11:15-11:30	0.5	..
11:30-11:45	..	..
11:45-12:00	0.2	..
A.M.		
12:00-12:15	0.2	..
12:15-12:30	..	..
12:30-12:45	..	..
12:45- 1:00	..	..

Simultaneous Use of Radio and TV Sets in TV Homes—The foregoing tables report the simultaneous use of **radio** sets tuned to different stations, and suggest that questioning one person by phone or interview will not uncover all of the listening done in a home.

The following tables suggest that similar PLUS RADIO LISTENING takes place in television-equipped homes, at the time they are making use of their television sets.

Two types of information bearing on simultaneous use of radio and TV sets were obtained by the 1953 North Texas area survey. The first type of information came in response to a general question put by interviewers:

> **"SOMETIMES, when part of your family watches TV, are OTHER members of the FAMILY listening to radio in another part of your home?" (If yes) "About how often would you say this happens? Most times, quite often, half of the time, only now and then, or almost never?"**

WorldRadioHistory

The second type of information bearing on simultaneous use of radio and TV sets came from the diary reports. Since separate diaries were kept on each radio and each television set, it was possible to determine the percentage of homes making simultaneous use on an average day, and the percentage of television homes making simultaneous use of radio and TV sets at each quarter-hour.

The following table compares the percentage of all families questioned by interview and the percentage of diary reporting families, making simultaneous use of radio and TV sets on an average day.

SIMULTANEOUS USE OF RADIO AND TV SETS IN TELEVISION HOMES

(Percentages based on numbers shown, comparing general response to interview question, restated above, with actual experience of families owning both radio and TV sets)

	Total Area	*Dallas Ft. Worth*	*Other Urban*	*Village*	*Farm*
Per Cent of 2,469 families questioned by interview, saying family uses radio and TV simultaneously, "sometimes"	32.5%	29.3%	40.9%	37.1%	27.5%
Per Cent of 233 radio-TV owning diary-families, recording simultaneous use of radio and TV sets on average day	35.7%	41.9%	30.5%	27.1%	41.4%

The following table analyzes replies to the second part of the question asked by interview (see top of page), showing **how MUCH of the time TV sets are in use** radio is also used by other members of the family. It should be remembered that the table represents the judgment of the person interviewed, and is not factual in nature. Factual information on this question as recorded in the diaries will be found on the pages following the next table. The left-hand column in the following table gives percentages based on all 2,469 TV families questioned; the right-hand column translates these figures into percentages of homes reporting simultaneous use. Similar figures for Dallas and Fort Worth, other urban, village and farm families will be found in the Appendix.

HOW OFTEN ARE RADIO AND TV SETS USED SIMULTANEOUSLY BY A FAMILY? BASED ON ESTIMATES OF PERSON INTERVIEWED

(Percentages based: Left-hand column on 2,469 families questioned; right-hand column on 801 families reporting simultaneous use)*

While TV Set is Used, Radio Is Also Used:	*All TV-Homes*	*Homes Reporting Simultaneous Use*
Most of the time	3.7%	10.3%
Quite often	5.5	15.6
Half of the time	4.7	13.2
Only now and then	17.1	47.9
Almost never	4.7	13.0
	35.7	100.0

** For parallel figures on urban, village and farm families, see the Appendix.*

The foregoing table analyzes estimates of person interviewed on the amount of time radio and TV sets were used simultaneously by the family. The following table reports the percentage of diary recorded listening and viewing done simultaneously. The table shows the percentage of all the time television sets were used in diary homes that radio was ALSO in use in another part of the home.

SIMULTANEOUS USE OF RADIO AND TV SETS IN TELEVISION HOMES BASED ON ACTUAL LISTENING-VIEWING RECORDED IN DIARIES

(Percentages based on all reports from families keeping diaries on radio and TV sets)

Per cent of HOMES using both media on an average day	35.7%
Per cent of total DAYTIME television viewing, during which radio was also in use in another part of home	16.4
Per cent of total NIGHTTIME television viewing, during which radio was also in use in another part of home	6.4
Number of quarter-hours the average TV family used both radio and TV sets simultaneously on an average day	2.14 Q-hrs.

Analysis of the Diary reports also shows that some families make simultaneous use of radio and TV sets in the North Texas area at EVERY QUARTER-HOUR of the day between 7 a.m. and 10:30 p.m.

WorldRadioHistory

The following table compares for the periods from 7 a.m. to 11 p.m. (no TV station broadcasts in the North Texas area before 7 a.m.) the percentage of television homes making simultaneous use of television and radio sets. It should be noted that the figures do NOT represent the total percentage of television-equipped homes using radio at these quarter-hours—they merely report those using the radio AT THE SAME TIME that the television set is in use by other members of the family. Analysis is made in two ways: (1) the left-hand column reports on a basis of all TV-equipped homes keeping the diaries; (2) the right-hand column translates these figures into per cent of homes with television-in-use at the quarter-hour named.

SIMULTANEOUS USE OF RADIO AND TV SETS IN TELEVISION HOMES ON WEEKDAYS

(Percentages in left-hand column based on all TV homes; right-hand column translates these figures into per cent of homes with television sets-in-use)*

A.M.	*All TV-Homes*	*Homes With TV Sets-In-Use*
7:00- 7:15	1.3%	15.3%
7:15- 7:30	0.9	11.3
7:30- 7:45	1.7	17.2
7:45- 8:00	2.1	18.6
8:00- 8:15	2.1	17.8
8:15- 8:30	3.4	28.1
8:30- 8:45	2.6	17.8
8:45- 9:00	2.6	17.2
9:00- 9:15	3.9	16.1
9:15- 9:30	3.0	12.6
9:30- 9:45	2.1	9.9
9:45-10:00	1.7	7.6
10:00-10:15	1.7	7.5
10:15-10:30	3.4	14.9
10:30-10:45	4.3	16.0
10:45-11:00	4.3	16.2
11:00-11:15	2.6	10.1
11:15-11:30	2.6	11.4
11:30-11:45	1.7	7.6
11:45-12:00	1.7	7.3
P.M.		
12:00-12:15	2.6	14.1
12:15-12:30	3.4	17.9
12:30-12:45	4.3	19.8
12:45- 1:00	4.3	19.3
1:00- 1:15	3.4	13.1
1:15- 1:30	2.6	10.3
1:30- 1:45	2.6	10.0
1:45- 2:00	2.6	10.4
2:00- 2:15	1.7	6.6
2:15- 2:30	1.7	6.3
2:30- 2:45	1.3	4.9
2:45- 3:00	2.1	8.0

P.M.	*All TV-Homes*	*Homes With TV Sets-In-Use*
3:00- 3:15	4.7%	14.5%
3:15- 3:30	4.7	14.1
3:30- 3:45	4.3	12.7
3:45- 4:00	4.7	13.8
4:00- 4:15	6.0	17.1
4:15- 4:30	4.3	13.4
4:30- 4:45	4.3	12.7
4:45- 5:00	6.4	17.8
5:00- 5:15	7.7	19.5
5:15- 5:30	6.4	16.1
5:30- 5:45	5.6	13.1
5:45- 6:00	6.4	15.3
6:00- 6:15	5.6	10.9
6:15- 6:30	4.7	8.7
6:30- 6:45	6.9	11.0
6:45- 7:00	6.9	10.7
7:00- 7:15	4.7	6.3
7:15- 7:30	3.9	5.2
7:30- 7:45	3.0	3.9
7:45- 8:00	3.4	4.4
8:00- 8:15	2.6	3.2
8:15- 8:30	2.6	3.2
8:30- 8:45	3.4	4.4
8:45- 9:00	3.0	3.8
9:00- 9:15	2.1	2.7
9:15- 9:30	3.0	4.0
9:30- 9:45	2.1	3.0
9:45-10:00	3.0	4.5
10:00-10:15	2.1	4.4
10:15-10:30	1.3	3.6
10:30-10:45	..	..
10:45-11:00	..	..

** No TV broadcasts in area before 7:00 a.m. at time of survey. No simultaneous use of radio and television sets reported by diary after 10:30 p.m.*

Radio vs. Television in North Texas Area—The use of separate diary reports on each radio and each television set also permits comparison of the time spent by families watching television with time spent listening to radio. The following two tables make this comparison. The first table compares the amount of total listening-viewing spent by diary families with radio and time spent with television. The second table reports similar figures for each quarter-hour from 6 a.m. until midnight. Figures in each case are percentages of all listening-viewing reported by the type of family named in the tables, including homes that did **not** have both radio and television sets.

WorldRadioHistory

SHARE OF TOTAL AUDIENCE — RADIO vs. TELEVISION

(Percentages based on total quarter-hours of listening-viewing reported by diary)*

	Percentage of All Listening-Viewing, Given:			
	IN DAYTIME TO:		*AT NIGHTTIME TO:*	
WEEKDAYS:	*Radio*	*Television*	*Radio*	*Television*
All Diary Families	84.3%	15.7%	64.2%	35.8%
Urban families	80.6	19.4	61.2	38.8
Village families	84.8	15.2	64.3	35.7
Farm families	92.6	7.4	74.9	25.1
SATURDAY AND SUNDAY:				
All Diary Families	80.0%	20.0%	51.0%	49.0%
Urban families	77.1	22.9	39.9	60.1
Village families	77.7	22.3	59.0	41.0
Farm families	92.0	8.0	78.5	21.5

** Figures based on following number of quarter-hours of listening or viewing: DAYTIME: weekdays, 20,923; Saturday-Sunday, 3,580; NIGHTTIME: weekdays, 10,320; Saturday-Sunday, 2,386 quarter-hours.*

SHARE OF AUDIENCE BY QUARTER-HOURS — RADIO vs. TELEVISION

(Percentages based on all listening and viewing reported by diary for each Q-hr.)*

A.M.	*Radio*	*Television*
6:00- 6:15	100.0%	.....
6:15- 6:30	100.0	.....
6:30- 6:45	100.0	.....
6:45- 7:00	100.0	.....
7:00- 7:15	94.0	6.0%
7:15- 7:30	93.8	6.2
7:30- 7:45	92.6	7.4
7:45- 8:00	91.7	8.3
8:00- 8:15	92.3	7.7
8:15- 8:30	90.8	9.2
8:30- 8:45	88.4	11.6
8:45- 9:00	88.7	11.3
9:00- 9:15	85.3	14.7
9:15- 9:30	84.7	15.3
9:30- 9:45	86.2	13.8
9:45-10:00	84.4	15.6
10:00-10:15	85.1	14.9
10:15-10:30	84.3	15.7
10:30-10:45	81.0	19.0
10:45-11:00	81.2	18.8
11:00-11:15	82.9	17.1
11:15-11:30	85.1	14.9
11:30-11:45	86.0	14.0
11:45-12:00	86.4	13.6
P.M.		
12:00-12:15	91.7	8.3
12:15-12:30	90.2	9.8
12:30-12:45	86.3	13.7
12:45- 1:00	85.1	14.9
1:00- 1:15	82.0	18.0
1:15- 1:30	81.4	18.6
1:30- 1:45	80.0	20.0
1:45- 2:00	81.0	19.0
2:00- 2:15	81.4	18.6
2:15- 2:30	81.6	18.4
2:30- 2:45	82.3	17.7
2:45- 3:00	82.6	17.4

P.M.	*Radio*	*Television*
3:00- 3:15	79.1%	20.9%
3:15- 3:30	78.3	21.7
3:30- 3:45	76.9	23.1
3:45- 4:00	76.7	23.3
4:00- 4:15	77.4	22.6
4:15- 4:30	79.0	21.0
4:30- 4:45	77.9	22.1
4:45- 5:00	75.1	24.9
5:00- 5:15	77.3	22.7
5:15- 5:30	77.7	22.3
5:30- 5:45	75.4	24.6
5:45- 6:00	76.9	23.1
6:00- 6:15	76.8	23.2
6:15- 6:30	76.1	23.9
6:30- 6:45	74.0	26.0
6:45- 7:00	72.5	27.5
7:00- 7:15	67.8	32.2
7:15- 7:30	67.4	32.6
7:30- 7:45	65.4	34.6
7:45- 8:00	64.6	35.4
8:00- 8:15	64.6	35.4
8:15- 8:30	64.4	35.6
8:30- 8:45	64.8	35.2
8:45- 9:00	63.9	36.1
9:00- 9:15	59.3	40.7
9:15- 9:30	62.0	38.0
9:30- 9:45	58.0	42.0
9:45-10:00	57.5	42.5
10:00-10:15	66.6	33.4
10:15-10:30	62.7	37.3
10:30-10:45	66.1	33.9
10:45-11:00	66.7	33.3
11:00-11:15	63.5	36.5
11:15-11:30	65.5	34.5
11:30-11:45	69.0	31.0
11:45-12:00	77.8	22.2

**No television broadcasts were made in area at time of survey before 7:00 a.m. and after midnight.*

WorldRadioHistory

LISTENING HABITS AND HOURS

Listening, Quarter-Hour by Quarter Hour—Listening recorded in the diaries supplies an index of the distribution of the audience among the radio stations for each quarter-hour of the radio day.

Three different types of information are available from the Diary by quarter-hour periods:

1. Percentage of HOMES tuned to each station.
2. Percentage of PEOPLE listening at each quarter-hour.
3. Amount of listening taking place in different ROOMS of the home.

HOMES Tuned to Leading Radio Stations—By use of a diary on each set in the home, the survey provides accurate information on percentage of homes tuned to radio stations at each quarter-hour. The following table analyzes weekday diary reports from the standpoint of the proportion of HOMES tuned to each of the ten leading daytime stations and the ten leading nighttime stations, quarter-hour by quarter-hour. Figures are for Monday through Friday. Only the leading ten daytime and the leading ten nighttime stations are analyzed separately in the table. However, none of the other 119 stations heard during daytime or 94 stations heard during the nighttime (as reported in the diaries) received as much as 1.6 per cent of the total reported listening.

Figures in the table are based on reports from 1,084 homes per quarter-hour. The table reports the following items: *

1. The column on the left (immediately following identification of quarter-hour) reports the per cent of the 1,084 homes having one or more radio sets in use during this quarter-hour.
2. The other columns (under station call-letters) list two different types of information for each station:
   (a) The left-hand figure in each instance shows for that period the per cent of ALL RADIO HOMES with one or more sets tuned to that station.
   (b) The right-hand figure in each instance translates the above information into per cent of HOMES TUNED IN—that is, this figure is the percentage of listening-homes, tuned to this station at this quarter-hour.

Similar information concerning viewing television may be found in Part II of this report.

**In arriving at figures in the table which follows, one type of "sets-in-use" was excluded. When sets were reported as "turned on, but no one listening," or "no one paying attention," the home was counted as a non-listening home. Further, multiple-set use (with sets tuned to different stations) makes right-hand figures under station call-letters add, horizontally, to more than 100 per cent at most quarter-hours.*

Radio Listening of INDIVIDUALS by Quarter Hours—The following tables analyze diary reports from the standpoint of HOMES found to be using radio sets. In those tables each household is equal to every other household, regardless of whether one person or ten persons were using sets at a specific period. The following table analyzes the diary reports to show the portion of ALL PERSONS LIVING IN THE HOMES (all persons over four years of age) who were found to be listening to radio at each quarter hour.

The table on Page 29 analyzes weekday diary reports from homes equipped with radio, showing the proportion of all persons over four years of age living in these homes who listened to the radio at each quarter hour. Figures in each column are based on the total number of such persons living in these radio homes, including those "away on trips," away at work or otherwise engaged—the total number is shown at the top of each column.

WorldRadioHistory

DAYTIME "SHARE OF AUDIENCE" OF LEADING RADIO STATIONS BY

1,084 Reports Per Quarter-Hour A.M.	Homes Tuned In	WFAA-WBAP 820		KRLD		WFAA-WBAP 570		KWKH		KWFT	
		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:	
		All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In
5:30- 5:45	4.3	1.1%	29.8%	1.0%	27.0%	0.2%	5.4%	0.2%	5.4%	-*	-*
5:45- 6:00	5.4	1.9	38.8	0.7	14.3	0.4	8.2	0.2	4.1	-*	-*
6:00- 6:15	14.1	7.3	54.0	1.3	9.4	1.1	7.9	0.3	2.2	-*	-*
6:15- 6:30	16.3	9.5	60.3	0.9	5.6	1.2	7.5	0.4	2.5	0.1%	0.6%
6:30- 6:45	20.7	8.5	42.0	1.8	8.7	1.3	6.3	0.4	1.9	0.6	2.9
6:45- 7:00	26.1	10.8	42.1	1.8	6.8	1.4	5.3	0.7	2.7	1.0	3.8
7:00- 7:15	41.4	16.9	41.7	4.1	10.0	2.0	4.8	2.0	4.8	1.9	4.5
7:15- 7:30	40.0	15.6	39.5	3.8	9.6	1.8	4.5	2.0	5.2	1.9	4.7
7:30- 7:45	42.4	16.2	38.7	3.9	9.3	2.0	4.7	2.0	4.7	1.8	4.2
7:45- 8.00	41.8	16.8	40.7	3.3	8.0	2.1	5.2	1.9	4.5	1.5	3.6
8:00- 8:15	45.3	21.1	46.9	3.3	7.4	2.6	5.9	1.9	4.1	0.9	2.0
8:15- 8:30	38.3	13.9	36.8	2.4	6.4	3.9	10.3	2.0	5.2	0.8	2.1
8:30- 8:45	36.2	12.2	34.1	2.7	7.6	3.7	10.4	1.3	3.5	0.6	1.6
8:45- 9:00	38.5	11.6	30.5	3.8	10.0	4.3	11.3	1.5	3.8	0.6	1.5
9:00- 9:15	43.7	12.0	27.8	6.3	14.7	4.7	10.8	1.6	3.6	1.3	2.9
9:15- 9:30	41.0	11.3	28.0	6.0	14.7	4.9	12.1	1.6	3.9	1.4	3.4
9:30- 9:45	40.8	8.1	21.1	6.6	17.3	4.6	12.0	1.8	4.6	1.5	3.8
9:45-10:00	35.3	6.1	17.7	7.3	21.1	4.2	12.1	1.6	4.5	1.6	4.5
10:00-10:15	39.3	10.7	27.8	8.0	20.7	2.3	6.1	1.7	4.3	2.0	5.1
10:15-10:30	37.7	9.8	26.7	7.7	20.9	1.8	4.8	1.4	3.7	2.0	5.3
10:30-10:45	36.2	5.3	14.8	6.0	17.0	4.0	11.2	1.7	4.7	1.9	5.2
10:45-11:00	35.8	4.8	13.6	6.0	17.2	3.8	10.8	1.8	5.0	1.6	4.4
11:00-11:15	37.3	5.6	15.1	6.4	17.5	2.1	5.8	2.6	7.2	2.0	5.3
11:15-11:30	37.9	6.1	16.5	7.3	19.6	1.9	5.0	3.0	8.1	2.0	5.5
11:30-11:45	41.2	7.4	18.2	7.1	17.5	2.4	6.0	2.6	6.5	2.3	5.8
11:45-12:00	44.3	10.3	23.7	6.6	15.2	2.7	6.3	2.3	5.4	2.4	5.6
P.M.											
12:00-12:15	57.7	22.4	39.4	4.8	8.4	2.2	3.9	2.5	4.5	3.3	5.8
12:15-12:30	50.7	14.8	29.7	6.8	13.7	1.5	2.9	2.6	5.3	3.4	6.8
12:30-12:45	41.2	9.6	23.6	5.7	14.0	1.8	4.3	2.3	5.8	1.7	4.1
12:45- 1:00	37.9	10.2	27.4	5.0	13.3	1.7	4.4	2.0	5.2	1.1	2.9
1:00- 1:15	35.2	8.9	25.7	4.9	14.1	1.7	4.8	2.0	5.7	1.0	2.8
1:15- 1:30	32.4	8.0	25.7	4.4	13.8	1.7	5.2	1.9	5.8	1.2	3.7
1:30- 1:45	29.2	5.7	19.7	4.8	16.7	1.6	5.4	2.0	6.8	1.4	4.8
1:45- 2:00	30.2	6.2	21.0	5.6	18.7	1.5	4.9	2.0	6.6	1.2	3.9
2:00- 2:15	29.7	7.2	24.7	5.4	18.4	1.6	5.3	1.7	5.7	1.2	4.0
2:15- 2:30	30.1	9.4	31.5	4.9	16.4	1.0	3.3	1.3	4.3	1.1	3.6
2:30- 2:45	30.8	9.9	32.7	3.8	12.5	1.3	4.2	1.8	5.8	0.9	2.9
2:45- 3:00	30.3	10.8	36.2	1.9	6.2	1.1	3.6	1.8	5.9	0.5	1.6
3:00- 3:15	30.4	10.9	36.8	1.8	5.9	1.6	5.3	1.2	3.9	0.6	2.0
3:15- 3:30	29.6	10.5	36.5	2.2	7.8	1.6	5.4	1.2	4.1	0.6	2.0
3:30- 3:45	29.3	9.4	32.5	2.1	7.5	1.2	4.1	0.9	3.1	0.5	1.7
3:45- 4:00	29.3	8.8	30.5	1.7	5.8	1.2	4.1	1.0	3.4	0.6	2.0
4:00- 4:15	30.5	7.5	25.0	1.8	5.9	1.2	3.9	1.1	3.6	0.3	1.0
4:15- 4:30	30.7	8.1	16.8	1.7	5.5	1.3	4.2	1.0	3.2	0.2	0.6
4:30- 4:45	30.1	8.2	27.2	1.9	6.3	0.9	3.0	0.9	3.0	0.2	0.7
4:45- 5:00	29.2	8.1	28.2	2.1	7.5	1.0	3.4	0.5	1.7	0.3	1.0
5:00- 5:15	34.8	10.2	30.1	5.5	16.1	1.0	2.9	0.6	1.7	1.1	3.2
5:15- 5:30	38.5	12.2	34.2	5.3	14.8	0.9	2.5	0.5	1.4	1.6	4.4
5:30- 5:45	34.4	8.1	24.1	8.1	24.1	0.7	2.0	1.9	5.5	1.3	3.8
5:45- 6:00	37.2	9.1	25.2	8.2	22.8	0.7	1.9	2.0	5.7	1.4	3.8

*Not on air, or else named by less than one-twentieth of one per cent.

WorldRadioHistory

QUARTER-HOURS, MONDAY THROUGH FRIDAY

KXOL		KFJZ		KGKL		WOAI		WRR		119 Others	
Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:	
All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In
0.1%	2.7%	0.1%	2.7%	-*	-*	-*	-*	0.1%	2.7%	1.1%	29.8%
0.1	2.0	0.2	4.1	-*	-*	0.1%	2.0%	0.1	2.0	1.5	30.6
0.2	1.4	0.5	3.6	-*	-*	0.3	2.2	0.4	2.9	2.6	19.4
0.2	1.2	0.6	3.7	-*	-*	0.2	1.2	0.5	3.1	2.9	18.6
0.3	1.5	1.2	5.8	0.3%	1.5%	0.2	1.0	0.7	3.4	5.7	28.0
0.3	1.1	1.7	6.4	0.7	2.7	0.6	2.3	0.6	2.3	7.1	27.7
0.3	0.7	1.4	3.3	0.8	1.9	1.1	2.6	0.7	1.7	11.6	28.3
0.4	1.0	1.3	3.2	0.9	2.2	1.0	2.5	0.8	2.0	11.6	29.4
0.2	0.5	1.7	4.0	0.9	2.1	0.8	1.9	0.7	1.6	13.3	31.7
0.7	1.7	1.3	3.1	0.9	2.1	1.0	2.4	0.9	2.1	12.4	30.1
0.7	1.5	0.7	1.5	1.2	2.6	1.4	3.0	1.0	2.2	12.2	27.1
0.7	1.8	0.3	0.8	1.3	3.3	0.6	1.5	0.6	1.5	12.5	32.9
0.6	1.6	0.2	0.5	1.3	3.5	0.5	1.4	0.5	1.4	13.2	36.8
0.5	1.3	0.3	0.8	1.3	3.3	0.3	0.8	0.6	1.5	14.6	38.5
0.7	1.6	0.2	0.5	1.5	3.4	0.4	0.9	0.1	0.2	16.3	37.7
0.6	1.4	0.3	0.7	1.5	3.6	0.4	1.0	-*	-*	14.4	35.7
0.5	1.3	0.2	0.5	1.5	3.8	0.4	1.0	-*	-*	15.3	40.0
0.6	1.7	0.2	0.6	1.2	3.4	0.3	0.8	-*	-*	13.0	37.4
0.8	2.0	0.4	1.0	0.7	1.8	0.4	1.0	0.1	0.3	13.7	35.4
0.9	2.4	0.5	1.3	0.7	1.8	0.4	1.1	0.3	0.8	13.3	35.9
0.7	1.9	0.4	1.1	0.9	2.5	0.4	1.1	0.6	1.6	16.0	45.0
0.7	1.9	0.6	1.7	0.9	2.5	0.4	1.1	0.3	0.8	16.4	46.6
0.9	2.4	0.2	0.5	0.7	1.9	0.5	1.3	0.2	0.5	17.5	47.5
1.1	2.9	0.2	0.5	0.8	2.1	0.4	1.0	0.2	0.5	16.6	44.4
0.9	2.2	-*	-*	1.0	2.4	0.3	0.7	0.3	0.7	17.8	43.9
0.8	1.8	0.1	0.2	1.0	2.2	0.5	1.1	0.2	0.4	18.7	42.9
0.4	0.7	1.2	2.1	1.2	2.1	1.9	3.3	0.5	0.9	19.2	33.7
0.4	0.8	1.1	2.2	0.6	1.2	1.7	3.3	0.4	0.8	18.9	37.9
0.5	1.2	0.8	1.9	0.4	1.0	0.5	1.2	0.1	0.2	19.0	47.0
0.5	1.3	0.5	1.3	0.3	0.8	0.5	1.3	-*	-*	17.7	47.5
0.6	1.7	0.2	0.6	0.4	1.1	0.4	1.1	-*	-*	15.8	45.8
0.7	2.1	0.3	0.9	0.5	1.5	0.4	1.2	-*	-*	13.7	43.3
0.9	3.1	0.5	1.7	0.4	1.4	0.5	1.7	-*	-*	11.9	41.5
1.1	3.6	0.5	1.6	0.4	1.3	0.7	2.3	-*	-*	11.6	39.0
1.1	3.7	0.4	1.3	0.2	0.7	0.4	1.3	0.1	0.3	11.2	38.4
1.1	3.6	0.5	1.6	0.2	0.7	0.6	2.0	0.2	0.7	10.6	35.8
1.0	3.2	0.5	1.6	0.2	0.6	0.6	1.9	0.3	1.0	11.1	36.6
0.9	2.9	0.5	1.6	0.3	1.0	0.5	1.6	0.5	1.6	12.0	40.1
1.2	3.9	0.2	0.7	0.5	1.6	0.6	2.0	0.5	1.6	11.8	39.7
1.1	3.7	0.3	1.0	0.4	1.4	0.7	2.4	0.6	2.0	10.8	37.5
1.1	3.7	0.3	1.0	0.4	1.4	0.6	2.0	1.0	3.4	12.4	43.1
1.4	4.8	0.3	1.0	0.2	0.7	0.8	2.7	1.1	3.7	12.6	43.7
1.4	4.6	0.4	1.3	0.3	1.0	0.4	1.3	1.2	3.9	14.8	49.1
1.4	4.5	0.6	1.9	0.3	1.0	0.4	1.3	1.2	3.9	14.8	4.91
1.3	4.3	0.8	2.7	0.3	1.0	0.4	1.3	0.9	3.0	14.4	49.0
1.3	4.4	0.8	2.7	0.4	1.4	0.4	1.4	1.3	4.4	13.3	46.3
1.0	2.9	0.3	0.9	0.6	1.7	0.2	0.6	1.7	4.9	13.7	39.3
0.9	2.5	0.3	0.8	0.6	1.6	0.2	0.5	1.5	4.1	13.6	38.0
0.8	2.4	0.4	1.2	0.4	1.2	0.4	1.2	1.8	5.2	11.7	34.8
0.8	2.2	0.6	1.6	0.5	1.4	1.1	3.0	1.7	4.6	11.2	31.2

*None of the 119 others had as much as 1.6 per cent of the total daytime listening.

WorldRadioHistory

NIGHTTIME "SHARE OF AUDIENCE" OF LEADING RADIO STATIONS BY

1,084 Reports Per Quarter-Hour P.M.	Homes Tuned In	WFAA-WBAP 820		KRLD		KWKH		WFAA-WBAP 570		KWFT	
		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:	
		All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In
6:00- 6:15	45.2	8.1%	18.7%	11.6%	28.5%	3.1%	7.1%	1.7%	3.8%	2.4%	5.6%
6:15- 6:30	42.9	9.6	23.2	9.1	22.0	2.5	6.2	2.2	5.4	2.0	4.7
6:30- 6:45	44.8	13.2	30.4	6.8	15.7	2.7	6.3	3.2	7.4	2.0	4.5
6:45- 7:00	42.9	13.5	32.5	7.2	17.6	3.1	7.6	3.3	8.1	1.7	4.0
7:00- 7:15	41.0	12.1	31.0	9.1	23.3	2.7	7.0	2.4	6.3	2.0	5.2
7:15- 7:30	39.4	11.5	30.8	9.4	25.0	2.4	6.5	2.2	6.0	2.0	5.2
7:30- 7:45	38.0	12.0	33.6	7.7	21.6	2.3	6.6	2.2	6.3	1.8	4.9
7:45- 8:00	36.9	12.1	35.2	7.8	22.7	2.6	7.7	2.1	6.2	1.9	5.4
8:00- 8:15	37.7	14.7	41.7	6.3	18.0	2.2	6.4	2.3	6.6	1.8	5.0
8:15- 8:30	37.2	14.4	41.7	6.4	18.6	2.1	6.2	2.2	6.5	1.6	4.5
8:30- 8:45	35.9	13.6	40.9	7.1	21.5	2.3	7.1	2.0	6.2	1.1	3.2
8:45- 9:00	34.6	12.1	38.0	6.8	21.4	2.4	7.7	1.9	5.8	1.1	3.4
9:00- 9:15	39.1	9.5	26.0	5.4	14.8	1.2	3.2	1.6	4.3	1.0	2.7
9:15- 9:30	28.0	8.6	34.3	4.9	19.5	1.2	4.7	1.8	7.0	0.9	3.5
9:30- 9:45	25.1	8.0	36.1	2.8	12.8	1.0	4.4	2.0	8.8	1.1	4.9
9:45-10:00	23.6	7.9	39.0	2.4	12.0	0.9	4.3	1.7	8.2	0.7	3.4
10:00-10:15	25.3	10.2	46.9	2.7	12.5	0.6	2.7	1.1	4.9	0.7	3.1
10:15-10:30	16.0	4.8	39.5	1.1	8.9	0.4	3.2	0.4	3.2	0.4	3.2
10:30-10:45	12.1	2.2	27.4	1.2	14.3	0.1	1.2	0.3	3.6	0.2	2.4
10:45-11:00	11.3	1.6	21.3	1.2	16.0	0.1	1.3	0.3	4.0	0.1	1.3
11:00-11:15	8.0	0.5	11.9	0.9	21.4	0.2	4.8	0.1	2.4	-*	-*
11:15-11:30	7.4	0.4	10.8	0.7	18.9	0.2	5.4	0.1	2.7	-*	-*
11:30-11:45	6.7	0.3	10.7	0.2	7.2	0.2	7.2	-*	-*	-*	-*
11:45-12:00	6.7	0.3	10.7	0.1	3.6	0.2	7.2	-*	-*	-*	-*

*Not on air, or else named by less than one-twentieth of one per cent.

WorldRadioHistory

QUARTER-HOURS, MONDAY THROUGH FRIDAY

WOAI		KVOO		WRR		WACO		WWL		94 Others	
Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:		Per Cent of:	
All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In	All Homes	Homes Tuned In
1.4%	3.1%	0.2%	0.4%	2.4%	5.6%	0.7%	1.6%	0.2%	0.4%	14.7%	33.6%
1.3	3.1	0.5	1.2	2.2	5.4	0.8	1.9	0.1	0.2	13.2	31.9
1.4	3.2	0.4	0.9	1.8	4.1	1.6	3.6	0.1	0.2	12.3	28.3
1.5	3.4	0.4	0.9	0.9	2.1	1.5	3.6	0.2	0.5	10.2	24.9
1.1	2.8	0.5	1.3	0.4	1.0	0.4	1.0	0.3	0.8	10.0	26.0
1.0	2.6	0.6	1.6	0.2	0.5	0.3	0.8	0.3	0.8	10.2	27.6
1.2	3.3	0.8	2.2	0.2	0.5	0.3	0.8	0.7	1.9	8.9	24.9
1.1	3.1	0.8	2.3	0.2	0.6	0.3	0.9	0.8	2.3	6.9	20.1
1.4	3.9	1.1	3.0	0.5	1.4	0.4	1.1	0.8	2.2	6.0	16.9
1.8	5.1	1.3	3.7	0.4	1.1	0.4	1.1	0.8	2.3	5.2	14.9
1.7	5.0	1.1	3.2	0.3	0.9	0.2	0.6	0.7	2.1	4.9	14.7
1.6	4.9	1.1	3.4	0.4	1.2	0.1	0.3	0.7	2.1	4.8	15.0
1.5	4.0	0.8	2.1	0.4	1.1	0.3	0.8	0.5	1.3	6.0	16.6
1.5	5.8	0.6	2.3	0.4	1.6	0.2	0.8	0.4	1.6	5.5	21.8
1.1	4.9	0.3	1.3	0.4	1.8	0.4	1.8	0.3	1.3	5.4	24.2
0.8	3.8	0.3	1.4	0.4	1.9	0.4	1.9	0.4	1.9	5.3	26.0
1.3	5.8	0.4	1.8	0.4	1.8	0.5	2.2	0.2	0.9	5.1	23.2
0.3	2.4	0.4	3.2	0.4	3.2	0.2	1.6	0.1	0.8	4.1	33.9
0.2	2.4	0.3	3.6	0.2	2.4	0.1	1.2	0.1	1.2	3.6	44.1
0.3	4.0	0.3	4.0	0.3	4.0	0.1	1.3	0.1	1.3	3.4	46.7
0.2	4.8	0.2	4.8	0.1	2.4	0.2	4.8	-*	-*	2.0	47.6
0.1	2.7	0.2	5.4	0.1	2.7	0.2	5.4	-*	-*	1.7	46.0
0.1	3.6	0.3	10.7	-*	-*	0.1	7.2	-*	-*	1.5	53.6
0.1	3.6	0.3	10.7	-*	-*	0.2	7.2	-*	-*	1.7	60.7

None of the 94 others had as much as 1.3 per cent of the total nighttime listening.

WorldRadioHistory

PERCENTAGES OF ALL PERSONS LIVING IN RADIO-EQUIPPED DIARY HOMES WHO WERE LISTENING TO THE RADIO—WEEKDAYS

(Percentages in each column based on total number of persons shown at top of column)*

A.M.	*WOMEN Over 18 (1,195)*	*MEN Over 18 (1,049)*	*TEEN-AGERS 12-18 (350)*	*CHILDREN 4-11 (618)*
5:00- 5:15	2.0%	1.6%	0.9%	0.2%
5:15- 5:30	2.1	2.2	0.9	0.2
5:30- 5:45	3.3	3.2	1.1	0.6
5:45- 6:00	4.2	4.5	1.7	0.6
6:00- 6:15	13.1	12.7	6.9	2.3
6:15- 6:30	15.4	13.8	8.0	4.9
6:30- 6:45	18.1	16.2	12.9	7.6
6:45- 7:00	22.8	18.2	16.9	12.5
7:00- 7:15	36.8	25.6	31.7	18.1
7:15- 7:30	36.1	22.8	33.7	18.8
7:30- 7:45	36.4	20.1	38.6	21.2
7:45- 8:00	36.4	15.6	36.0	20.4
8:00- 8:15	39.7	17.8	20.9	18.1
8:15- 8:30	33.5	8.9	15.4	15.7
8:30- 8:45	30.6	8.7	8.0	12.3
8:45- 9:00	34.1	8.9	8.0	13.1
9:00- 9:15	38.0	7.7	8.3	11.7
9:15- 9:30	36.7	6.6	8.9	9.4
9:30- 9:45	35.3	6.3	10.0	9.4
9:45-10:00	32.4	6.0	9.4	9.1
10:00-10:15	35.4	6.6	8.0	7.8
10:15-10:30	33.8	5.9	7.2	7.3
10:30-10:45	32.7	6.3	7.4	9.4
10:45-11:00	32.6	6.4	8.6	9.6
11:00-11:15	32.2	6.7	10.3	9.1
11:15-11:30	34.6	7.0	10.3	8.7
11:30-11:45	36.2	8.6	11.2	10.8
11:45-12:00	39.3	11.3	9.7	12.6
P.M—				
12:00-12:15	52.2	27.9	17.4	14.1
12:15-12:30	45.4	22.9	15.2	10.5
12:30-12:45	37.3	16.3	10.0	7.6
12:45- 1:00	35.2	11.3	7.4	6.6
1:00- 1:15	31.2	7.9	6.0	6.3
1:15- 1:30	29.0	6.6	6.6	6.3
1:30- 1:45	25.7	5.0	6.3	6.2
1:45- 2:00	26.1	5.1	6.3	6.5
2:00- 2:15	26.0	4.4	7.2	7.6
2:15- 2:30	26.4	4.0	7.2	7.8
2:30- 2:45	25.1	4.7	9.4	8.4
2:45- 3:00	24.8	4.5	9.1	8.6
3:00- 3:15	25.3	6.0	11.2	10.2
3:15- 3:30	24.2	6.2	12.0	9.9
3:30- 3:45	24.7	5.6	14.6	8.3
3:45- 4:00	23.9	5.2	17.2	9.6
4:00- 4:15	23.5	5.9	22.3	10.2
4:15- 4:30	23.3	6.2	26.0	11.8
4:30- 4:45	22.7	6.5	27.1	13.1
4:45- 5:00	22.5	6.5	32.0	12.8

WorldRadioHistory

P.M.	WOMEN Over 18 (1,195)	MEN Over 18 (1,049)	TEEN-AGERS 13-18 (350)	CHILDREN 4-11 (6-18)
5:00- 5:15	28.6	12.5	30.9	15.7
5:15- 5:30	29.5	14.1	30.6	14.1
5:30- 5:45	28.6	15.5	33.2	15.9
5:45- 6:00	29.5	17.2	39.7	16.0
6:00- 6:15	38.5	29.9	38.0	19.4
6:15- 6:30	38.1	28.6	36.8	20.6
6:30- 6:45	38.2	30.2	36.0	19.8
6:45- 7:00	38.1	29.5	36.3	21.2
7:00- 7:15	37.3	27.2	31.2	22.3
7:15- 7:30	37.2	26.0	32.9	21.2
7:30- 7:45	34.3	24.4	32.0	18.5
7:45- 8:00	33.1	23.2	31.2	17.3
8:00- 8:15	33.0	23.5	27.7	15.1
8:15- 8:30	31.4	23.7	38.6	14.9
8:30- 8:45	30.0	23.0	23.1	14.3
8:45- 9:00	29.3	22.9	23.4	12.2
9:00- 9:15	24.3	19.0	19.7	8.3
9:15- 9:30	21.9	17.9	16.9	7.8
9:30- 9:45	17.8	15.9	14.9	6.0
9:45-10:00	16.9	14.4	15.4	4.2
10:00-10:15	17.8	16.4	9.7	3.1
10:15-10:30	9.1	8.5	6.9	1.1
10:30-10:45	6.3	6.4	4.6	1.1
10:45-11:00	5.0	5.3	4.0	1.0
11:00-11:15	3.7	3.2	2.6	0.6
11:15-11:30	3.2	2.8	2.3	0.6
11:30-11:45	2.3	1.5	1.4	0.8
11:45-12:00	2.7	2.2	1.4	0.8
A.M.—				
12:00-12:15	2.1	1.5	0.3	..
12:15-12:30	1.5	1.0	0.3	..
12:30-12:45	1.3	0.8	0.3	..
12:45- 1:00	1.2	0.7	0.3	..

**No diary records were kept of the 234 children under 4 years of age living in these homes.*

Amount of Radio Listening Done Daily by Average Individual—One final type of information about listening of individuals within the home, deals with the total amount of radio listening done during an average day. The following table presents that information.

In arriving at the figures in the table, the total number of quarter hours of radio listening done by each group of listeners in diary homes was determined. These totals were then divided by the number of individuals in the group, to determine the "average" number of quarter hours each individual in the group spent listening to radio on the day shown. Quarter hours were then translated into HOURS for use in the table. The base used, then, included all persons over four years of age living in the diary homes, even though some did not listen or were away from home while the diary was kept.

The bottom figure in each column of the table shows the TOTAL number of hours of INDIVIDUAL LISTENING that the average home gave to radio each day. That is, the total number of hours of radio listening reported was divided by the number of homes keeping diaries. This "average home" listening figure counts EACH INDIVIDUAL separately; if two persons heard a single program on a single set, it counted as TWO quarter hours of listening in this "average home" figure. The bottom figure in each column, then, shows the total number of LISTENER-HOURS the average home reported by diary.

WorldRadioHistory

NUMBER OF HOURS AVERAGE PERSON SPENDS LISTENING TO THE RADIO—DAILY

(Figures are in hours, being total hours reported, divided by number living in diary homes—excluding those under four years of age)*

	WEEKDAYS	*SATURDAY*	*SUNDAY*
Average Woman, over 18	5.13 hours	4.09 hours	3.83 hours
Average Man, over 18	2.35 hours	2.81 hours	2.51 hours
Average Teen-Ager, 12-18	3.06 hours	4.39 hours	2.97 hours
Average child, 4-11	1.95 hours	1.85 hours	2.96 hours
TOTAL for Average home**	11.19 hours	11.02 hours	9.70 hours

** A total of 51,811 different "listener-quarter-hours" spent with radio are represented in the table.*
*** The "Average Home" figures count individuals separately, even though listening to a program on the same radio, or the same program on different radios simultaneously.*

Use of Radio Sets Located in Different Rooms—Foregoing tables have analyzed diary reports from the standpoint of HOMES in which the radio was used, and from the standpoint of INDIVIDUAL LISTENERS hearing the radio. The following discussion analyzes the diary reports from the standpoint of WHERE in the home the set was used. Analysis is made from two standpoints:

1. The proportion of sets located in different rooms used at some time during the radio-day.

2. The proportion of total "set-use" occurring in different rooms of the home.

The table which follows reports the percentage of all sets located in each type of room, which were used at some time during the day named. Percentages in each case are based on the total number of sets located in that type of room as listed in the diary reports.

DAILY USE OF SETS LOCATED IN DIFFERENT ROOMS

(Percentages based on number of sets located in type of room named)

On Average Day, Percentage Of Sets Used, Located in:	*WEEKDAYS*	*SATURDAY*	*SUNDAY*
Living rooms	96.4%	80.4%	80.0%
Kitchens	98.1	100.0	100.0
Dining rooms	88.9	100.0	80.0
Bedrooms	88.6	87.5	75.0
Other rooms in home	87.3	75.0	66.7
"Radio is moved about"	96.9	93.7	90.0

The following table analyzes all set-use reported on the days shown by the place in the home where the set was used. Using all quarter hours of set-use reported as a base, the table shows the proportion taking place in the different rooms. It should be remembered that an equal number of sets are not located in the different rooms. In all, 42.7 per cent were located in the living room, 15.7 per cent in the kitchen, 3.3 per cent in dining rooms, 21.8 per cent in bedrooms, 3.0 per cent in "other" rooms, and 13.5 per cent of the sets were moved about.

SHARE OF TOTAL LISTENING DONE IN DIFFERENT ROOMS OF THE HOME

(Percentages based on total quarter hours of sets-in-use reported at top of column)

Of Total Quarter Hours Reported, Percentage Done With:	*WEEKDAYS*	*SATURDAY*	*SUNDAY*
Living-room sets	42.7%	38.3%	49.0%
Kitchen sets	16.1	12.4	14.8
Dining-room sets	3.3	2.8	2.3
Bedroom sets	21.3	26.2	24.2
Sets in other rooms	2.8	6.3	2.2
Sets "moved about"	13.8	14.0	7.5
	100.0	100.0	100.0

Comparison of Time Spent With Various Media—In order to get some information on the comparative time spent by adults with the various media on a typical January day, each respondent in a home equipped with radio or television was asked the following question:

"Now, let's think about YESTERDAY. About how much time did you spend YESTERDAY reading newspapers? Reading Magazines? Listening to the radio? Watching television?"

WorldRadioHistory

In asking each part of the question, interviewers were trained to minimize the prestige element inherent in such questions, by adding ". . . or didn't you get to read a magazine yesterday?" or ". . . didn't you have a chance to . . .," etc. Replies to each portion of the question were entered in hours and minutes before interviewer asked about the next medium.

It was recognized that such a question is open to two criticisms: (1) that the element of "recall" MAY subject the reported figures to some element of guess on the part of the respondent: (2) that the element of prestige (in spite of the way the question was asked) may boost reported figures. However, it was believed that these two elements would NOT operate to the advantage of ONE MEDIUM OVER ANOTHER—that for the sake of COMPARISONS, the figures are valid.

The following table analyzes replies from women and men living in television and nontelevision-equipped homes, separately. It shows the NUMBER OF MINUTES spent by the AVERAGE adult interviewed—that is, the total number of reported minutes, divided by the total number of persons questioned, including those who had not made use of the media. Figures are in minutes, and represent the number of minutes spent by the average adult on an average January day. For parallel figures comparing use of media by adults living in urban, village and farm homes, see the Appendix.

AMOUNT OF USE OF FOUR MEDIA BY AVERAGE ADULT ON AVERAGE DAY

(Figures are in minutes, being total reported minutes, divided by all adults questioned)*

	WOMEN	*MEN*
ALL HOMES REACHED		
Minutes Spent by Average Adult:		
Listening to the radio	178 minutes	130 minutes
Watching television	68 minutes	48 minutes
Reading newspaper	37 minutes	39 minutes
Reading magazines	27 minutes	19 minutes
IN TELEVISION-EQUIPPED HOMES:		
Minutes Spent by Average Adult:		
Listening to the radio	85 minutes	66 minutes
Watching television	207 minutes	171 minutes
Reading newspapers	36 minutes	36 minutes
Reading magazines	20 minutes	14 minutes
IN NONTELEVISION HOMES:		
Minutes Spent by Average Adult:		
Listening to the radio	218 minutes	151 minutes
Watching television	4 minutes	3 minutes
Reading newspapers	37 minutes	40 minutes
Reading magazines	31 minutes	25 minutes

**See the Appendix for parallel figures comparing use of media in urban, village and farm homes.*

Size of Habitual Radio Audiences—This section is included for purposes of reference, and shows the percentages of all questioned who "usually" or "daily" spend time in the various ways named.

Size of Daily Radio Audiences—The following table reports percentage of all families interviewed in radio-equipped homes, who selected stations "heard regularly" or "listened to most." The remainder of the families reported that none in the family listened to the home radio during the daytime or during the evening, as the case might be. Percentages in each case are based on all questioned in radio-equipped homes.

NUMBER WHO USUALLY LISTEN TO RADIO

(Percentages based on all questioned in radio-equipped homes about period of day)

	USUALLY HEARS RADIO	
	In Daytime	*At Nighttime*
All families questioned	94.8%	84.7%
Urban families	92.0	81.3
Village families	98.5	88.1
Farm Families	98.7	91.0

Size of Daily Audience for News and Farm Programs—The following table reports the percentage of all questioned in each classification in radio-equipped homes who "usually" listen to

WorldRadioHistory

radio news, farm news and to market reports. Figures represent the percentage of all questioned in radio-equipped homes who listen regularly enough to the program specified to name a specific station as "usually heard." The remainder of those interviewed said they, personally, did not "usually" listen to news at the period named, or did not usually listen to farm news or markets. Figures in all cases are percentages of all questioned in radio-equipped homes by the interview portion of the study.

NUMBER WHO "USUALLY LISTEN" TO RADIO NEWS, FARM NEWS, OR MARKET REPORTS

(Percentages based on all questioned in radio-equipped homes in each classification)

All Questioned by Interview:	*AREA**	*Urban*	*Village*	*Farm*
Morning newscasts	68.0%	68.7%	75.2%	86.4%
Noontime newscasts	60.2	50.4	68.2	78.8
Suppertime newcasts	56.8	53.8	57.3	64.7
Farm news	36.2	23.2	44.5	65.2
Market reports	30.5	16.8	36.7	67.6
Women Questioned:				
Morning newscasts	74.6%	68.4%	79.2%	87.0%
Noontime newscasts	60.8	50.9	68.5	79.8
Suppertime newscasts	55.3	50.2	60.1	63.5
Farm news	31.2	20.3	39.4	55.7
Market reports	24.9	13.1	30.2	52.8
Men Questioned:				
Morning newscasts	61.4%	69.0%	71.2%	85.8%
Noontime newscasts	59.6	49.9	67.9	77.8
Suppertime newscasts	58.3	56.6	54.5	65.9
Farm news	41.2	26.1	49.6	74.7
Market reports	36.1	20.5	43.2	72.4

**Weighted for correct proportions of men and women living in each type of home.*

Users of Four Media the Day Before Interview—The following table shows the percentages of all women and all men using each of the four media on the day before the interview. The table compares percentages in television-equipped homes with percentages in all homes (including television-equipped homes). A total of 6,949 women and 2,071 men were questioned.

NUMBER USING EACH OF THE FOUR MEDIA THE DAY BEFORE INTERVIEW

(Percentages based on all women and all men in each classification questioned by interview: 6,949 women in all, and 2,071 men.)

	"YESTERDAY I SPENT TIME"			
	Listening Radio	*Watching Television*	*Reading Newspapers*	*Reading Magazines*
ALL HOMES REACHED BY INTERVIEW:				
Women Questioned:				
In urban homes	72.9%	36.1%	82.8%	37.8%
In village homes	85.0	24.1	73.1	37.8
In farm homes	82.7	14.4	65.8	36.8
Men Questioned:				
In urban homes	79.3%	32.6%	82.2%	32.0%
In village homes	86.8	16.1	73.6	33.0
In farm homes	87.3	15.4	66.6	27.6
ALL TELEVISION-EQUIPPED HOMES:				
Women Questioned:				
In urban homes	55.5%	85.5%	83.4%	33.0%
In village homes	63.3	86.7	72.8	30.6
In farm homes	56.0	80.2	63.5	31.0
Men Questioned:				
In urban homes	62.2%	83.1%	83.4%	27.7%
In village homes	67.6	83.1	69.0	29.6
In farm homes	68.1	86.0	73.4	22.3

WorldRadioHistory

STATION'S SHARE-OF-AUDIENCE, STATION PREFERENCE, AND STATION COVERAGE

Studies of radio listening for many years have included various indexes of the popularity of the radio stations which serve a given area. Two of the most widely used and best known methods of providing such ratings have been to ask the listeners to:

Name the single radio station to which the family "listens most,"
Name additional stations "heard regularly" by the family.

For twelve years studies parallel to this one in Kansas and in Iowa have tested and re-tested the two types of ratings, to determine what they mean and how they compare with proportion of total listening given to individual stations. The findings are detailed in the published volumes, some of which are still available from the author of this report. However, in general it has been learned that in the Midwest:

1. "Heard Regularly" ratings provide an excellent check on the area covered by a station's signal, but do not provide a reliable index to the amount of listening to the station within that area.
2. "Listened to Most" ratings, on the other hand, closely parallel the actual percentage of listener-time spent tuned to the various stations.

In 1952 the two types of ratings were again compared to actual listening reported in a seven-day diary in the **Boston Trade and Distribution Area Survey.** The above two general conclusions were found to apply to the New England area as well as to the Midwest.

The North Texas Area Survey of 1953 asked both of the above questions of each family interviewed, and followed with a two-day diary study in order to test the ratings against actual listening in North Texas. Description of methods used in Interview and Diary will be found in the Appendix. Likewise in the Appendix will be found a list of advantages discovered in combining the Diary with the Interview study, making the combined study more reliable than either would have been alone.

The table which follows compares for daytime and for nighttime, separately, the portion of total listening (reported by Diary) given to leading radio stations, and the "Listened to Most" and "Heard Regularly" ratings given those same stations by more than 9,100 families interviewed. The table includes every station receiving as much as one-half of one per cent of the total radio listening reported by diary homes.

In general, the table bears out the two basic conclusions reached in the Midwest and New England. These general conclusions apply to the ratings in North Texas:

1. "Heard Regularly" ratings do not provide a reliable index to the amount of listening to a station within the area—some stations had "Heard Regularly" ratings approximately the size of their percentage of total listening, while others had "Heard Regularly" ratings 12 times as great as their percentage of actual listening.
2. "Listened to Most" ratings closely parallel percentage of actual listening figures, both daytime and nighttime.

For convenience, these comparisons have been separated into daytime and nighttime tables. Figures in both tables from the Diary are percentages of all listening to **radio,** excluding television viewing from the percentage base. "Listened to Most" and "Heard Regularly" ratings are likewise based on comparisons of radio only, since ratings for radio and television stations were obtained separately by the interviewer. Reports on television station ratings will be found in Part II.

COMPARISON OF THE DIARY'S "SHARE OF AUDIENCE" WITH INTERVIEW "LISTENED TO MOST" AND "HEARD REGULARLY" RATINGS — DAYTIME

(Percentages based on figures shown at top of each of the columns)*

	Percentage of Diary Recorded Listening (21,143 Q-hrs.)	**Ratings From Interview** *"Listened to Most" (8,576 Families)*	*"Heard Regularly" (9,112 Families)*
WFAA-WBAP 820	27.9%	26.6%	66.5%
KRLD	13.0	15.0	52.6
WFAA-WBAP 570	5.3	5.6	26.1
KWKH	4.5	3.8	10.0
KWFT	3.2	3.8	10.8
KXOL	2.0	1.2	4.2
KFJZ	1.8	1.7	7.0
KGKL	1.8	1.4	3.3
WOAI	1.6	1.6	6.5
WRR	1.6	1.3	13.5

WorldRadioHistory

	Percentage of Diary Recorded Listening (21,143 Q-hrs.)	Ratings From Interview *"Listened to Most" (8,576 Families)*	*"Heard Regularly" (9,112 Families)*
KRBC	1.5	1.0	3.2
KLIF	1.4	2.0	10.7
WACO	1.4	2.4	5.5
KTBB	1.3	0.8	3.5
KSKY	1.2	0.9	6.5
KTBS	1.0	0.2	1.5
KCNC	0.9	0.3	2.3
KGRI	0.9	1.0	2.2
KRBA	0.9	0.2	1.1
KSTA	0.9	0.6	2.5
KTRN	0.9	0.4	3.6
KGKO	0.9	0.6	7.2
KCLW	0.8	0.2	1.7
KIXL	0.8	2.3	7.9
KSST	0.8	0.5	1.6
KTAE	0.8	0.8	2.4
KBWD	0.7	0.6	1.3
KOSF	0.7	0.3	1.2
KTEM	0.7	0.7	3.2
KTRE	0.7	0.7	1.2
KWTX	0.7	1.0	4.4
KCMC	0.6	0.5	2.1
KFTV	0.6	0.1	1.3
KIMP	0.6	0.6	2.4
KTXL	0.6	0.5	1.3
KCIZ	0.5	0.4	1.7

**Actual listening figures from the Diary include only quarter-hours spent listening to the radio, excluding television watching. The other two ratings likewise apply to radio, excluding television ratings since the ratings were obtained for the two media separately. The table includes all stations receiving as much as one-half of one per cent of total radio Diary listening.*

COMPARISON OF THE DIARY'S "SHARE OF AUDIENCE" WITH INTERVIEW "LISTENED TO MOST" AND "HEARD REGULARLY" RATINGS — NIGHTTIME

(Percentages based on figures shown at top of each of the columns)*

	Percentage of Diary Recorded Listening (8,860 Q-hours)	Ratings From Interview *"Listened to Most" (8,321 Families)*	*"Heard Regularly" (8,935 Families)*
WFAA-WBAP 820	30.8%	26.3%	56.0%
KRLD	18.8	16.7	46.6
KWKH	6.0	5.6	11.9
WFAA-WBAP 570	5.8	5.2	21.2
KWFT	3.5	3.7	9.2
WOAI	3.2	2.7	7.6
KVOO	2.0	0.9	4.1
WRR	1.9	1.1	12.1
WACO	1.3	2.5	5.2
WWL	1.3	0.4	1.9
KRBC	1.2	0.7	2.0
KFJZ	1.1	1.6	5.9
KGKL	1.0	0.8	2.0
KGKB	0.9	0.1	0.9
WSM	0.9	0.4	2.1
KTBB	0.8	0.4	2.4
KGKO	0.8	0.4	5.8
KBWD	0.7	0.4	0.7
KDSX	0.7	0.1	0.2
KTRN	0.7	0.3	3.4

WorldRadioHistory

	Percentage of Diary Recorded Listening (8,860 Q-hours)	Ratings From Interview *"Listened to Most" (8,321 Families)*	*"Heard Regularly" (8,935 Families)*
KWKC	0.7	0.6	1.8
KWTX	0.7	1.1	4.4
KMAC	0.6	0.1	0.2
KSST	0.6	0.5	1.6
KTBS	0.6	0.2	1.4
KXOL	0.6	1.0	3.6
KIXL	0.5	0.6	4.7
KOSF	0.5	0.3	0.5
KPLT	0.5	0.2	2.1
KRBA	0.5	0.1	0.4
14 Mexican stations	1.7	1.0	2.5

**See footnote on preceding table.*

Radio Station Coverage and Station Preference—Each family interviewed in a radio-equipped home was asked to name the five stations "heard regularly" by the family during the daytime and the five "heard regularly" at nighttime (after 6:00 p.m.). Then they were asked to select from these five the ONE station "Listened to Most" by the family.

Not all families questioned named five radio stations as "heard regularly." They averaged 3.57 radio stations as "heard regularly" in the daytime and 2.87 as "heard regularly" at night after 6:00 p.m. A total of 226 different radio stations were named as "heard regularly," with 144 of these being selected by some families as the single station "listened to most."

The following four tables and bar charts summarize the preferences reported for radio stations on both the "listened to most" and the "heard regularly" basis for daytime and nighttime, separately. All stations named as "heard regularly" by one and one-half per cent of the respondents, and all named as "listened to most" by one-half of one per cent, are included in the tables. Percentages are based on the total number of radio-equipped homes, which make up 97.7 per cent of all homes in the area.

RADIO STATIONS "HEARD REGULARLY"

(Percentages based on all families questioned in radio-equipped homes)*

DAYTIME		NIGHTTIME	
WFAA-WBAP 820	66.5%	WFAA-WBAP 820	56.0%
KRLD	52.6	KRLD	46.6
WFAA-WBAP 570	26.1	WFAA-WBAP 570	21.2
WRR	13.5	WRR	12.1
KWFT	10.8	KWKH	11.9
KLIF	10.7	KWFT	9.2
KWKH	10.0	KLIF	8.5
KIXL	7.9	WOAI	7.6
KGKO	7.2	KFJZ	5.9
KFJZ	7.0	KGKO	5.8
KSKY	6.5	WACO	5.2
WOAI	6.5	KFDX	4.8
WACO	5.5	KIXL	4.7
KWTX	4.4	KWTX	4.4
KFDX	4.3	KVOO	4.1
KXOL	4.2	KSKY	4.0
KTRN	3.6	KXOL	3.6
KTBB	3.5	KTRN	3.4
KGKL	3.3	KFRO	2.4
KRBC	3.2	KTBB	2.4
KTEM	3.2	KTEM	2.2
KWKC	2.8	KPLT	2.1
KFRO	2.6	WSM	2.1
KSTA	2.5	KGKL	2.0
KIMP	2.4	KRBC	2.0

WorldRadioHistory

DAYTIME	
KTAE	2.4
KCNC	2.3
KPLT	2.3
KGRI	2.2
KCMC	2.1
KTBC	2.1
KCUL	2.0
KSFA	2.0
KRRV	1.9
KAND	1.8
KDET	1.8
KGVL	1.8
KCIJ	1.7
KCLW	1.7
KDWT	1.7
KGNC	1.7
KCLE	1.6
KSST	1.6
KXOX	1.6
KTBS	1.5
153 others	48.2

NIGHTTIME	
KCNC	1.9
WWL	1.9
KCMC	1.8
KIMP	1.8
KWKC	1.8
KCUL	1.7
KGNC	1.7
KAND	1.6
KSST	1.6
KDWT	1.5
All 14 Mexican	2.5
145 others	32.5

**Nighttime defined as after 6:00 p.m. Table includes all stations named by as many as one and one-half per cent of all radio families questioned, including those never listening to radio during day or else evening.*

RADIO STATIONS "LISTENED TO MOST"

(Percentages based on all families questioned in radio-equipped homes)*

DAYTIME	
WFAA-WBAP 820	26.6%
KRLD	15.0
WFAA-WBAP 570	5.6
KWFT	3.8
KWKH	3.8
WACO	2.4
KIXL	2.3
KLIF	2.0
KFJZ	1.7
WOAI	1.6
KGKL	1.4
KWKC	1.3
WRR	1.3
KXOL	1.2
KGRI	1.0
KRBC	1.0
KWTX	1.0
KSKY	0.9
KTAE	0.8
KTBB	0.8
KTEM	0.7
KTRE	0.7
KBWD	0.6
KCLE	0.6
KCUL	0.6
KGKO	0.6
KGNC	0.6
KIMP	0.6
KIVY	0.6
KSIJ	0.6
KSTA	0.6
KCMC	0.5
89 others	14.7

NIGHTTIME	
WFAA-WBAP 820	26.3%
KRLD	16.7
KWKH	5.6
WFAA-WBAP 570	5.2
KWFT	3.7
WOAI	2.7
WACO	2.5
KFJZ	1.6
KLIF	1.3
KWTX	1.1
WRR	1.1
KXOL	1.0
KVOO	0.9
KGKL	0.8
KRBC	0.7
KGNC	0.6
KIXL	0.6
KWKC	0.6
KSST	0.5
All 14 Mexican	1.0
88 others	12.1

**Nighttime was defined as "after 6:00 p.m." All stations included if named by as many as one-half of one per cent of total.*

—30—

WorldRadioHistory

Radio Station Coverage and Preference, Urban vs. Rural—The following series of four tables analyze reports fro murban, village and farm families separately, showing the proportion of each type of family naming each of the 20 leading "heard regularly" and the 15 leading "listened to most" stations, daytime and nighttime, separately. Nighttime was defined as "after 6:00 p.m." and is not parallel with the FCC definition of "after sunset."

STATIONS "HEARD REGULARLY"—BY LISTENERS' PLACE OF RESIDENCE

(Percentages based on all questioned in each classification)

DAYTIME

	AREA	*Urban*	*Village*	*Farm*
WFAA-WBAP 820	66.5%	63.7%	69.6%	70.9%
KRLD	52.6	52.7	52.5	52.0
WFAA-WBAP 570	26.1	28.0	24.4	22.2
WRR	13.5	17.5	8.5	7.3
KWFT	10.8	9.6	13.1	12.0
KLIF	10.7	14.9	6.8	2.7
KWKH	10.0	6.4	14.8	15.4
KIXL	7.9	11.4	3.5	2.4
KGKO	7.2	9.9	3.8	2.9
KFJZ	7.0	8.5	5.7	4.0
KSKY	6.5	7.1	5.4	6.0
WOAI	6.5	4.7	8.7	9.2
WACO	5.5	5.6	5.5	5.3
KWTX	4.4	4.9	3.9	3.7
KFDX	4.3	4.5	4.3	3.6
KXOL	4.2	5.2	4.1	1.6
KTRN	3.6	4.3	2.9	2.3
KTBB	3.5	2.1	5.3	5.7
KGKL	3.3	3.4	3.4	3.1
KRBC	3.2	3.1	3.3	3.4

NIGHTTIME

WFAA-WBAP 820	56.0%	53.6%	59.4%	59.8%
KRLD	46.6	47.1	46.6	45.1
WFAA-WBAP 570	21.2	22.1	21.4	18.5
WRR	12.1	16.6	6.7	5.1
KWKH	11.9	8.7	16.1	16.5
KWFT	9.2	8.4	10.4	10.3
KLIF	8.5	12.6	4.1	1.4
WOAI	7.6	5.8	9.8	10.2
KFJZ	5.9	6.9	5.4	3.4
KGKO	5.8	7.9	3.2	2.4
WACO	5.2	5.5	4.9	4.6
KFDX	4.8	4.1	8.9	2.9
KIXL	4.7	6.7	1.8	1.7
KWTX	4.4	4.8	4.0	3.7
KVOO	4.1	3.4	5.3	4.7
KSKY	4.0	4.9	2.1	3.2
KXOL	3.6	4.5	3.6	1.2
KTRN	3.4	4.0	2.6	2.5
KFRO	2.4	2.1	2.6	3.1
KTBB	2.4	1.4	3.4	4.4

WorldRadioHistory

RADIO STATIONS "LISTENED TO MOST"—BY LISTENERS' PLACE OF RESIDENCE

(Percentages based on all questioned in each classification.)

	AREA	Urban	Village	Farm
DAYTIME				
WFAA-WBAP 820	26.6%	21.4%	32.0%	35.3%
KRLD	15.0	16.9	14.0	11.1
WFAA-WBAP 570	5.6	5.3	5.9	5.9
KWFT	3.8	3.5	5.2	3.1
KWKH	3.8	2.4	5.6	6.0
WACO	2.4	2.8	2.0	1.6
KIXL	2.3	3.6	0.7	0.5
KLIF	2.0	3.2	0.7	0.3
KFJZ	1.7	2.5	1.0	0.4
WOAI	1.6	0.9	3.1	2.3
KGKL	1.4	1.7	1.2	1.0
KWKC	1.3	1.6	0.8	0.9
WRR	1.3	1.9	0.7	0.2
KXOL	1.2	1.4	1.2	0.7
KGRI	1.0	0.9	1.5	0.9
KRBC	1.0	0.9	1.5	0.9
NIGHTTIME				
WFAA-WBAP 820	26.3%	20.9%	32.2%	35.1%
KRLD	16.7	19.6	13.5	11.8
KWKH	5.6	3.9	7.7	8.2
WFAA-WBAP 570	5.2	4.5	6.1	5.9
KWFT	3.7	3.4	4.3	4.0
WOAI	2.7	1.8	4.3	3.5
WACO	2.5	2.9	2.7	1.4
KFJZ	1.6	2.2	0.6	0.7
KLIF	1.3	1.9	0.4	0.2
KWTX	1.1	1.2	0.7	1.3
WRR	1.1	1.7	0.5	0.2
KXOL	1.0	1.3	0.6	0.5
KVOO	0.9	0.6	1.4	1.2
KGKL	0.8	0.7	0.8	1.1
KRBC	0.7	0.9	0.6	0.4

Most Popular Stations for Newscasts—Each person interviewed in a radio-equipped home was asked to name the station to which he, personally, "usually listened" for NEWS during the morning, the noon hour and the supper hour—separately. The question dealt with radio news, excluding television newscasts. Not all of those questioned listened to news from radio stations at each of the three times. Figures on the per cent of adults who DO LISTEN to radio news at these times will be found under the section on "Listening Habits" later in Part I of this report.

The following table compares leading radio stations preferred by those who "usually listen" to radio newscasts at the period shown. Figures in each case are unweighted percentages, based on the total number who named stations in reply to each question—each column totaling 100.0 per cent. All stations named by as many as one per cent of the listeners for any period are included in the table.

RADIO STATIONS PREFERRED FOR NEWSCASTS

(Percentages based on number who usually listen to radio news during the period named.)

Usually Hears:	Morning News	Noon-Time News	Supper-Time News
WFAA-WBAP 820	35.6%	33.4%	30.1%
KRLD	12.5	12.4	16.6
KWKH	4.5	4.2	5.9
KWFT	4.1	4.2	4.8
KFJZ	3.5	3.3	4.2

WorldRadioHistory

Usually Hears:	*Morning News*	*Noon-Time News*	*Supper-Time News*
WACO	2.7	3.3	3.7
WFAA-WBAP 570	2.7	2.0	1.6
WRR	2.0	0.9	2.7
WOAI	1.8	2.4	2.4
KGKL	1.6	1.9	1.3
KWKC	1.3	1.2	1.5
KWTX	1.3	1.1	1.4
KLIF	1.1	1.1	0.7
KRBC	1.1	1.8	0.8
KGNC	0.9	1.0	1.1
KGRI	0.8	1.3	0.1
KTAE	0.8	1.0	0.2
KDWT	0.4	0.5	1.4
108 others*	21.3	23.0	19.5
	100.0	100.0	100.0

**None of the 108 other stations was named by as many as one per cent of those naming stations at any of the three periods.*

Favorite Station for Farm News and Market Reports—Each person interviewed in a radio-equipped home was asked to name the radio station having the "best FARM NEWS." He was then asked to name the radio station he "usually heard" for MARKET REPORTS. Not all of those questioned listened to radio's farm news and markets, 33.5 per cent naming a favorite station for farm news, and 27.4 per cent naming a station "usually heard" for market reports.

The following table compares percentages naming leading stations for these two types of programs. Figures in the table are unweighted percentages. The table analyzes replies in two ways: (1) the left-hand column gives percentages based on all questioned in radio-equiped homes, including those who never listen to these program types; (2) the right-hand column translates these figures into per cent of all naming a favorite station for that type of program. The table names all stations receiving mention by as many as one per cent of those naming a favorite station.

BEST LIKED STATION FOR FARM NEWS AND STATION USUALLY HEARD FOR MARKET REPORTS

(Left-hand column percentages based on all questioned; right-hand percentages on those naming a favorite station for the program type.)

	All Persons Questioned	*Persons Naming A Favorite Station*
"Best FARM NEWS is on:"		
WFAA-WBAP 820	19.3%	57.8%
KRLD	1.9	5.6
KWKH	1.7	5.2
WOAI	1.0	3.2
WFAA-WBAP 570	1.0	2.9
KWTX	0.8	2.5
KWFT	0.7	2.1
WACO	0.5	1.6
KGNC	0.4	1.3
81 other stations*	6.2	17.8
	33.5	100.0
"I usually hear MARKET REPORTS on:"		
WFAA-WBAP 820	14.5%	53.2%
KRLD	1.9	6.2
KWKH	1.5	5.6
WOAI	1.3	4.7
WFAA-WBAP 570	1.3	4.6
KWFT	0.6	2.3
KGNC	0.5	1.9
KWTX	0.4	1.6
KGKL	0.3	1.0
WACO	0.3	1.0
65 other stations*	4.8	17.9
	27.4	100.0

**None of these other stations were mentioned by as many as one per cent of those naming a favorite station.*

WorldRadioHistory

RADIO PROGRAM PREFERENCE

Best Liked Evening Radio Newscasters—Each person interviewed in a radio-equipped home was asked:

"Which RADIO NEWSCASTER is best in the EVENING?"

Respondents were not shown a list of newscasters, selection being made on a basis of unaided recall. Only 43.2 per cent of the men and 41.0 per cent of the women were willing to choose a favorite evening newscaster. The men named 88 and the women named 115 different newscasters, 163 different news personalities being named in all. But of the 163, only twenty-three were named by as many as one half of one per cent of either the men or the women who had favorites. The following table compares percentages of men and percentages of women naming each of the leading twenty-three. Percentages in each case are based on the unweighted total number of men or women who had a favorite evening newscaster. For parallel figures comparing favorites in Dallas-Fort Worth, other urban, and rural areas, see the Appendix to Part I.

BEST-LIKED EVENING NEWSCASTERS

(Unweighted percentages, based on replies from 860 men and 2,746 women with favorites.) *

	MEN	*WOMEN*
Edward R. Murrow, CBS	14.0%	15.0%
Gabriel Heatter, MBS	12.7	11.3
Morgan Beatty, NBC	11.6	6.7
Fulton Lewis Jr., MBS	10.7	9.8
Porter Randall, KFJZ	10.4	9.3
Lowell Thomas, CBS	7.7	8.4
Paul Harvey, ABC	3.7	6.0
Walter Winchell, ABC	3.4	3.0
H. V. Kaltenborn, NBC	2.3	2.4
Elmer Davis, ABC	2.1	1.4
Bob Tripp WFAA	1.6	1.4
Lillard Hill, WBAP	1.5	0.6
Cedric Foster, MBS	0.9	1.5
James Van Sickles, KWKH	0.9	0.3
Murray Cox, WFAA	0.8	0.5
Henry Howell, WOAI	0.7	0.3
Drew Pearson, ABC	0.7	0.7
Lynn Bigler, WFAA	0.6	0.1
John Daly, ABC	0.6	0.4
Frank Edwards, MBS	0.6	0.1
Bud Sherman, WBAP	0.6	0.2
John C. Swayze, NBC	0.6	0.7
Wes Izzard, KGNC	0.4	0.6
Total for 139 others**	11.3	19.3
	100.0	100.0

* *For parallel figures on favorites of persons living in Dallas-Fort Worth, other urban, and rural homes, see the Appendix to Part I.*

** *None of these 139 was selected by as many as one half of one per cent of either the men or the women who named favorites.*

Preferred Program Types—For the past sixteen years, surveys parallel to this one in the Midwest have asked listeners to select from a list of sixteen types of program materials, the FIVE types liked best. The question was used in identical form in the 1952 Boston Trade and Distribution Area Survey and in 1953 in the North Texas Area Survey in order to permit comparison of the likes of adults living in different parts of the country.

In asking the question, interviewers gave respondents a card on which was printed the sixteen types named in the table which follows, together with description and typical examples of programs falling into each type. The specific programs used as illustrations were programs having high national ratings within each type. A series of cards was used, with order of arrangement altered, so that the place held by a particular program on the card would not influence the rating it received.

WorldRadioHistory

After the respondent had selected the five types he or she liked BEST on radio, respondent was handed another card with an identical list of program types, but with examples of television programs given. The respondent was then asked to select the five best liked types on TV. Tables comparing the liking of the types on radio and on television will be found in Part II of this report.

The following table compares the replies received from women and from men in response to the five best liked types on RADIO. The table compares weighted percentages, giving correct values to replies from women and from men interviewed in different types of homes. Unweighted percentages, comparing replies from women and from men in television vs. non-TV homes; living in urban, village, and farm homes; persons falling within different age groups; and persons with different educational backgrounds—these comparisons will be found in the Appendix to Part I.

BEST-LIKED TYPES OF PROGRAM MATERIALS ON RADIO

(Percentages based on weighted reports from men and from women.)*

	WOMEN	*MEN*
News broadcasts	68.1%	80.3%
Audience participation	48.3	40.7
Comedians (featured)	47.4	51.8
Religious programs	45.6	36.5
Popular music	45.4	39.1
Complete drama	39.1	32.7
Variety programs	32.9	25.2
Serial drama	31.9	15.3
Oldtime music	28.8	33.5
Sports broadcasts	20.4	41.6
Classical music	14.6	10.7
Talks and comment	14.3	21.3
Homemaking programs	12.3	3.3
Brass bands	12.2	13.9
Talks on farming	7.9	15.9
Market reports	6.2	16.3

**Weighted to give correct value to replies from women and from men interviewed in urban, village and farm homes. For comparisons of women and men living in television vs. non-TV; in urban, village and farm homes; persons of different ages; and for persons with different educational backgrounds—see the Appendix to Part I.*

APPENDIX

THE INTERVIEW-DIARY TECHNIQUE

Advantages of This Method—The INTERVIEW METHOD of research lends itself well to random sample studies covering wide areas of territory. Its relative cheapness makes it possible to reach statistically reliable samples of families on small or large area basis. Further, the method adapts itself well to the stratified-random technique of selection of sample, guaranteeing proportionate replies from each unit within the area. It is an excellent method of qualitative radio-television audience research.

However, the interview method often has been charged with two serious drawbacks: (1) it must depend upon respondent's "recall" for tests of listening either by specific program times or by stations; (2) it can reach, validly, only one member of the family, and must assume that this member is typical of other members of like age and sex.

THE DIARY TECHNIQUE, on the other hand, is without these two drawbacks. The Diary is kept coincidentally with listening by whichever member of the family has charge of the dial. Likewise, the Diary makes it possible to examine listening by different members of the family separately; to examine listening on different sets within the home; to determine numbers listening within the home at specific periods; and to determine the amount of multiple-set use at each program time.

But the Diary, too, has certain disadvantages: (1) it is extremely costly per home; (2) it does not lend itself well to qualitative research; (3) used alone, it must depend on mail response for sample selection—thus combining the disadvantages of the quota method of sampling with the disadvantages of mail-return and diary.

WorldRadioHistory

However, a COMBINATION OF INTERVIEW AND DIARY wipes out the disadvantages of each method, and provides qualitative and quantitative research that is statistically reliable. On questions covering stations heard at specific periods, the coincidental nature of the Diary wipes out necessity for dependence on the interview "recall." By distributing the Diary through interview, an excellent random sample can be obtained with geographical accuracy guaranteed by stratification. In short, the combining of the two methods makes it possible to utilize the good points of each, and avoid the objections so often heard of either.

The 1953 North Texas Area Radio-Television Audience Survey used BOTH the interview and the Diary techniques. The interview portion of the study followed the well-known methods used by the author in Midwest States and New England. The Diary was combined by making two of each thirteen homes reached by random interview selection Diary homes. Description of techniques used in making each part of the study follows.

The Interview Study—The information in these pages coming from the interview portion of the study was secured from 9,167 adult men and women, representing that many different families. Interviews were taken between Jan. 19 and 31, 1953, with the exception of less than 5.0 per cent of the interviews which were obtained later. All information was gathered on a basis of personal interview IN THE HOME OF THE RESPONDENT, one interview to a home. Interviewing was supervised by Professor John Ebbs, Department of English, Texas A&M College, College Station, Texas.

In each instance the number of interviews assigned to the 111 counties of the area, and to each strata within the area, was determined on a basis of the 1950 Census Report on Housing. Every "city" of more than 2,500 population and each election ward in Dallas and Fort Worth, was considered a separate strata and received its proportionate share of interviews. Likewise, village and farm areas within each county were treated as separate strata and were visited in direct proportion to the housing figures. Standard techniques of random sampling within these strata were employed. Thus, the sample was not only spread over the entire area geographically in proportion to latest figures on number of families within each county, but was further stratified within counties for urban, village and farm homes. Only adults over 21 years of age were interviewed.

Interviewers were paid to study nineteen mimeographed pages of instructions, to practice interviewing upon friends, and to attend the clinic to which all were called before interviewing actually began.

The questionnaire used by the interviewer was not shown to the respondent; it is reproduced on a later page of this Appendix. In certain instances the wording on the questionnaire is not identical with that which interviewers were trained to use, because of the need to conserve space on the questionnaire. But the wording on the questionnaire is sufficiently close to that used by interviewers to permit examination by the student. When asking questions 13 and 14, interviewers handed respondents a card on which were listed (without the number) the sixteen program types shown on the questionnaire, together with typical examples of programs (radio programs for question 13 and television programs for question 14) of those types having high national ratings. A different card was used (of course) for each of the two questions, although the sixteen types were identical. Five different cards were used for each of the two questions by each interviewer, with order of listing changed to give each program type fair position on the card. Interviewers used each of the five cards for one fifth of the interviews.

Reliability tests run on each question indicate that sampling errors fall well within the two-standard-error curve for the sized sample used.

Since the interview portion of the study is based on replies from adults over twenty-one years of age, the information given (based on interview) represents the attitudes, beliefs, and preferences of adult radio-television listeners of the area at the time of the survey.

Further information about methods used may be obtained by directing inquiries to the author in care of "Committee on Radio and Television Policy," Kansas State College, Manhattan, Kan.

The Diary Study—Because of the high cost per family of the Diary, no attempt was made to get a sample large enough to provide county-by-county data. However, a sample was needed that was representative of the area geographically, with stratification for urbanization and economic levels. These elements were present in the random interview sample. Therefore, interviewers were instructed to make two of each thirteen homes DIARY HOMES. Thus, by combining the Diary with interview it was possible to get a sample large enough to provide reliability, and likewise supply a Diary sample with the same random selection features within stratified areas obtained by the interview sample.

In order to keep out error due to interviewers counting, the designation of Diary homes among interviewed homes was made mechanical. Each sixth or each seventh (in rotation) interview questionnaire in the padded questionnaires was printed on colored paper, and interviewers

WorldRadioHistory

NARTB LIBRARY

were instructed to make homes interviewed with these questionnaires the Diary homes. After the regular interview was completed—then, the interviewer secured co-operation from the respondent in making this a Diary home.

Families were asked to keep a SEPARATE Diary on listening (or watching TV) to EACH radio or television set in the home for a two-day period. Listening done outside the home was not included in the Diary study. The number of Diaries left within the home, then, corresponded to the number of sets within the home—reported earlier by the respondent during the interview.

A pencil was left with each Diary on each set within the home, to make certain that materials were available at the time the set was used. Gifts were made to the family for co-operation in keeping the Diary—the gifts being presented by the interviewer at the time of the interview. Left with the Diary was a self-addressed and stamped envelope in which completed Diaries were to be returned to Professor John Ebbs of Texas A&M College. Names and addresses of Diary families had been previously entered on the questionnaire used in the interview, together with other information about the family. Interviewers wrote the "questionnaire number" on each Diary to make possible a matching of Diary with interview questionnaire. Likewise, interviewers copied names and addresses, type of residence, and number of sets, together with this serial number, and forwarded to Professor Ebbs within twenty-four hours of completion of interview—so that one follow-up letter could be mailed to delinquent families without delay.

Each Diary was to be kept for two days by the family—the two days immediately following the interview. Validity of the two-day Diary was established by a study done in January, 1949, by Dr. Barnes, Department of Journalism, State University of Iowa, Iowa City, Iowa. Dr. Barnes obtained a TEN-DAY DIARY RECORD from 368 families living in forty-one counties—3,680 days of Diary reports on listening in all. Each Diary began on Thursday and ran through Saturday of the following week. A comparison of the first three days of listening with each corresponding day of the following week (eighth, ninth and tenth days of the Diary record) showed no tendency on the part of the Diary families to "listen more" when the Diary was first started. The study showed that there was no tendency whatever to listen more on the first, second, or third day the Diary was kept than on the eighth, ninth or tenth day. The bug-a-boo of increased listening when the Diary first begins (because the Diary is kept) was not borne out by Dr. Barnes' study of 3,680 days of Diary listening.* So far as validity is concerned, a Diary kept for only two days is as accurate as one kept for seven or even ten days. In the 1953 North Texas Radio-Television Audience Survey the two-day Diary was used in order to secure greater co-operation from randomly selected families.

Interviewers were assigned enough work to keep them busy for an entire week, so that the two-day reports from all Diary families covered an entire week's listening.

Each interviewer was instructed to check "Diary taken" on his interview questionnaire if co-operation was obtained. If co-operation was refused, the interviewer was to check "Diary refused" on the questionnaire. In cases of refusal, the interviewer made the next home reached by random sampling the Diary home in place of the one refused. In all, only 13.3 per cent of the families refused co-operation—and in each case the Diary was left at the next home reached by random selection.

Further, of those left with homes promising co-operation, 46.8 per cent were not returned or were returned blank by March 15, the date on which tabulations began, even though one follow-up letter had been sent to delinquent families. Therefore, the information presented in preceding pages is based on 53.8 per cent of all Diaries left with families promising co-operation. A total of 692 families returned usable Diaries covering 1,384 days of listening on 987 different radio sets—giving a return of 1,974 "set-days" of reports on 4,849 different people over four years of age living in these homes.

* *Unpublished report of an educational study of methods completed in January, 1949, by Dr. Arthur Barnes, State University of Iowa, Iowa City, Iowa. Inquiry concerning the study should be addressed to its author, Department of Journalism.*

Diary records were kept of all individuals listening to each radio or television set by each quarter-hour between 5 a.m. and 1 a.m. the following day—for the two days following the interview. The members of the family were divided into four groups: women over 18, men over 18, teen-agers from 12 to 18, and children from 4 to 11 years of age. Children under 4 were excluded from the study for obvious reasons.

With 13.3 per cent of the families having refused the Diary and having been replaced by substitute families—and with 46.8 per cent of the Diary families failing to return usable reports—the question of validity of the sample arose. To determine validity, comparison of the usable-Diary-families was made against the entire interview sample of radio-equipped homes (9,167 families reached through random selection) for every question asked on the interview questionnaire. Literally thousands of comparisons were made without finding differences which were significant on a three-standard-error basis for the sized samples involved.

WorldRadioHistory

Space does not permit reproduction of all of these comparisons, but the following 115 comparisons on various questions or items about the family or its preferences, prove that the failure of some families to co-operate or return the diary did not skew the sample. The following series of tables, then, compare the 692 families returning usable Diaries with the 9,167 families reached by personal interview. A total of 115 different comparisons will be found in the tables. The tables demonstrate that the sample obtained in this Diary study is valid—that refusal to co-operate or failure to return usable diary reports did not significantly skew the sample. The tables show that the Diary sample is as valid as the 9,167 interview sample reached by random selection.

SERIES OF TABLES COMPARING THE DAIRY SAMPLE WITH THE INTERVIEW SAMPLE

(Figures are percentages of all reporting in each classification: 9,167 interview families and 692 Diary families. The tables demonstrate the validity of the Diary sample)

Miscellaneous Family Information:	*Interviewed Families*	*Diary Families*
Urban families	59.1%	54.4%
Village families	20.5	23.8
Farm families	20.4	21.8
Have an automobile	84.5	87.3
Have a car radio	57.1	59.1
Have TV set in home	28.5	29.2
Have a telephone	73.3	73.8
Take a newspaper	84.5	85.7
Electricity in home	99.2	99.7
Radio, but no TV	69.9	70.8
One radio in home only	54.8	56.2
Two radios in home	29.7	30.2
Three radios in home	9.3	9.4
Four or more radios	3.9	3.6

"Heard Regularly" Daytime:

	Interviewed Families	*Diary Families*
WFAA-WBAP 820	66.5%	68.2%
KRLD	52.6	55.4
WFAA-WBAP 570	26.1	25.7
WRR	13.5	13.8
KWFT	10.8	9.8
KLIF	10.7	10.7
KWKH	10.0	10.4
KIXL	7.9	8.7
KGKO	7.2	8.1
KFJZ	7.0	8.2
KSKY	6.5	8.7
WOAI	6.5	7.9
WACO	5.5	4.5
KWTX	4.4	3.2
KFDX	4.3	3.5
KXOL	4.2	5.1
KTRN	3.6	2.8
KTBB	3.5	4.7
KGKL	3.3	3.9
KRBC	3.2	3.5
KTEM	3.2	3.1
KWKC	2.8	2.2
KFRO	2.6	2.1
KSTA	2.5	3.3
KIMP	2.4	2.3
KTAE	2.4	2.8
KCNC	2.3	2.5
KPLT	2.3	2.8
KGRI	2.2	2.6
KCMC	2.1	1.9

"Heard Regularly" Nighttime:

	Interviewed Families	*Diary Families*
WFAA-WBAP 820	56.0%	56.9%
KRLD	46.6	46.6
WFAA-WBAP 570	21.2	19.8
WRR	12.1	12.2
KWKH	11.9	12.2
KWFT	9.2	8.0
KLIF	8.5	7.6
WOAI	7.6	9.9
KFJZ	5.9	5.5
KGKO	5.8	7.0
WACO	5.2	4.3
KFDX	4.8	2.8
KIXL	4.7	4.8
KWTX	4.4	3.2
KVOO	4.1	7.1
KSKY	4.0	5.0
KXOL	3.6	3.5
KTRN	3.4	2.6
KFRO	2.4	2.1
KTBB	2.4	2.2
KTEM	2.2	2.1
KPLT	2.1	2.6
WSM	2.1	3.2
KGKL	2.0	2.8
KRBC	2.0	2.0

"Listened to Most" Nighttime:

WFAA-WBAP 820	26.3%	27.4%
KRLD	16.7	18.7
KWKH	5.6	6.0

WorldRadioHistory

	Interviewed Families	*Diary Families*
KTBC	2.1	1.9
KCUL	2.0	2.6
KSFA	2.0	3.2
"Listened to Most" Daytime:		
WFAA-WBAP 820	26.6%	30.4%
KRLD	15.0	14.5
WFAA-WBAP 570	5.6	5.8
KWFT	3.8	3.2
KWKH	3.8	2.8
WACO	2.4	1.5
KIXL	2.3	2.3
KLIF	2.0	2.3
KFJZ	1.7	2.1
WOAI	1.6	2.0
KGKL	1.4	1.8
KWKC	1.3	1.1
WRR	1.3	1.7
KXOL	1.2	1.2
KGRI	1.0	1.5
KRBC	1.0	1.4
KWTX	1.0	0.5
Other comparisons:		
Hears outside radio	8.1%	9.3%
Hears outside TV	11.8	12.8

	Interviewed Families	*Diary Families*
WFAA-WBAP 570	5.2	3.9
KWFT	3.7	3.4
WOAI	2.7	2.2
WACO	2.5	1.4
KFJZ	1.6	0.9
KLIF	1.3	0.9
KWTX	1.1	0.6
WRR	1.1	0.9
KXOL	1.0	0.3

A sample of the Diary, together with printed instructions on front and back cover, will be found on the following pages. Each interviewer made certain that the respondent understood the Diary before closing the interview. Respondents were instructed to have each member of the family old enough to write keep the Diary record when using any radio or television set in the home for the days concerned. The information at the top of the Diary sheet was filled in by the interviewer befor he left the home. An examination of the sample Diary on the following pages will show that the Diary called for specific information at each quarter-hour from 5:00 a.m. to 1:00 a.m. For each period the family circled either "on" or "off." If the set was in use, the station or stations heard for as much as five minutes of a period were entered. The members of the family were grouped under four headings, excepting children under four years of age (who were excluded from the Diary report), and each group kept records of its own listening in separate columns.

Immediately following the sample Diary will be found a copy of the questionnaire used by interviewers. It should be remembered that this questionnaire was not shown to the respondent.

WorldRadioHistory

TEXAS EDUCATIONAL SURVEYS
(1953)

Cit..... Vil..... Frm.....
Hi..... Me..... Lo.....
Man..... Woman.....
County.....
21-35.... 36-50.... Ov-50....
Name..... Post Office..... Coll..... H.S..... Grade.....
Local Address or RFD ..... Interviewed on Su.. Mon.. Tu.. Wed.. Th.. Fr.. Sa..

1. Does the family have a radio set in home? Yes....No.... If so, how many 1.... 2.... 3.... More....
Does the family have a radio set in its automobile or truck? Yes.... No.... (No car or truck)
About how far would you say YOU rode in your car (truck) YESTERDAY? .....Miles (or None....)
Did you use the radio while riding YESTERDAY? Yes.... No.... (Didn't Ride....) (No Radio....)
2. Does the family have a television set? Yes.... No....
(IF YES) Is TV set in working condition? Yes.... No.... (No TV set....)
(IF OUT OF ORDER) How long has TV set been out of order?
Under 1 month.... 1 month.... 2 months.... 3-6 months.... 6-12 months.... Longer.... Don't Know....
3. Do any members of your family hear any OTHER RADIOS regularly? Yes.... No.... Don't know....
(IF YES) WHERE do they hear them?.....
Do any members of your family watch TV outside your home REGULARLY? Yes.. No.... Don't know....
(IF YES) WHERE do they hear them? .....

(If family does not have a radio (or TV) set in working condition, jump to Question 15)

4. To what 5 RADIO stations does the family listen REGULARLY, during DAYTIME? (Name exactly 5 stations)
....
To which ONE of these radio stations does the family listen MOST, during the daytime? .....
5. To what five RADIO stations does the family listen REGULARLY, after 6:00 at NIGHTTIME?
....
To which ONE of these radio stations does the family listen MOST at night? .....

(If no TV set, Jump to Question 9)

6. To what TV stations does the family listen REGULARLY during DAYTIME?
....
To which ONE of these TV stations does the family listen MOST, during the daytime? .....
7. To what TV stations does the family listen REGULARLY, after 6:00 at NIGHTTIME? .....
....
To which ONE of these TV stations does the family listen MOST at night? .....

8. SOMETIMES, when part of your family watches TV, are other members of the family listening to radio in another part of your house? Yes.... No....
(If Yes) About how often would you say this happens? Most times.... Quite Often....
Half of time.... Only now and then.... or Almost never....
9. As you know, television stations use movies for some of their programs. Do you, personally, think television NOW USES TOO MANY movies, ABOUT THE RIGHT number, or should MORE movies be shown on television? Too many.... About right ... Want more.. Don't know ...

10. To what RADIO station do you USUALLY listen for NEWS? Morning..... (Don't Listen....)
Noon.....(Don't Listen....) Supper Hour.....(Don't Listen....)
Which RADIO NEWSCASTER is best in the EVENING?.....or (Don't Know....)
Which station has the BEST FARM NEWS? .....Station or don't listen....
To what station do you USUALLY listen for MARKET REPORTS? ..... Station or don't listen....
11. *(Ask of TV owners)* which TV station carries the best NEWS & WEATHER REPORTS..... (D-K....)

12. Now, let's think about YESTERDAY. About how much time did you spend YESTERDAY
Reading newspapers? .....hours.....minutes (Didn't get to read....)
Reading magazines? .....hours.....minutes (Didn't get to read)
Listening to radio? .....hours.....minutes..... (Didn't listen....)
Watching television? .....hours..... minutes (Didn't watch ...)

13. Of these sixteen types of program material listed, what FIVE types do you like BEST? *(Name exactly five)*
(List all numbers of types named, here): ....

1. News broadcasts	5. Variety shows	9. Religious music or devotionals	13. Band music
2. Comedians	6. Serial drama	10. Home-making programs	14. Classical music
3. Audience participation	7. Complete drama	11. Sports broadcasts	15. Talks, comments
4. Popular music	8. Oldtime music	12. Market reports	16. Talks on farming

14. **(TURN CARD OVER and ASK):**
Which FIVE do you like BEST on TV? *(Numbers here):* ....

15. Does family have:
An automobile? Yes....No.... A telephone? Yes..... No.... Take a DAILY newspaper? Yes.... No....
Electricity in home? Yes... No... *(CITY & VILLAGE INTERVIEWS)* Own a FARM? Yes... No...
Diary Refused..... Taken.....

WorldRadioHistory

KEEPING THE RADIO DIARY

This is a record of listening of the ENTIRE FAMILY. The Diary divides the day and evening into 15-minute periods. Please record (1) whether the radio or television set is on or off for that period, (2) if the set is on, enter (for each period) the station heard, the spot on the dial where you find it—or the channel of TV stations—and the number of people who are listening. If a station is heard for 5 minutes or more in any 15-minute period, write down that station's CALL LETTERS. Please don't try to fill it in from memory—keep the diary as you listen. To help in making this record, keep the Diary and a pencil on or near the radio or television set.

Here are some questions you may have — and the answers to them:

QUESTIONS	ANSWERS
1. Do I, personally, have to fill in the Diary—or may other members of my family help fill it in when they use the radio or television?	1. EACH MEMBER of the family (old enough to write) should fill it in when he uses the set. It's a FAMILY diary.
2. Does ALL of the family have to be listening before we write the call letters down?	2. No. Keep a record when ANY member of the family is listening to the radio or TV set.
3. If I tune in at 5 minutes after 8 o'clock, should I circle the "On," or do I have to have the set turned on the entire 15 minutes?	3. Mark the period as "On" WHENEVER the set is tuned to one station for as long as five minutes or a 15-minute period.
4. What should I write if I hear a program that is more than 15 minutes long?	4. Write the station's call letters for EACH of the 15-minute periods, marking radio or TV as "On."
5. What if I hear two stations during the 15 minutes?	5. If you hear each for five minutes or more, then put down BOTH stations' call letters. Put down all stations you hear for as long as five minutes in a 15-minute period.
6. If I hear a NETWORK program, should I write the network name (CBS, NBC, ABC, or MUTUAL) —or should I put the call letters of the Texas station which carries the program?	6. ALWAYS use the STATION'S call letters—we don't want the network's name or the program name, or anything but the station's call letters —like WAAA or KBB.
7. What if the set was left on but no one was listening because we left the room or the house?	7. Mark the set as "On" because it was on. Then mark "NL" instead of a station, and we'll know you mean "No one listening."
8. What is meant by "Number of People Listening" —in 5 columns at right end of each line?	8. In these four columns, show us how MANY people were listening each period the set was "On." By "people listening" we mean those who are giving all or a good part of their attention to what is coming over the radio. So, you count the number of men, women and children—then enter these numbers in the correct spaces.
9. What if visitors are listening—do we count them, too?	9. Yes. Visitors, boarders or friends—they are "people and count if they listen to your radio or television set five minutes or more.

(PLEASE TURN TO BACK COVER)

WorldRadioHistory

DAY OF WEEK..... Interview Number.....

Room containing this Radio or TV: Living..... Dining..... Kitchen..... Bedroom..... Other..... Move about.....

Number living in home: Women..... Men..... 4-11 yrs..... 12-18 yrs..... Under 4 yrs..... THIS WAS RADIO..... or TV SET.....

TIME	RADIO OR TELE-VISION IS (Circle one)	STATIONS HEARD (5 Minutes or More) and Where Found on Dial MORNING (Write)		NUMBER OF PEOPLE LISTENING			
				ADULTS		CHILDREN	
		Call Letters	Spot on Dial	Women	Men	Age 12-18	Age 4-11
5:00- 5:15	Off On						
5:15- 5:30	Off On						
5:30- 5:45	Off On						
5:45- 6:00	Off On						
6:00- 6:15	Off On						
6:15- 6:30	Off On						
6:30- 6:45	Off On						
6:45- 7:00	Off On						
7:00- 7:15	Off On						
7:15- 7:30	Off On						
7:30- 7:45	Off On						
7:45- 8:00	Off On						
8:00- 8:15	Off On						
8:15- 8:30	Off On						
8:30- 8:45	Off On						
8:45- 9:00	Off On						
9:00- 9:15	Off On						
9:15- 9:30	Off On						
9:30- 9:45	Off On						
9:45-10:00	Off On						
10:00-10:15	Off On						
10:15-10:30	Off On						
10:30-10:45	Off On						
10:45-11:00	Off On						
11:00-11:15	Off On						
11:15-11:30	Off On						
11:30-11:45	Off On						
11:45-12:00	Off On						
AFTERNOON							
12:00-12:15	Off On						
12:15-12:30	Off On						
12:30-12:45	Off On						
12:45- 1:00	Off On						
1:00- 1:15	Off On						
1:15- 1:30	Off On						
1:30- 1:45	Off On						
1:45- 2:00	Off On						
2:00- 2:15	Off On						
2:15- 2:30	Off On						
2:30- 2:45	Off On						
2:45- 3:00	Off On						

TIME	RADIO OR TELE-VISION IS (Circle one)	STATIONS HEARD (5 Minutes or More) and Where Found on Dial (Write)		NUMBER OF PEOPLE LISTENING			
				ADULTS		CHILDREN	
		Call Letters	Spot on Dial	Women	Men	Age 12-18	Age 4-11
3:00- 3:15	Off On						
3:15- 3:30	Off On						
3:30- 3:45	Off On						
3:45- 4:00	Off On						
4:00- 4:15	Off On						
4:15- 4:30	Off On						
4:30- 4:45	Off On						
4:45- 5:00	Off On						
5:00- 5:15	Off On						
5:15- 5:30	Off On						
5:30- 5:45	Off On						
5:45- 6:00	Off On						
EVENING							
6:00- 6:15	Off On						
6:15- 6:30	Off On						
6:30- 6:45	Off On						
6:45- 7:00	Off On						
7:00- 7:15	Off On						
7:15- 7:30	Off On						
7:30- 7:45	Off On						
7:45- 8:00	Off On						
8:00- 8:15	Off On						
8:15- 8:30	Off On						
8:30- 8:45	Off On						
8:45- 9:00	Off On						
9:00- 9:15	Off On						
9:15- 9:30	Off On						
9:30- 9:45	Off On						
9:45-10:00	Off On						
10:00-10:15	Off On						
10:15-10:30	Off On						
10:30-10:45	Off On						
10:45-11:00	Off On						
11:00-11:15	Off On						
11:15-11:30	Off On						
11:30-11:45	Off On						
11:45-12:00	Off On						
12:00-12:15	Off On						
12:15-12:30	Off On						
12:30-12:45	Off On						
12:45- 1:00	Off On						

Man (head of household)—please answer these questions at END of day: Did you ride in an automobile today? Yes..... No.....
(IF YES) About how many miles did you ride TODAY? .....miles. Did that automobile have a radio set? Yes..... No.....
Did you listen to the radio TODAY while riding? Yes..... No.....

WorldRadioHistory

DAY OF WEEK..... Interview Number.....

Room containing this Radio or TV: Living..... Dining..... Kitchen..... Bedroom..... Other..... Move about.....

Number living in home: Women..... Men..... 4-11 yrs..... 12-18 yrs..... Under 4 yrs..... THIS WAS RADIO..... or TV SET.....

TIME	RADIO OR TELE-VISION IS (Circle one)	STATIONS HEARD (5 Minutes or More) and Where Found on Dial MORNING (Write)		NUMBER OF PEOPLE LISTENING			
				ADULTS		CHILDREN	
		Call Letters	Spot on Dial	Women	Men	Age 12-18	Age 4-11
5:00- 5:15	Off On						
5:15- 5:30	Off On						
5:30- 5:45	Off On						
5:45- 6:00	Off On						
6:00- 6:15	Off On						
6:15- 6:30	Off On						
6:30- 6:45	Off On						
6:45- 7:00	Off On						
7:00- 7:15	Off On						
7:15- 7:30	Off On						
7:30- 7:45	Off On						
7:45- 8:00	Off On						
8:00- 8:15	Off On						
8:15- 8:30	Off On						
8:30- 8:45	Off On						
8:45- 9:00	Off On						
9:00- 9:15	Off On						
9:15- 9:30	Off On						
9:30- 9:45	Off On						
9:45-10:00	Off On						
10:00-10:15	Off On						
10:15-10:30	Off On						
10:30-10:45	Off On						
10:45-11:00	Off On						
11:00-11:15	Off On						
11:15-11:30	Off On						
11:30-11:45	Off On						
11:45-12:00	Off On						
AFTERNOON							
12:00-12:15	Off On						
12:15-12:30	Off On						
12:30-12:45	Off On						
12:45- 1:00	Off On						
1:00- 1:15	Off On						
1:15- 1:30	Off On						
1:30- 1:45	Off On						
1:45- 2:00	Off On						
2:00- 2:15	Off On						
2:15- 2:30	Off On						
2:30- 2:45	Off On						
2:45- 3:00	Off On						

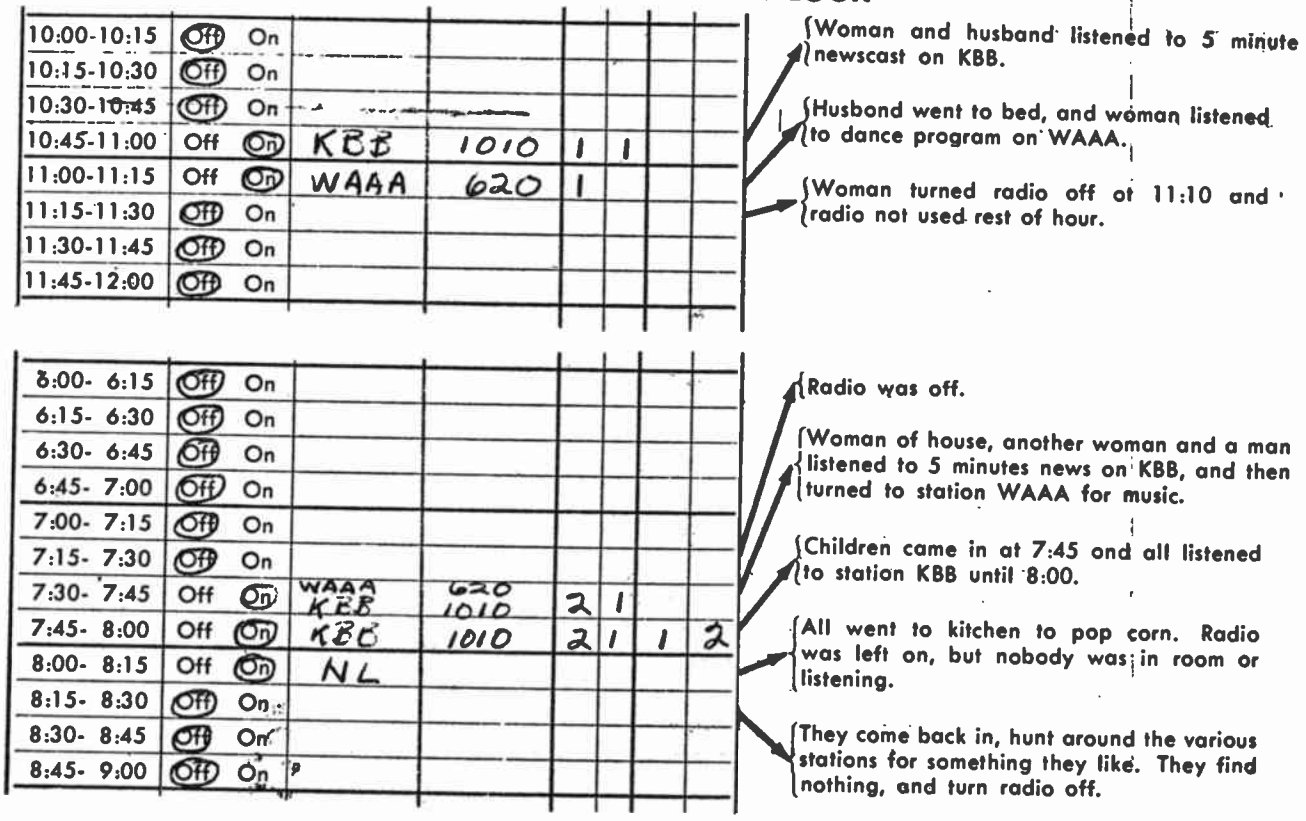
TIME	RADIO OR TELE-VISION IS (Circle one)	STATIONS HEARD (5 Minutes or More) and Where Found on Dial (Write)		NUMBER OF PEOPLE LISTENING			
				ADULTS		CHILDREN	
		Call Letters	Spot on Dial	Women	Men	Age 12-18	Age 4-11
3:00- 3:15	Off On						
3:15- 3:30	Off On						
3:30- 3:45	Off On						
3:45- 4:00	Off On						
4:00- 4:15	Off On						
4:15- 4:30	Off On						
4:30- 4:45	Off On						
4:45- 5:00	Off On						
5:00- 5:15	Off On						
5:15- 5:30	Off On						
5:30- 5:45	Off On						
5:45- 6:00	Off On						
EVENING							
6:00- 6:15	Off On						
6:15- 6:30	Off On						
6:30- 6:45	Off On						
6:45- 7:00	Off On						
7:00- 7:15	Off On						
7:15- 7:30	Off On						
7:30- 7:45	Off On						
7:45- 8:00	Off On						
8:00- 8:15	Off On						
8:15- 8:30	Off On						
8:30- 8:45	Off On						
8:45- 9:00	Off On						
9:00- 9:15	Off On						
9:15- 9:30	Off On						
9:30- 9:45	Off On						
9:45-10:00	Off On						
10:00-10:15	Off On						
10:15-10:30	Off On						
10:30-10:45	Off On						
10:45-11:00	Off On						
11:00-11:15	Off On						
11:15-11:30	Off On						
11:30-11:45	Off On						
11:45-12:00	Off On						
12:00-12:15	Off On						
12:15-12:30	Off On						
12:30-12:45	Off On						
12:45- 1:00	Off On						

Man (head of household)—please answer these questions at END of day: Did you ride in an automobile today? Yes..... No.....
(IF YES) About how many miles did you ride TODAY? .....miles. Did thot outomobile have o radio set? Yes..... No.....
Did you listen to the rodio TODAY while riding? Yes..... No.....

WorldRadioHistory

QUESTIONS	ANSWERS
10. What if more than one radio or television set in our home is going at once?	10. Each radio or TV set has its own diary—so each diary will show when that set is "On."
11. What if I forget to fill in the Diary until after the day is over?	11. Then, CHANGE THE DAY OF THE WEEK at top of page, and fill in the diary the NEXT day. Please don't fill it in from memory.
12. Should we try to listen more than we usually do?	12. No. Do just as you would if there were no Diaries to keep.
13. Do I return a Diary if the radio or television set was not used at all for those two days?	13. Yes! Return ALL diaries left with you. If the set wasn't on at all, you will circle "Off" for all periods, or write "not used" across diary, and return the diary.
14. What is meant by "spot on the dial?"	14. Stations WFAA and WBAP each come in at two different places on your dial—570 and 820. We want to know which place you are using for these stations. So write correct numbers after station call letters.
15. WHEN should I mail the Diary back?	15. First, check to see you have circled "Off" for all periods the set was not used. Then mail it to us —JUST AS SOON AS YOU CAN after the two days' record has been kept. The sooner you mail it the more it will help us—we'll be waiting for it. And, THANKS!

HOW THE DIARY WILL LOOK



NOTE OF THANKS: Texas A & M College wants to thank you for being so nice to our interviewer when he called —and for helping with this worthwhile educational study

PROF. JOHN D. EBBS, Dept. of English
Texas A & M College
College Station, Texas

WorldRadioHistory

THE INTERVIEW SAMPLE

Homes Reached:
One home for each 110 homes in the Area; a total of 9,167.

Per Cent of All Families:	*Total Area*	*Dallas Ft. Worth*	*Other Urban*	*Village*	*Farm*
Owning an automobile	84.5%	79.0%	85.7%	81.3%	88.7%
With radio in the car	56.4	59.3	61.3	52.7	48.9
With working radio in the home	97.6	96.0	98.4	97.7	98.2
With a telephone in the home	73.3	90.0	86.5	60.6	43.4
Taking a daily newspaper	84.5	93.9	91.4	78.0	68.1
With electricity in the home	99.2	99.6	99.8	97.3	97.0
Owning (or living on) a farm	29.8	4.5	11.4	18.3	100.0
With "high" standard of living	13.9	10.2	20.6	10.3	11.5
With "medium" standard of living	62.0	66.8	61.6	63.0	55.7
With "low" standard of living	24.1	23.0	17.8	26.7	32.8

Per Cent of Individuals Interviewed:	*WOMEN*	*MEN*
Between 21 and 35 years of age	33.9%	27.8%
Between 36 and 50 years of age	43.8	41.5
Over 50 years of age	22.3	30.7
Having attended college*	20.3	22.6
Having attended high school, not college	57.8	49.5
Never having attended high school	21.9	27.9

Per Cent Interviewed on: Sunday, 1.9%, Monday, 20.1%; Tuesday, 20.4%; Wednesday, 19.6%; Thursday, 17.4%; Friday, 12.2%; Saturday, 8.4%.

RADIO AND TELEVISION SET OWNERSHIP—URBAN VS. RURAL

(Percentages based on 9,167 homes reached by interview)

Per Cent of All Homes With:	*Area*	*Urban*	*Village*	*Farm*
Radios in the home	97.7%	97.4%	98.0%	98.3%
Radios out of working order	0.1	0.1	0.3	0.1
One or more sets working	97.6	97.3	97.7	98.2
Television set in the home	28.5	37.2	16.7	14.8
Television set out of working order	0.9	1.1	0.5	0.6
Television set working	27.6	36.1	16.2	14.2
Radio, but not television set	69.9	61.1	81.6	83.8
Television, but no radio set	0.8	1.1	0.3	0.2
Both radio and television sets	27.7	36.3	16.4	14.5
1 or more radio sets in home	97.7	97.4	98.0	98.3
2 or more radio sets in home	42.9	49.3	34.7	32.8
3 or more radio sets in home	13.2	16.8	8.8	7.4
4 or more radio sets in home	3.9	5.1	2.9	1.3

**Bureau of Census figures on schooling taken at time of census, are based on the number of years of college or high school "completed" by the time of census in spring. Therefore, the census classification and figures are not parallel with those in this study. For example, educators estimate that 10 per cent of the college freshman class do not complete the first semester, and that 25 per cent do not complete the freshman year—but would be included as "college" in above figures, while not in the census report figures. Thus figures reported above are higher than census figures would be if gathered at the same time.*

COMPARATIVE USE OF FOUR MEDIA BY ADULTS ON AN AVERAGE DAY

(Figures are in minutes, being total minutes reported in each class of home, divided by all persons living in that type of home)

	Minutes Spent "Yesterday":			
Average Woman Living In:	*Listening To Radio*	*Watching TV*	*Reading Newspapers*	*Reading Magazines*
Dallas-Fort Worth homes	139 minutes	142 minutes	36 minutes	21 minutes
Other urban homes	196 minutes	40 minutes	42 minutes	33 minutes
Village homes	191 minutes	41 minutes	34 minutes	28 minutes
Farm homes	189 minutes	33 minutes	31 minutes	26 minutes

WorldRadioHistory

Average Man Living In:	Minutes Spent "Yesterday": *Listening To Radio*	*Watching TV*	*Reading Newspapers*	*Reading Magazines*
Dallas-Fort Worth homes	110 minutes	109 minutes	38 minutes	16 minutes
Other urban homes	141 minutes	33 minutes	47 minutes	29 minutes
Village homes	127 minutes	28 minutes	37 minutes	22 minutes
Farm homes	133 minutes	34 minutes	34 minutes	21 minutes

SIMULTANEOUS USE OF RADIO AND TELEVISION SETS IN THE HOME

(Based on 801 replies from those reporting simultaneous use in interviewed homes)

While TV Set is Used, Radio Also Used:	*Total Area*	*Dallas Fort Worth*	*Other Urban*	*Village*	*Farm*
Most of the time	10.3%	11.0%	11.5%	10.3%	4.0%
Quite often	15.6	13.8	17.3	15.0	21.1
Half of the time	13.2	16.6	9.7	10.3	9.2
Only now and then	47.9	47.1	50.0	47.6	46.0
Almost never	13.0	11.5	11.5	16.8	19.7
	100.0	100.0	100.0	100.0	100.0

While TV Set is Used, Radio Also Used:	Replies From Homes Having TV Set and: *1 Radio Set*	*2 Radio Sets*	*3 Radio Sets*	*4 or More Radios*
Most of the time	8.6%	11.0%	12.0%	11.6%
Quite often	11.7	12.6	24.0	23.3
Half of the time	11.7	12.9	15.4	15.1
Only now and then	53.6	48.2	40.6	39.5
Almost never	14.4	15.3	8.0	10.5
	100.0	100.0	100.0	100.0

FAVORITE EVENING NEWSCASTERS

(Percentages following names based on total naming a favorite in each classification)

	MEN			WOMEN		
	Dallas Ft. Worth	*Other Urban*	*All Rural*	*Dallas Ft. Worth*	*Other Urban*	*All Rural*
"Don't Know"	54.5%	54.3%	59.0%	62.4%	59.3%	66.2%
Named Favorite	45.5	45.7	41.0	37.6	40.7	33.8
	100.0	100.0	100.0	100.0	100.0	100.0
OF THOSE WITH FAVORITES:						
Ed. R. Murrow	20.3%	12.5%	12.1%	19.2%	15.9%	15.0%
Gabriel Heatter	12.7	14.3	11.6	13.1	15.0	9.2
Morgan Beatty	2.8	10.6	16.0	4.5	9.4	11.7
Fulton Lewis, Jr.	7.7	14.3	9.7	11.8	11.8	8.9
Porter Randall	26.4	1.5	9.0	24.3	2.5	7.3
Lowell Thomas	8.3	8.3	7.0	6.9	7.6	11.6
Paul Harvey	0.6	9.4	1.5	—	11.7	6.3
Walter Winchell	2.8	2.6	4.1	2.4	4.1	3.2
H. V. Kaltenborn	1.7	2.6	2.4	1.4	2.4	4.0
Elmer Davis	2.8	2.3	1.7	2.6	1.2	1.1
Bob Tripp	3.3	1.1	1.2	2.0	0.4	2.4
Lillard Hill	1.7	0.8	1.9	1.3	0.2	0.6
Cedric Foster	0.6	0.4	1.5	0.4	2.7	1.5
James Van Sickles	—	0.8	1.5	—	0.1	0.8
Murray Cox	0.6	—	1.5	0.1	0.2	1.4
Henry Howell	—	0.8	1.0	—	0.2	0.6
Drew Pearson	—	1.5	0.5	0.6	1.2	0.4
Lynn Bigler	—	0.8	0.7	—	0.1	0.2
John Daly	2.8	—	—	0.7	0.6	0.1
Frank Edwards	—	1.5	0.2	0.1	0.3	—

WorldRadioHistory

	MEN			WOMEN		
	Dallas Ft. Worth	*Other Urban*	*All Rural*	*Dallas Ft. Worth*	*Other Urban*	*All Rural*
Bud Sherman	—	0.4	1.0	0.3	0.1	0.4
John C. Swazy	0.6	0.4	0.7	1.6	0.8	—
Wes Izzard	—	—	1.0	—	1.1	0.8
64 others by men	4.3	13.1	12.2	—	—	—
91 others by women	—	—	—	6.7	10.4	12.5
	100.0	100.0	100.0	100.0	100.0	100.0

TYPES OF RADIO PROGRAMS LIKED BEST

(Percentages based on all questioned in radio-equipped homes in each classification.)

WOMEN:	*Total* AREA*	*TV Homes*	*Non-TV*	*Urban*	*Village*	*Farm*	*21-35*	*36-50*	*Over 50*	*College*	*High School*	*Grade*
Sample Size	*	1,963	4,825	4,197	1,351	1,240	2,289	2,777	1,722	1,391	3,921	1,476
News Broadcasts	68.1%	67.5%	67.9%	67.0%	68.5%	69.7%	60.1%	70.9%	73.1%	69.0%	67.2%	68.3%
Aud. Participation	48.3	46.9	48.7	47.8	49.7	47.8	49.0	48.0	47.5	49.9	48.2	46.5
Comedians	47.4	49.5	46.7	49.5	46.5	42.0	56.3	46.4	37.6	50.8	48.8	40.8
Religious	45.6	32.8	49.8	38.0	55.5	56.7	31.5	47.0	59.3	30.8	44.6	58.9
Popular Music	45.4	49.0	44.3	50.6	39.0	36.4	59.4	45.0	28.6	51.8	47.7	34.5
Complete Drama	39.1	44.3	37.5	43.1	37.4	29.3	48.0	38.3	29.9	44.2	40.1	33.2
Variety Shows	32.9	41.6	29.6	35.3	31.6	27.5	36.7	33.1	28.3	37.3	33.5	28.2
Serial Drama	31.9	27.3	33.6	30.5	33.5	34.2	30.6	31.8	33.4	24.1	32.0	38.5
Oldtime Music	28.8	19.2	31.9	23.0	33.9	39.8	25.9	27.6	32.3	15.1	28.5	39.8
Sports	20.4	23.1	19.4	22.1	17.6	18.1	21.7	22.9	14.9	24.5	21.2	14.6
Classical Music	14.6	15.4	14.4	18.1	11.2	7.0	17.3	13.5	13.2	28.3	12.7	7.1
Talks, Comment	14.3	13.3	14.8	14.8	14.1	12.9	9.9	15.1	19.0	20.0	13.1	12.1
Homemaking	12.3	10.1	12.8	9.4	15.3	17.5	9.3	13.3	13.7	8.2	11.9	16.2
Brass Bands	12.2	7.8	13.8	11.4	13.8	12.4	11.6	11.5	13.7	11.5	12.2	12.4
Talks on Farming	7.9	3.5	9.1	3.7	8.7	18.7	3.6	7.6	12.4	4.6	6.8	12.0
Market Reports	6.2	2.8	7.1	2.6	7.1	15.4	3.5	5.5	9.6	3.8	6.0	7.5
MEN:												
Sample Size	*	497	1,531	982	465	581	554	860	614	463	1,027	538
News Broadcasts	80.3%	78.9%	80.1%	80.9%	78.3%	79.2%	73.9%	82.0%	82.1%	79.7%	81.3%	77.2%
Comedians	51.8	58.4	48.1	54.4	52.7	42.7	58.9	49.7	44.7	57.7	52.1	41.8
Sports	41.6	40.9	38.1	46.4	40.4	28.3	48.2	42.9	27.9	48.0	40.2	28.1
Aud. Participation	40.7	41.7	39.8	40.3	47.7	34.3	39.0	40.3	41.4	40.6	40.1	40.2
Popular Music	39.1	44.3	34.1	47.7	28.8	24.1	55.8	36.6	19.2	51.4	36.6	23.8
Religious	36.5	23.8	42.4	30.6	43.0	46.0	24.2	39.9	47.2	22.7	36.9	52.6
Oldtime Music	33.5	24.2	38.6	26.3	42.8	43.8	35.4	32.1	39.0	20.1	35.8	46.7
Complete Drama	32.7	37.0	29.6	36.3	28.8	25.3	38.5	30.5	26.4	34.4	30.8	30.1
Variety Shows	25.2	35.6	21.5	29.6	20.0	17.7	24.9	25.8	20.5	27.9	26.1	20.3
Talks, Comment	21.3	19.5	22.0	20.9	19.2	24.1	15.2	21.4	27.0	24.4	21.1	19.3
Market Reports	16.3	12.1	21.6	6.8	19.4	40.1	10.5	19.7	26.5	11.5	19.7	25.3
Talks on Farming	15.9	11.9	20.6	7.7	16.8	38.1	9.4	18.2	27.2	11.5	17.0	27.4
Serial Drama	15.3	16.5	15.2	14.3	14.8	18.4	13.2	16.8	16.1	13.4	16.6	15.6
Brass Bands	13.9	11.7	14.0	15.1	12.9	11.0	18.6	11.9	10.9	15.1	13.3	12.1
Classical Music	10.7	10.8	9.5	13.8	7.7	4.7	16.4	8.7	5.2	21.2	7.9	3.5
Homemaking	3.3	3.0	3.4	3.3	2.8	3.8	2.7	3.8	3.1	2.8	2.9	4.5

**The "Total" column contains figures that have been weighted for correct proportions of men and women living in urban, village and farm homes.*

THE RELIABILITY OF FOREGOING PERCENTAGES

For the benefit of those interested in the reliability of individual percentages reported in the foregoing tables, the following table of "standard errors" has been prepared. From it may be determined the maximum sampling error that could be expected in any figure in tables which report for the classifications shown.

Because some readers are interested in one standard error deviation figures, while others are interested in some multiple of such figures, the table presents all figures on a basis of one standard error—showing the MAXIMUM variations which could be expected in 68 of every 100 samples. If greater certainty is desired, the figures shown may be multiplied by the number needed to get the desired degree of certainty. Doubling the figures in the table produces the maximum variation expected in 95 of 100 samples, tripling the figures produces the maximum variation expected in better than 99 of 100 samples.

WorldRadioHistory

To determine the reliability of a percentage, (1) find the column whose heading is closest to the percentage in question. (2) Run down the column until the correct "breakdown" line is reached. (3) The figure found is the maximum variation expected in 68 of 100 samples. (4) If greater certainty is desired, doubling or tripling the figure will produce the results explained above.

EXAMPLE: The table on "Ownership of Multiple Sets" on Page 8 shows that 13.2 per cent of the homes in the area are equipped with three or more radio sets. To determine the reliability of this figure:

(1) Look under 15% (seventh heading from the left) because it is nearest to the percentage in question.

(2) Go down that column to the "All Radio Homes" line of the "Interview" portion, because the percentage deals with all homes and was based on the interview sample. The line in question is second from the top.

(3) The figure + or — 0.4% is the maximum variation expected in 68 of 100 samples. That is, there are 68 chances out of 100 that the true percentage of homes in the area having three or more radio sets (at the time of the study) lay between 12.8% and 13.6%.

(4) For greater certainty, use some multiple of + or — 0.4%. For example multiplying by 2 gives + or — 0.8%, the maximum variation expected in 95 out of 100 samples, or multiplying by 3 gives + or — 1.2%, the maximum variation expected in better than 99 out of 100 samples. In this latter case you can be nearly certain that the true percentage of homes with 3 or more radio sets (at the time of the survey) lay somewhere between 12.0% and 14.4%. Of course, in most cases the sampling error is much smaller than these MAXIMUMS permit.

TABLE FOR DETERMINING THE RELIABILITY OF PERCENTAGES REPORTED IN PRECEDING PAGES

	If the Percentage Being Tested Is Either:													
WHEN BREAKDOWN WAS:	% 1 or 99	% 2 or 98	% 3 or 97	% 4 or 96	% 5 or 95	% 10 or 90	% 15 or 85	% 20 or 80	% 25 or 75	% 30 or 70	% 35 or 65	% 40 or 60	% 45 or 55	% 50 or 50
	(MAXIMUM SAMPLING ERROR IS + or —):													
INTERVIEW SAMPLE:														
All Questioned	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
All Radio Homes	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
All Urban Homes	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7
Dallas-Fort Worth	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0
Other Urban	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9
All Village Homes	0.2	0.3	0.4	0.5	0.5	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.1	1.2
All Farm Homes	0.2	0.3	0.4	0.5	0.5	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.2
Women Car Riders	0.2	0.3	0.3	0.4	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.0
Men Car Riders	0.3	0.5	0.6	0.7	0.7	1.0	1.2	1.4	1.5	1.5	1.6	1.7	1.7	1.7
Simultaneous Radio and TV	0.2	0.3	0.3	0.4	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.0
Morning News Station	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Noon-Time News Station	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7
Supper-Time News Station	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Evening Newscaster, Women	0.2	0.3	0.3	0.4	0.4	0.6	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0
Evening Newscaster, Men	0.3	0.5	0.6	0.7	0.7	1.0	1.2	1.4	1.5	1.6	1.6	1.7	1.7	1.7
Most Populous County	0.3	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3
Average Population	1.1	1.5	1.8	2.1	2.4	3.3	3.9	4.3	4.7	5.0	5.2	5.3	5.4	5.4
Least Populous County	3.0	4.2	5.1	5.9	6.6	9.1	10.8	12.1	13.1	13.8	14.4	14.8	15.0	15.1
DIARY SAMPLE:														
All Radio Homes	0.3	0.4	0.4	0.5	0.5	0.8	0.9	1.0	1.1	1.2	1.2	1.2	1.3	1.3
Homes With Television	0.5	0.7	0.9	1.0	1.1	1.5	1.8	2.0	2.2	2.3	2.4	2.5	2.5	2.6
Women Over 18	0.3	0.4	0.5	0.6	0.6	0.9	1.0	1.2	1.3	1.3	1.4	1.4	1.4	1.4
Men Over 18	0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.5
Teen-Agers, 12-18	0.5	0.7	0.9	1.0	1.2	1.6	1.9	2.1	2.3	2.5	2.6	2.6	2.7	2.7
Children, 4-11	0.4	0.6	0.7	0.8	0.9	1.2	1.4	1.6	1.7	1.8	1.9	2.0	2.0	2.0
Men Car Riders	0.3	0.5	0.6	0.6	0.7	1.0	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.6
Simultaneous, Radio and TV	0.7	0.9	1.1	1.3	1.4	2.0	2.3	2.6	2.8	3.0	3.1	3.2	3.3	3.3
Quarter-Hour by Quarter-Hour	0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.3	1.4	1.4	1.5	1.5	1.5
Total Listening, Day	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Listening, night	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5

WorldRadioHistory

WorldRadioHistory

#3038

WorldRadioHistory