

# History of... Radio Broadcasting

A LTHOUGH it is only six years ago that the first broadcasting station was licensed. centuries of research and development preceded it. However, the first important milestone in the history of radio was in 1867, when the great German scientist. Hertz, discovered the electro-magnetic wave, which has become the carrier or medium for transmission of wireless communication and of broadcast. Thirty years elapsed before Hertz's discovery was put to practical purpose by Marconi.

who received patents for transmitting equipment that could send a wireless message a distance of one hundred yards through the air.

Following this initial experiment, the range of sending a wireless message was lengthened gradually until in 1901 a message originating in London was heard by Marconi on the American side of the Atlantic Ocean. Although a large number of oceangoing ships realized the value of wireless and installed wireless equipment, it was not until 1909 that its real value was demonstrated by the disaster to the S. S. "Republic" off the coast of Florida, in which an entire shipload of human souls would have been lost were it not for the distress signal sent out by the wireless operator that brough all nearby ships to the rescue. As a result governments universally passed laws requiring vessels to be equipped with wireless.

This early form of communication was limited largely to transmitting messages in code. A few experimenters had noted that even with the crude spark apparatus, sound could likewise be transmitted. This led to experiments to use wireless as a means of telephone conversation.

The discovery in 1906 by DeForest of the vacuum tube hastened the day for radio broadcasting and made possible a fairly perfect transmission of the spoken voice and of music. In 1908 the great operatic tenor, Enrico Caruso, while singing at the Metropolitan Theatre in New York City, allowed experi-



Two

menters to broadcast his solos, which were clearly heard by some two hundred amateurs who tuned in to the experiment. In spite of such a notable achievement, which today would attract considerable attention, none but a few amateurs took the broadcast of music and entertainment seriously. Radio engineers generally were striving toward wireless telephony: that is, carrying on telephone conversations using wireless instead of wired connections. In 1915 these engineers achieved success by talking to Paris, France and Honolulu, Hawaii, from a transmitter at Arlington, Virginia.

Further development in radio temporarily ceased, due to the World War, except as an adjunct to military operations. Following the Armistice, however, President Wilson, while in Europe at the Peace Conference, was surprised at the development in wireless communication in the European countries, and upon his return to America learned that British interests were attempting to secure control of certain American inventions. Using great foresight, he sent his personal representative to plead with the American owners of the patents to retain these inventions for the American people.

The result was the formation of an American company, the Radio Corporation of America, to conduct research and to develop a market in the United States for radio equipment. The activity of this company and other concerns, such as American Telegraph and Telephone Company, the General Electric Company and Westinghouse Company, has resulted in placing the United States in the world's foremost position in broadcasting.

Although an amateur in 1916 had started to broadcast programs of phonograph music on his homemade transmitter, it was not until 1920 that the first broadcasting station was erected, entirely as an experiment, by the Westinghouse Company. The presidential election returns were broadcast in November. 1920, with so much success that the Westinghouse Company requested a license for a broadcasting station, which was issued in



September, 1921, with the call letters K D K A. Only a few thousand amateurs had receiving equipment, but the broadcast of the Dempsey-Carpentier fight by W J Z. New York City, in 1922, focused public attention on the possibilities of radio, and immediately there began a period of great growth in broadcasting. In January, 1922, there were seventy-eight licensed stations. A year later there were five hundred sixty-three. The sale of radio apparatus to listeners was estimated at one million dollars in 1921, and four million dollars in 1926. 1927 saw audiences estimated as high as forty millions listening in on national events.

The number of broadcasting stations in the United States remained fairly stationary from 1922 until 1926, when a decision of the Supreme Court took away the authority of the Department of Commerce, and in the next seven months the number of stations in the United States jumped to seven hundred forty, creating a state of chaos in the air that resulted in the early enactment of the Dill-White Federal Control Bill, which was signed by President Coolidge, February 23, 1927. This enabled him to appoint a Federal Radio Commission to clear the interference and congestion on the air and to restore better listening conditions for the listeners. The chairman of the commission was Rear Admiral W. H. Bullard, who had personally represented President Wilson in his request to the American inventors to save their invention for the American people back in 1919.

The other members of the commission were Eugene O. Sykes. Colonel John F. Dillon, O. H. Caldwell and H. A. Bellows. Only two of these are now on the commission. The chairman and Colonel Dillon have passed away, and Mr. Bellows has resigned. Two of these vacancies have been filled by the appointments of Sam Pickard and Harold A. Lafount. This commission is proceeding with great success in establishing good conditions of reception for the listeners.

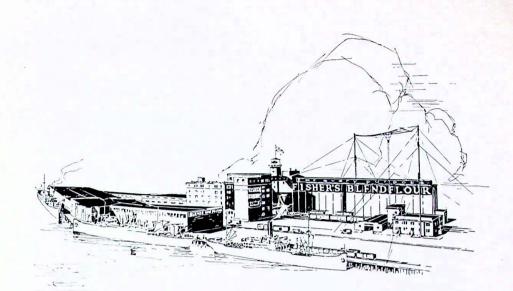
One other development in broadcast must be mentioned. This is the appearance of chains of stations linked simultaneously, permitting events from any part of the country to be carried to listeners in other sections through their own local stations. linked by wire to the point of origin of the program

The first chain was in 1923 and consisted of four stations. The greatest hook-up occurred in 1927, when seventy-eight stations were linked together in a nation-wide hook-up to listen to the Radio Industries' program at New York City. During this time the National Broadcasting Company has played a very important part in the development of broadcasting, maintaining networks of stations in the East, in the South and on the Pacific Coast.

At the present time the attention of the radio world is turned to experiments in television—the broadcasting of the visual as well as the audible. These experiments have not progressed far enough to attempt to predict what part they will play in a future program of radio.



Four



## КОМО

## A Year's Record that is a World Record

THE history of K O M O dates back to February, 1925, when  $T_{its}$  present manager, Mr. B. F. Fisher, entered the field of broadcasting by taking over one of Seattle's pioneer stations, that of the American Radio Telephone Company.

After completely remodeling the equipment and installing studios in the New Washington Hotel, application was made to the Department of Commerce for a license to operate. The first test program was broadcast on April 12, 1925. The call letters, K T C L, and the wave length, 305.9 meters, were approved by the Department of Commerce on April 16, 1925.

In February, 1926, the studios of K T C L were moved to the Home Savings Building. In March, 1926, Mr. Fisher, realizing the difficulty in pronouncing the call letters, K T C L, made application for a change of call letters to K O M O. This was granted the next month, but was not used until September, 1926.

As the year of 1926 drew to a close, Mr. Fisher began to formulate plans to install a new standard Western Electric transmitter in place of the antiquated one which he was operating as K OMO.

Meanwhile another Mr. Fisher-Mr. O. D. Fisher, not related to Mr. Birt Fisher, had begun to study the needs of broadcasting



in the Pacific Northwest. As an enthusiastic radio fan he had tuned into radio stations throughout the country, and being a public-spirited citizen, realized with a great deal of regret that Seattle's programs did not compare favorably with the distant stations.

Fortunately for the listeners, the two Mr. Fishers met—the station operator who wanted to give the Northwest an up-to-date transmitter and the public-spirited radio listener whose ambition was to see America's outstanding programs emanate from Seattle.

Plans for the new station were approved on November 11, 1926. Equipment was ordered from the Western Electric on November 17th. A contract was let for a three-story concrete structure to house the transmitting plant on November 20th. For the next few weeks, Harbor Island, which had been selected as the site of the new transmitter, was a busy scene. Eight days after the contract was let, the roof was poured on the three-story structure. Equipment was arriving daily, some of it having been rushed clear across the Continent. A large crew of workmen began their work of installation. Uptown in the Metropolitan Center, another large crew was busy preparing the studios.

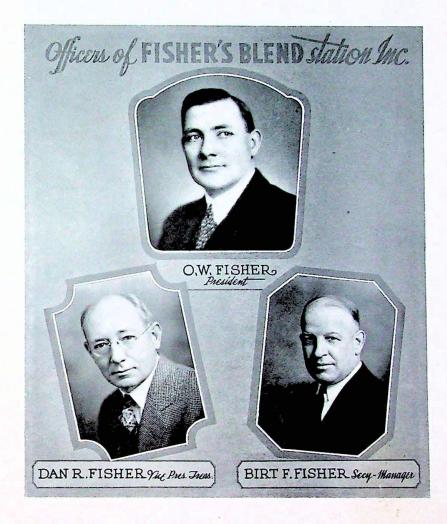
A little over a month elapsed—December 29th, to be exact and the new completely installed K O M O was ready for testing. Just two days later, on December 31st, the testing was completed and broadcasting was officially inaugurated over the new transmitter. So carefully was the installation done, even in spite of the shortness of time that K O M O, in its first year, has been on the air for 4,760 hours of broadcasting with practically no time lost due to mechanical difficulties or defects in installation. As far as is known, this is a record in the construction of a broadcasting station which as yet has not been equalled.

In the year that Fisher's Blend Station. Incorporated, the name of the new K O M O, has been on the air, it has been heard in every state in the Union, every province of Canada, all parts of the Arctic, Islands in the Pacific Ocean, Australia, Japan. Panama and Central American Republics, Cuba, and ships at sea on the Atlantic and Pacific. No expense had been spared to secure the best and to utilize the most up-to-date practices.

Much of the credit for the record made by KOMO in efficient operation must go to O. W. Fisher, a brother of O. D. Fisher, who personally supervised all details of the installation. The officers of Fisher's Blend Station, Inc., are O. W. Fisher, president; Dan R. Fisher, vice-president and treasurer; and B. F. Fisher, secretary and manager.

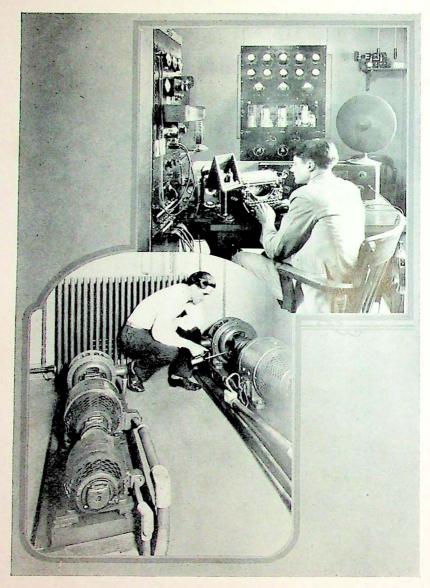


Six





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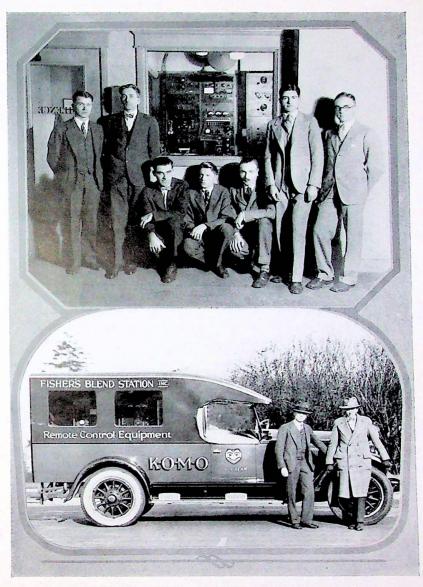


#### SCENES AT K O M O's TRANSMITTER

Upper: An operator on duty at K O M O's transmitter plant is required to watch the frequency, power and modulation of his station and in addition maintain a constant watch for distress signals from ships at sea and telegraphic communication with the National Broadcasting Company operators. Lower: 4,000-volt power plant supplying K O M O's power.



Eight



## TECHNICAL STAFF-REMOTE CONTROL TRUCK

Upper: K O M O's technical staff. Left to right—Tom Rewak, F. J. Brott, chief engineer; Earl Irvine, J. A. Johnson, F. B. Mossman, R. B. Smith, Robert Flagler. Lower: When local programs originate outside of K O M O's studios, the remote control truck is used.



# Totem Broadcasters

## First Radio Program Production Corporation in America

OINCIDENTAL with the installation of K O M O. Fisher's Blend Station, Inc., during the closing weeks of 1926, one of the most unique projects in the entire history of radio broadcasting was organized through the efforts of Mr. O. D. Fisher president of the Fisher Flouring Mills Company. The executive heads of sixteen of the largest business concerns in the Pacific Northwest met at his call and formed the Totem Broadcasters. America's first radio producing corporation. This organization leased practically the entire time of the new station being erected and employed a large staff of artists, announcers, program arrangers, and others to carry on a 14-hour-a-day program. This broadcasting schedule of 14 hours a day was to be apportioned among the sixteen concerns making up the membership of Totem Broadcasters. Thus the listeners, who previously had very few hours of entertainment available at the most, were guaranteed continuous programs from morning until well past midnight

By the time the new station was ready to go on the air. Totem Broadcasters had assembled a large staff of artists, the best available, vocalists, instrumentalists, and orchestras, and today has what is believed to be the largest staff associated with any one station in the United States.

Although a very high type of program was established, every kind of entertainment desired by the listeners has been given a place on Totem Broadcasters' schedule, providing it measured up to the standard set. This includes Inspirational Services broadcast regularly under the auspices of the Seattle Council of Churches. radio Health Exercises through the cooperation of the Y. M C. A., talks for the home-makers through arrangement with the National Farm Radio Council and the domestic science department of the Seattle Post-Intelligencer, the major broadcasting projects of the U. S. Department of Agriculture, daily summaries of news through the Seattle Post-Intelligencer, educational features of various sorts, and a wide variety of musical entertainment.

When the National Broadcasting Company extended its activity to the Pacific Coast, Totem Broadcasters of K O M O became a member of its Pacific Coast Network, and since February. 1927, has participated in all Pacific Coast broadcasts of the National Broadcasting Company. This has included major sport and historical events, such as President Coolidge's Message to Congress, World's Series Baseball Games, dedication of the



Ten

Peace Bridge at Buffalo, New York: Lindbergh's reception in Washington. D. C., etc.

In the year 1927 Totem Broadcasters and K O M O have given to the listeners 4,752 hours of entertainment, distributed as follows:

Total -								475	57		hours
Miscellaneous -	-	-				-	-	2	37	75	
								37	73.	25	
Eastern Netw	ork	-	-	32	2.50	)					
Pacific Coast							ur	5			
National Broade											
Stock and Bond					-	-				66	
News Flashes	-	-	~			-		-		96	
Domestic Science	T	alks	-	-	-	-		-	1	10	**
Agricultural -	-		-	-	-	-				98	
Educational -	-	-	-	-	-	-	3			46	**
Religious -				-	-	-	-		2	83	
Kiddies' Program	1	-	-	-	-	-			1	56	**
Organ	-	-	2	-	-	-	-		1	89	- ec
Dance Orchestra	-	-	-	-	-	-			5	72	*3
Vocal Music -	-	-	-	-	-	-	-		10	18	
Concert Orchestr	a	-	-	-	-	14	-		15	07	hours

This total of 4.752 hours broadcast in one year is believed to be a record not attained by any station anywhere else in the world.

The men who joined with Mr. O. D. Fisher in forming Totem Broadcasters and the companies they represent are:

÷	-	Eldridge Buick Co.
-	-	Bellingham Coal Mines
•	7	American Mail Line Pacific Steamship Co.
-	-	Frye & Co.
-	-	General Ins. Co. of America
	=1	Imperial Candy Co.
-	-	Metropolitan National Bank
-	-	Metropolitan Building Co.
-	-	Puget Sound Power & Light Co.
-	-	Schwabacher Bros. & Co., Inc.
-	-	Standard Furniture Co.
-	-	Fisher's Blend Station. Inc.
-	-	Fisher's Blend Station, Inc.
-	-	Fisher Flouring Mills Co.
-	-	Fisher Flouring Mills Co.
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As Totem Broadcasters went into their second year they welcomed into the organization the following concerns:

Associated Oil Company Pacific Fruit & Produce Co. Renfro-Wadenstein Co. Cheasty's, Inc.

#### OFFICERS OF TOTEM BROADCASTERS

O. D. Fisher -		-		-		-		-		-		-		-		-		-	-	President
A. W. Leonard			-		-		-		-		-		-		-		-		Vice	-President
C. E. Roberts -		-		-		-		-				-		1		-			Vice	-President
Nathan Eckstein	-		-		-		-		-		-		-		-				Vice	-President
Stanton Frederick		-		-		÷		-				-		-		-		-	-	Secretary
M. A. Arnold -		-		-		-		-		-		•		-		-	1	-		Treasurer
W. H. Irvine -	-		-		-		-		-		-		P	Iss	t.	5	See	cru	etary	- Treasurer

In addition to the members of Totem Broadcasters, a number of other concerns have contributed to the pleasure of the listeners by sponsoring programs over K O M O. These include:

Cadillac Automobile Company of Detroit California Petroleum Corporation Canadian Pacific Railway Chicago, Milwaukee, St. Paul & Pacific Railway Collins Bros .- Distributors of Oakland-Pontiac Automobiles Davidson Baking Company Exeter Hotel General Petroleum Corporation Great Northern Railway A. H. Lewis Medicine Company Malmo & Co. Metropolitan Life Insurance Company MonaMotor Oil Company Montelius-Campbell Company New York Life Insurance Company Pacific Coast Coal Company E. A. Pierce & Co .- Stocks and Bonds Puget Mill Company Rainier Valley Dairy Richfield Gasoline Company Roy Street Service Station Sealy Mattress Company Seattle Automobile Dealers Association Seattle-Tacoma Land Company Seattle Trade Union Promotional League Seattle Underwriters' Association Shell Company of California Stewart-Warner Company Superior Service Laundries, Inc. Western Auto Supply Company Western States Grocery Company-Wholesale.



Churches that have used K O M O's facilities are:

Bethel Temple Everson Tabernacle First Church of Christ, Scientist International Bible Students' Association Plymouth Congregational Church St. James Cathedral Stoneway Tabernacle

Those who have sponsored programs coming to K O M O's listeners from the National Broadcasting Company are:

American Maize Company Associated Oil Company Atwater Kent Jacob Auslander & Son Buick Motor Company California Fruit Growers Exchange California Petroleum Corporation Crosley Radio Corporation Dodge Bros., Inc. Fisk Tire Company General Electric Company Nash Motor Company National Carbon Company Northwest Mines Investment Company Oakland-Pontiac Motor Company Packard Motor Company Philadelphia Storage Battery Company Radio Corporation of America Royal Baking Powder Company Shell Company of California Standard Oil Company of California U. S. Treasury Department U. S. Playing Card Company White Rock Mineral Spring Company Wickwire Spencer Steel Company A. Wittnauer & Co. William Wrigley



Thirteen



Business leaders of the Pacific Northwest who have contributed to the pleasure of radio listeners by organizing their concerns into Totem Broadcasters of K O M O



Fourteen



Business leaders of the Pacific Northwest who have contributed to the pleasure of radio listeners by organizing their concerns into Totem Broadcasters of  $K \cap M \cap O$ 



Fifteen



MOTORISTS of the Pacific Coast are familiar with the red. green and cream stations of the Associated Oil Company, which, for over a quarter of a century, has been an important factor in the petroleum industry of the Pacific Coast. The Associated Oil Company was founded in 1901 by a group of oil producers operating in the Kern River District near Coalinga, California. It was largely responsible in the early days for introducing fuel oil on the Pacific Coast as a substitute for coal and wood, and has developed until today it offers to the public a complete line of petroleum products.

No doubt the best known of these products are Associated gasoline, Associated Ethyl gasoline, and Cycol motor oils and greases. In addition to these products, which are primarily of interest to the motorist, the company markets a very complete line of industrial lubricants. Since its very beginning, the Associated Oil Company has endeavored to live up to the high standards indicated by its well-known slogan. "Sustained Quality," and its products are well and favorably known. In 1926 the company entered into a cooperative marketing arrangement with the Tide Water Oil Company, and the two organizations together have thus created a nation-wide distribution of their respective products.

For many years the Associated Oil Company has consistently endeavored to be a leader by giving to its customers the full advantage of scientific developments in the manufacture of refined petrolum products. Two of the most recent and outstanding contributions of this character are Cycol motor oil and Ethyl gasoline. Cycle motor oil is distinctly different from any other Western oil, because it is manufactured by a process which is basically different from that regularly employed. The importance of this new process, from the standpoint of the motorist, is that it effectively removes all of the undesirable properties of the oil without in any way injuring those which it is desired to retain.



Sixteen

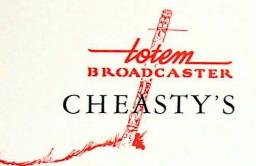


#### MONTGOMERY LYNCH

Montgomery Lynch, who directed "The Wayfarer" in Seattle, Los Angeles and elsewhere, and Portland's first "Rosaria," was selected by Totem Broadcasters as their general director. He "tries out" a large number of would-be radio artists every day, in addition to directing Totem Broadcasters' programs.



Seventeen



WHEN Seattle was only nineteen years old, Edward C. Cheasty, then only twenty-four years old, started the firm of Dimock & Cheasty, in the Colman Building.

The first railroad preceded Cheasty's by only three years: Cheasty's preceded the first steamship line by nine years. The history of Seattle could be written from the history of Cheasty's, so closely interwoven have been the lives of this store and this city.

Founded upon Style and Quality, Cheasty's has maintained its established leadership as a matter of tradition. First known as a style center for men's apparel. Cheasty's has grown with Seattle, until today in its beautiful store at Third and Pike, Cheasty's is the largest ready-to-wear store for men, women and children in the Pacific Northwest. This growth has enabled Cheasty's to sell apparel as reasonably as any other store in America.

Cheasty's also maintains a de luxe shop for men in the Olympic Hotel, where the newest importations are shown.

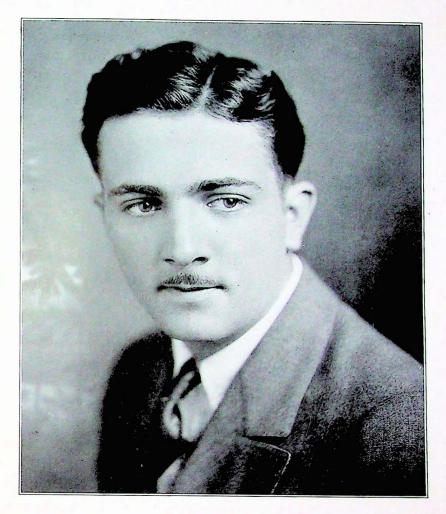
Cheasty's believes that Seattle has only just begun to grow and prosper; that the future will be even brighter than the past, and asks no better future than to be worthy of the Seattle of today and the Seattle of tomorrow.

As a member of Totem Broadcasters. Cheasty's has had the pleasure of widening its circle of acquaintances and has enjoyed the privilege of carrying its messages to a host of listeners. For many years Cheasty's style shows have been "events" among the well-dressed men and women of Seattle. Through the use of radio such events as these are carried to thousands of homes.

Cheasty's hopes that its pleasure in furnishing programs to K O M O's listeners has been equaled by the listeners' enjoyment of them.



Eighteen



#### GEORGE NELSON

George Nelson, K O M O's chief announcer, made his debut as a singer in. Lewiston, Idaho, and subsequently has had a wide experience in music and drama.



Nineteen



"ESTABLISHED 1882." With this terse slogan. Seattle's oldest National Bank modestly calls to the attention of the reader the length of constructive banking service it has offered to Seattle and the Northwest for almost half a century.

It has kept pace, step by step, with Seattle's progress—it has interwoven itself into the destined success of the city and is proud of enjoying the distinction of being its oldest National Bank.

It is only reasonable that we find on the early directorate of this institution the names of men linked with the early history of Seattle—John Leary and Henry L. Yesler, and later on, serving as director for many years and then as president of the bank during the perilous years of 1893 and 1897, we note the name of John H. McGraw, possibly the most revered governor of the State of Washington.

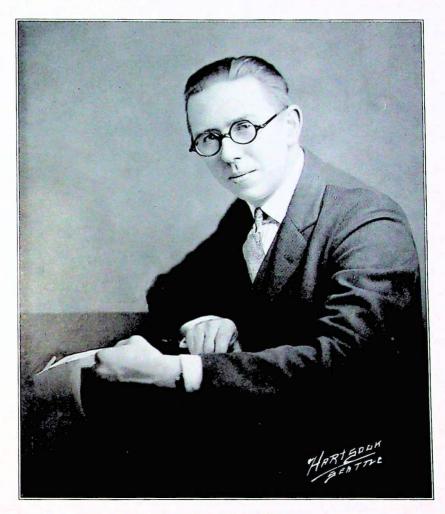
Establishing a permanent policy of helpful service, of pleasant relations of mutual respect, confidence and friendship, we find it reflected in the large number of accounts that have appeared on its ledgers for over thirty years, and that two of its vicepresidents have associated themselves with its growth for years —Maurice McMicken, who notarized its articles of incorporation, has since the day the bank opened its doors maintained an intensive interest—serving as director since 1899 and as vicepresident a few years later. Then Claude A. Philbrick who entered the employ of the First National Bank in the year 1899.

In 1907 M. A. Arnold and D. H. Moss purchased control, and from this date there has been noted a distinctive growth, until today its balance sheet shows assets of SEVENTEEN MILLION DOLLARS. Proud of its distinctive position in banking circles, conscious of the fact that this has resulted without any amalgamations or consolidations, it also glories in its reputation of being the Friendliest Bank in Seattle.



Twenty

The second



#### C. MARCUS WIENAND

C. Marcus Wienand—Director of Publicity and Assistant Business Manager of Totem Broadcasters—began his radio experience at the University of Washington by conducting graduate research in radio education. His interest in educational programs has continued at K. O. M. O.



Twenty-one



FISHER FLOURING MILLS COMPANY, a member of Totem Broadcasters, has been a vital factor in the manufacturing life of the Pacific Northwest since 1911—not alone in the manufacturing life, but in the family life, for Fisher's Blend Flour, famous as a flour for every purpose, is as well and favorably known to the average Northwest home as it is possible for a food atticle of branded name to be.

It seems quite fitting that the business brains which give to the Pacific Northwest "America's Finest Flouring Mills" should also have inspired and brought about the building of the very finest radio station in the Northwest, K O M O. With O. D. Fisher, president of the Fisher Flouring Mills Company. leading, four Fisher brothers, O. D. Fisher, W. P. Fisher, Dan Fisher, and Wallace Fisher, are the business mainstays of the Fisher Flouring Mills Company. And these four brothers gave to the Pacific Northwest radio world Fisher's Blend Station— K O M O, now operated by Totem Broadcasters, an organization of Northwest business concerns.

Fisher Flouring Mills Company, a Totem Broadcaster, whose musical and educational programs are heard daily over K O M O. owns and operates "America's Finest Flouring Mills"—largest on the Pacific Coast. The plant has a daily capacity of 6,000 barrels of flour and more than 500 tons of poultry and dairy feeds. Distribution for these products is almost world wide. While flours for every baking purpose are manufactured by the Fisher Company, it is Fisher's Blend—an ideal family baking flour—that is so familiar to the people of the Pacific Northwest, and the plant of the Fisher Flouring Mills Company, situated on Harbor Island, is one of the show places of Seattle. It is visited annually by thousands of people. It occupies more than five acres and has harbor and dockage facilities for handling at one time three of the largest ships afloat on the Pacific.



Twenty-two



### MARY LYON SPEAR

Mary Lyon Spear, as K O M O's librarian, is in charge of one of the largest musical libraries in the Pacific Northwest. She also arranges orchestra programs and serves as accompanist.



Twenty-three



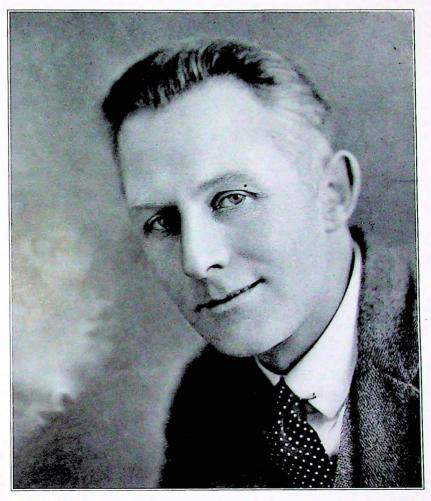
FOR more than thirty-five years Frye and Company, a member of Totem Broadcasters, has been a factor in the business life of Seattle. Charles H. Frye, owner and active head of the company, founded the business in 1888. Today the Frye Packing plant, located on the tide flats south of the main business section of Seattle, employs close to one thousand people and has an annual payroll of more than \$1,200,000. The annual capacity of the plant is more than 1,500,000 animals. To help understand how huge this really is, it may be said that if every one of these animals was lined up single file, it would make a procession which would reach from Seattle to Los Angeles—a distance of 1,500 miles.

Frye's Delicious Brand Hams and Bacon, Frye's Wild Rose Lard and Frye's Baby Beef are pronounced by cooks and domestic science experts, generally, as the finest packing house products it is possible to produce. By broadcasting high class musical programs over K O M O daily, for the public's entertainment, Frye and Company hope to create good will among the people of the Pacific Northwest for these products.

If Pacific Coast consumers were to demand meats, produced and prepared on the Pacific Coast, they would add many thousands of dollars annually to the payrolls of the Pacific Coast industries. The plant of Frye and Company is so constructed that the present capacity could easily be doubled. If the plant's present production were increased one hundred per cent, it would mean a sixty-four per cent increase in its annual payroll—in other words, more than three-quarters of a million dollars would be added to its present payroll of a million and a quarter dollars. Think what this would add to the prosperity of the Pacific Northwest.



Twenty-four



-Photo by Hartsook.

#### G. DONALD GRAY

G. Donald Gray, baritone soloist, dramatic entertainer and erstwhile announcer at K O M O, began his career as a member of the Civic Opera Company of Leeds, England. Coming to America he has appeared as concert singer with opera and stock companies in all parts of Canada and the United States. His "Don Gray Stock Company" was formerly well known to all theatregoers of the Pacific Northwest. At present he is on a concert tour in Canada.



Twenty-five



TODAY General Insurance Company of America, a member of Totem Broadcasters. occupies the enviable position of leadership in its home territory, the Pacific Northwest. In other words, the General of America writes a larger volume of fire insurance premiums in the combined states of Oregon, Washington and Idaho than does any other stock fire insurance company.

In its membership in Totem Broadcasters, the General of America gains a keen pleasure in broadcasting daily over K O M O. We are fully appreciative of the loyal patronage of the property owners who have made possible our remarkable growth and promise our continued efforts "for your enjoyment."

Fire insurance protection is of vital interest to every property owner, and the founders of General of America considered *Indemnity, Service* and *Cost* as the three prime requisites in the furnishing of the best in fire insurance protection. With a fully paid capital of \$1,000,000—a policyholders' surplus of over \$2,000,000, General of America *Indemnity* is unquestioned. To Pacific Northwest property owners, the best in *Service* is insured, due to the fact that "we live here." On the item of *Cost*. General of America offers the best obtainable consistent with maintenance of indemnity and service.

The Pacific Northwest prospers with the growth and development of Northwest industries. Millions are spent annually in fire insurance premiums, the very large percentage of which are sent elsewhere. Fire insurance companies with home offices in the Pacific Northwest are Northwest industries, building bank deposits, clearances and investments. With an ever increasing payroll, bringing millions in premiums to the Pacific Northwest annually, the General of America pledges its fullest cooperation in aiding the prosperity of this great territory.

Home offices: Seattle.

Branch offices: Chicago, Los Angeles, Denver, Vancouver, B. C.

Agents throughout the United States and Canada.

"A Western Company Nationally Known.".



Twenty-six



#### GRACE BREIDENSTEIN

Grace Breidenstein, when she is not on the air with the meat talks to the housewife or solos for the Inspirational Services, is busy arranging K O M O's elaborate fourteen-hour-a-day program.



Twenty-seven



THE IMPERIAL CANDY COMPANY was founded in 1906, occupying two small rooms at the present location, Western Avenue at Columbia Street, in Seattle. Today (1928) floor space equivalent to two large city blocks is required for the making of "Societe Candies."

Chester E. Roberts, president, and S. D. McKinstry, vice-president, were the founders of the business, and they are still in active management. Mr. Roberts directs the selling and administration of the company. Mr. McKinstry is in direct charge of production.

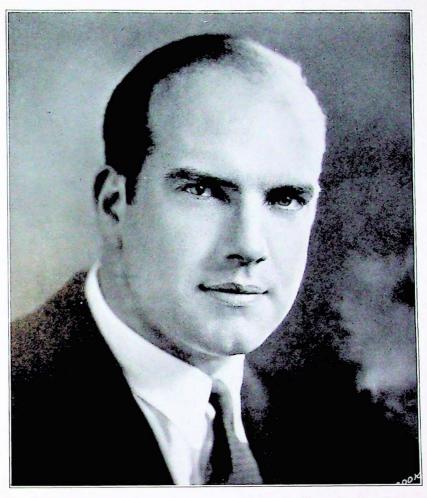
Here candy is made in variety and in quantity. For example, light and fluffy though Societe Marshmallows are, their production runs into tons. Hard candies, gay colored with spicy and fruit flavors, rich chocolates, creams, nut combinations, lollypops. 5c and 10c bars, fancy box chocolates—an array of good things totaling more than 1,000 different kinds of confections, are produced and sold under the name "Societe."

Societe Candies play a pleasant part in the daily lives of thousands of people in Washington. Oregon. Idaho, California, Montana. Alaska, Hawaii, and in many foreign countries. "Sweeten the Day With Candy" is the slogan of the candy industry. and from school days through courtship to old age candy helps to make life a little happier—a little sweeter.

As a member of Totem Broadcasters the Imperial Candy Company has the pleasure of broadening its scope of service—bringing music and entertainment to thousands of homes where for many years Societe Candies have enjoyed uniformly "good reception."



Twenty-eight



-Photo by Hartsook.

#### ROBERT "BOB" NICHOLS

Robert "Bob" Nichols, although better known to the listeners as K O M O's deep-voiced announcer, is also a singer of note with a pleasing baritone voice. A Seattle boy and a former University of Washington football man. He has participated in many musical events of the Pacific Northwest, and was a member of the Seattle Civic Opera Company.



Twenty-nine



THE PACIFIC FRUIT & PRODUCE COMPANY was established in Tacoma in 1898 by George Youell, president of the firm. The company does a packing, shipping, wholesaling and brokerage business of fresh fruits and vegetables in the states of Washington, Oregon, California, Idaho, Utah. Nevada, Colorado, Texas and Florida, operating at some sixty-five different points in these states and employing about 750 persons.

The operation of over 200 motor trucks materially expedites the distribution of fresh fruits and produce between its branches. These inter-branch trucks with relief drivers operate on day and night schedules. City and country delivery services are also maintained for the benefit of the company's customers. The firm feels that it can better serve is growers and customers alike by operating this fleet of motor equipment.

It is the hope of the Pacific Fruit & Produce Company that by broadcasting over K O M O as a Totem Broadcaster it may become better known to its growers and customers. Further, it is desired to familiarize radio listeners with the various commodities and brands of merchandise handled; radio fans perhaps have already heard about our Rose Brand Oranges, Bluebird Potatoes and Pacific Brand Apples.

The company sincerely hopes that the programs it furnishes are enjoyed by K O M O's listeners.



Thirty

Der.



#### RHENA MARSHALL

For years Rhena Marshall has been a popular concert singer in Vancouver, B. C., her home town. When the Canadians began to turn to radio and to K O M O, her ardent admirers urged her to forsake her homeland and become a K O M O singer. She is equally popular with listeners on both sides of the Canadian boundary line.



Thirty-one



# PUGET SOUND POWER AND LIGHT COMPANY

THE PUGET SOUND POWER & LIGHT COMPANY has been the pioneer in electrical development in the Pacific Northwest for more than a quarter of a century.

Starting, as did most of our industries, in a comparatively small way, the company has kept abreast of the growth of this district until it now has invested in this state over \$100,000,000.

It has a total generating capacity in water power and steam plants of over 243.000 horsepower and its lines extend from the British Columbia line to the southern part of Washington and as far east as Wenatchee.

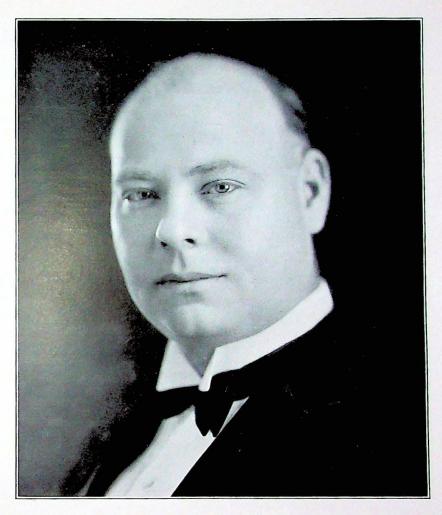
In its rural electrification—the taking of the conveniences of electric service to the farms and ranches of our state—this company stands at the head of the electric industry. Washington has a larger percentage of electrified farms than any other state in the Union. The rates charged for service, not only in the larger cities but in this rural territory, are among the lowest in the United States. It is to these of its customers. located in somewhat isolated territory, that the Puget Sound Power & Light Company is most concerned in broadcasting its programs of entertainment.

The slogan of this company, "The Most Popularly Owned Company in Washington," is unquestioned. Over 14,500 citizens located within the territory it serves have invested over \$15,000,000 of their savings in the securities of this company and the interest and dividends paid upon their investment remain at home to help develop our state.

In addition to a payroll of over \$5,500,000 per annum the company expends an average of over \$5,000,000 a year in the building of new properties to keep pace with the growth of the state. All of these new properties go upon the tax rolls until its taxes now exceed \$1,000,000 a year. Every school and road district, every county and municipality through which the company's lines extend, benefit by these taxes.



Thirty-two



#### FRED LYNCH

Fred Lynch, tenor soloist on the Totem staff, is the pride of all Alaska listeners, who remember him as Juneau's famous golden-voiced tenor.



Thirty-three

# RENFRO-WADENSTEIN

LISTENERS-IN over K O M O know RENFRO-WADENSTEIN ... not only as the home of America's finest furniture, but a store as well of GOOD furniture—priced for moderate incomes.

The Renfro-Wadenstein STUDIO OF INTERIOR DECORATION has planned and furnished the complete interior ensemble of distinguished homes, smart apartments, modest cottages and individual rooms. Their experience is extensive—their results original—OUTSTANDING. This success has brought them wide recognition.

On April 2, 1928, the new Renfro-Wadenstein Building at Fifth and Pike was opened—introducing a store of such unusual features that it has won much favorable comment throughout the entire country.

Many new and unusual features distinguish the new Renfro-Wadenstein building. A wide lobby entrance invites one to view groups of fascinating furniture displayed in the large homelike windows.

Leading off the lobby is the foyer—at one end of which is an inviting fireplace of impressive design. From here elevators are dispatched to the various floors.

This first floor of this fine new store is devoted to highgrade bedroom and dining room furniture displayed in individual room settings.

The STUDIO OF INTERIOR DECORATION occupies the third floor. This is also the floor of fine living room pieces and groups. Individual rooms present this furniture in an environment suggestive of that of distinctive homes.

Both the fourth and fifth floors are devoted to furniture that is priced for moderate incomes. Domestic rugs, are in addition. displayed for selection along the west side of the fifth floor where generous light facilitates selection.

The Radio-Victrola Department—said by many to be one of the finest in Seattle—occupies the entire foyer on the fourth floor. Here the best known national makes of radios are conveniently arranged for demonstration and selection. Separate rooms are designed for the demonstration of Victrolas and playing of records.

Special set-up rooms are on the sixth floor, where the complete furnishing of a room or home is planned and arranged.

YOU . . . are always most cordially invited to visit this fascinating show-place of fine and out-of-the-ordinary things for the home.



Thirty-four



-Photo by Hartsook.

#### ALICE MACLEAN

Alice Maclean, during the recent World War, sang to thousands of Canadian troops passing through Edmonton on their way to the battle front. Ar K O M O, in addition to her solo work, she has charge of writing announcements and special continuities.



Thirty-five



S CHWABACHER BROS. & CO., INC., a member of Totem Broadcasters, is far more than a Seattle business house; it is an important institution of the Pacific Northwest with an upbuilding influence upon scores of communities in this entire section. By marketing the products of these communities prosperity is encouraged.

Established in Seattle on October 11. 1869, by the three Schwabacher Brothers and Bailey Gatzert, it is now Seattle's Oldest Business House. From its very inception to the present day, members of this pioneer concern have taken a leading part in civic affairs.

The canning industry, one of the essential enterprises of the Pacific Northwest, has been heartily supported and encouraged by Schwabacher Bros. & Co., Inc. Through their extensive selling organization the finest fruits, vegetables, fish and delicacies produced and canned in the Northwest and Alaska find a ready market under the HAPPY HOME label.

GOLD SHIELD Coffee, a highly prized product of Schwabacher Bros. & Co., Inc., admittedly the finest flavored coffee on the market. enjoys a complete distribution throughout the Pacific Northwest. It was the first coffee to be packed in vacuum cans in the State of Washington.

Realizing the high quality and absolute dependability of HAPPY HOME Food Products, GOLD SHIELD Coffee and GOLD SHIELD Tea, leading grocers throughout this territory feature these brands.

SCHWABACHER BROS. & CO., INC., are distributors of the MOZART Cigar, which enjoys an enviable reputation as the Cigar that is as "Mild as a May Morning."

In appreciation of his long service in the upbuilding of the city's business, educational and cultural life and the development of the Northwest, Nathan Eckstein, president of Schwabacher Bros. & Co., Inc., was recently selected by a committee representing the service clubs and civic organizations, as "Seattle's Most Useful Citizen"



Thirty-six



-Photo by Bushnell.

#### SYDNEY DXON

Sydney Dixon, lyric tenor with Totem Broadcasters, although claimed by California, is a Seattle boy. On the concert stage he is recognized as America's outstanding interpreter of music based on the tribal chants of the American Indian, and is the possessor of original manuscripts of many of the Indian songs of Homer Grunn and Lieurance. At present he is on a concert tour in Canada.





# THE WEST COAST THEATRES

ONLY a few of the average theatregoers appreciate the value to a community of an organization such as the West Coast Theatres.

Only a few realize the importance of such an organization to a city the size of Seattle.

The West Coast Theatres, which include amusement places such as the Fifth Avenue Theatre, the United Artists Theatre and the new Seattle Theatre, "the Show Divine at Ninth and Pine," are monuments to the men and the spirit behind them.

The Fifth Avenue Theatre is having a Greater Stage Season and is offering to the theatregoers of Seattle a list of attractions that have been editorially referred to as "A Million Dollars Worth of Names," and among these can be found the leaders in their chosen professions.

In offering these remarkable attractions, which are standard in the theatrical world, the West Coast Theatres are assuming responsibilities the audience knows little of. In other words, an announcement coming from this great firm carries with it a guarantee of merit and an assurance that any act or picture shown on the stage or screen of any of their theatres is the best that the amusement world can furnish.

Ann Pennington, the Ziegfeld "Follies" dancing star; Eddie Peabody, "The Banjo Boy of Joyland"; Marietta, an important member of a Fanchon & Marco "Idea" and one who has been brought from Warsaw for this particular entertainment, are attractions that will come to the Fifth Avenue Theatre. Others of equal importance are being negotiated with.

The new Seattle Theatre will feature fine screen entertainment and road shows from the Paramount Theatre in New York. These productions are arranged by Frank Cambria. Jack Partington and John Murray Anderson, who for years was the producer and directing genius of the Greenwich Village Follies.



Thirty-eight





Joe Roberts West Coast Theatres, Announcer

#### WEST COAST THEATRE FOLKS

Every Friday night a large crowd of theatre folks —musicians, comedians, singers and other entertainers—gather in K O M O's special studio "back stage" at the Fifth Avenue theatre for the weekly West Coast Theatres' radio frolic. Seated at the piano is Hermie King, master of ceremonies, and in front of him, seated on the floor, Jim Clemmer, manager of the Fifth Avenue Theatre.

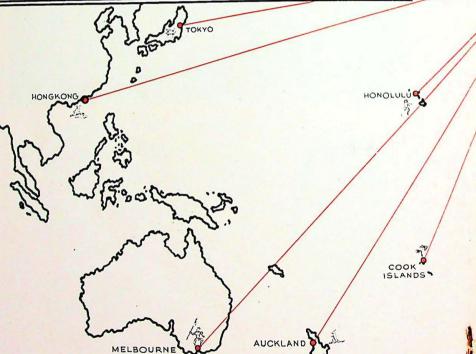


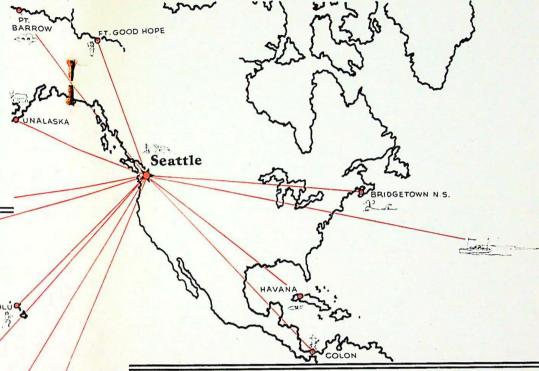
Thirty-nine

# KOMO'S "AUDITORIUM of the AIR"

L OCATED at the mouth of the Duwamish River, in the south part of Seattle's magnificent harbor is the great industrial center known as Harbor Island. Before this island each day pass many ships carrying passengers and supplies to Alaska, the Orient, the South Pacific, America's west coast or through the Panama Canal to the various ports in America. Europe or Africa bordering on the Atlantic Ocean. At the edge of Harbor Island, within a stone's throw of the rising tides of Puget Sound, stand the lofty towers supporting K O M O's antenna.

Traveling with the speed of light more than 186,000 miles per second, messages are constantly leaving this antenna carrying news and entertainment, not only to the sea ports of the Pacific and of the Atlantic, but to the most remote inland points. At the same time, the lonely wife of a trapper in the Yukon, the snow-bound missionary to Alaskan Eskimos, scafaring men on the high seas, a joyous group on the beach at Waikiki and the air-roaming listener in America's metropolis, New York, may be





listening to the same song or message coming from the shores of Puget Sound. K O M O is proud of its record for 1927. Reception of its programs has been verified in every state in the Union. every province of Canada, in Mexico. Central American republics—Cuba and ships at sea in the Atlantic. All corners of the mighty Pacific. from the Arctic to the Antipodes, have listened to voices from the Charmed Land coming from K O M O.

The Totem Broadcasters of K O M O have brought cheer to lonely Arctic settlers—comfort to homesick representatives of American commerce on foreign soils and a greater national consciousness to the curious listener on the Atlantic seaboard. The opportunities for service delegated by modern science to broadcasting stations has been great. The staff of Fisher's Blend Station, Inc.—K O M O—and Totem Broadcasters have taken great pleasure in their contributions to this service.



Forty-one

Forty

## METROPOLITAN BUILDING COMPANY

METROPOLITAN CENTER, in one of whose buildings are situated the broadcasting studios of K O M O, is a ten-acre unit of fine business blocks along Fourth and Fifth Avenues, between Union and Seneca Streets, at the heart of Seattle's retail This tract, now the city's smart hotel, theatre and section. shopping district, is the original site of the University of Washington. Leased from the State for a period of fifty years, upon it during the past twenty years have been erected and are now operated by the lessors eight large shop and office structures. in addition to the Olympic Hotel, Seattle's largest community enterprise. Of the buildings of this group, two are exclusively for doctors' and dentists' offices: in the remainder are located the office headquarters of the lumber industry, all transportation lines, the great life insurance agencies, and many of the major industrial, commercial and professional organizations of the Pacific Northwest. In the district are 130 smart specialty shops. their merchandise covering all lines and of the highest quality. On the tract are the Metropolitan and Fifth Avenue Theatres. Three garages, with a combined capacity of 750 cars, are within the Center.

What was once a timbered area, far out in the country from the little mill town that was Seattle when this land was donated to the State by the city's founder, A. A. Denny, is now the high-class business center of a city of nearly half a million people. The rentals from the lease of this property now form a substantial income for support of the State University. On the termination of the lease, in 1954, all buildings on this tract will revert to ownership by the University.

Metropolitan Center is a project conceived and executed through a period of twenty years by the Metropolitan Building Company. It is a concrete example of what can be accomplished in the way of constructive service to the community by able organization, operating through a well-conceived plan under sound and practical business methods.



Forty-two



#### WALTON McKINNEY

Walton McKinney, K O M O's "Crooning Tenor," is a Seattle boy. Previous to joining Totem Broadcasters' staff he was the matinee idol of thousands of theatregoers in Seattle and in Spokane.



Forty-three



#### EMIL BIRNBAUM

Emil Birnbaum, violinist and director of the Totem Concert Orchestra, received his early training in Europe. At the age of fifteen he was concertmaster of the well-known Drescher's Concert Orchestra of Europe.



Forty-four



-Photo by Bushnell.

#### WALTER HENNINGSEN

Walter Henningsen, flutist and manager of Totem Concert Orchestra, was born in Denmark and in a tryout before the King of Denmark won a scholarship in the National Conservatory of Music in Copenhagen. He has been a solo flutist with such famous bands as McInnes and Kryl.



Forty-five

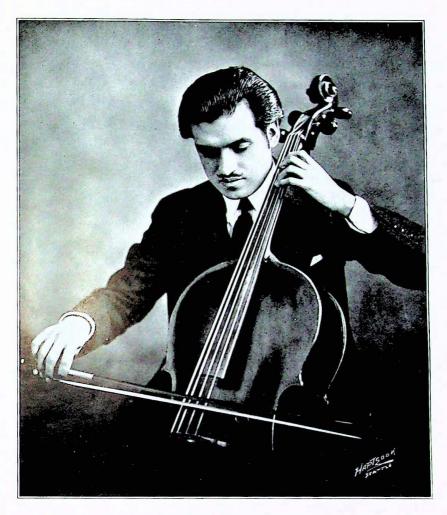


#### FRANK LEON

Frank Leon, pianist with the Totem Concert Orchestra, is also an organist of note and has had the honor of dedicating organs in large theatres in Seattle, Los Angeles, Buffalo, New York and other prominent cities. As an accompanist he has toured the concert stage with such artists as Theo Carle.



Forty-six



#### SENOR JOSE BARROSO

Senor Jose Barroso, cellist with the Totem Concert Orchestra, is a Mexican by birth. Before coming to the United States he occupied the chair of first cellist in the National Symphony Orchestra of Mexico City.



Forty-seven



-Photo by J. Arthur Young

#### EMIL HANSEN

Emil Hansen, very versatile member of Totem Concert Orchestra, plays the drums, tympani, xylophone, vibraphone, marimbaphone and even the saw. Came to America from Denmark to join the famous McInnes Band at the San Francisco World's Fair in 1915.



Forty-eight



-Photo by Hartsook.

#### JOSEPH PINE

Joseph Pine, clarinetist and saxophonist with the Totem Concert Orchestra, is a product of the late World War. Enlisting in the Marines as a lad of seventeen, he rose to a position of solo clarinetist and assistant band master of the famous Mare Island Marine Band. Was discharged from the U.S. Marines as the youngest sergeant in the service.



Forty-nine



#### ACCOUNTING, PROGRAM AND PUBLICITY DEPARTMENTS

The Accounting, Program and Publicity departments of Totem Broadcasters are just as necessary to broadcasting as the artists, announcers and operators. Left to right, standing: Ruth Middaugh, Dorothy Taggart, H. J. Quillian, C. Marcus Wienand, J. B. Henley, Marion Ferguson, Dorothy Geathart. Seated: Louise Clynch, Grace Breidenstein, Alice Maclean, Mary Lyon Spear.



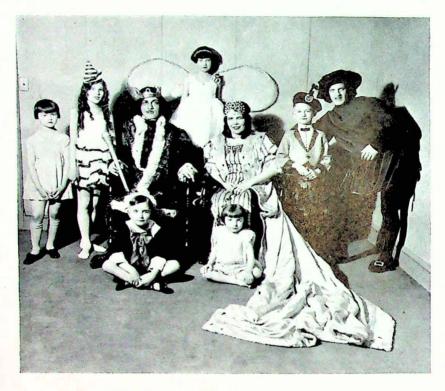
Fifty



#### FLORENCE BERGMAN-KATHRYN SMITH

VOICES OF K O M O not heard "on the air." Miss Kathryn Smith, seated, and Florence Bergman, standing, take the thousands of requests which are received weekly from the listeners. In addition they act as K O M O's information bureau.



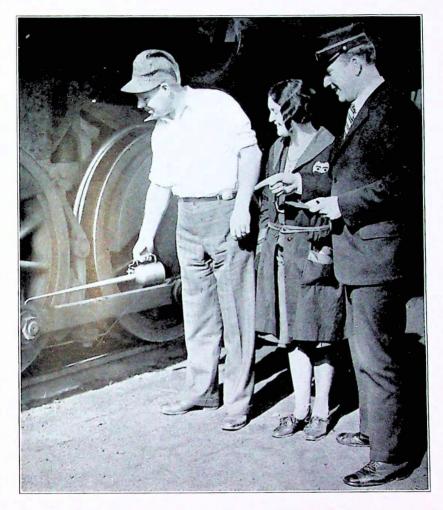


#### THE ROYAL COURT OF STORYLAND

The Royal Court of Storyland, K O M O's program for children directed by Dorothy Denee Snowden Fairy Blossom Tiny Tot, Curley Locks, King of Storyland, Queen of Storyland, Punch, and Keeper of Names. Jack Horner Honey Bug



Fifty-two



#### FRED LYNCH-ZITA DILLON-BOB NICHOLS

Every Wednesday afternoon the Davidson Bread Train pulls out from the K O M O depot with its merry load of children to visit by radio interesting places in the Pacific Northwest. Here is the train crew getting ready for its trip. Left to right: Engineer, Fred Lynch; Nursemaid, Zita Dillon; Conductor, Bob Nichols.



Fifty-three

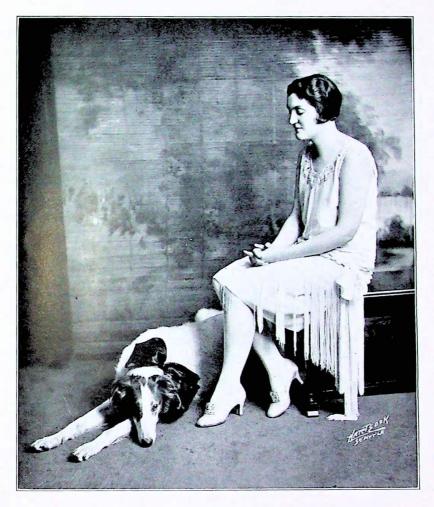


#### 150 WEEKS ON KOMO-KTCL

Warren Anderson's Radio Orchestra claims the record of the longest run of any radio orchestra in the West, if not in the entire country. Starting shortly after K O M O's predecessor, K T C L, was licensed, this orchestra has broadcast every evening for nearly three years. April 6, 1928, marked its 150th consecutive appearance over K O M O and its predecessor, K T C L. Left to right, standing: Warren Anderson, director; Jack Wollenschlager, trumpet; Bill Merrieweather, trombone; C. P. Puck, bass. Seated: Helene Hill, pianist; Richard Cook, banjo; Orland Ogden, alto saxophone; Lowell Pershall, tenor saxophone.



Fifty-four



#### ZITA DILLON

Zita Dillon, in addition to serving as accompanist to many of Totem Broadcasters soloists, is a violinist, and plays the xylophone, vibraphone and marimbaphone. Her hobby is her handsome Russian wolfhound. Miss Dillon is the pride of all Montana listeners, hailing from Butte, Montana.



Fifty-five



#### GEORGE SHELTON'S OLYMPIC HOTEL ORCHESTRA

George Shelton's Olympic Hotel Orchestra, playing in the Venetian Gardens, is well known to K O M O listeners. Left to right, standing: Eugene Cushing, Walter Haines, Charles Decker, Forrest Hart, Steve Barrett. Sitting: Irving Antes, George Shelton, director, Edwin Bensen and Harold, Bensen.



Fifty-six



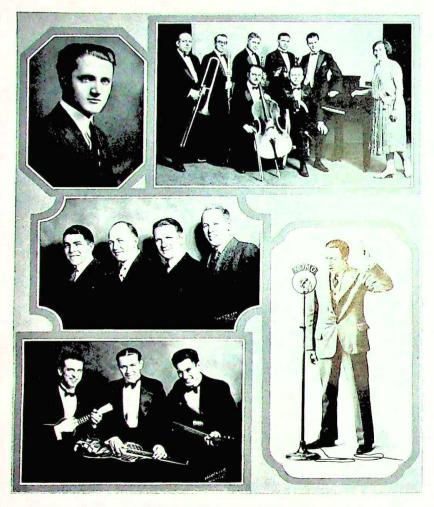
-Photo by Hartsook.

#### LUCILLE NUTLEY JOHNSON

Lucille Nutley Johnson, staff pianist and accompanist at K O M O, is a former University of Washington coed and a well-known theatre and church organist.



Fifty-seven



#### ARTISTS AND ENTERTAINERS

In addition to the regular staff, Totem Broadcasters employ a large number of other artists and entertainers. Upper left: Aurelio Sciacqua—radio's Caruso. Upper right: Herbert Preeg's Orchestra and Vera Downs, soloist. Left center: Totem Male Quartette—James Harvey, Frederick Weiderrecht. Walter Reseburg, Owen J. Williams. Lower left: Totem Novelty Trio—Les Randall, Al Meredith, Claude Jones. Lower right: Dave Hoffman, monologist.



Fifty-eight



#### MARION FERGUSON

Marion Ferguson, a recent alumna of the College of Fine Arts at the University of Washington, is an assistant continuity writer and also a violin soloist at K O M O.



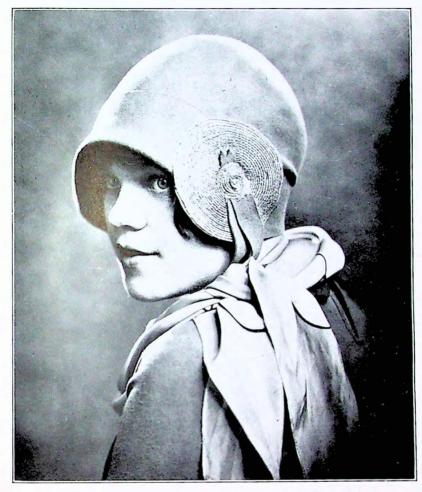
Fifty-nine



SOME OF K O M O'S ARTISTS OF 1927 WHO LINGER IN THE MEMORIES OF THE LISTENERS

Upper left: The Harding Sisters, Betty and Lauretta (Bushnell). Upper right: The Original Totem Mixed Quartet—Alex Wallace, Montgomery Lynch, Agnes Skartvedt, Salome Ungersma. Center: Aunt Missouri. Right: Clarence Sylliassen, who first signed KOMO on the air. Lower left: Richardson Brothers—Fred, Doug and Gordon. Lower right: Billy Emerick





-Photo by Hartsook

#### DOROTHY TAGGART

Dorothy Taggart began her musical career in light opera roles in Minneapolis, Minnesota. In addition to her solo offerings at K O M O, she has charge of a group of singers—the well-known roller canaries of K O M O.



Sixty-one

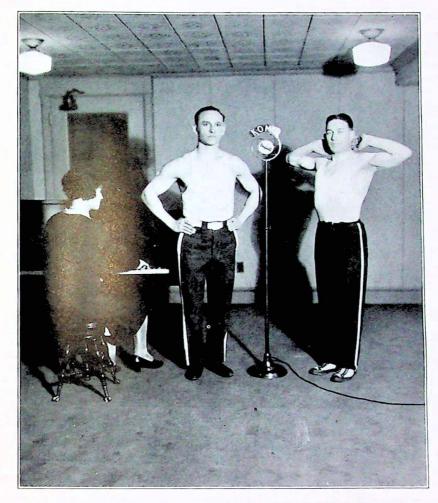


#### DISTINGUISHED STAGE AND SCREEN STARS

Distinguished stage and screen stars often greet the listeners through KOMO. Upper left: Ruth Taylor being introduced by Bob Nichols, KOMO announcer. Upper right: Marie Dunbar, Post-Intelligencer reporter, interviewing the Duncan Sisters. Lower: Mae Murray gets acquainted with staff artists at KOMO.



Sixty-two



#### MRS. WILLOCK-A. E. DOME-JOHN HESSEMER

The largest physical culture class in the Pacific Northwest is K O M O's radio class, which gathers each week-day morning in numerous homes and schoolhouses for exercises conducted by the Seattle Y. M. C. A. in co-operation with Totem Broadcasters. Left to right: Mrs. Willock, A. E. Dome and John Hessemer.



Sixty-three



#### COLONEL LINDBERGH

On September 13, 1927, the idol of the entire civilized world, Colonel Charles A. Lindbergh, visited Seattle. Every event connected with this memorable occasion—the landing of "We" at Sand Point, his appearance at the University of Washington stadium, greetings to school children, parades and a banquet in his honor, were minutely described by announcers of KOMO. Above, Colonel Lindbergh speaking at the stadium.



Sixty-four



-Herbert Photos.

#### PREMIER BALDWIN AT THE MICROPHONE

The N. B. C. is always "there." Here their "mikes" are sending across the United States and Canada the voice of Premier Baldwin of England upon the occasion of the opening of the Peace Bridge at Buffalo. On this program the Prince of Wales also addressed the millions of American and Canadian listeners.



Sixty-five

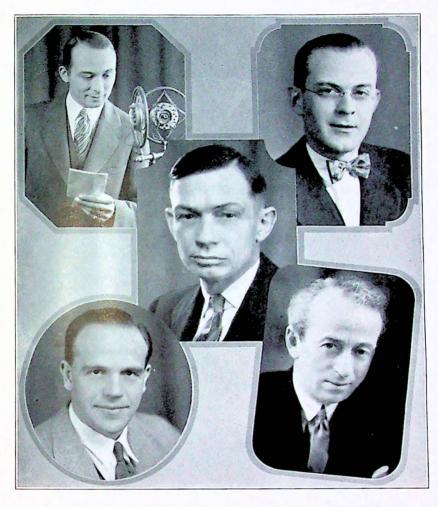


#### MAX DOLIN AND NATIONAL BROADCASTING COMPANY

Max Dolin directing a group of National Broadcasting Company singers in the San Francisco Studios of the National Broadcasting Company. Left to right: Arthur Schwartzman, Elfreda Wynn, Albert Gillette, Harriette Murton, Dorothy Talbot, Gwynfi Jones, Mary Richards, Max Dolin.



Sixty-six



#### OFFICERS OF THE PACIFIC COAST DIVISION—NATIONAL BROADCASTING COMPANY

Charles H. Gabriel, Jr. Program Director Don Gilman, Manager

A. H. Saxton Operating Engineer

Lloyd Yoder Press Representative Max Dolin Musical Director



Sixty-seven

## SEATTLE POST-INTELLIGENCER



Robt. Bermann (left), a Post-Intelligencer reporter, interviewing Mayor-elect Frank Edwards (right) of Seattle over K O M O on the day after election.

WHEN radio first began to attract attention the opinion was held in many quarters that the broadcasting stations, by disseminating news far more rapidly than had ever before been possible would cut into the business of newspapers and would be regarded as competitors.

But the reverse has proved to be the case. People buy newspapers to get more complete accounts of events about which they have learned by radio—and also to get the latest broadcasting programs.

The Post-Intelligencer has three regular programs over K O M O every day. At 10:30 in the morning Prudence Penny tells housewives "What to Have for Dinner." At 6 p. m. there are news flashes and a sports summary supplied by the Post-Intelligencer and at about 11 o'clock there is a late news summary.

This service is augmented by special features whenever there is a news event of unusual interest. Frequently visitors of prominence are interviewed over K O M O by Post-Intelligencer reporters, the public thus being given an opportunity not only to hear what the celebrities have to say from their own mouths but also to learn at first hand just how news is gathered. Such interviews were broadcast with B. C. Forbes, the renowned financial writer: the Duncan Sisters, and Frank Edwards, the day after his election as mayor of Seattle.



Sixty-eight



#### SCENES AT KOMO POST-INTELLIGENCER STUDIO

Members of the Post-Intelligencer staff before the microphone in KOMO's special studio in the P.-I. Building.

Upper left: Prudence Penny (Bernice Redington) telling the fair listeners

"What to Prepare for Dinner" Upper right: Sunshine (Doc Wilson) and Sparky (Don Milligan) collect-ing over K O M O for the annual P.-I. Christmas Cheer Fund. Right center: Walter Rue, radio editor of the P.-I., giving some hot news

just off the wire.

Lower left: Art Chamberlin telling about the day's ball game. Lower right: Willard Coghlin giving the P.-I. late news flashes.



Sixty-nine

### WHAT TO DO WHEN YOUR RADIO SET DOES NOT WORK PROPERLY

BROADCAST reception may be impaired in either of two general ways—by fading of signals or by extraneous noises. The safest course to follow in either case is to call in a reputable radio serviceman. There are a few things which the set owner may investigate for himself, however.

FADING.—Fading is to be expected on distant stations. On local stations or those within seventy-five miles. fading is usually due to trouble within the receiver itself. Look for loose connections in the aerial and ground leads. loose battery leads run down "B" batteries and "A" batteries. low emission tubes. accumulation of dust on condensers. etc.

Tubes may light up and yet be deficient in electron emission The only way to be sure is to have all the tubes tested or to interchange them one at a time with a tube known to be good. "B" batteries should be tested with a voltmeter. preferably a low-resistance type, and should be replaced if the voltage is more than 20 per cent below normal.

Fading in light socket sets or sets using "A" and "B" eliminators may be due to fluctuating service voltage, defective filter condensers, low "B" voltage, etc. The new A. C. tubes are sensitive to voltages in excess to manufacturer's ratings, and it is well to have all voltages on light socket sets checked by a reputable radio serviceman to avoid damaging them. NOISE.—Noises may be caused by conditions inside the set

NOISE.—Noises may be caused by conditions inside the set as well as outside. Tune in the noise at some point away from a station and disconnect the aerial and ground (disconnect the aerial only if disconnecting the ground causes the set to oscillate). If the noise ceases or almost disappears when the aerial is disconnected. the trouble is probably outside of the set. If disconnecting the aerial has no effect on the noise, the trouble is within the set.

Noise within the receiver may be caused by loose connections. broken wires, microphonic tubes, defective grid leaks, corrosion, dust, defective or worn out "B" batteries, defective filter condensers, high "B" voltage, excessive regeneration, poorly designed audio circuits, etc. It is also advisable to call in a good radio serviceman when the trouble is found to be inside the receiver. In most cases outside the receiver the noise or place of business. These noises are usually due to loose connections in fuse boxes. switches, light sockets, etc., and from appliances such as heating pads, violet-ray machines, small motors, sign flashers, individual flasher buttons, non-automatic oil burners, battery chargers, vibrators, etc. Anything which causes an electrical spark is capable of causing interference. If the set owner is unable to locate such interferences as these, it is advisable to notify the power company of his difficulties. The power company will usually co-operate in locating trouble, and can give advice and assistance toward eliminating it.



Seventy

# STANDARD TIME AROUND THE WORLD

S TANDARD time used in most countries is based on the true time at Greenwich, England, reckoned by time zones in which the Standard time for each zone would be an exact number of hours or half-hours difference from Greenwich time. When it is 12:00 noon. Pacific Standard Time. in Seattle, 8:00 P. M. at Greenwich, it would be—

- 8:30 A.M. Apia, Samoan Islands
- 9:30 P.M. Honolulu, Hawaiian sl.
- 10:00 A.M. Juneau, Alaska
- 11:00 A.M. Dawson, Yukon Ter.
- 12:00 Noon Seattle, Wash.
  - 1:00 P.M. Denver, Colo.
  - 2:00 P.M. Chicago, Ill.
- 3:00 P.M. New York, N. Y.
- 4:00 P.M. Halifax, N. S.
- 4.00 P.IVI. Hamax, N. S.
- 4:00 P.M. Buenos Aires, Argentina
- 5:00 P.M. Rio de Janeiro, Brazil
- 6:00 P.M. Azores Islands
- 7:00 P.M. Raykjavik, Iceland
- 8:00 P.M. London. England
- 9:00 P.M. Berlin, Germany
- 10:00 P.M. Consta
- Constantinople, Turkey (Eastern European S. T.)

(Alaska Standard Time)

(Pacific Standard Time) (Mountain Stand. Time)

(Central Standard Time)

(Eastern Standard Time)

(Atlantic Standard Time)

(Greenwich Time)

(Mid-European St. T.)

10:30 P.M. Zanzibar, Africa

#### Morning of

nexi auy	
1:30 A.M.	Bombay, India
2:30 A.M.	Rangoon, India
3:00 A.M.	Singapore. Malay Pen.
4:00 A.M.	Hongkong. China
5:00 A.M.	Tokyo, Japan
5:30 A.M.	Adelaide, Australia
6:00 A.M.	Sydney, Australia
7:30 A.M.	Wellington, N. Zealand



Seventy-one

#### TABLE OF WAVE LENGTHS OF AMERICAN, AUSTRALIAN AND JAPANESE BROADCASTING STATIONS

(This list does not include stations of 250 watts or under in Eastern part of United States or 50 watts and under in Middle West.)

#### UNITED STATES

Station Call Letters	Location	Power In Watts	Wave Freq.	Length Meters	Distance From Seattle
		50,000	950	315.6	2,135
KDKA	Pittsburgh, Pa.	500	1280	234.2	705
KDYL	Salt Lake City, Utah	250	1190	257	970
KEJK	Los Angeles	250	1310	228.9	960
KELW	Burbank, Calif.		1080	277.6	150
KEX	Portland, Oregon	2,500		319	1,345
KFAB	Lincoln, Neb.	5,000	940		1,125
KFAD	Phoenix, Ariz.	500	1100	272.6	410
KFAU	Boise, Idaho	2,000	1050	285.5	
KFBB	Havre, Mont.	50	1090	275.1	593
KFBC	San Diego, Calif.	100	560	535.4	1,075
KFBK	Sacramento, Calif.	100	1090	275.4	630
KFBL	Everett, Wash.	50	1340	223.7	25
KFBU	Laramie, Wyo.	500	620	483.6	1,935
KFCB	Phoenix, Ariz.	125	1230	243.8	1,125
KFCR	Santa Barbara, Cal.	50	1420	211.1	930
KFDM	Beaumont, Tex.	500	620	483.6	1,930
KFDY	Brookings, S. Dak.	1,500	550	545.1	1,180
KFEC	Portland, Oregon	50	1400	214.2	150
KFEL	Denver, Colo.	250	1320	227.1	1,020
	St. Joseph, Mo.	1,000	1300	230.6	1,465
KFEQ		10	1290	232.4	290
KFEY	Kellogg, Idaho	500	1220	245.8	1,435
KFH	Wichita, Kansas		1200	249.9	100
KFHA	Gunnison, Colo.	50		468.5	970
KFI	Los Angeles, Calif.	5,000	640		150
KFIF	Portland, Oregon	50	1310	228.9	
KFIO	Spokane, Wash.	100	1220	245.8	150
KFIU	Juneau, Alaska	10	1330	225.4	1,350
KFIZ	Fond du Lac, Wis. Marshalltown, Iowa	100	1120	267.7	1,645
KFJB	Marshalltown, lowa	100-250	1210	247.9	1,480
KFJF	Oklahoma City, Okla.	.750-1,000	1100	272.6	1,525
KFJI	Astoria, Oregon Grand Forks, N. Dak.	15	1200	249.9	120
KFJM	Grand Forks, N. Dak.	100	900	333.1	1,175
KFJR	Portland, Oregon	500	1060	282.8	150
KFJY	Fort Dodge, Iowa	100	1290	232.4	1,410
KFKA	Greeley, Colo.	500	1200	249.9	1,005
KFKB	Milford, Kan.	1,500	1240	241.8	1,395
KFKU	Lawrence, Kan.	500	1180	254.1	1,480
KFKX	Chicago, Ill.	2,500	570	526	1,735
KFLV	Rockford, Ill.	100	1120	267.7	1,655
KFLX	Galveston, Tex.	100	1110	270.1	1,490
KFMR	Sioux City, Iowa	100	1290	232.4	1,305
KFMX .	Sioux City, Iowa Northfield, Minn.	500	1270	236.1	1,410
KFNF	Shenandoah, Iowa	2.000	650	461.3	1,410
KFOA	Seattle, Washington	1,000	670	447.5	
KFON	Long Beach, Calif.		1240	241.8	990
KFOR	Lincoln, Neb.	100	1380	217.3	1,345
KFOX	Omaha, Neb.	100	1160	258.5	1,370
KFPR	Los Angeles, Calif.	250	1290	232.4	970
KFPY	Spokane, Wash.	250	1220	245.8	230
KFQB	Fort Worth, Tex.	1,000	900	333.1	1,665
KFQD	Anchorage, Alaska	100	870	344.6	1,350
KFQU	Holy City, Calif.	100	1440	208.2	735
KFQW	Seattle, Wash.	100	1380	217.3	100
KFQZ	Hollywood, Calif.		1290	232.4	970
KFRC	San Francisco, Cal.	1,000	660	454.3	685
KFRU		500	1200	454.3	
KFSD	Columbia, Mo. San Diego, Calif.	500	680	440.9	1,610
KFSG	Los Angeles, Calif.	500	1190	252	1,075 970
KFUL	Galveston Tay	500	1160		
KFUM	Galveston, Tex. Colorado Springs, Colo	1,000	620	258.5	1,940
KFUO	St. Louis, Mo.	1,000	550	483.6 545.1	1,070
	ist, Louis, Nio	1,000	550	545.1	1,725



#### UNITED STATES-(Continued)

Station Call Letters	Location	Power In Watts	Wave J Freq.	Length Meters	Distance From Seattle
KFUP	Denver, Colo,	100	1320	227.1	1,020
KFUR	Denver, Colo. Farmington, Utah	500	1330	225.4	695
KFUS	Oakland, Calif.	50	1440	208.2	685
KFUT	Salt Lake City, Utah	50	1200	249.9	705
KFVD	Venice, Calif.	250	1390	215.7	970
KFWB	Hollywood, Calif. Glendora, Calif.	500	830	361.2	970
KFWC	Glendora, Calif.	100	1210	247.8	975
KFWF	St. Louis, Mo. San Francisco, Calif. Oakland, Calif. Avalon, Calif. Denwe, Idaho Denver, Colo. Edgewater, Colo. Flagstaff, Arız. Bismarck, N. Dak. Spokane, Wash. Tucson, Ariz. Ketchikan, Alacka	250	1400	214.2	1,725
KFWI KFWM	San Francisco, Calif	500	1120	267.7	685
	Oakland, Calif.	500	1270	236.1	685
KFWO	Avalon, Calli,	250	1000	299.8 204	1,020
KFXD KFXF	Denver Colo	15 250	$1470 \\ 1060$	282.2	510 1,020
KFXJ	Edgewater Colo	50	1430	209.7	1,015
KFXY	Flagstaff Ariz	25	1460	205.4	1,025
KFYR	Bismarck, N. Dak.	250	1200	249.9	1,015
KGA	Spokane, Wash.	2,000	1150	260.7	230
KGAR	Tucson, Ariz.	100	1280	234.2	1,230
KGBU	Ketchikan, Alaska St. Joseph, Mo York, Neb.	500	1310	228.9	650
KGBX	St. Joseph, Mo	100	1040	288.3	1,465
KGBZ	York, Neb.	250	1410	212.6	1,305
KGCH	Wayne, Neb.	250	1020	293.9	1,285
KGC1	Vayne, Neb. San Antonio, Tex. Mandan, N. Dak. Vida, Mont.	100	1360	220.4	1,800
KGCU	Mandan, N. Dak.	100	1250	239.9	1,010
KGCX	Vida, Mont.	10	1230	243.8	790
KGDM KGDP	Stockton, Cam,	10	1380	217.3	675
KGDP	Pueblo, Colo.	10	1340	223.7	1,105
KGEF	Humboldt, Neb. Los Angeles, Calif.	100	1450	206.8	1,450
KGEK	Yuma Colo	500 10	1140 1140	$263 \\ 263$	970 1,105
KGEN	Yuma, Colo El Centro, Calif	15	1330	225.4	1,000
KGEO	Grand Island, Neb.	100	1460	205.4	1,270
KGER	Long Beach, Calif.	100	1390	215.7	990
KGES	Central City, Neb.	10	1470	204	1,280
KGEW	Fort Morgan, Colo	100-200	1370	218.8	1,050
KGEZ	Kalispell, Mont.	100	1020	293.9	375
KGFH	La Crescenta, Calif.	250	1140	263	960
KGFJ	Los Angeles, Calif.	100	1410	212.6	970
KGFL	Raton, N. Mex Pierre, S. Dak	50	1350	222.1	1,350
KGFX	Pierre, S. Dak	200	1180	254.1	1,075
KGGF	Picher, Okla.	100	1450	206.8	1,545
KGGM	Inglewood, Calif	100	1470	204	975
KGHB	Honolulu H 1	250	1320	227.1	2,410
KGHF	Pueblo, Colo, Hardin, Mont. Oakland, Calif. San Antonio, Tex.	250	1430	209.7 263	1,105 710
KGHP KGO	Oakland Calif	50 5,000	1140 780	384.4	685
KGRC	Carland, Cani.	100	1360	220.4	1.800
KGRS	Amarilla, Tex.	250	1230	243.8	1,365
KGTT	San Francisco Cal	50	1360	220.4	685
KGU	San Francisco, Cal Honolulu, H. I	600	1110	270.1	2,410
KGW			610	491.5	150
KGY	Lacey, Wash.	50	1230	243.8	50
KHJ	Portland, Oregon Lacey, Wash. Los Angeles, Calif. Harlingen, Tex. Spokane, Wash. Red Oak, Iowa San Francisco, Calif.	500	750	399.8	970
KHMC	Harlingen, Tex.	100	1270	236.1	1,650
KHQ	Spokane, Wash	1,000	810	370.2	230
KICK	Red Oak, lowa	100	930	322.4	1,500
KJBS			1360	220.4	685
KJR	Seattle, Wash	2,500	860	348.6	
KKP	Seattle, Wash.	15	1100	272.6	1 510
KLDS	Independence, Mo.	1,500	1110 1500	270.1 199.9	1,510 150
KLIT KLS	Portland, Oregon	10 250	1220	245.8	685
KLS	Oakland, Calif.	500	590	508.2	685
KLZ	Oakland, Calif	750-1 000	850	352.7	1,020
KMA	Shenandoah, Iowa	1,000	760	394.5	1,410
KMBC	Kansas City, Mo.	1,500	1110	270.1	1,500
KMED	Medford Oregon	50	1450	206.8	370
KMIC	Inglewood, Cal.	250	1340	223.7	975
KMJ	Fresno, Calif.	50	820	365.6	770
KMMJ	Fresno, Calif. Clay Center, Neb.	250-500	1050	285.5	1,295
KMO	Tacoma, Wash.	250	1180	254.1	25
KMOX	St. Louis, Mo	5,000	1000	299.8	1,725



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#### UNITED STATES-(Continued)

KMTR         Los Angeles, Calif.         500         570         570           KNNX         Los Angeles, Calif.         500         800         336.9         970           KOA         Denver, Colo.         2,500         920         335.9         1,020           KOA         Corvallis, Oregon         500         1110         270.1         220           KOA         Corvallis, Oregon         500         1100         252.5         1,320           KOC         Concil Biffs, Iowa         5,000         940         319         1,370           KOI         Cornell Biffs, Iowa         5,000         940         319         1,370           KOI         Senttle, Wash.         150         1370         218.8         1,020           KOR         Senttle, Wash.         150         1370         218.8         1,020           KPC         Senttle, Wash.         100         1300         220.6         705           KPC         Senttle, Wash.         100         1300         220.6         705           KPC         Senttle, Wash.         100         1300         230.6         705           KPC         Senttle, Wash.         100         1300         100 <th>Station Call Letters</th> <th>Location</th> <th>Power In Watts</th> <th>Wave 1 Freq.</th> <th>Length Meters</th> <th>Distance From Seattle</th>	Station Call Letters	Location	Power In Watts	Wave 1 Freq.	Length Meters	Distance From Seattle
KNRC         Santa Monica, Calif.         500         800         336, 5         970           KOA         Denver, Colo.         2,500         920         325, 9         1,423           KOAC         Corvalis, Oregon         500         1110         270, 1         250           KOAC         Corvalis, Oregon         500         1110         270, 1         250           KOCH         Somaha, Nes.         7, 50         1160         252, 1         1, 330           KOCW         Chickshan, Oka.         500         940         319         1, 530           KOIL         Council Bluffs, Jowa.         1,000         940         319         1, 530           KOMB         Beattle, Wash.         150         1370         218, 8         1, 029           KOMB         Denver, Colo.         150         1300         223, 6         655           KPDB         Sentue, Wash.         150         1400         242, 1         1, 050           KPCB         Sentue, Wash.         150         1300         230, 6         770           KPCB         Sentue, Wash.         100         1300         230, 6         770           KPCP         Pasadena, Calif.         500						
KNX         Los Angeles, Calif.         500         890         335.9         970           KOA         Corvallis, Oregon         500         1110         271.1         220           KOB         State College, N.         7.599         1050         325.3         1.370           KOB         State College, N.         7.599         1050         225.3         1.530           KOCW         Collekasha, Okin         250         1190         225.3         1.530           KOIL         Council Bluffs, Iowa         5.000         940         319         1.500           KOND         Sentite, Wash         1.000         940         319         1.500           KORD         Begene, Oregon         50         1500         120.4         1.650           KPCB         Sentite, Wash         150         1400         241.1         1.500           KPPM         Muscatine, Iowa         100         1420         211.1         1.500           KPPC         Sentite, Wash         100         1420         211.1         1.500           KPPC         Beatite, Wash         100         120.2         21.5         1.000           KPPC         Beatite, Wash         100		Santa Monica Calif				
KOA         Denver, Colo.         2.500         920         325.9         1.020           KOB         State College, N. M.         7.500         1050         285.5         1.350           KOCH         Omaha, Neb.         250         1160         258.5         1.370           KOCH         Omaha, Neb.         250         1160         258.5         1.370           KOCH         Omaha, Neb.         250         1160         258.5         1.370           KOCH         Omaha, Neb.         500         190         319         150           KOIN         Pertland, Oregon         1600         1500         199.9         250           KOW         Denver, Colo.         150         1370         218.4         1,020           KPCD         Sentile, Wash.         500         1140         231.5         1,500           KPD         San Francisco, Calif.         500         710         422.3         685           KPC         San Francisco, Calif.         500         1100         230.6		Los Angeles Calif				
KÖÄC         Corvallis, Öregon         500         1110         225.5         1.350           KÖB         State College, N.         250         1160         255.5         1.350           KÖCH         Ömaha, Neb.         250         1160         255.5         1.350           KÖIN         Portland, Oregon         500         940         319         1.270           KÖIN         Portland, Oregon         500         940         319         1.270           KÖNN         Portland, Oregon         50         1500         199.9         230           KÖNE         Eugene, Oregon         50         1500         199.9         230           KOW         Denver, Colo.         150         1370         218.4         1.029           KEPM         Battle, Wash.         51         1040         24.4         1.050           KPPO         San Francisco, Calif.         500         950         315.6         950           KPPC         Pasadena, Calif.         1000         160         22.3         1.215           KQV         San Francisco, Calif.         500         1010         27.6         7.01         2.155           KQV         San Jose, Calif.         5		Denver Colo				
KOB         State College N. M.         7,500         1050         285.5         1,370           KOCW         Omnha, Neb.         250         1140         255.5         1,370           KOLL         Councel Bluffs, lown.         6,000         940         319         150           KOM         Seattle, Wash.         1,000         970         319         150           KORE         Eugene, Oregon         150         1370         218.8         1,020           KOW         Denver, Colo.         150         1370         218.8         1,020           KPCB         Seattle, Wash.         500         1100         211.1         1,500           KPPM         Ms Angees, Call.         500         710         422.3         655           KPPQ         San Francisco, Call.         500         110         225.5         1,300           KPPC         Basadena, Call.         1000         120.0         230.6         -         1,305           KRPQ         Seattle, Wash.         100         120.0         235.6         1,305           KPPQ         Seattle, Wash.         100         120.0         235.6         1,305           KRQW         San Aracles, Call.		Corvallis, Oregon				220
KOCH         Omnha, Neb.         250         1160         252         1.539           KOLK         Council Bluffs, lowa         6,000         940         319         1.733           KOLK         Council Bluffs, lowa         6,000         940         319         1.733           KOMO         Seattle, Worke         1,000         970         300.1         1.733           KORE         Eugene, Oregon         150         1500         199.9         250           KOW         Denver, Colo.         151         1400         214.2         1.650           KPDM         Prescott, Ariz.         151         1400         214.2         1.650           KPPC         Saattle, Wash.         1000         140         223.1         655           KPPC         Pasadema, Calif.         1000         120.2         23.6         6           KPPC         Pasadema, Calif.         100         100         270.1         2.157           KRE         Ban Jesc. Calif.         2500         110         270.1         2.168           KRE         Ban Jesc. Calif.         250         130.0         230.6         6           KRE         Ban Jesc. Calif.         100         100		State College, N. M.			285.5	
KOCW         Chickasha.         Okla.         250         1190         252         1,370           KOIN         Porlind.         Oregon         1,000         940         319         1,370           KOM         Beattle, Vash.         1,000         940         319         1,370           KOME         Benner, Colo.         150         1570         218.8         1,020           KPCB         Seattle, Wash.         50         1370         218.8         1,020           KPTA         Los Angeles, Calif.         500         1400         244.2         1,650           KPPM         Muscatine, Iowa.         100         1420         211.1         1,500           KPC         Ban Francisco, Calif.         500         1200         230.6         565           KPC         Pasadem, Calif.         1,000         120.0         230.6         565           KQV         Phasadem, Calif.         1,000         120.0         230.6         565           KQW         San Jose, Calif.         100         120.0         210.1         2,135           KQW         San Jose, Calif.         100         120.0         215.8         655           KRELD         Dalas. <td></td> <td>Omaha, Neb.</td> <td>250</td> <td>1160</td> <td>258.5</td> <td></td>		Omaha, Neb.	250	1160	258.5	
KOIL         Council Bluffs, lown         5,000         940         319         1.750           KOIN         Seattle, Wash         1,000         370         300.1         250           KOW         Beartle, Wash         100         370         300.1         250           KOW         Dervse, Colos         150         1370         218.8         1.020           KOW         Dervse, Colos         150         1370         218.8         1.020           KPJM         Prescott, Ariz,         15         1400         214.2         1.650           KPAL         Los Angeles, Calif.         500         1140         263         970           KPAC         Seattle, Wash,         100         120         213.6         665           KPQ         Seattle, Wash,         100         120.2         230.6         665           KQV         Pittsburgh, Pa         500         110         270.1         2.135           KRD         Sangeles, Calif.         500         110         270.1         2.155           KRQW         Sangeles, Calif.         500         150         416.7         1.657           KRAC         Sangeles, Calif.         500         150	KOCW	Chickasha, Okla.	250		252	1,530
Rep Dr         Description         Distribution         Distribution         Distribution         Distribution           KPDAP         Loss Antine, Iowa         100         1140         211.1         1.590           KPO         San Francisco, Calif.         500         750         211.6         965           KPO         San Francisco, Calif.         500         750         215.6         965           KPQ         Seatule, Wash.         100         1300         230.6            KPC         Houston, Texus         500         1010         201.2          1300           KRCW         San Francisco, Calif.         500         1010         201.2          1300           KRD         San Sose, Calif.         500         1010         201.7          1300           KRD         Ballas, Texua         100         1100         221.6                                 .		Council Bluffs, Iowa				1,370
Rep Dr         Description         Distribution         Distribution         Distribution         Distribution           KPDAP         Loss Antine, Iowa         100         1140         211.1         1.590           KPO         San Francisco, Calif.         500         750         211.6         965           KPO         San Francisco, Calif.         500         750         215.6         965           KPQ         Seatule, Wash.         100         1300         230.6            KPC         Houston, Texus         500         1010         201.2          1300           KRCW         San Francisco, Calif.         500         1010         201.2          1300           KRD         San Sose, Calif.         500         1010         201.7          1300           KRD         Ballas, Texua         100         1100         221.6                                 .		Portland, Oregon	1,000			150
Rep Dr         Description         Distribution         Distribution         Distribution         Distribution           KPDAP         Loss Antine, Iowa         100         1140         211.1         1.590           KPO         San Francisco, Calif.         500         750         211.6         965           KPO         San Francisco, Calif.         500         750         215.6         965           KPQ         Seatule, Wash.         100         1300         230.6            KPC         Houston, Texus         500         1010         201.2          1300           KRCW         San Francisco, Calif.         500         1010         201.2          1300           KRD         San Sose, Calif.         500         1010         201.7          1300           KRD         Ballas, Texua         100         1100         221.6                                 .		Seattle, Wash.				950
Rep Dr         Description         Distribution         Distribution         Distribution         Distribution           KPDAP         Loss Antine, Iowa         100         1140         211.1         1.590           KPO         San Francisco, Calif.         500         750         211.6         965           KPO         San Francisco, Calif.         500         750         215.6         965           KPQ         Seatule, Wash.         100         1300         230.6            KPC         Houston, Texus         500         1010         201.2          1300           KRCW         San Francisco, Calif.         500         1010         201.2          1300           KRD         San Sose, Calif.         500         1010         201.7          1300           KRD         Ballas, Texua         100         1100         221.6                                 .		Eugene, Oregon				
KPIM         Prescott, Ariz.         15         1400         244.2         1,050           KPDP         Muscatine, Iowa         100         1420         211.1         1,500           KPO         San Francisco, Calif.         500         350         236.6         965           KPQ         Scattle, Wash.         100         1300         230.6         965           KPQ         Scattle, Wash.         100         1300         230.6         965           KPQ         Scattle, Wash.         100         120.1         2,135         965           KQV         San Jose, Calif.         500         1010         270.1         2,135           KQW         San Jose, Calif.         100         120.2         245.8         685           KRLD         Dallas, Texas         500         650         461.1         1,685           KRSC         Seattle, Wash.         100         1100         272.6         770           KSAC         Manhattan, Kan.         500         500         302.2         1.1         1.25           KSBC         Sout City, Iowa         550         900         331.1         1.410           KSBC         Satta Maria, Calif.         100 <td></td> <td>Septtle Wash</td> <td></td> <td></td> <td></td> <td>1,020</td>		Septtle Wash				1,020
KPPLA         Los Angeles, Calif.         500         1140         263         970           KPPO         Sun Francisco, Calif.         500         710         422.3         685           KPPQ         Seattle, Wash.         100         1200         230.6	KPIM	Prescott Ariz				1.050
KPPD         Muscatine, Iowa         100         1420         211.1         1,539           KPPC         Pasadena, Calif.         500         710         422.3         685           KPPC         Pasadena, Calif.         500         100         1200         233.5         1.60           KPRC         Houston, Texns         500         100         230.5         1.60         655           KPKPC         Pasadena, Calif.         100         1200         235.5         1.66         655           KQV         Patsburgh, Pat.         500         1100         1200         245.5         655           KRE         Berkeley, Calif.         100         1100         220         245.5         655           KREC         Seattle, Wash.         100         1100         220.2         245.8         655           KRSC         Seattle, Wash.         1000         1100         220.2         245.8         655           KSAC         Manhattan, Kan.         500         1230         241.8         1.305           KSAC         Sout Law         1000         1200         227.1         1.425           KSMS         St. Louis, Mo.         500         1300         2	KPLA	Los Angeles, Calif.				
KPPO         San Francisco, Calif.         500         710         422.3         685           KPPQ         Pasadena, Calif.         500         1300         230.6	KPNP	Muscatine, Iowa	100	1420	211.1	
KPQQ         Seattle, Wnsh.         100         1300         230.6		San Francisco, Calif.	500	710	422.3	
KPQQ         Seattle, Wnsh.         100         1300         230.6		Pasadena, Calif.				965
KPSN         Prasadena, Calif.         1,000         150         215.6         965           KQW         San Jose, Calif.         500         110         226.9         715           KRE         Berkeley, Calif.         100         1220         226.9         715           KRE         Berkeley, Calif.         200         650         461.1         1.685           KRLD         Dallas, Texas         500         650         461.1         1.685           KRCC         Seattle, Wash.         100         1100         272.6         970           KRSC         Seattle, Wash.         1000         1100         272.6         970           KRSC         Sloux City, Iowa         500         520         231.8         1.305           KSD         St. Louis, Mo.         500         500         331.1         585           KSL         Salt Lake City         1.000         100         272.6         890           KSO         Clarinda, Jowa         500         1320         227.1         1.425           KSO         Slaud, Calif.         500         1070         280.2         685           KTSA         Sant Mari, Calif.         500         1070		Seattle, Wash,				
KQV       Satt Jose, Calif.       509       1110       240.1       24.1.33         KRE       Berkeley, Calif.       500       1010       226.9       245.8       685         KRLD       Dallas, Texas       500       650       461.1       1,685         KRLO       Los Angeles, Calif.       250       133.0       215.7       970         KRSC       Seattle, Wash.       100       1100       272.6          KSAC       Manhattan, Kan.       500       300       233.1       1,410         KSAC       Starteveport, La.       1000       1120       267.7       1,825         KSD       Stoux City, Jowa       500       120       247.7       1,825         KSD       Stous City, Jowa       500       120       247.7       1,825         KSD       Stoux City, Jowa       500       120.0       243.8       1,205         KSD       Startak Maria, Calif.       1000       1100       272.6       870         KSD       Startak Maria, Calif.       100       1100       275.1       2750         KTAB       Sattak Ada, Calif.       500       1100       275.1       970         KTAB       Cal		Houston, Texas				
KRE         San Jose         Calif.         500         1010         296.9         715           KRE         Berkeley, Calif.         100         1220         245.8         685           KRLD         Dallas, Texas         500         650         461.1         1,685           KRSC         Seattle, Wash.         100         1100         272.6         700           KSAC         Manhattan, Kan.         500         1230         243.8         1,305           KSCJ         Sloux City, Jowa         500         1550         454.1         1,725           KSEJ         Sloux City, Jowa         500         1230         243.8         1,305           KSL         Salt Lake City         1,000         900         302.8         705           KSM         Salt Lake City         1,000         900         302.8         705           KSMO         Clarinda, Jowa         500         1330         207.1         1,425           KSO         Clarinda, Jowa         500         1302         227.1         1,425           KTAB         Oakland. Callf.         500         1010         226.3         150           KTBR         Portland, Oregon         50		Pasadena, Calif.				
KRE         Berkeley, Calif.         100         1220         245.8         685           KRLO         Dallas, Texas         500         650         461.1         1,655           KRLO         Los Angeles, Calif.         250         1330         215.7         970           KRSC         Seattle, Wash.         100         1100         272.6		Pittsburgh, Pa.				
KRLO       Los Angeles, Caiff.       250       1300       215.7       970         KRSC       Seattle, Wash.       100       1100       272.6       970         KSBA       Shreveport, La.       1,000       1120       237.7       1,825         KSDJ       Sloux City, Iowa       500       1230       213.8       1,305         KSD       St. Louis, Mo.       500       1230       213.8       1,305         KSEI       Pocatello, Idaho       250       900       333.1       585         KSL       Santa Maria, Calif.       100       1100       272.6       890         KSO       Clarinda, Iowa       500       1320       297.1       1,445         KSO       Sioux Falls, S. Dak.       500       1430       299.7       1,265         KTBB       Los Angeles, Calif.       500       1670       285.9       150         KTBR       Portland, Oregon       50       1310       225.1       970         KTHS       Hot Sprgs. Natl. Pk., Ark.       1,000       780       384.4       1,760         KTMS       San Antonio, Texas       2,000       1130       226.3       1,590         KTMS       San Antonio, T		San Jose, Calli,				
KRLO       Los Angeles, Caiff.       250       1300       215.7       970         KRSC       Seattle, Wash.       100       1100       272.6       970         KSBA       Shreveport, La.       1,000       1120       237.7       1,825         KSDJ       Sloux City, Iowa       500       1230       213.8       1,305         KSD       St. Louis, Mo.       500       1230       213.8       1,305         KSEI       Pocatello, Idaho       250       900       333.1       585         KSL       Santa Maria, Calif.       100       1100       272.6       890         KSO       Clarinda, Iowa       500       1320       297.1       1,445         KSO       Sioux Falls, S. Dak.       500       1430       299.7       1,265         KTBB       Los Angeles, Calif.       500       1670       285.9       150         KTBR       Portland, Oregon       50       1310       225.1       970         KTHS       Hot Sprgs. Natl. Pk., Ark.       1,000       780       384.4       1,760         KTMS       San Antonio, Texas       2,000       1130       226.3       1,590         KTMS       San Antonio, T		Dallas Texas				
KRSC       Seattle, Wash.       100       1100       222.6		Los Angeles, Calif			215.7	
KSAC       Manhaitan, Kan.       500       900       233.1       1,410         KSBA       Shreveport, La.       1,000       1120       267.7       1,825         KSD       Stoux City, Iowa       500       550       45.1       1,725         KSD       St. Louis, Mo.       500       550       45.1       1,725         KSL       Salt Lake City       1,000       990       302.8       705         KSM       Salt Lake City       1,000       990       302.8       705         KSM       Salt Lake City       1,000       190       322.4       800         KSO       Clarinda, Jowa       500       130       227.1       1,425         KTAO       Saland. Calif.       500       1070       280.2       685         KTBR       Portland, Oregon       50       1310       228.9       150         KTBR       Hot Sprgs. Natl. Pk. Ark.       1,000       760       394.5          KUJ       Seattle, Wash.       1,000       760       394.5          KUJ       Seattle, Wash.       100       1500       199.9          KUOA       Fayetoville, Ark       500 <t< th=""><td></td><td>Seattle, Wash.</td><td></td><td></td><td>272.6</td><td></td></t<>		Seattle, Wash.			272.6	
KSD         Sloux City, 10wa         500         1230         214.5         1.405           KSD         St. Louis, Mo.         500         550         454.1         1.725           KSEI         Pocatello, Idaho         250         900         333.1         585           KSL         Salt Lake City         1.000         990         302.8         705           KSO         Clarinda, Jowa         500         1430         202.7.1         1.425           KSOO         Sloux Falls, S. Dak.         500         1070         280.2         685           KTBI         Los Angeles, Calif.         500         1090         275.1         970           KTBR         Portland, Oregon         50         1210         228.9         150           KTNT         Muscatine, Iowa         2,000         1170         256.3         1,800           KTW         Seattle, Wash.         100         100         290.9         1.645           KUOA         Fayetteville, Ark.         500         1200         232.4         1.775           KUT         Austin, Texas         500         1200         232.4         1.775           KUY         Tacoma, Wash         50         12		Manhattan, Kan,				1,410
KSD         Sloux City, 10wa         500         1230         214.5         1.405           KSD         St. Louis, Mo.         500         550         454.1         1.725           KSEI         Pocatello, Idaho         250         900         333.1         585           KSL         Salt Lake City         1.000         990         302.8         705           KSO         Clarinda, Jowa         500         1430         202.7.1         1.425           KSOO         Sloux Falls, S. Dak.         500         1070         280.2         685           KTBI         Los Angeles, Calif.         500         1090         275.1         970           KTBR         Portland, Oregon         50         1210         228.9         150           KTNT         Muscatine, Iowa         2,000         1170         256.3         1,800           KTW         Seattle, Wash.         100         100         290.9         1.645           KUOA         Fayetteville, Ark.         500         1200         232.4         1.775           KUT         Austin, Texas         500         1200         232.4         1.775           KUY         Tacoma, Wash         50         12	KSBA	Shreveport, La.		1120	267.7	
KSL       Sait Lake City       1,000       990       302.8       105         KSMR       Santa Maria, Calif.       100       1100       272.6       890         KSO       Clarinda, Iowa       500       1320       227.1       1,425         KSO       Oakland, Calif.       500       1430       290.7       1.265         KTAB       Oakland, Calif.       500       1070       280.2       685         KTBI       Los Angeles, Calif.       500       1070       280.2       685         KTBR       Fortland, Oregon       50       1310       228.9       150         KTNT       Muscatine, Iowa       2,000       1170       256.3       1,590         KTSA       San Antonio, Texas       2,000       1130       225.3       1,800         KTW       Seattle, Wash.       10       1500       199.9          KUJ       Seattle, Wash.       100       1500       199.9          KUOM       Missoula, Mont.       500       620       483.6       1,225         KUUM       Missoula, Mont.       500       1200       232.4       1,775         KVI       Tacoma, Wash.       50		Sioux City, Iowa		1230		1,305
KSL       Sait Lake City       1,000       990       302.8       105         KSMR       Santa Maria, Calif.       100       1100       272.6       890         KSO       Clarinda, Iowa       500       1320       227.1       1,425         KSO       Oakland, Calif.       500       1430       290.7       1.265         KTAB       Oakland, Calif.       500       1070       280.2       685         KTBI       Los Angeles, Calif.       500       1070       280.2       685         KTBR       Fortland, Oregon       50       1310       228.9       150         KTNT       Muscatine, Iowa       2,000       1170       256.3       1,590         KTSA       San Antonio, Texas       2,000       1130       225.3       1,800         KTW       Seattle, Wash.       10       1500       199.9          KUJ       Seattle, Wash.       100       1500       199.9          KUOM       Missoula, Mont.       500       620       483.6       1,225         KUUM       Missoula, Mont.       500       1200       232.4       1,775         KVI       Tacoma, Wash.       50		St. Louis, Mo.				1,725
KSMR         Santa Maria, Calif.         100         1100         272.6         890           KSO         Clarinda, Iowa         500         1320         227.1         1,425           KSOO         Sioux Falls, S. Dak.         500         1430         209.7         1,265           KTAB         Oakland, Calif.         500         1070         280.2         685           KTBR         Portland, Oregon         50         1310         228.9         150           KTBR         Portland, Oregon         50         1310         226.3         1,590           KTSA         San Antonio, Texas         2,000         1130         265.3         1,800           KTWT         Muscatine, Iowa         2,000         1130         265.3         1,800           KUJ         Seattle, Wash.         10         1500         199.9		Pocatello, Idaho				
KSO         Clarinda, lowa         500         1320         227.1         1,425           KSOO         Sioux Falls, S. Dak,         500         1430         209.7         1,265           KTAB         Oakland, Calif,         500         1070         280.2         685           KTBI         Los Angeles, Calif,         500         1070         275.1         970           KTBR         Portland, Oregon         50         1310         228.9         150           KTPN         Huscatine, Iowa         2,000         1170         256.3         1,590           KTSA         San Antonio, Texas         2,000         1130         265.3         1,800           KTW         Seattle, Wash.         10         1500         199.9		Salt Lake City				
KSOO       Sioux Fails, S. Dak.       500       1430       209.7       1.265         KTAB       Oakland, Calif.       500       1070       280.2       685         KTBI       Los Angeles, Calif.       500       1070       275.1       970         KTBR       Portland, Oregon       50       1310       228.9       150         KTHR       Portland, Oregon       50       1310       228.9       150         KTPR       Muscatine, Iowa       2,000       1170       256.3       1,590         KTSA       San Antonio, Texas       2,000       1130       266.3       1,800         KTWY       Seattle, Wash.       100       760       394.5		Santa Maria, Calif				
KTAB         Oakland, Calif,         500         1070         280.2         685           KTBI         Los Angeles, Calif.         500         1090         275.1         970           KTBR         Portland, Oregon         50         1310         228.9         150           KTBR         Hot Sprgs. Natl. Pk., Ark.         1,000         780         384.4         1,760           KTNT         Muscatine, Iowa         2,000         1170         225.3         1,590           KTSA         San Antonio, Texas         2,000         1130         265.3         1,800           KTW         Seattle, Wash.         10         10         190.9		Sioux Falls S Dak				
KTBI         Los Angeles, Calif.         500         1090         275.1         970           KTBR         Portland, Oregon         50         1310         228.9         150           KTHR         Hot Sprgs. Nall. Pk., Ark.         1,000         780         384.4         1,760           KTNT         Muscatine, Iowa         2,000         1170         256.3         1,590           KTSA         San Antonio, Texas         2,000         1130         2265.3         1,645           KTW         Seattle, Wash.         1,000         760         394.5		Oakland Calif				
KTBR         Portland, Oregon         50         1310         228.9         150           KTHS         Hot Sprgs, Natl. Pk., Ark.         1,000         780         384.4         1,760           KTNT         Muscatine, Iowa         2,000         1170         256.3         1,590           KTSA         San Antonio, Texas         2,000         1130         265.3         1,800           KTW         Seattle, Wash.         100         760         394.5		Los Angeles, Calif.				
KTNS       Hot Sprgs. Natl. Pk., Ark.       1,000       780       384.4       1,760         KTNT       Muscatine, Iowa       2,000       1170       256.3       1,590         KTSA       San Antonio, Texas       2,000       1130       266.3       1,800         KTW       Seattle, Wash.       10       1500       199.9	KTBR	Portland, Oregon			228.9	150
KTSA       San Antonio, Texas       2,000       1130       265.3       1,800         KTW       Seattle, Wash.       1,000       760       394.5		Hot Sprgs. Natl. Pk., Ark.	1,000	780	384.4	
KTW         Seattle, Wash.         1,000         760         394.5           KUJ         Seattle, Wash.         10         1500         199.9           KUOA         Fayetteville, Ark.         500         1010         296.9         1,645           KUOM         Missoula, Mont.         500         650         461.3         395           KUSD         Vermillion, S. Dak.         250         620         483.6         1,275           KUT         Austin, Texas         500         1260         232.4         1,775           KVI         Tacoma, Wash.         50         1260         238         25           KVOO         Bristow, Okia.         1,000         100         272.6	KTNT	Muscatine, Iowa	2,000			
KUOA       Fayetteville, Ark.       500       1010       296.9       1,645         KUOM       Missoula, Mont.       500       650       461.3       395         KUSD       Vermillion, S. Dak.       250       620       483.6       1,275         KUT       Austin, Texas       500       1200       232.4       1,775         KVI       Tacoma, Wash.       50       1260       233       25         KVL       Seattle, Wash.       100       1100       272.6		San Antonio, Texas			265.3	
KUOA       Fayetteville, Ark.       500       1010       296.9       1,645         KUOM       Missoula, Mont.       500       650       461.3       395         KUSD       Vermillion, S. Dak.       250       620       483.6       1,275         KUT       Austin, Texas       500       1200       232.4       1,775         KVI       Tacoma, Wash.       50       1260       233       25         KVL       Seattle, Wash.       100       1100       272.6		Seattle, Wash.				*******
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Seattle, wash.				1 6 45
KUSD         Vermillion, S. Dak.         250         620         483.6         1.275           KUT         Austin, Texas         500         1290         232.4         1.775           KVI         Tacoma, Wash.         50         1200         232.4         1.775           KVI         Seattle, Wash.         100         1100         272.6		Missoula Mont				395
KUT         Austin, Texas         500         1290         232.4         1,775           KVI         Tacoma, Wash.         50         1260         238         25           KVL         Seattle, Wash.         100         1100         272.6		Vermillion S Dak				1 275
KVI         Tacoma, Wash.         50         1260         238         25           KVL         Seattle, Wash.         100         1100         272.6	KUT	Austin Toxas				
KVL         Seattle, Wash.         100         1100         272.6           KVOO         Bristow, Okla.         1,000         860         348.6         1,525           KVOS         Bellingham, Wash.         50         1430         209.7         80           KWBS         Portland, Oregon         15         1500         199.9         155           KWCR         Cedar Rapids, Iowa         250         1250         239.9         1,545           KWG         Stockton, Calif.         50         870         344.6         675           KWJJ         Portland, Oregon         15         1500         199.9         150           KWK         St. Louis, Mo.         1,000         1280         234.2         1,465           KWKK         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Santa Ana, Calif.         100         100         222.2         1,500           KWKC         Santa Ana, Calif.         100         1100         272.6         995           KWKC         Lemars, Iowa         1,500         1230 <td< th=""><td>KVI</td><td>Tacoma, Wash,</td><td></td><td></td><td></td><td></td></td<>	KVI	Tacoma, Wash,				
KVOS         Beilingnam, Wash.         50         1430         209.7         80           KWBS         Portland, Oregon         15         1500         199.9         150           KWCR         Cedar Rapids, Jowa         250         1250         239.9         1.545           KWG         Stockton, Calif.         50         870         344.6         675           KWJJ         Portland, Oregon         15         1500         199.9         150           KWK St. Louis, Mo.         1,000         1280         234.2         1,465           KWKK         St. Louis, Mo.         100         1350         222.1         1,500           KWKC         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Santa Ana, Calif.         100         1350         222.1         1,500           KWYC Santa Ana, Calif.         100         1100         272.6         995           KWUC Lemars, Iowa         1,500         1230         243.8         1,447           KWWG Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         1360         223.7         80	KVL	Seattle, Wash.		1100		
KVOS         Beilingnam, Wash.         50         1430         209.7         80           KWBS         Portland, Oregon         15         1500         199.9         150           KWCR         Cedar Rapids, Jowa         250         1250         239.9         1.545           KWG         Stockton, Calif.         50         870         344.6         675           KWJJ         Portland, Oregon         15         1500         199.9         150           KWK St. Louis, Mo.         1,000         1280         234.2         1,465           KWKK         St. Louis, Mo.         100         1350         222.1         1,500           KWKC         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Santa Ana, Calif.         100         1350         222.1         1,500           KWKC Santa Ana, Calif.         100         1100         272.6         995           KWUC Lemars, Iowa         1,500         1230         243.8         1,447           KWWG Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         1360         223.7         80	KVOO	Bristow, Okla.				1,525
KWCR         Cedar         Rapids, Iowa         250         1250         239.9         1.545           KWG         Stockton, Calif.         50         870         344.6         675           KWJJ         Portland, Oregon         15         1500         199.9         150           KWK St. Louis, Mo.         1,000         1280         234.2         1,465           KWKK Kansas City, Mo.         100         1350         222.1         1,500           KWKC Kansas City, Mo.         100         1350         222.1         1,500           KWKC Spulman, Wash.         500         760         394.5         1,825           KWYC Santa Ana, Calif.         100         1100         272.6         995           KWUC Lemars, Iowa         1,500         1230         243.8         1,447           KWWG Brownsville, Texas         500         1080         277.6         2.030           KXA Seattle, Wash.         500         1360         220.4         150           KXRO Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         506         1.735           KYW Chicago, Ill.         500         570	KVOS	Bellingham, Wash.			209.7	
KWKJ         Portland, Oregon         15         1500         199.9         150           KWK         St. Louis, Mo.         1,000         1280         234.2         1,465           KWKC         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Shreveport, La.         1,000         760         394.5         1,825           KWSC         Pullman, Wash.         500         760         394.5         250           KWTC         Santa Ana, Calif.         100         1100         272.6         995           KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWG         Brownsville, Texas         500         1080         277.6         2,030           KXA         Seattle, Wash.         500         1360         220.4         150           KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5,000         570         526         1,735           KZM         Oakland, Calif.         100         1440		Portland, Oregon				
KWKJ         Portland, Oregon         15         1500         199.9         150           KWK         St. Louis, Mo.         1,000         1280         234.2         1,465           KWKC         Kansas City, Mo.         100         1350         222.1         1,500           KWKC         Shreveport, La.         1,000         760         394.5         1,825           KWSC         Pullman, Wash.         500         760         394.5         250           KWTC         Santa Ana, Calif.         100         1100         272.6         995           KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWG         Brownsville, Texas         500         1080         277.6         2,030           KXA         Seattle, Wash.         500         1360         220.4         150           KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5,000         570         526         1,735           KZM         Oakland, Calif.         100         1440		Cedar Rapids, Iowa				
KWKK         St. Louis, Mo.         1,000         1280         234.2         1,465           KWKK         Kansas City, Mo.         100         1350         222.1         1,500           KWKH         Shreveport, La.         1,000         760         394.5         1,825           KWSC         Pullman, Wash.         500         760         394.5         1,825           KWYC         Santa Ana, Calif.         100         1100         272.6         995           KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWG         Brownsville, Texas         500         1080         277.6         2.030           KXXA         Seattle, Wash.         500         560         535.4            KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYM         Chicago, Ill         500         570         526         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           KYM         Chicago, Ill         500         770 <td>UTTIT</td> <td>Portland Orogon</td> <td></td> <td></td> <td></td> <td></td>	UTTIT	Portland Orogon				
KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWC         Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         560         535.4	KWK	St Louis Mo				
KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWC         Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         560         535.4	KWKC	Kansas City, Mo				
KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWC         Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         560         535.4	KWKH	Shreveport, La.	1.000			
KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWC         Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         560         535.4	KWSC	Pullman, Wash.			394.5	250
KWUC         Lemars, Iowa         1,500         1230         243.8         1,447           KWWC         Brownsville, Texas         500         1080         277.6         2.030           KXA         Seattle, Wash.         500         560         535.4	KWTC	Santa Ana, Calif.				
KXA         Seattle, Wash.         500         560         535.4           KXL         Portland, Oregon         50         1360         220.4         150           KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5,000         570         526         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, Ill.         500         770         389.4         1,735	KWUC	Lemars, lowa				
KXL         Portland, Oregon         50         1360         220.4         150           KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5,000         570         526         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, Ill.         500         770         389.4         1,735		Brownsville, Texas				2,030
KXRO         Aberdeen, Wash.         50         1340         223.7         80           KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5000         570         526         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, Ill.         500         770         389.4         1,735	KAA WWI	Beatlend Onegon				150
KYA         San Francisco, Calif.         500         830         361.2         685           KYW         Chicago, Ill.         5,000         570         526         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, Ill.         500         770         389.4         1,735	KYRO	Aberdeen Wash			220.4	
KZM         Oakland, Calif.         5,000         570         520         1,735           KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, III.         500         770         389.4         1,735	KYA	San Francisco Calif				
KZM         Oakland, Calif.         100         1440         208.2         685           WAAF         Chicago, Ill.         500         770         389.4         1,735	KYW	Chicago, Ill.			526	
WAAF Chicago, III	KZM	Oakland, Calif.				685
WAAT Jersey City, N. J	WAAF	Chicago, III.	500	770	389.4	1,735
	WAAT	Jersey City, N. J.	300	1220	245.8	2,405



Seventy-four

#### UNITED STATES-(Continued)

Station Call Letters	Location	Power In Watts	Wave Freq.	Length Meters	Distance From Seattle
WAAW	Omaha, Neb.	500	680	440.9	1,370
WABC	Richmond Hill, N. Y.	2,500	970	309.1	2,405 2,045
WADC	Akron, Ohio	1,000	1260	238	2,045
WAIU	Columbus, Ohio	5,000	1060	$282.8 \\ 222.1$	2,010 1,395
WAMD WAPI	Minneapolis, Minn.	$500 \\ 1,000$	$1350 \\ 880$	340.7	2.180
WBAA	Auburn, Ala. W. Lafayette, Ind. Harrisburg, Pa. Baltimore, Md.	500	1100	272.6	1,815 2,285 2,330
WBAK	Harrisburg, Pa.	500	1000	299.8	2,285
WBAL	Baltimore, Md.	5,000	1050	285.5	2,330
WBAP	Fort Worth, Texas	5,000	$\begin{array}{r} 600 \\ 1250 \end{array}$	$499.7 \\ 239.9$	1,665 1,970
WBAW WBBC	Nashville, Tenn.	500 500	1320	227.1	2,450
WBBM	Chicago III	5,000	770	389.4	1 725
WBBR	Rossville, N. Y.	1,000	1170	256.3	2,405
WBET	Fort Worth, Texas Nashville, Tenn. Brooklyn, N. Y. Chicago, Ill. Rossville, N. Y. Medford, Mass. Boston, Mass. New York, N. Y. Richmond Hill, N. Y. Tilton, N. H.	500	1040	288.3	2,405 2,500 2,500 2,405 2,405 2,445 2,445 2,280 2,430 2,430
WBIS	Boston, Mass.	500 500	$\begin{smallmatrix} 650 \\ 1270 \end{smallmatrix}$	$   \begin{array}{r}     461.3 \\     236.1   \end{array} $	2,500
WBNY WBOQ	Richmond Hill N V	500	970	309.1	2,405
WBRL	Tilton N H	500	1290	232.4	2,445
WBT	Tilton, N. H. Charlotte, N. C. Springfield, Mass.	750	1160	258.5	2,280
WBZ	Springfield, Mass.	15,000	900	333.1	2,430 2,500
WBZA	Boston, Mass.	500	900 1090	$333.1 \\ 275.1$	2 460
WCAC WCAD	Mansfield, Conn. Canton, N. Y.	500-1 000	1230	243.8	2,250 2,135 2,135
WCAE	Pittsburgh, Pa.	500	650	461.3	2,135
WCAJ	Univ Place Lincoln Neb	500	790	379.5	2,135
WCAL	Northfield, Minn. Camden, N. J. Asbury Park, N. J. Philadelphia, Pa.	500	1050	285.5	1,410
WCAM	Camden, N. J.	500	1340	$223.7 \\ 239.9$	2,380 2,425
WCAP WCAU	Asbury Park, N. J.	500 500	$1250 \\ 1150$	260.7	2,380
WCBD			870	344.6	1.710
WCCO	Zion, Ill. Minneapolis, Minn.	5,000	740	405.2	1,395
WCFL	Chicago, Ill.	1,500	620	483.6	1,735
WCGU	Coney Island, N. Y	500	1370	$218.8 \\ 260.7$	$2,405 \\ 1,810$
WCMA WCOA	Cuiver, Ind.	500	$1150 \\ 1200$	249.9	2,205
WCRW	Chicago Ill	500	1340	223.7	1,735
WCSH WCSO	Portland, Me.	500	820	365.6	2,500
WCSO	Springfield, Ohio	500	1170	256.3	1,975
WDAE WDAF	Tampa, Fla.	500	1120 810	$267.7 \\ 370.2$	$2,530 \\ 1,500$
WDBO	Orlando Ela	500-1.000	1040	288.3	2,550
WDGY	Minneapolis, Minn. Chicago, Ill. Coney Island, N. Y. Culver, Ind. Pensacola, Fla. Chicago, Ill. Portland, Me. Springfield, Ohio Tampa, Fla. Kansas City, Mo. Orlando, Fla. Minneapolis, Minn. Chattanooga, Tenn. New Haven, Conn. New Haven, Conn. New Haven, Conn. New Haven, Conn. New York, N. Y. Providence, R. I. Columbus, Ohio Chicago, Ill. New York, N. Y. Beloit, Wis. Beloit, Wis.	500	1050	285.5	1,395
WDOD	Chattanooga, Tenn.	500	1230	243.8	2,085
WDRC	New Haven, Conn.	250	1060 610	$282.8 \\ 491.5$	2,440 2,405
WEAF WEAN	Providence R I	50,000	1090	275.1	2,495
WEAO	Columbus. Ohio	750	1060	282.2	2,010
WEAR	Cleveland, Ohio	1,000	750	399.8	2,025
WEBH	Chicago, Ill.	2,000	820	365.6	1,735
WEBJ WEBW	Beloit, Wis.	500	$1170 \\ 1160$	$256.3 \\ 258.5$	2,405 1,650
WEDC	Chicago, Ill.	500	1240	241.8	1,735
WEEI	Chicago, Ill. Boston, Mass. Berrien Springs, Mich	500	590	508.2	1,735 2,500 1,795
WEMC	Berrien Springs, Mich	1,000	620	483.6	1,795
WENR	Chicago, III.	500	$1040 \\ 1220$	$288.3 \\ 245.8$	1,735 2,300
WEW	Woodhaven, N. Y. St. Louis, Mo.	1.000	850	352.7	1,725
WFAA	Dallas, Texas	500	550	545.1	1.685
WFAN	Philadelphia, Pa.	500	1340	223.7	2,380 2,240
WFBL	Philadelphia, Pa. Syracuse, N. Y. Indianapolis, Ind.	750	1160 1090	$258.5 \\ 275.1$	2,240 1,960
WFBM WFBR	Baltimore, Md.	1,000 250-500	1230	243.8	2,330
WFI	Philadelphia, Pa.	500	740	405.2	2,330 2,380
WFIW	Philadelphia, Pa. Hopkinsville, Ky. Akron, Ohio	750-1,000	1150	260.7	1,910
WFJC	Akron, Ohio	500	1320	$227.1 \\ 223.7$	2,045
WFKB WFLA	Clearwater Fla	500 750	$1340 \\ 580$	516.9	1,735 2,520
WGBB	Freeport, N. Y.	400	1220	245.8	2,430
WGBS	New York, N. Y.	500	860	348.6	2,405 2,395
WGCP WGES	Chicago, Ill. Clearwater, Fla. Freeport, N. Y. New York, N. Y. Newark, N. J. Chicago, Ill.	250 500	$1120 \\ 1240$	267.7 241.8	2,395 1,735
	Cincago, III.	300	1240	241.0	1,100

