Both Sides Of The Microphone Training For The Radio

JOHN S. HAYES
. AND
HORACE J. GARDNER





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Both Sides Of The Microphone

Training For The Radio



The complete story of the radio, written especially for the average listener, the student and the future radio employee. The book gives authoritative and useful information, both to those interested from a vocational angle and to that vast multitude who listen in. In the first section the authors discuss, simply and thoroughly, such branches of radio work as are concerned with programs, sales, publicity, engineering, production, announcing and so on. In the second section some of the best known radio notables of today tell the listener what he should expect from the radio in the way of news, religion, sports, education and music. An invaluable book for anyone interested in radio.

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INTRODUCTION

This book has a two-fold purpose: first, to enlighten those who are interested in various phases of broadcasting from a vocational angle; second, to detail the fundamentals of radio for that vast, unseen audience, young and old alike, who are on the other side of the microphone.

Here, then, is the story of the station, with its program, engineering, sales, publicity and office departments each receiving careful attention, so that the future radio employe, the average listener and the student alike will know "what it is all about." This is the function of Section One.

Section Two is dedicated to the listener. With the assistance of radio authorities, he is told what he should expect from his radio in the way of news, drama, sports, education, religion, music and variety entertainment.

With the passing of the experimental age, we may expect great things from the youngest of our major industries. Modern broadcasting was born on November 3rd, 1920, when KDKA, the Westinghouse Station in Pittsburgh, Pennsylvania, broadcast returns from the Harding-Cox Presidential Election. From less than one hundred listeners, who comprised that initial radio audience, there has developed a potential listening public exceeding one hundred million persons.

At the present moment, more than seven hundred broadcasting stations, in the United States alone, provide a continuous variety of entertainment twenty-four hours a day, dwarfing the dreams of the world's showmen of only a decade ago.

Those first faint whispers of KDKA, transmitted for perhaps fifty miles, have grown into programs which require weeks of constant research. These presentations demand hours of continual rehearsal and the unlimited services of producers, writers, artists, engineers, musicians, announcers, control operators, piano tuners, sound effect experts, casting directors and a whole corps of other behind-the-scene workers.

Thus, today, as radio enters its Golden Era, we accept as casual occurrences programs which are heard completely around the world, presentations whose costs have sky-rocketed to incredible heights; and programs whose influence has grown to such proportions that advertisers paid for the privilege of putting their messages before the public through the ether waves, over one hundred and forty million dollars in 1937 alone.

Before we sign off, we should like to emphasize that our interest in the reader does not cease with the purchase of this book. Questions regarding radio as a profession or a hobby will be cheerfully answered by the authors. Just address them in care of the station to which you have been liste . . . oh! Pardon us . . . in care of the publisher.

JOHN S. HAYES HORACE J. GARDNER

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PART I One Side

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COMMERCIAL AND NON-COMMERCIAL STATIONS

This presentation reaches you through the courtesy of Soft-as-Silk Face Cream. . . ." At the sound of these magic words, another radio program of music, entertainment and news is on the air. As a soothing melody floats through the ether, the listener is concerned only with enjoying a feeling of well-being and relaxation, and not with the differences between one type of station and another. Yet, the station which has just announced the Soft-as-Silk Face Cream program is definitely a member of only one group of broadcasters. It belongs to the largest category in American radio: Commercial stations which operate for profitl

The listener becomes aware, however, of the existence of commercial stations when the program is interrupted by the announcer with some such statement as: "Soft-as-Silk Face Cream is the most astounding cosmetic discovery of all time . . . the cream that slenderizes as it beautifies . . . etc." At that moment, the thought that there might be stations operating for no profit has not entered the listener's mind.

But wait! What is that sound rasping its way through the open window from another radio set? "Calling Car 46... Calling Car 46." The listener makes the mental note: ... "looks like a hold-up somewhere," and then relaxes just in time to hear more of his favorite Soft-as-Silk program, which is again in full swing.

Those directions for Car 46, however, which came rasping through the open window, were received from a publicly owned broadcasting station: a police broadcaster, one of the many stations belonging in the second category of American radio: *Non-commercial* stations which operate for no profit!

These non-profit-seeking stations include a variety of broadcasters. Marine and aviation stations operate as an aid to sea and air transportation. So-called "institutional" stations, owned by universities and churches throughout the country, are conducted mainly for educational reasons. Experimental stations function for purposes of scientific research. Television broadcasters and short wave transmitters operate for a limited, technically minded audience. However, most of the problems met in the non-commercial field are similarly faced in the more complex operation of commercial stations, and so a discussion of the latter will be sufficient for our purpose.

We shall concern ourselves, therefore, on one side of the microphone with the commercial station and its personnel; and, on the other side, with what the listener should—and can—expect from the radio.

THE NETWORK

When the listener turns to the radio page of the newspaper and reads the phrase: "This program will be broadcast over a coast to coast hookup," he is reading about a phenomenon peculiar to broadcasting, the network. To define it briefly, a network is: ". . . a federation of local stations operating under an arrangement

whereby a program originating in one studio is broadcast over the facilities of all the member stations (of the network) simultaneously . . ." ("You and Your Radio" Talk #13.)

There are three major networks in the United States today: the National Broadcasting Company, the Columbia Broadcasting System and the Mutual Broadcasting System, all operating from coast to coast. In addition, there are several smaller, regional networks whose service is restricted to one section of the country alone. Of these, perhaps the Don Lee Network, serving California, and the Yankee and Colonial Networks, serving New England, are the best known.

Except for such special programs as football games, races and events which have to be broadcast right from the scene of action, the majority of radio network programs are put together and staged in the studios of one of the "key" stations of the network. For example, the most important key station of the Columbia Broadcasting System is WABC, in New York City, from which more than fifty per cent of the system's programs originate. Of course, each network has a number of key stations, but usually only one is the center or focal point of administration for the entire network. Once the program has been built, or put together, and the scheduled time for its presentation over the air has arrived, it is "fed" (or "piped" or "pumped") to the other stations of the network over specially leased telephone wires, and then rebroadcast from each local station.

Let us follow, briefly, a program fed from coast to coast. At ten o'clock this evening the No-Scrape Razor Blade Variety Hour is scheduled from New York over a nationwide network. The cast of actors, the musicians, the announcer and all the attendant studio personnel have been rehearsed and are ready for the broadcast. The moment the minute hand on the studio clock touches ten, the microphone is switched on and the program is on the air. Exactly at ten, also, the telephone wires between the stations of the network are opened and the program speeds to all parts of the country. It is heard by thousands of people who will probably never see the city of New York where the presentation is actually produced. Three thousand miles away, a station in San Francisco, California, is rebroadcasting the program; eleven hundred miles away a station in Birmingham, Alabama, is rebroadcasting the same program; and another is repeating the process in Chicago, nine hundred miles away!

Except for the announcer at the key station, who states that the program is originating in New York, the listeners are blissfully unaware of the marvelous scientific feat performed in order that they may have entertainment. They enjoy the program and accept it as a part of their

everyday lives.

It is not difficult to understand that the networks are able to offer a greater audience to advertisers and artists than would be possible on local stations. Consequently, most of the larger and more pretentious programs are heard over network facilities. But it must not be inferred that the best radio programs are heard solely on the chains. Hundreds of programs which compare more than favorably with many network presentations are broad-

cast over local stations every year. If the reader will pause to consider for a moment, he will realize that there is a basic difference between the programs of the networks and the programs of the local station. Listen to any one of the larger network programs and notice how its advertising appeal is directed to a general, widespread audience rather than a particular group, as are the programs of the local station. The local broadcaster may not be lavish in its presentation, but it does cater to the tastes of its own community.

For this reason, many advertisers prefer the local station. They plan their advertising appeal for a single community and need not be concerned with a campaign that is aimed at a coast to coast audience. Another point considered by the advertiser is that often a network's coverage is far greater than the distribution of his product. It would be absurd, for instance, for a business organization with outlets only along the Atlantic Seaboard to purchase time on a network that gives it Pacific Coast coverage as well.

Thus, the advertiser with a national product, one which is sold throughout the United States, generally presents his program over a national network. The smaller merchant or manufacturer prefers to confine himself to the less expensive local station, or to a regional network.

TIME, THE COMMODITY OF RADIO

The commodity sold by radio is *Time*. The value of that commodity, and the price a station asks for it, are determined by the station's popularity, its prestige in

the community, its estimated listening audience, and, as in all other advertising media, the results which it has already obtained for other advertisers and their products, and the promise of potential results it offers to prospective advertisers.

When an advertiser or "sponsor" buys an hour's time on a radio station, it is comparable to his purchase of space in a magazine. The advertising copy in the magazine or the program on the radio is essentially the concern of the advertiser, who must supply it himself. It is not the concern of the medium, which supplies only the *means* of advertising. Purchased time is known in radio as "commercial" time, and the program which is heard during commercial time is known as a "commercial" program.

Now, inasmuch as few stations have all their available time sponsored, the broadcasters themselves have to fill the time that is not commercial. This time is known in radio parlance as "sustaining" time and a great deal of effort is expended by each station in the production of programs designed to fill this sustaining time. Dead air (no program available for broadcasting) is to a radio station what a blank page is to a magazine, and it is a cardinal rule of both media that neither must exist.

ORGANIZATION OF THE STATION

Fundamentally, all broadcasting stations are divided into five departments. The size of each department varies with the size of each station. Although a cursory examination of the networks and the large broadcasters may show a greater departmental subdivision, a closer examination

reveals that the extra departments are actually only parts of the basic five. This quintet includes: (1) the Program Department, (2) the Sales Department, (3) the Publicity Department, (4) the Engineering Department, and (5) the Office Department.

Let us now consider these divisions in this order.

THE PROGRAM DEPARTMENT

WHAT IT IS

Are you listening?" No? You have snapped the program off because you did not like it? Then flash an S.O.S. to the Program Department! The program must be revamped, and the Program Department is responsible. All programs which are broadcast by a radio station are conceived, edited or supervised by the Program Department, just as the editorial staff on a newspaper dictates the make-up, and the news policy of the paper; and it is primarily the work of the Program Department which increases or decreases the station's listening audiences.

The Program Department must make certain that every presentation (commercial or sustaining) conforms in every way to the editorial policies and entertainment standards of the station. It is only natural that stations will vary in their individual editorial policies as widely as do newspapers. For example, many stations will not advertise liquor on their daytime programs; others will not do so when children may be listening. The majority ban all such advertising completely. Not so long ago, a number of stations decided not to accept advertising on behalf of patent medicines, whereas other stations did not care to observe this newest of niceties in broadcasting. In general, however, it may be stated that the broad editorial policy of every station is to conform closely to the

regulations of the Federal Communications Commission; and, in instances where there is no applicable commission ruling, to conform as closely as possible to a policy "in the public interest, necessity and convenience."

It is said to be a law of nature that no two persons are alike, and the same law is applicable to radio stations. One station's program can be identified from that of another either by the originality of the idea involved, or a unique method used in its presentation. In ordinary, everyday language, this distinguishing feature is known as "showmanship." Showmanship is to a radio program what personality is to an individual, or color to a stage performance, and one of the major duties of the Program Department is to develop this showmanship for the station.

The avid radio fan can easily spot his favorite stations without waiting for their identification, because stations have recognized this art of showmanship. Even the casual listener can probably recognize at least one broadcasting station in his community because it has achieved so definite a character that the tenor of its programs could belong to no other station. The degree of its showmanship has become its trademark.

When one realizes the large number of ideas for programs that each radio station must receive from listeners and staff members, and that the Program Department is the final arbiter in accepting or rejecting these ideas, it is easy to believe this department responsible for the success or failure of a station.

Only ideas that are new and different can be accepted. The Program Director must know or have the means of discovering whether a newly submitted idea is actually original or merely an old chestnut pulled out of the fire. Contrary to popular belief, it is a difficult task to unearth good, novel program ideas. The director and his staff are forced to be constantly on the alert lest a potential good bet escape them.

The Program Director's task, in many respects, is similar to that of an editor of a magazine. The editor must know popular tastes in reading material months ahead of publication. He must possess the "feel" for what the public wants to read, and he must have material in his magazine and on the newsstands just when the public wants to read it most. So, too, the Program Director has to plan his programs. Furthermore, he must foretell cycles in programs and not be left behind by competitors when a certain type of program becomes popular.

In 1935, the trend in commercial broadcasting was towards the big variety show, and programs like the Maxwell House Showboat scaled the heights of popularity. In 1936, the amateur hours brought such names as Major Bowes and Ray Perkins into the limelight. In 1937, the swing was towards audience participation in programs, with such presentations as street interviews most in demand.

For a radio station to be successful, it is, therefore, necessary that it maintain a good Program Department; one that has keen originality with a finger on the pulse of public opinion, an astute radio background and an equally acute sense of showmanship.

It is no secret to the radio public how radio talent is discovered and selected. The amateur hours uncover

much talent; much comes from the screen, stage and symphony hall; and much is selected from the applicants who literally storm the studios clamoring to be heard. Listening to these auditions, developing potential artists and then exploiting them properly is just one more duty of the Program Department. In radio, artist exploitation means the proper casting of performers in programs that will show their abilities to the best advantage; for, much in the manner of a store owner, the Program Director must realize that the merchandise most attractively displayed is the merchandise most likely to be sold.

Still another function, and an important one, too, of the Program Department, is to act as consultant to the Sales Department of the station. It recommends the time which it believes will bring the best available results to a particular sponsor; and, because it is more closely associated with the artists than any other department of the station, it can also recommend to the Sales Department (which actually sells the time) or to the sponsor (who purchases that time) the program which will bring the best results for the product to be advertised.

Now let us look at the men and women whose work falls under the direct supervision of the Program Director: the members of the Program Department.

THE ANNOUNCER

THE ANNOUNCER is the show window of broadcasting. He is one of the few members of a radio station's staff who is actually known to the public. His voice is usually the first and always the last to be heard on every program. And so, when a young man thinks of entering the broadcasting field, it is only natural that he turn first to announcing as the job to seek.

Before a man begins to concern himself about the qualifications for an announcer's position, he would do well to consider this single fact: in the slightly more than seven hundred radio stations in the United States, there are approximately four thousand announcers, an average of less than six men to a station. Thus, a man who tries to become a member of this profession attempts to join a limited circle, an incredibly small one in comparison with other fields which are open to him.

This fact, however, should not be too discouraging because, as in all professions, openings constantly appear in the field of announcing. Broadcasting is a young industry, growing by leaps and bounds, and its demand for experienced men means that announcers are continually moving over to other positions in the radio field, leaving gaps which must be promptly filled, ofttimes by novitiates. Also, individual stations are expanding from year to year, which brings about regular increases in their announcing personnel.

In order to become an announcer, there are certain

qualifications that the tyro must fulfill. It should be understood from the first that only the good announcer can hold his job. The competition is so keen that the man who, at best, is only fair would show wisdom if he sought his fortune in a less exacting field.

An announcer is not merely a reciter of words. His voice must possess a pleasant, listenable quality found in very few persons, plus a contagious enthusiasm that radiates from it. This important qualification may appear to be one that is easily met, but surprisingly few persons have voices with the necessary qualities for broadcasting. Should there be any doubt in your mind that the average voice is poor in quality, it takes but a few minutes of observation to notice how few people there are who really have pleasant speaking voices. Listen to your friends and notice the tonal differences as they speak. Observe their harsh, shrill, nasal, sibilant, or guttural tones. Then you will clearly see how far from perfect is the average speaking voice.

Although many people have been led to believe that the spoken word can be startlingly transformed by the microphone, this is not true. A voice over the air sounds very much the same as when heard in your own parlor. There is no foundation to the myth that all announcers must have deep baritone voices. If you will lend an attentive ear to your radio any evening, you will hear many excellent announcing voices which are definitely in the tenor register.

Once you have determined that you have a pleasant voice which sparkles with vitality, you have straddled

the first obstacle. However, if you do not possess that desirable quality, do not despair. Practice until you have achieved a certain perfection in voice and pitch, and if mere practice is of no avail, a vocal instructor can aid you immensely.

The next essential of good announcing is correct diction. Your voice may enjoy a nice tone, but if you stumble over words or glide over a phrase, or if you speak whole sentences unintelligibly, your career as an announcer will stop the moment you open your mouth. Listen to your favorite radio announcer for tips on clarity of expression. Notice how clearly and carefully he enunciates every word. His words flow smoothly, purely, precisely. He knows the value not only of using his voice correctly, but of getting the most out of every word he utters.

The third qualification for those young men who desire to become announcers, is education. Of course, educational requisites differ in every station. A few stations require that their announcers be college graduates, but the majority require only a college training and do not insist upon a degree. In general, any background which teaches a man to read English flawlessly and speak it fluently is all the education required.

It would be well for the prospective announcer to know something about music, but not to the extent that he sing or play an instrument himself. The only musical training really necessary is a little knowledge of foreign composers and compositions, and of course the ability to pronounce their names correctly. Not only do these names constantly crop up in radio programs, but many of

them are placed in competitive examinations (auditions) which stations give to applicants for announcers' positions.

Since one of the most popular programs of the day is the news broadcast, it is necessary, too, that the announcer know the correct pronunciation of foreign countries, as well as the almost unpronounceable names of the important men who are constantly on the front pages of the newspapers.

The prospective announcer may say: "The listener will only hear my voice. He will not see me. How I look is unimportant." That may be true to a certain extent, but think of those who visit the studio, who view the announcer at broadcasts outside the station, who see him at the symphony concert, on the street for curbstone interviews, at the ringside of a boxing match, at a football game, before a dance orchestra at a restaurant or at one of the countless other events where the announcer is actually in the spotlight. The announcer's appearance is indeed important, because he is generally the public's exclusive visual contact with the radio station. Neatness in appearance is absolutely essential.

Hand in hand with appearance is good health. An announcer's job calls for irregular hours, and he cannot afford to be in ill health, lest his appearance and voice suffer. Announcing means constant top-notch condition, or being shelved for one who can be more continually alert, one who has vitality and who can make his listeners feel the presence of that vitality.

The final qualification for a good announcer is something with which one must be endowed. Many times, in the daily routine of announcing, a man is confronted with emergencies which make it necessary to display a native intelligence in making split-second decisions. Whether he be the regular staff announcer, with the usual quota of ordinary run-of-the-mill programs, or a specialist concerning himself only with one brand of broadcasting, the announcer must be able to think clearly and quickly on his feet. When he makes a decision, it must be the right one, for once an announcer has made a mistake or uttered an incorrect word into the microphone, it is gone forever, never to be recalled.

CONTINUITY

CUE: Theme Music
ANNOUNCERS: Gardner and Haves

PROGRAM: Both Sides of the Microphone-Conti-

nuity

PLACE: Chapter III—(Part I—Section I)

TIME: The Present

From the opening word of a program to the last whisper of the announcer's sign-off, every spoken syllable that is heard, the plea of the sponsor, a request for attention, an introduction to a musical number, humorous repartee or a dramatic playlet, is read from a script which begins as this chapter was begun, and is called radio continuity.

Continuity may be any form of radio writing: a play, a continued serial, a commercial announcement, a comic skit, a monologue, or the introduction of a song or a performer, but all the words spoken on any program are the result of the effort of some continuity writer.

Before we discuss the particular technique of continuity writing, it is necessary to list the general qualifications which every writer must possess: (1) good background of English composition; (2) definite flair for writing; and, (3) ability to write fluently and forcefully.

The art of writing for radio is as hard to master as any writing technique. Undoubtedly it is more difficult than ordinary creative narration because the continuity writer must produce written material which can be read aloud by someone other than himself.

Good continuity keeps each character in character at all times. It unfolds the action, develops every scene, and makes every word that is spoken sound as though it were the natural development of the situation. Therefore, the writer must listen to his script as he taps it out on his typewriter. He must hear the announcer speak every word, even as it first appears on his paper.

The good continuity writer possesses a fine sense of showmanship. If the program is light and breezy, then the continuity must be written in a light vein. If, on the other hand, the presentation is a dignified symphony, the continuity must maintain that dignity. Most important of all, a scientific program requires that its continuity writer be thorough and painstaking. His information must be accurate, and his technical phraseology beyond criticism.

Among other things, a good continuity writer must know how to begin a program properly. The type of announcement in a musical program, for instance, must be long enough to gain the attention of the listener, and yet not so long that it will bore him. He must learn to write a closing announcement which, while incorporating all the necessary information about the program, is not so uninteresting that it causes the listener to switch off his radio before the station's following program begins. Announcements must not sound like uninteresting additions to the program. They must be integral parts of it. This can be achieved by avoiding hackneyed phrases. There are ways to open a program other than: "we present" or "and now we hear"; and hundreds of ways to close a program other than: "you have just listened to"

or "we have brought you . . ." These and a host of other similar clichés have no place in effective radio continuity, and the good writer knows it. He never uses one.

What the prospective continuity writer cannot afford to overlook is the mechanics of putting a program together. There are two ways to learn program building from the writer's point of view. The first is by far the more effective. (1) Secure a number of copies of actual radio scripts. Notice the manner in which they have been put together, then use them as a guide. Stations will gladly lend copies of their scripts. (2) Listen attentively to radio programs, or, better still, actually watch the programs produced in radio studios. That will show you the manner in which they are routined.

Obviously, specialized forms of continuity writing require specialized backgrounds. The man who writes a dramatic script must know the stage technique of building to a climax. Further, he must know pace and direction, in order to gain his desired effects. In addition, through the use of skillful dialogue he must move his people about. On the radio, there can be no stage business, no facial gestures, no movements of the hands and shoulders. The script writer must make the audience see with its ears. Naturally, then, stage experience is of invaluable assistance in creating a dramatic program to go on the air.

The continuity writer whose field is comedy must know the secret of "the situation" and the "build-up" of banter. Writing for vaudeville comedians never harms writers of scripts for radio "funsters." The prospective writer of comedy skits for radio will find his technique aided immensely through having written "black-outs" for the musical comedy stage.

The writer who specializes in commercial announcements must have the knack of writing his message effectively, yet not blatantly. Writing commercial copy for magazine and newspaper advertisements is a most valuable experience for a would-be continuity writer. Although the technique of production may differ, the fundamentals and approach are similar.

Continuity writing is replete with equal opportunities for men and women. If you can write, and write effectively, you can learn to write for radio. But, before you begin, may we advise you once more to borrow a few radio scripts and study them carefully.

Continuity in radio is the ingredient that makes the program flow smoothly. The good continuity writer is a valuable member of a radio station.

THE MUSICAL DIVISION

That magic voice coming over the radio must have a message of vital interest to you, or belong to your favorite speaker. Otherwise, you would probably prefer to listen to a dance orchestra, or to someone singing, or to a symphony concert of classical music. The speaking voice is not as pleasantly rhythmical to the ears as music. Since we are creatures of rhythm, it is easily understood, therefore, why the majority of radio programs are musical. Ponder for a moment and you will realize that this is true. If you wish to prove it, listen to the radio for just one hour and notice how few programs there are which have no music whatsoever.

The Musical Division, therefore, is exceedingly important to a radio station. The Musical Director is second in importance only to the Program Director himself because his direct influence is felt in so many of the station's presentations. He must be a man whose experience covers every phase of music, from the development of the opera to the proper "swing" of a "jam" session.

All activities concerned with music in the radio station are delegated to the Musical Division of the Program Department. There are three distinct major units of this division as well as a number of subdivisions. These, the Musical Director supervises personally or assigns to a subordinate. The three major units are: (1) the studio orchestra, (2) the music library, (3) the Department of Copyrights.

(1) The first major unit of the Music Department is responsible for the supervision and the maintenance of the studio orchestras. These may range in size from four men, at the smaller stations, to a hundred men, at the networks. Studio orchestras usually have weekly sustaining broadcasts of their own. The same musicians may also be used in commercial programs, unless the sponsor hires an orchestra of his own choice, which he frequently does.

This first unit also examines the qualifications of the .men who apply for jobs in the studio orchestras. It employs the musicians that it decides are capable, directs their activities while in the employ of the station, and finally, when necessary, dispenses with their services. The responsibility of hiring and supervising the conductors who direct the studio orchestras is one of the special duties of the Musical Director.

(2) The library of music is the second large unit of the Musical Division. Obviously, an artist can afford neither the time nor money required to purchase all the music he or she may use in the course of a broadcasting career. The artist must turn to the music library for assistance. Therefore, that library must be complete and constantly replenished. It must purchase all the new music for which there may be a demand, as well as keep in its files all the more important standard works. Not only sheet music and orchestrations but phonograph records (used to fill sustaining time and for small commercial broadcasts) must also be purchased, filed and kept up-to-date. The music library employs purchasing agents, librarians and its own research workers who investigate

all the available newly published works of music.

(3) The third major unit of the Musical Division is responsible for a peculiar function known in broadcasting as "copyrights." Every selection of music is owned by someone, usually its composer or its publisher, unless it has been in existence so long that it is said to be "in the public domain," and to belong to no one. The original term of copyright, under existing United States Law, is twenty-eight years. Within one year prior to the expiration of the original term a renewal may be secured for a further term of twenty-eight years, making fifty-six years in all.

No permission for broadcasting is required by copyright law if a selection is "in the public domain"; but if the selection is copyrighted and the copyright is still valid, permission for a composition's reproduction must be secured from its owner.

The first duty of the Copyright Department, therefore, is to discover whether a composition is "in the public domain." If it is not, the identity of the owner must be determined and an attempt made to secure his permission for its broadcast. Should the department err and either fail to get the required permission, or secure an erroneous one, the rightful owner is allowed by law to sue the broadcaster for copyright infringement, and to be awarded a sizable sum by the courts. Hence, it is to the advantage of the radio station to maintain a copyright staff whose ability and accuracy are beyond question and whose Research Department is painstaking to the point of perfection.

Thus far, we have discussed the three most important

units of a Program Department's Musical Division. Now, we come to its lesser activities, usually under the personal supervision of the Musical Director himself.

These include his duty to hire and then to supervise the work of accompanists on various programs. He must arrange for the musical scores which are especially made to fit each orchestra on every presentation. He is also in charge of the staff artists who are singers or instrumentalists, always on call at the station, either ready to replace a scheduled program which has failed to appear for broadcasting, or who are regularly spotted on several programs weekly.

Moreover, the Director and his Department are further responsible for the purchase and maintenance of studio instruments, for the engagement of guest artists and for co-operation between the broadcaster and outside musical organizations which the radio station serves. These outside organizations include the local union of musicians and such civic organizations as women's clubs and choral societies; all of which are interested in the broadcaster's musical activities.

The members of the specialized units of the Musical Division require, of course, qualifications which fit them for their specialized fields. The librarian must know the principles of filing and indexing, whereas this knowledge is of no use whatsoever to the arranger, whose experience must lie in a completely different direction, that of musical scoring. The novice, with no training, cannot hope to fill a specialized position in the Music Department, other than that of apprentice, and only the larger stations will hire apprentices in their Musical Division.

The successful member of a Music Department is one who combines, in proper proportions, a musical and a radio background. His musical experience should be allinclusive. His knowledge of radio should have taught him the elements of program building and the meaning and importance of showmanship.

SOUND EFFECTS

THE SOUND-EFFECTS man calls it his bag of tricks. The radio station calls it the sound-effects library. But, to the listener, it all means reality, for the sound-effects library is a collection of gadgets and devices for the production of the sounds which color a program to the point of realism.

Although he may be the butt of many radio jokes because of his everlasting noise-making experiments, the sound-effects man is a most important person in a broadcasting station. Without him the majority of programs in radio would be flat, colorless and completely dull.

Suppose that when Mr. and Mrs. Gulch quarrel on the radio and Mr. Gulch cries out: "I'm sick and tired of your nagging. You can have the whole place to yourself. I'm leaving!" no sound followed Mr. Gulch's outburst and only a dead calm ensued. Your ears would strain for the slam of a door as Mr. Gulch stalked out, and you'd feel cheated because nothing happened. On the other hand, when the door does slam, the program becomes more interesting. The sound of the slam lets you visualize Mr. Gulch as he goes out of the house. It proves that he was really angry. You know definitely that he has left the scene.

The same is true of all sounds: telephone bells, thunder storms, trolley cars, automobile sirens, the barking of dogs and the meowing of cats. If there were no extraneous noises whatsoever, hundreds of programs would lose their appeal and listeners would immediately become bored with them. It is merely a representation of reality that is emphasized for the listener when he hears a sound with which he is familiar in a given situation. These myriad sounds make broadcasting truly a miracle of realism.

Sound effects are produced in four ways: (1) as the result of a mechanical contrivance; (2) through the use of a phonograph record; (3) by the human voice; (4) the actual sound made in the studio.

- (1) Most sounds are reproduced mechanically. As an example: when a skit is produced in the studio with a forest fire as an integral part of the action, the sound-effects man crumples large sheets of cellophane close to the microphone and gets the desired crackling effect of burning wood. That same cellophane, when crumpled in smaller sheets, will reproduce the sound of an egg as it fries. The sound-effects man has practiced crackling cellophane for hours to achieve the results he wishes. The degree of credulity with which the listener accepts his efforts, is the measure of his success.
- (2) Many sounds are actually transcribed on a phonograph record to be reproduced on the radio whenever they are needed. The sound of a train, for instance, as it starts and stops has been recorded, as have the sounds of motors, windstorms and traffic noises at busy intersections.
- (3) A producer of sound, often used on the radio, is the human voice. It is especially well-suited to registering the sounds of countless animals. Witness the favorite canine pet of thousands of listeners who is the constant recipient of letters requesting his photograph. He is really

a sound-effects man with a convincing bark! The human voice may also be used to splendid advantage in simulating certain musical instruments.

(4) Strangely enough, there are few actual sounds reproduced themselves in the studios. However, the few that are so made cannot be improved upon. There is no better sound for striking a match than that achieved by actually striking a match before a microphone and broadcasting the resulting sound.

But the limitations to the number of sounds that can be thus reproduced in a studio are many and a little explanation will show why artificial sounds are necessary. It is true that the sound of an explosion cannot be actually reproduced inside a building, nor would it be feasible to hire one hundred men to parade in front of a microphone to duplicate the sound of marching feet. Therefore, artificial sounds have been created to supply radio's necessary effects. And so the sound-effects man has come into being.

The majority of artificial sounds are reproduced with simple devices which, nevertheless, take long hours of research to find and perfect. The manner in which many sounds are made is interesting and may be mentioned in passing. We've already talked about crumpling cellophane. The next time you hear an airplane crash on the radio, the chances are it was produced by some sound-effects man who brought his fist down sharply on a peach-basket. Violently shaking a sheet of tin will produce a sound which frightens anyone who is afraid of thunder. A sharp snapping of the fingers will create the sound of an electric light switch as it is snapped on and off. One of

the most interesting of all is the sound of a cocktail . shaker. This effect is gained through sleigh bells which are wrapped in adhesive tape and then rattled!

There are no definite qualifications for sound-effects work. A good sound-effects man should possess a lively curiosity. He needs a natural bent along mechanical lines and a quick intelligence combined with a sense of dramatic value.

Lastly, he must enjoy an indispensable, inexhaustible patience for research. Much of his spare time must be spent in constant experimentation, always in anticipation of any requests he may receive from the Program Department for the production of new sounds.

PROGRAM RESEARCH

PART OF the radio continuity for a future "Soft-as-Silk Face Cream" program was the following sentence: "Poor John Bunyan died while riding his horse to a funeral." Unless you were a student of Seventeenth Century literature, would you know whether or not that statement was true? Let us hand the continuity to the Research Division and let it check the data in the script.

The Research Division of a radio station's Program Department is no different from the research division in any other industry. The word "research" is defined as "laborious, careful inquiry or investigation," and that is the function of the Research Division. It inquires into the facts, the figures and the contents of every program in order to guarantee its accuracy in every detail.

Now let us read the report on Bunyan which arrived from the Research Department. It read: "John Bunyan did not die while riding a horse. He died as the result of riding a horse in a storm while on an errand of mercy. He rode in this storm for miles to bring a poor man, who was dying, religious succor and strength. He never recovered from the cold which he caught." Discovering such facts is only routine work to the Research Division of a radio station.

When the Program Department wishes to gain information which cannot be supplied by other departments in the normal course of operation, it turns to its research workers for the answer. These workers supply any in-

formation that is required, and it may range from ancient history to the eating habits of an Eskimo!

The qualifications of the successful research worker can be judged from the job he has to do. "Laborious, careful inquiry" requires patience and diligence. The research worker must spend long and tedious hours in the library poring over obscure data. Most important of all, he must know the available sources of information. For, if he does not know the answer to a question, he must know where the answer can be found.

Here, as in many other branches of the industry, a radio background is not a necessary prerequisite. Research in any field can prepare one for program research in a broadcasting station. The approach to fact-finding is always the same; only the facts which are finally found differ from field to field.

THE AUDITION

Thousands of people fondly dream of becoming radio stars. Only a selected few of these countless aspirants to radio fame actually receive the opportunity so many people desire. They have had to pass try-outs or hearings, called auditions.

No one knows what hidden potentialities a person may have. If the radio bug has bitten you and you have an insatiable desire to sing, talk or play over the air, get an audition! There may be so many applicants that you will not procure an appointment the first time you try; but, if you try often enough, some station will listen to you.

Naturally, it is manifestly impossible for the Program Director of a radio station to hear everyone who applies for an audition. Consequently, the work of weeding out the applicants is delegated to the Audition Committee.

This committee is composed of persons who have been selected because they possess several special qualifications. When you apply for your audition, you will receive your first impression of the radio station from your initial contact with the member of the Audition Committee who is assigned to listen to you. You will notice his exceptional tact. Not only will he make you feel at ease, but he will endeavor to draw out the very best you have in you for your audition.

While you are auditioning, he will note the things for which his years of radio experience have trained him to look. Since he is familiar with the program needs of the station, he will mentally try to fit you into some program. At the same time, because his sense of showmanship is so well developed, he will spot whatever radio potentialities you may seem to possess. Finally, when you have completed your audition, he will know whether you are, or are not, a potentially successful radio star.

Thousands of people who audition have to be told gently, yet firmly, that the station has no use for their artistic services. It can be readily seen that diplomacy and courtesy on the part of the Audition Committee are not only important, but absolutely essential. Only experienced men and women are capable enough to fill positions on it.

Stations prefer to choose their auditioning personnel from their own already established staffs, because of the special requirements for this type of work. The Program Director knows that these persons are familiar with his standards, as well as his program requirements. He has had the opportunity to observe them display their tact, diplomacy and judgment while filling other positions on his staff.

As a general rule, stations will seldom employ a man or woman for the specific purpose of serving on the Audition Committee. It is usually an added responsibility given to one of the lesser executives of the Program Department.

THE PRODUCER

THE NEVER-LOSE-A-MINUTE WATCH COMPANY, makers of "Accurate Watches for Accurate Folks," wishes to sponsor a program every Sunday night at ten o'clock. The building of the program along the lines the Company desires, a variety show, is left in the hands of the station's Program Director.

The Director calls a meeting of his department for a consultation. Almost instantly the wheels of creating a program are set into motion. Ideas are discussed around which a script can be written by the Continuity Department. Plans are made for auditioning the cast. The Music Department suggests the songs to be sung and then proceeds to investigate their copyrights. An orchestra is selected and the arranging of the musical scores begins. The announcer is chosen, and, after the program has been outlined and tentatively set up on paper, the Research Department checks it for accuracy. The sound-effects man starts experimenting for the required sounds. Finally, word is sent to the Traffic Division in the Engineering Department to arrange the necessary network outlets, and to publish a schedule assigning the studio personnel to their various duties on the program.

There remains now but one operation. All the divergent factors that go into the building of a program must be molded together and from them a smooth presentation must emerge. There remains only the task of transferring the program from memo pad to microphone,

from continuity stencil to studio. This function is the job of the Production Department generally, and specifically of the Producer who has been placed in charge of the program.

The role of Producer in a radio station corresponds to that of stage director in the theatre. His office is the general field headquarters of any program. All questions are referred to him and all decisions are handed down through him. He is the personal representative of the Program Director in the studio.

The Producer is the real showman of radio. His duties are too numerous to list. However, a good idea of his importance can be judged from a cursory glance at the various tasks which come under his control. There are three phases of his work: (1) regulatory; (2) mechanical; (3) artistic.

- (1) Under the heading of a Producer's regulatory duties comes the responsibility of maintaining discipline among the artists. He must see to it that all studio regulations are enforced and that all station formalities are complied with. A minor disciplinary measure such as enforcing a "no smoking" rule comes within his province, as well as one so important as forbidding the announcement of a piece of commercial copy which the Producer feels has not been properly edited.
- (2) Under a Producer's mechanical duties are a number of divergent matters which contribute to the successful completion of a program. The all-important function of accurately tuning every radio program is probably the most important of his mechanical responsibilities.

He must determine whether or not it fits accurately into its assigned space on the air. The proper placement of each singer, speaker and performer before the microphone, must be determined by him. He must see to it that every instrument in an orchestra is correctly placed, so that when its music is reproduced on the air, it will sound as it does in the studio. Every rehearsal of a program is managed by him. Then, when the broadcast is on the air, he directs its actual progress, cueing every action by every performer.

It is also the duty of the Producer to gauge the progress of a program so that its timing on the air is correct to the split second. If the broadcast runs behind a time-schedule which he has previously worked out, he must make up that time by speeding up the show. Conversely, if the program is ahead of its scheduled pace, the Producer must slow down its progress.

Obviously, if the Never-Lose-A-Minute Watch Company has purchased an hour of radio time, from ten to eleven o'clock on Sunday evening, and the Heatrite Oil Burner Company has purchased a quarter-hour, from eleven to eleven-fifteen P. M., it is absolutely necessary that the Never-Lose-A-Minute Watch Company program finish at exactly eleven o'clock, or else the Heatrite Company program cannot begin on time. Since the commodity a radio station sells is time, it can no more allow the watch company to have sixty-one minutes, than a grocer can afford to give thirteen eggs to the purchaser of only one dozen. Then, too, if the watch program "runs over" one minute, the oil burner program will have only four-

teen minutes for its program when it has bought a full fifteen minutes.

(3) The artistic function of the Producer is much more difficult to define. It is the application to every program, of the sum total of his experience, his inherent sense of the dramatic, his showmanship, plus his ability to "pace."

In broadcasting, a program is said to be "paced" perfectly when it is so constructed that it approaches its proper climax at a dramatic speed which creates a desired, pre-determined effect upon an audience. This ability to "pace" a program, to keep it moving at its proper artistic tempo, is the index of a Producer's worth.

The successful Producer almost instinctively "feels" this "pace" in a program. He knows the effect he is trying to create and he must realize when it is falling short of that objective. Just as the fencing expert senses when his delicate foil is off-balance, or the boxing champion recognizes the psychological second for the killing blow, so the Producer instantly realizes the moment a radio program is, or is not, achieving its desired reaction.

The fundamentals of radio production can be taught and learned. Long years of training and application will give a man or woman the necessary experience, common sense, balance, stability, diplomacy and the essentials of program building which are required in production. But, the most important attribute that the better Producer must possess comes from within. It is his artistic imagination, and it can no more be taught to the Producer who lacks it than the principles of true poetry can be instilled into a mediocre verse-maker.

The experienced radio man can become an adequate program producer. Whether or not he becomes a good one depends solely on his artistic sensitivity; and for this, he can turn only to himself.

THE ARTIST BUREAU

CLOSELY ALLIED to the Program Department is the Artist Bureau, a comparative newcomer to radio. Its purpose is to hire artists by contract and then rent them, either to commercial sponsors or to theatres and other entertainment media. Loosely defined as an agency which trades in talent, the Artist Bureau owns and leases artists to anyone who desires their services, either for broadcasting or for personal appearance. The Department is selfmaintaining, making its profit from the percentage of the fee it charges for the services of the artists, who in turn receive the balance of the fee.

Five years ago a radio artist had a difficult time trying to secure a spot on a commercial program. He had to "sell" himself. The majority of his spare time was necessarily spent in seeking sponsors, chasing Program Directors, pleading with booking agents, or merely filing his name in casting offices. Agents were of little help to him, for those already established were more concerned with other media of entertainment and knew very little about radio.

Today, the radio Artist Bureau has become an invaluable aid to the artist. He relies upon it to contact many people he could never reach, and to procure work that he might otherwise never receive. Thus, a large part of the Bureau's activity is concerned with building and maintaining those contacts which enable it to know when an engagement is available for an artist.

When the Soft-as-Silk Face Cream Company desires an artist or a group of artists for its radio program, it relies upon the station's Artist Bureau. As a rule, the company itself cannot be expected to know whom to select. The existence of the Bureau is thus justified from the artist's point of view. From the point of view of the station, the Artist Bureau also enjoys a legitimate function. If a radio station expends much effort in teaching an artist his technique and then spends more money in building a following for that artist, it is only fair that the station share in the profits. Hence, the rapid rise and growth of the Artist Bureau and its newly found acceptance in broadcasting.

Artist Bureaus were (and to a great extent, still are) made up of people with similar experience in allied entertainment fields, such as theatre and night club booking offices.

The successful booking agent must be a shrewd bargainer. He must be able to realize the potentialities of an artist before they have been discovered by the public and the critics. Then, too, he must keep in touch with all his available contacts so that he knows immediately when there is an opening which can be filled by any of the artists whom he has under contract.

Up to the present, few have been called from a station's broadcasting personnel to its Artist Bureau. However, as time goes on, it seems reasonable to assume that Artist Bureaus will realize that those with a radio background are valuable additions to their organizations. Instead of importing men and women, with only booking agency experience, they will turn to the station itself for their workers



THE SALES DEPARTMENT

WHAT IT IS

EVERY ADVERTISING medium has a Sales Department to sell its own speciality. Billboard agencies deal in outdoor posters; magazines and newspapers trade in space; and the radio station sells time.

The Program Department may have ideas which will startle the whole broadcasting industry. With no revenue in the treasury from the efforts of the Sales Department, the ideas would never be broadcast. Profits begin to show when revenue over and above its running expense is brought into a radio station. In broadcasting, as in all other business, the measure of a station's success is gauged by the bookkeeping ledger at the end of the fiscal year.

VALUE OF TIME AND RATES

The value of a radio station's time is determined fundamentally by the size of its potential listening audience. If Station BCD serves a community of ten thousand persons, and Station EFG serves a community of but five thousand, the rates of EFG could, logically, be only half that of BCD. This is what is known in broadcasting as the "primary factor" in determining the value of a station's time. Once it has been established, other factors can then enter the picture. For example, the hour of day influences the value of the time. A broadcaster cannot

charge the same rates for time at two o'clock in the morning (when more than three-fourths of a community are asleep) as it can for time at eight o'clock in the evening (when anyone near a radio usually has it turned on).

The quality of the broadcaster's programs is another factor to be considered. It is only reasonable to assume that the station with a better series of presentations is a better bet for the advertiser. People naturally will listen to the station which presents the better program. Still another factor is the specific appeal the station may make to a certain group of listeners. A manufacturer of farm machinery would not sponsor a program over a station whose listeners are urbanites; nor would a manufacturer of cigarettes advertise over a station situated in a state which bars the sale of his product.

The value of a station's time, therefore, is determined by its potential listening audience, and several other factors such as the hour of day, quality of program and class appeal. This value is expressed in terms of the price which a station receives for its time, the "station rate," published on what is known as a "rate card." The salesman carries this rate card with him when he calls on a client. The rate indicates what the station estimates is a proper recompense for the use of its facilities.

THE SALESMAN AND SELLING RADIO TIME

BEFORE THE SALE

Many men have entered radio time-selling from other sales fields. They have brought their fundamental knowledge of sales along with them and added it to the specific requirements of selling radio time. But not all men have broken into the field as experienced salesmen. Some have started with no selling experience whatsoever and have learned both the principles of salesmanship and the essentials of radio time-selling. A third group of men has moved into sales from other departments of radio itself. They have brought with them the necessary radio background without the required sales experience. All three of these groups have produced eminently successful salesmen. There is no specific entry into radio sales which is recommended above all others. The essential requirements are a complete knowledge of broadcasting problems and a thorough background of salesmanship.

Mr. Brown, the star salesman of Station ABD, who sold the Soft-as-Silk Face Cream Company its hour of radio time, had to know more than the average salesman usually does about his product. Like all good salesmen, he was familiar with competition. He could sell his product convincingly. He knew the general background of his field. BUT, his knowledge was more detailed and far more diversified than is the usual knowledge of salesmen in other fields.

Before the drugstore that sells Soft-as-Silk Face Cream places an advertisement in a newspaper, there are only a few matters which the owner must consider. The salesman selling the advertisement has anticipated most of the questions that will be asked, and he is ready with the answers. The owner wants to know the circulation of the newspaper, its coverage, the type of reader it enjoys and the distribution figures of the publication. When the salesman has supplied this information, the owner of the drugstore knows whether or not it will pay him to advertise in the particular newspaper.

The technique of selling radio time, however, is quite different. The same questions may be presented, but their answers cannot be demonstrated as concretely.

When Mr. Brown approached President Green of the Soft-as-Silk Face Cream Company, his initial step was what is called "missionary work." First he apprised himself of the fact that the face cream company was a likely sponsor over Station ABD. Then he continued his conversations with President Green and, in a number of interviews, acquainted him with the value of radio. Finally, when President Green was convinced of the worth of broadcasting in general, the salesman's first step was completed. He was then ready for his second.

Mr. Brown's next step is to convince Mr. Green that Station ABD is the *specific station* over which Soft-as-Silk Face Cream should be advertised. While his selling talk is expanding, he makes certain that he stresses the estimated coverage of Station ABD, its reception in various parts of the community, and its general background. He stimulates the interest of the president in radio advertis-

ing in Station ABD, and what it can do for the face cream company. He goes into his subject more thoroughly. Mr. Green is informed of the general content of the station's program schedule and the results it has already gained for other sponsors. The salesman also breaks the listening audience into groups according to their incomes, the type of program each group prefers, and at which time of day each listens to the station.

Let us say that Mr. Brown, the salesman, has now convinced President Green that Station ABD is the one which will benefit his product most. He has persuaded him that he should purchase time on it. There are, nevertheless, a few more items which must still be discussed: comparative costs of programs, according to the time of day and the type of presentation President Green desires; the duration of the contract; and the possibility of enlarging the program to network proportions.

When you consider that the radio salesman is, in many instances, approaching clients who, as yet, have never used radio as an advertising medium, and that he must first sell the value of broadcasting before he attempts to mention the benefits of a certain station, you can begin to understand the intricacies of successful radio time-selling.

SERVICE AFTER THE SALE

Even after Mr. Brown has sold broadcasting time to the Soft-as-Silk Face Cream Company, his task is far from finished. His remuneration is received from Station ABD and he is responsible to it. However, he is also responsible to the face cream company for the proper carrying out by the station, of its contract with the sponsor. This part of the salesman's job is labeled "service-after-the sale" and is known as his "dual responsibility." President Green may come to believe that Station ABD could improve its handling of his program. He may think its continuity, production, or its general presentation could be changed for the better. If this should happen, it is Mr. Brown's duty to act as mediator between his client, President Green, and his employer, Station ABD. He must see to it that all difficulties are adjusted to their mutual satisfaction. You will notice that this dual responsibility is apt to involve Mr. Brown more with the problems of his client's PROGRAM than his employer's TIME.

It is this last phase of time salesmanship, the service-after-the-sale, that makes selling radio time so different from selling other advertising media. In the case of a newspaper, advertisements are almost always prepared by the client (or his representative, the advertising agency); while in radio, the sponsor (or his agency) frequently relies almost wholly upon the broadcasting station for the conception, preparation and presentation of his program. Consequently, the radio time salesman's service-after-the-sale is of the utmost importance. The client can find fault with many aspects of a program that the station itself has conceived, prepared and presented it in behalf of HIS product. In the case of the newspaper, the client has only himself to blame if he does not like the contents of an advertisement appearing in its columns. After all, he wrote it himself!

A salesman is paid in one of three ways: (1) he receives a salary for his services; (2) he is paid a commission on the amount of sales he makes yearly; (3) a combination of the two systems is employed. Each station sets its own policy. Generally speaking, the networks and larger stations prefer the first method. Intermediate stations prefer a salary-commission combination. The smaller broadcasters lean toward the commission system alone.

To the person considering radio time-salesmanship as a career, we say that the field is one of the most remunerative in the industry. Think about it seriously, despite the fact that it incorporates, in popular imagination, little of the glamour and romance of program-production. Many of broadcasting's highest executives are being chosen from the Sales Departments of radio stations.

tion of material and ideas to be used by the Sales Department. . . . Our general job, as we understand it, is (thus) to increase sales." ("Broadcasting," Volume 12, No. 15.)

QUALIFICATIONS

The person who writes fluently and has a definite flair for advertising presentation can find a place for himself in sales promotion. Here, incidentally, is one of the few places in broadcasting where women enjoy an equal opportunity with men. We might note at this point that advertising copy in the promotional field must be written exceptionally well. It is directed at a critical audience with a high degree of sales resistance. The good promotion copywriter must possess the powers of creative advertising imagination. With it must be combined either previous experience in some branch of advertising, or at least a formal education in advertising fundamentals. His knowledge must include a working familiarity with copy and its approach, sales appeal, market conditions, consumer's demands, layout and advertising trends.

Again quoting Mr. Creamer: Sales promotion requires "... a feeling for entertainment value, combined with a keen sense of profit and loss. We need breadth, depth and a general background of advertising as it is practiced today. To plan with ease and to base what we do on facts, not theory." The Sales Promotion Department is: "... an interpretive agency drawing upon the combined talents of a skilled group well versed in the practical application of advertising, creative research and the written word." ("Broadcasting"—ibid.)

THE FUNCTION AND IMPORTANCE OF RESEARCH IN SALES PROMOTION

Before an advertising campaign is launched, much research must be done to discover facts with sufficient appeal to impress the audience at which the campaign is to be directed. In sales promotion, research consists of:

(1) investigation into the accuracy of data on which an advertisement is to be based; (2) searching for new material from which a campaign can be evolved.

If advertising is to gain results, it must be accurate. The premise, the argument and the conclusions reached in every advertisement must be TRUE. No radio station would dare base a sales campaign on a series of advertisements which subsequently proved to be either misleading or untrue, and which would destroy the effect of the entire campaign. No station would run the risk of a possible drop in prestige because it was found to have circulated favorable but false reports about itself. Hence, the research workers in the Sales Promotion Department who prepare the data for a campaign must be completely dependable and their efforts utterly reliable.

Research workers are divided into two groups. One is concerned with routine research. The other employs itself in what is called creative research.

In routine research, the fact-finder is a tireless sleuth tracking down every possible clue until at last the quarry is revealed in some dusty volume in a reference room. His duty is to check the accuracy of every bit of exploitation employed by a station. He must be thorough, patient and in possession of an infinite capacity for detail. He must know his source material, and he must be familiar with references which will give him the information he seeks. The necessary background for his work can be acquired in any research field.

The creative research worker needs to have "a nose for news." That is an innate characteristic which generally cannot be acquired. It is the ability to sense instinctively the facts or data upon which a successful campaign can be built. The good worker can recognize, almost at a glance, the information which will lead to good advertising, just as the star reporter knows what story is material for the front page. It is a moot question whether or not a reporter can be taught how to acquire a nose for news. It is a question, too, whether or not a research worker can learn to recognize creative possibilities in the data he uncovers. Evidence seems to favor those who believe it cannot be taught unless the student already possesses a latent ability which needs only to be brought to light and developed.

THE PUBLICITY DEPARTMENT

WHAT IT IS

Let us suppose that Terry Grunt, your favorite baritone, is about to begin a new series of radio programs. When? On what station? At what time? For which sponsor? These are questions which occur to you almost immediately. From your past experience, you know that you can get all the information you seek in the radio section of your local newspaper. His personal affairs are chronicled with astounding regularity in the gossip columns of a dozen nationally known reporters. If you are a fan who collects pictures of your favorite stars, you are tremendously interested in Mr. Grunt's private life. You know, then, that his latest photographs are always available in every radio magazine.

If you have just moved into a strange community, you are totally unfamiliar with its broadcasting stations. Even before you meet your new neighbors, the names of the radio stations which are now to serve your home will impress themselves upon you. It is surprising how their call letters will make themselves known in innumerably different and marvelously subtle ways. Your evening newspaper carries a picture of some civic club banquet. In front of the toastmaster is a microphone on which are inscribed the call letters of one of the local stations. You visit the town's leading night club and, almost before you

are seated, your eyes fall on a microphone over the bandstand with another station's call letters painted on it. The pastor of your new church announces that his services will be broadcast over a third station. The children come home with the news that the school band is presenting a concert from the studios of a fourth broadcaster!

Why is a radio station mysteriously able to stretch out and make, not only its influence, but its actual physical presence felt? It does this by publicizing the station in thousands of newspapers, hundreds of magazines, dozens of news columns, scores of gossip papers, car cards, bill-boards and posters, from pulpit, stage, motion picture screen, word of mouth, and through the air waves. The agency responsible for this is the Publicity Department.

The first duty of this department is to bring to the attention of the listening public the fact that a station exists. Secondly, to point out to the public the station's entertainment or educational value, thereby increasing the size of its audience.

Compare the functions of the Sales Promotion and the Publicity Departments! The former publicizes the station only as an advertising medium and directs its publicity only at prospective or potential sponsors. The latter directs its efforts at the station's entire potential listening public, in an attempt to publicize the broadcaster as an entertainment medium.

When the Publicity Department has increased the size of the station's audience, the Sales Promotion Department then utilizes that fact to demonstrate to advertisers that broadcasting has now become a more advantageous medium for advertisers.

WHAT THE PUBLICITY DEPARTMENT DOES

PRESS RELATIONS

THE DUTIES of a Publicity Department are numerous, and its largest task is concerned with press relations. The most accessible means of gaining publicity is the Fourth Estate. It is only natural, therefore, that the creation and maintenance of cordial press relations should rest with the Publicity Department.

The Publicity Department establishes necessary contacts with editors whose co-operation is essential to successful publicity. It continually bombards these editors with a barrage of information about the station, its activities and its artists. This information may later appear in a newspaper as a news item, a squib in the gossip column, or a report on the radio page; or, it may finally become an article in a trade journal or radio magazine.

The editors may rewrite the information or they may use the Publicity Department's information (called a "release") exactly as it has been sent to them. In either event, as long as the information is used and publicity is gained, the Publicity Department's job has been accomplished and its purpose achieved.

The public depends upon the radio pages of the daily newspapers for the listings of programs. It is most important to a station, therefore, that these listings be correct. Incorrect listings build illwill both for the newspaper and for the radio station. The paper suffers because it has not printed accurate information; the station, because it has not fulfilled its promised obligation. The Publicity Department must make certain that newspapers are supplied with a correct list of the station's programs and that this list is always kept up to date. It must inform the newspapers *immediately* of any change.

The co-operation of newspaper publishers is sought constantly by radio stations. The aid which broadcasting can receive from these men, who have such an important part in molding public opinion, is valuable. Radio is a new industry and it cannot afford to alienate any possible source of favorable co-operation. The contacts with newspaper people rest almost exclusively in the hands of the Publicity Department. These contacts have become doubly important because radio stations today are concentrating on the presentation of news broadcasts. Much of the news comes from the papers and their press associations. Therefore, the Publicity Department must make the arrangements by which it is acquired. Furthermore, in many communities an intense rivalry in presenting news has sprung up between the radio and the press, making it very important that the Publicity Department maintain cordial relationships with newspapers and their staffs.

PUBLIC RELATIONS

In an industry like broadcasting which is so dependent upon the good will of the public, pleasant personal contacts must be established within a community. The Publicity Department is charged with this responsibility. Its duties range from dinners tendered to public officials, and parties for visiting celebrities, to a close relationship with local churches and civic societies. The Publicity Department, is, in effect, the public relations counsel for the broadcasting station. It answers all letters received by a station from listeners requesting information, registering a complaint, or extending a compliment. It maintains a photographic service which supplies pictures of the station's studios, its personnel, artists, and equipment. It also operates a clipping bureau and information file, from which can be culled any publicity which has ever been received by a station.

ADVERTISING

The Publicity Department inserts many advertisements in newspapers and magazines for the purpose of publicizing the station. It is responsible, too, for such supplementary advertising as billboards, car cards, window displays, pamphlets and actual radio programs presented by the station in its own behalf.

Today, this advertising has been extended beyond the mere publicizing of the station, to include the exploitation of programs and artists. Long before a new series of programs go on the air, it is so well "ballyhooed," and publicity for its artists is so well planned, that a maximum listening audience is almost guaranteed.

CALL LETTERS

The call letters of a station make up the name which is given to a broadcaster by the Federal Communications Commission. W-E-A-F, for instance, are the call letters which have been assigned to the key station of the N.B.C. Network in New York City. The term is an outgrowth

of the old days in wireless when one station, wishing to "call" another, would attempt to gain the latter's attention by flashing its name through the air waves. Today, the main function of call letters is to serve as a station's identification on the dial of a listener's radio. The more familiar these call letters become, the better known is the radio station which owns them.

The Publicity Department attempts to publicize the call letters in a continual effort to make the public conscious of them. A completely call-letter-conscious community is its goal.

SPECIAL EVENTS

When A broadcast is arranged to fit the time of some occurrence, the broadcaster becomes the reporter of a feature rather than the producer of a program, and this transition turns a radio presentation into a Special Event. The conception of, and the arrangement for, the broadcasting of such features become the function of the Special Events Department. It may be well to say here that this Department is so closely allied to the Publicity Department that it is, sometimes, a part of it. In fact, at many stations, both function under the same chief.

The Special Events Department resembles the Program Department in that it is concerned with preparing an actual broadcast. It resembles the Publicity Department in that it is concerned with preparing a type of broadcast which lends itself most easily to publicity exploitation. Note, however, that the Special Events Department arranges for program features which gain publicity for the station. The Publicity Department differs in that it is concerned only with publicity itself, regardless of whether it is for a program, an artist, a staff member, or a new studio. It is interested merely in obtaining good "copy."

The initial contact in arranging a special events program is made by the Special Events Department. It does considerable scouting to uncover unusual material. If information is not forthcoming directly from the source of the event, it learns of it in some other manner.

Let us assume that Mayor Robbins of Bobbinsville is invited to be the guest speaker at the annual Chamber of Commerce banquet. The Special Events Department of Station ABD has learned of the speech through the Chamber of Commerce Bulletin and would like to arrange a broadcast of it. An election is approaching and the citizens of Bobbinsville are anxious to hear what the Mayor has to say. The Department is right in thinking that the speech will prove of interest to the station's listeners.

First of all, permission to broadcast the event must be granted. Then the Department must find out the time of the speech and the exact point of its origin. All the information which the announcer needs will have to be gathered. If there is a band scheduled to supply music, the names of the selections to be offered must be listed. A copy of the speech itself must be obtained.

After all this data has been gathered, it must be properly distributed. The time for the broadcast must be arranged with the Program Department. Technical requirements are worked out with the Engineering Department. The music is submitted to the Copyright Department. The speech is turned over to the Continuity Editor. Finally, the announcer has to be called in and the situation discussed with him. Note here that the Special Events Department does not actually announce special features. This is left to an announcer, who is usually a specialist in a particular type of feature. The Department is concerned only with the arrangements surrounding the broadcast.

Still, the work of the Special Events Department is not

completed. When all the ground work has been laid and the time for the broadcasting of Mayor Robbins' speech has arrived, a member of the Special Events Department must be on hand to supervise the broadcast crew. His duty is to act as mediator between the station's staff and the officials of the special event. He must be ready with all the additional information the announcer or engineer might require. If re-arrangements must be made, he must make them. If a decision is necessary, he must make it. The Special Events Department's representative is scout, producer, ambassador and field captain combined.

Special Events are divided into four groups: (1) sporting events; (2) news coverage; (3) civic enterprise; (4) novelties in special events broadcasting.

(1) SPORTING EVENTS

Sporting features are the most popular and usually the most colorful of radio's special events. It requires a specialist in sports reporting and a competent Special Events Department to present a good sports broadcast over the air. The public has learned to distinguish between the mediocre amateur, who makes a poor attempt to describe a hockey match, and the expert sports commentator, who is able to give a complete description of the action.

Today, listeners prefer an accurate broadcast of the local weekly checker tournament to a poor description of the biggest sporting event on the calendar! Sporting features which are broadcast include boxing matches, baseball and football games, track and swimming meets, tennis tournaments and races. In fact, a description of al-

most every event on the sportsman's roster has been heard over the radio.

(2) NEWS COVERAGE

The most dramatic of special events are those covering sudden news breaks. Such broadcasts have ranged from a description of a ship as it burns at sea, to the picture of a flood as it inundates the land. These are the broadcasts which strain the patience and showmanship of special events men! Here, there can be no pre-arranging! The event must be described wherever it happens, whenever it happens, as it happens! Today, the special events man is found right at the scene of every news break. He stands next to the newspaper reporter and news reel cameraman. Microphone in hand, he risks life and limb to thrill thousands of listeners who are at their radios. Although it is broadcast hurriedly, with no time for groundwork or rehearsal, very seldom will the listener find a special event that is not run off smoothly and expertly.

The Special Events Department is ready for action at any time, and the special events men are the eyes of the air.

(3) CIVIC ENTERPRISE

It is in the field of civic enterprise that the Special Events Department slips on its coat of dignity. Under this heading it broadcasts descriptions of high school graduations and speeches by the President of the United States. It conducts charity drives, sends calls for blood donors, appeals for food and medical supplies during emergencies, and campaigns for safety on the streets.

(4) NOVELTIES IN SPECIAL EVENTS BROADCASTING

Some special events are presented only because their appeal is of a novel nature. We have heard shaving contests broadcast, and one of the most ludicrous programs ever heard was a description of a flea circus! Special Events Departments plan these programs because they believe the public will enjoy something different from the usual run of radio fare.

Many stations have built quite a reputation among listeners through specialization in novelty events. They are among the most inexpensive programs on the schedule; and, because of their novel approach, they are able to command a sizable audience. They prove diverting and establish the station which broadcasts them as a medium with a keen sense of showmanship and a highly developed degree of ingenuity.

From the manner in which radio stations have spent money in producing special events (even though the spectacle presented might prove boring, yacht racing for example), we may expect much from special feature broadcasting in the future. The public demands the special event, not as something occasional, but as another service to be regularly rendered by the radio.

WHAT THE PUBLICITY MAN KNOWS

There are two groups of fundamental requirements which make up the essential background of every member of the Publicity and Special Events Department. The first group cannot be taught very well because it is almost inherent in a person. The most important requirement is a keen sense of news value. The special events broadcast must contain a vital and pertinent news-view or it is unsuccessful. The publicity man knows the importance of news sense because it is so necessary in publicizing the station and its programs. Publicity and Special Events men must possess a fine degree of timeliness. Without it, their work becomes colorless and boring. Also, an eagle-like intuition, which correctly gauges the public pulse, must be part of the inherent equipment of every good publicity man.

He needs, too, an innate and keenly developed sense of good taste. Many publicity stunts and special events which have been broadcast have offended a great number of people because casual remarks have been misinterpreted. Publicity and Special Events work is not a routine, cut and dried job. It requires constantly alert faculties with an acute perception of right and wrong shadings for every word and phrase.

The second group of qualifications may be learned. A practical knowledge of radio is indispensable because broadcasting is the medium in which the Publicity and Special Features man works. It enables him to distin-

guish, for instance, what is mechanically possible from what is not feasible. Hundreds of special features are considered yearly which cannot be presented because they are technically impossible. Imagine an attempt to talk to Mars, or the actual description of a felony as it occurs!

Press relations make up so great a part of publicity that a working knowledge of the newspaper field is helpful, although not essential. The ability to write well is especially important to the publicity man. Hurried, harassed editors are more likely to use a well-written, forceful press release than one which requires their rewriting. Finally, a knowledge of radio showmanship is never a liability to the special features and publicity expert. It is showmanship which makes publicity, as well as programs, click efficiently.

The aspirant who hopes to become a member of either the publicity or the special events staff should carefully check his abilities. He should make certain that he has the proper qualifications, for otherwise he is doomed to failure. Publicity has no place for the man or woman who can do, at best, only a fair job.



THE ENGINEERING DEPARTMENT

WHAT IT IS

The Program Department can only conceive and then produce a program. The Publicity Department can only write about it. The Sales Department can only interest some sponsor in it. BUT, without the assistance of the Engineering Department, the program would never leave the inside of a studio. Obviously, the world's finest publicity campaign would never gain a single listener for a program if no one were able to hear it. The most expensive program ever designed for a sponsor would be of no advertising value if it were never transmitted over the air. The various divisions of a radio station may be interdependent, but each one is completely dependent upon the Engineering Department.

The Engineering Department is headed by a chief engineer. He is in charge of the complete purchase, installation, operation, maintenance and repair of all the technical equipment of a radio station. This Department has, under its supervision, the entire technical transmission of a program. Its responsibilities begin when the presentation is produced in the studio and end when the program finally reaches the loud speaker.

The Engineering Department creates a station's potential COVERAGE. The result of its efforts is determined in the number of radio sets which are able to hear

the station and the quality of the station's reception. When an Engineering Department is functioning perfectly, it is faultlessly broadcasting its station's programs with the highest degree of fidelity and accuracy to the maximum number of radio sets in that area for which its transmitter has been licensed by the Federal Communications Commission. Whether or not the owners of radio sets actually tune in, the Engineering Department must have the program ready for these potential listeners whenever they wish it.

A station's coverage is extremely important. All other factors being equal between two stations, an advertiser will choose the one which is able to reach the largest number of listeners. Engineering Departments are continually struggling to enlarge or perfect their coverage. If they can increase a station's potential audience by one person or improve another listener's reception by ten per cent, they count their day's work well done.

An Engineering Department's various divisions do not operate as separate and distinct units. Each division interlocks and dovetails with the others, working rather as one cog in a considerably larger wheel. They are separate units in name only.

IN THE STUDIO

EVERY MONDAY night at nine o'clock Station ABD produces two separate programs. One is in Studio A and the other is in Studio B. The program in Studio A is fed to every station of the network to which Station ABD belongs, except ABD itself! The program in Studio B is produced only for the local audience of Station ABD.

On the operating schedule of the station, you will find one radio engineer assigned by the traffic manager to Studio A for nine o'clock. Another engineer is assigned to Studio B for the same time. These men are called "studio engineers." They are the only engineers at Station ABD who have any actual physical association with either of the two programs in the station's studios. Each engineer reports to his assigned studio at the specified time to await the instructions of the producer with whom he will work. He follows every move of the program. He is always thoroughly cognizant of its technical requirements at any stage in its production. He is the only engineer at the station who is intimately associated with a broadcast from its initial rehearsal to its completed presentation.

The studio engineer checks every program's microphonic equipment. He makes sure that it is in good working order. It is he who places it in the studio whereever the producer wishes it.

During rehearsals and while the program is on the

air, the studio engineer operates the equipment. He opens (turns on) the microphones as they are needed and closes them when they are no longer required. When necessary, he "blends" them. This means that he may have to open the announcer's microphone at the same time that an orchestra's is open in order that the announcer's voice may be heard with a musical background behind it. Finally, the studio engineer must "ride gain." This term is defined as the maintenance of a program's proper volume: loud enough to be heard plainly on the air and yet not so loud as to destroy the fidelity of its reproduction.

The successful studio engineer must possess an adequate technical knowledge of broadcasting. He must know the principles of radio engineering. The essentials of program production and radio showmanship should be familiar to him. He must possess a "trigger mind" because problems continually crop up in rehearsals and on the air, which require instantaneous decisions. Thousands of dollars are always at stake and the hazard of "dead air" is ever present. There is no time to reason or experiment. The studio engineer must solve his own problems and solve them as expeditiously as possible. He has to work under constant mental pressure, and he must be a man of calm temperament and consummate diplomacy. During the course of his working day, he comes in close contact with artists and salesmen, announcers and producers, sponsors and executives. Many of them are not familiar with the technical limitations of radio. The studio engineer must be pleasant at all times, lest he offend someone or destroy his own poise and mental balance.

Even though his post is trying and nerve wracking, the joy of a skilful job well done is the studio engineer's reward. He is able to watch the result of his work, even as it is actually being accomplished. He is technical aide to a program, from the time it first enters the studio, until it is finally broadcast as a finished production.

IN THE MASTER CONTROL ROOM

What happened to the two programs we discussed in the preceding chapter, when the studio engineers had finished with them? The answer is found in the function of the Master Control Room and the engineers who are assigned to it. These men, whose duties roughly correspond to those of railroad dispatchers in a signal office, are called Master Control Engineers. It is their duty to see that programs are sent to their proper destination.

We know that Program 1 (in Studio A) was scheduled for several network stations. Program 2 (in Studio B) was destined only for Station ABD's local audience. The Master Control Engineer, on duty at Station ABD, makes certain that Program 1 is sent to the network at nine o'clock and that all of the stations on the network receive it. At the same time, he sees to it that Program 2 is passed on to the other members of ABD's Engineering Department who will actually put it on the air. He could easily err, of course, and feed Program 2 to the network and Program 1 to the local audience. This would throw into utter confusion all the other stations, from coast to coast.

The master control room is a clearing house for all programs which are broadcast, produced, recorded, auditioned, received or conveyed through and by a station. A program is conveyed through a station when, for instance, on its way from Chicago to New York, it passes through a Pittsburgh broadcaster's master control

room. The Pittsburgh station does not broadcast it. It simply acts as a switchboard. The engineer on duty there must direct it into the channels which lead to New York.

The work of a Master Control Engineer reaches its peak immediately before and after every program. Then he must throw the switch which opens the wires for every new show. While a program is in progress, he prepares himself for the next batch of necessary routine. His switching occurs, not only once or twice a day, but practically every quarter-hour. (The majority of programs are of fifteen minutes' duration.) Even longer programs employ station breaks. There are times when station identifications and local announcements, from other studios, must be inserted. These all require some form of direction from the Master Control Room Engineer.

What must this man know? He must have all the knowledge of the Studio Engineer and more. In addition to the usual technical knowledge of the studio operator, the Master Control Engineer must possess a complete technical knowledge of the organization which he serves. If he is feeding a network, he must know all of its member stations and the complete technical set-up which connects them. Then, too, he must be absolutely familiar with his own station and its facilities. The knowledge he requires is so extensive that only the best of the studio operators make adequate Master Control Room Engineers.

The Master Control Engineer works under tremendous pressure. He must possess aplomb stretched to the

nth degree. He cannot make a mistake. In the face of questions, directions, orders, re-arrangements and unexpected new scheduling, he must always remember just what he is doing, what he is to do next, and he must do everything correctly. When others are *losing* their heads, he must *keep* his wits about him. If he is awaiting a certain cue word on which to make a certain switch, he must calmly wait for that cue, even though his common sense and the clock tell him that the cue is late. His position is an exacting, yet exciting one: It is a capable person indeed who becomes a successful Master Control Room Engineer.

AT THE TRANSMITTER

The last engineer who handles a program is the Transmitting Engineer. He operates the highly sensitive mechanical unit, the transmitter, which actually broadcasts the program.

Let us return, for a minute, to our two programs at Station ABD, scheduled for nine o'clock, Monday night (Program 1 for the network, and Program 2 for the local audience). There were two Studio Engineers, one in each studio, working simultaneously (one assigned to each program). Each fed his program to the Master Control room. There, the engineer on duty routed Program 1 to the other stations of the network along the network's specially leased telephone wires. He routed Program 2 along another wire to the transmitter of ABD which broadcast it. As each one of the Master Control Operators of every station on the network received Program 1 from Station ABD's master control room, he, in turn, passed it on to his respective Transmitter Operator to broadcast locally in the community.

The basic duties of a Transmitter Engineer are the maintenance and operation of radio's sending instrument, the transmitter. We might note that the Transmitter Engineer concerns himself only with the program which is actually to be broadcast by the station; whereas the Master Control Engineer is concerned with every program which passes through the station.

There is one formal qualification which a Transmit-

ter Operator, or Engineer, must possess. He must hold a license from the Federal Government which qualifies him to operate a transmitter. To receive his license, he must have successfully passed an examination held under the supervision of the Government. This examination is a thorough quiz on radio equipment, code and commercial radio law. It is the Transmitter Engineer who is in charge of sending material out over the air. He is the last one to check on all broadcast matter. Therefore, the Government insists that he be most thoroughly conversant with the various regulations of the Federal Communications Commission.

The knowledge and education necessary to pass the required tests may be gained at various technical and trade schools throughout the country, or by experience as a ship's operator at sea.

At a radio station, the job of Transmitter Operator is a responsible, yet routine one. It demands little of the imagination and diplomacy required of a Studio or Master Control Engineer.

REMOTE CONTROL ENGINEERING

ALL BROADCASTS do not originate in a studio. Your favorite football announcer is actually stationed on the fifty yard line as he gives you a play-by-play description of a gridiron contest. Dinners and banquets must be broadcast right from the scene of activity. Dance programs of most orchestras come direct from the restaurants of many hotels. Whenever a broadcast originates outside the main studios of a radio station, a Remote Control Engineer is needed to operate the portable broadcasting equipment which is used.

His duties are, for the most part, similar to those of a Studio Engineer. He needs practically the same background and training, plus the ability to listen to a program and judge its quality through earphones instead of the loudspeakers found in studios. The Remote Control Engineer is on duty away from the station. He must be completely level-headed and ready for any emergency which may arise. If his equipment fails and requires repair, he must be a rapid workman, and he must be ready, too, to lend the announcer any assistance that is needed.

MAINTENANCE AND CONSTRUCTION

THE TROUBLE shooters of a radio station are the maintenance and construction men who service its equipment.

Broadcasting equipment must always be in perfect condition, lest a station fail to operate with the utmost efficiency. Maintenance men are always busy. They are replacing a worn-out tube here—re-wiring an outdated amplifier there! Unnoticed in the hurry and bustle of a station, they are ever anticipating some technical difficulty. Radio equipment is so delicate that it can break down without a moment's notice, despite the constant care it receives; then the maintenance men must be on the spot immediately, repairing the damage before it is too late and before the loss becomes too great. A radio station could not function without its crew of maintenance and construction men.

There are several qualifications for work of this sort. Those interested in electrical and mechanical equipment can easily master this work. Maintenance and construction men must be deft with tools and know the various instruments and intricate little mechanisms used in broadcasting. Today, very few men begin as apprentices. There are too many items about radio which are too complicated for an apprentice to grasp merely by watching others.

Practical experience in electrical and radio shops has given many men an entry into broadcasting maintenance. In fact, many stations prefer to choose their maintenance

and construction men from fields closely allied with broadcasting and the complex machinery of broadcasting, rather than from schools which specialize in standard electrical equipment.

RECORDING AND TRANSCRIPTION

Many times you will hear an announcer say: "The following program is electrically transcribed." The presentation he is talking about is a recording made only for the purpose of broadcasting. The majority of radio stations purchase their transcriptions from outside manufacturers. A few stations, however (and those are notably the larger broadcasters), manufacture their own.

Transcriptions of programs are manufactured on special recording equipment. The Recording Engineer operates this equipment so that it captures an exact reproduction of the program. Transcriptions (and phonograph records, as well) are played on the air through other equipment, called turntables, which reproduce the program for the radio as though it were actually a production coming from one of the studios in the station.

Recording and Transcription Engineers (the first man makes the recording, and the second plays it) require the background and training of Studio Engineers. Whether they record the program or play the transcription matters little. If the engineer is a capable studio operator, he is a capable Recording or Transcription Engineer.

NOTE: Radio should, although it does not, distinguish between "Broadcast Operators" (the men who operate the station) and "Radio Engineers" (the men who search for new and improved means of broadcasting).

"Radio Engineers" do their work in laboratories, not in radio stations.

However, in the studio, "Broadcast Operators" have come to be called "engineers," and we, too, have used the words interchangeably.

THE TRAFFIC DIVISION

Imagine the confusion and disaster which would result if the wrong signal were thrown on a railroad track! Fortunately, this seldom happens because the traffic branch of each railroad is a very efficient organization. In radio broadcasting, the smooth routing and scheduling of programs to avoid confusion, is the problem of the Traffic Department, a division closely associated with the Engineering Department.

Here we have a specialized field of activity confined generally to the larger stations and the networks. In the smaller stations, there is usually no separate entity known as the Traffic Division. In these, the schedule of operations is placed under the supervision of the Program Department.

The Traffic Division is responsible for program routing. Its duties begin when it places a program in the proper studio. They end when the master control room finally directs the program to its eventual destination.

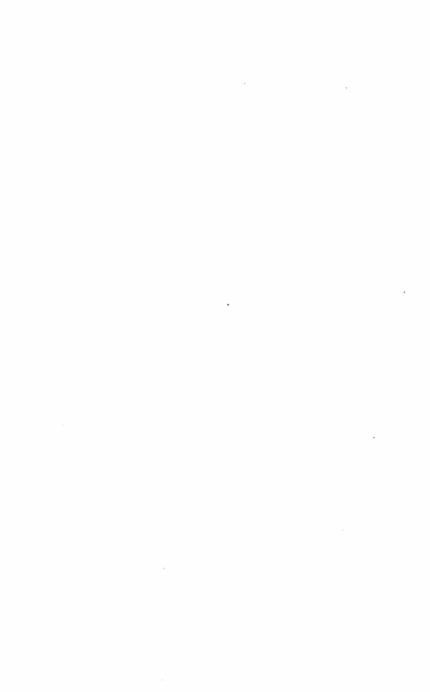
This division edits and publishes the daily operating schedule of the station. When the schedule is made up, it is the duty of every member of the station's personnel to consult it in order to determine his assignments for the day. Even a person who knows little about broadcasting can readily see the tremendous chaos which would arise if this schedule were wrong.

Assume that the following incident should occur: The Traffic Division assigns the Soft-as-Silk Face Cream pro-

gram to Studio 1. BUT, it fails to specify the proper engineering channels for relaying the program out of the studio to the master control room (there to be sent on to other stations throughout the country). As a result the other stations, which were waiting for the Face Cream program, do not receive it! The financial loss to the stations is staggering. The loss of listening audiences throughout the country is tremendous. All this because the Traffic Division erred in assigning one set of wires!

The Traffic Manager must have infinite pains for detail. He must be capable of almost one hundred per cent perfect operation. Everything must dovetail perfectly, or there can be no broadcasting.

This means that only experienced men and women can be associated with the Traffic Division. They must have a thorough radio background, and, more specifically, an intimate and complete knowledge of the individual organization whose traffic problems are to be solved.



THE OFFICE

WHAT IT INCLUDES

Every radio station maintains an office force to handle the hundreds of jobs which have nothing to do with actual program broadcasting. Offices vary in size. A small station may have only one division, embracing the whole force. The large network office may be divided into many separate divisions, with a manager in charge of each. In the smaller station, a personnel of only a few people is sufficient to handle all of the clerical work required. The larger station, with considerably more detail, employs an office personnel which is, of necessity, much greater.

STENOGRAPHERS, SECRETARIES, RECEPTIONISTS

Radio experience is not a necessary qualification in the office department. Those who are responsible for broadcasting's stenographic work do not differ from stenographers in other business offices, except in the vocabulary they use for correspondence. If a man is important enough or busy enough, a private secretary must aid him with his work. This is as true in radio as it is in any other branch of industry. Private secretaries in broadcasting are not necessarily radio experts. They are women who have secured their secretarial training previously, either in schools or other offices.

Receptionists must be ultra-courteous, pleasant, help-

ful and intelligent. In a radio station they are women of considerable importance because they are confronted with a constant stream of visitors. Being a receptionist is a heavy drain on a woman's vitality. She must remain in the best of health if she is to maintain her poise and cheerfulness.

ACCOUNTING DEPARTMENT

The Accounting Department is closely allied with the Sales Department. Although it does play a major part in sales (and especially in billing) it is concerned, also, with disbursements in every department.

Radio's accounting is no different from that of any other advertising medium. A station receives money from time sold. It spends money in program building, in station maintenance, in the purchase of equipment, and in salaries. Except in the smallest stations, a whole corps of efficient accountants is needed to manage expenses and to balance the account books.

PAGEBOYS, PORTERS, GUIDES

There are many other jobs in a radio station which, because of limited space, we cannot discuss here. Page boys deliver messages and guide artists to their proper studios. Porters run errands, deliver packages and clean the studios. Guides show callers through the station on tours of inspection.

There are office boys, mail boys, telephone operators and several others whose minor positions are not to be shunned if one has a real desire to get into radio. Many people who, today, fill positions of influence in broadcasting, started in lowly jobs. They observed how a station is managed and how the various parts of it work. They took broadcasting seriously and found out what interested them most in radio and what they thought they could do best. Then, they aimed towards the goal they set for themselves. That they succeeded is a tribute to their application as well as to broadcasting itself, which recognized the latent abilities of men and women in comparative obscurity.



PART II

The Other Side

What the Listener Should Expect from His Radio



THE OTHER SIDE OF THE MICROPHONE

The authors dedicate Part Two of "Both Sides of the Microphone" to the most important personality in any program, the listener. An old bromide tells us that even if the tallest tree in the forest crashes to the ground, only a dead silence results if no one is there to hear the sound. Making the analogy applicable to radio: the finest programs are of no avail if no listener is seated by his loud-speaker to hear them. Producers, engineers, announcers—all of broadcasting's far-flung workers—labor for naught if listeners are not anxious to hear their efforts.

What do these listeners expect from the radio? Surveys by the hundreds have told us of the popularity of one program over another, polls have demonstrated the so-called "listening habits" of the public from coast to coast, and contests of every description have shown the preferences of each station's individual audience. But what does broadcasting as an industry believe the public expects of it? What does radio, itself, believe the listener on the other side of the microphone wants to hear?

We have presented this question to a group of men and women whose names are thoroughly familiar to broadcasting. They are among the most distinguished personalities in radio, and each is an outstanding figure in the particular branch of which he has written.

Let's tune in for a few minutes and hear what they have to say!



WHAT THE LISTENER SHOULD EXPECT FROM HIS RADIO

By Julius F. Seebach, Jr.

Former Program Director of the Columbia Broadcasting System; and present Director of Program Operations for WOR, Newark, New Jersey.

The radio audience of each community can expect from the broadcasting stations to which they listen most frequently, anything, within practical reason, that enough of them want. Of course, they must make their wants known; and they must express their approval and disapproval of individual programs, or the stations will have only a vague idea of the inherent desires of their audience.

Since every station is at all times in direct competition with every other station in a community for the largest number of listeners, it stands to reason that every strong, clearly defined, firmly expressed desire on the part of the audience will be met with an effort by the station to satisfy and to fulfill that expectation. In theory, therefore, the radio audience can expect from the radio schedule almost exactly what it demands. In practice, of course, there are many limitations upon this principle, for, after all, there is wide diversity of opinion among the members of the audience. Some groups with specified desires are more vocal than others. Thus, there devolves upon the radio station the responsibility for interpreting these various conflicting desires and needs of its audience. It

must make an earnest attempt to correlate the information so that it arrives at a schedule with a proportionate amount of time dedicated to those interests and desires which will most ably satisfy the listening audience. The amount of insight and comprehension which guides the management of a station in these important decisions determines very largely its standing in a community. It is possible for a station to bend its attention toward satisfying a certain group so exclusively as to receive nothing but praise from that group, and practically no comment of any kind from other groups, for the simple reason that it has completely ceased to pay any attention to them. This station, while undoubtedly serving a purpose, is still not a vital factor, generally speaking, in a community, since its programs are the expression of only one segment of the public.

For a station ambitious to serve its community in the fullest sense, there are, of course, certain general principles (just as there are certain known facts) about the basic desires and needs of human beings as a whole. It is known that people are eager to know what is going on in the world about them. So news must be an important part of every adequate broadcasting schedule. It is known that religion is a primary human necessity so there must be in each schedule some devotional period to serve as a focus for this basic human need. It is known that people are hungry for friendship and are eager to know someone who seems to care about their struggles and difficulties. Therefore, a radio schedule should present carefully chosen personalities whose innate kindliness and capacity for inspiration can be felt by those members of

the radio audience who need such stimulus.

It is known that people are interested in stories, whether told by an individual or dramatized and enacted in vivid characterizations. Dramatics, therefore, takes its place-and an important one-on the radio stage. It is known that people are interested in practical information, odd and interesting facts, and other forms of selfeducation and improvement, so time must be set aside for authorities in medicine, art, science, economics, civics, club work, horticulture and so forth. The natural human interest in competition and conflict is tremendous. So the sports audience is among the largest of all, and outstanding competitive events must be found on any well rounded schedule. It is known that the nobility of great music (vocal, instrumental, and orchestral) meets a deep-seated need and it, too, must be provided in abundance. Finally, it is known that people seek, perhaps most of all, relaxation and escape from worry. They love to lose themselves in the gaiety and abandon of popular entertainment. That this need is fully understood is evident by the schedule of practically any radio station.

As to the future, the radio audience can expect a constant improvement in the quality of broadcasting in each of the categories described, provided it grows in discrimination, takes the trouble to seek out the best that is offered by each station, and allows the respective stations to learn of its approval.

FROM THE DANCE ORCHESTRA ON THE AIR By Guy Lombardo

The problems of a dance band leader are slightly different from those of other radio artists. Whereas the audience of a news broadcast expects to hear only reports of current events, and those who listen to comedy programs tune in for a half hour of laughs, those who seek dance music on the dial constitute a varied audience. There are the young people who gather for an evening's dancing; there are the housewives whose chores seem lighter if accomplished to the lilt of popular strains; and there are millions of others who turn on dance music for melodic accompaniment to an evening's visit with their neighbors. Considering, too, that this same audience runs the gamut of moods from merry to melancholy, you will see, as I do, that a program of dance music must be all things to all people. And that is precisely what the audience expects!

I should say that ninety per cent of the radio audience—no matter what the reason for listening—wants (and expects) dance music to please its ears rather than its feet. Unconsciously, people sing and hum along with the dance band—no matter where they are—and if over-arrangement or too much "style" buries the straight melody, half the fun of listening is destroyed.

Most appealing is a strong, sweet tone quality, a tone which romances for the young, reminisces for the not-so-young—a tone which is essentially pleasing. For, by the

From the Dance Orchestra on the Air 11

listener's standards, the dance music that pleases is good dance music.

With that in mind, what do listeners expect in the type of music played on a dance program? Well, of course they want one or two current popular songs interspersed with old favorites (not so old, though, that they outdate the débutantes), a twinkly number with light-hearted lyrics and merry melody, and a vocal chorus now and then; but then again not so many that those who want to dance will be cheated.

The order of selections during a program makes little difference to the listeners as long as the first number is a popular hit—one that everybody knows (our radio programs, for instance, never start with any number either so old or so new that our listeners don't recognize it!); or as long as a new number follows an old, and the quickening tempo of a fast beat follows to awaken the dreamy mood of a slow one. It is this placing of numbers, (or pacing), that gives lights and shades to a program, for, without pacing, even the best dance music might become monotonous.

Although the listener prefers a program to start with something he knows, he nevertheless does look forward to and expects the leader of a dance band occasionally to introduce something new, something never before heard on the air. That the leader has to be a "good picker" goes without saying because it is amazing how quickly a leader becomes identified with the numbers his orchestra plays. If the song's a hit, the band's a hit. Indeed, many a band has skyrocketed to fame on the popular strains of a song its leader introduced.

The title of such a new hit should be catchy, but always in good taste. No matter how witty or winsome a title, the leader of a broadcasting orchestra can't afford to introduce and thereafter be identified with (if it becomes a hit!) any title of doubtful taste. Better to skip it than offend any listeners! Slightly questionable songs that are amusing in the sophisticated atmosphere of a hotel are apt to prove embarrassing in the intimacy of a living room. That's why the audience expects the leader of a dance band to be discriminating in his choice of titles.

It goes without saying that a dance band must have an individual style. Obviously, you won't know a band that's not individual. Just as it is style that makes a fine author, an artist or even a comedian, so it is style that makes a good dance band. A band is identified with the numbers it plays, but it is by the style in which he plays these numbers that a leader is recognized. And because I feel that the radio audience expects music primarily—lilting melodies interpreted with a strong sweet tone quality—that is how you recognize "Guy Lombardo and His Royal Canadians" on the air!

FROM A PROGRAM OF NEWS COMMENT By Gabriel Heatter

Obviously, a listener expects a news commentator to bring him news. He expects accuracy, authenticity, a suitable balancing of his program and a sufficient variety to make it interesting. In that respect a commentator is really a one-man newspaper, or one of Major Bowes' one-man bands. He prepares for his performance by following the news around the clock and around the world—at home and abroad—peace and war—politics and human interest—drama and sports—wherever outstanding stories are made.

Then at whatever time he comes to his deadline, he takes what he has written and begins to make up his newspaper, or, as we say in radio, "his program." In my own case, I suppose at deadline time I have written about 8000 words, of which at least 5000 must be discarded. The remaining 3000 chosen in the light of timeliness, interest and balance make up the program. But that, however, is only a fragmentary part of a commentator's job, for his listeners expect and demand more.

They want the news; they want it made interesting; and they also want some measure of editorial opinion. This is not to say they want a commentator to come down from Sinai and state, "I command you to believe thus and so." But they do want to know what he thinks about a King's abdicating to marry a woman twice divorced; about statesmen at Geneva or Brussels who at-

tempt to find a moral equivalent for war in order to check aggression in Africa or Spain or China; what he feels about dictatorships or Congress or crop control or processing taxes or a wage and hour bill or any one of a hundred spectacular headlines which make up what we call a commentator broadcast.

This precisely is the commentator's most difficult job of all. For it requires just the right balance; your listener doesn't want a hammer and drive campaign which does his thinking for him; he doesn't want prejudice; nor does he want or expect a wishy-washy cadaverous middle of the road which never attempts to say "this is right or wrong; wise or impractical." To find that balance as an interpreter and humanizer of news and not as a crusader—that is a commentator's greatest responsibility, his most difficult assignment.

And, after striving for it for five long and difficult years I can only say it continues to be an elusive and seemingly unapproachable ideal calling for qualities which are almost superhuman. Realizing it, you are humbled by your responsibility; dwarfed almost by the incredible privilege of mounting a platform each night and finding men and women waiting to hear what you have to say. There are some of us who continue to be humbled by it and who realize that in all honesty the thing to do is to go to a microphone some night and say frankly and plainly:

"Ladies and gentlemen: thus and so happened today. It never happened before. I don't understand it. I haven't been able to find anyone who does." Nevertheless, there are many who, no matter how perplexing to

them may be the problems of each day, how new, how difficult, how strange, are still ready to come galloping to a microphone and shout, "Everybody listen now, while I propound." Somewhere between the two there is a middle ground; gentle; earnest; sympathetic; friendly; entertaining; reasonable; dispassionate; and covered by sufficient mercy and compassion and a touch of pity to make it human. Find it and you will be the country's first commentator. For that is what your listener expects, and has every right to expect, in exchange for the rare privilege he has granted you—an open door to his home.

FROM AN EDUCATIONAL PROGRAM

By Helen Johnson

Director of the Columbia Broadcasting System's "American School of the Air."

THE LISTENER to a so-called Educational Program often comes before the loud speaker conditioned, so to speak, by the fact that the program is labeled. If he would only realize this, how much greater would be the benefits he derives from it. He thinks he is going to be bored; he carries a chip on his shoulder. His whole attitude is negative, and for this I believe we have the educators to "thank."

When the listener approaches the radio, he wants to be, and expects to be, entertained. What he does not realize is that the better radio entertainment programs have been patterned after successful educational presentations. From an educational broadcast he may expect the greatest entertainment, complete and accurate information, and a stimulus to everyday living.

A good Educational Program opens up to him vistas in the field of literature; it brings philosophers and scientists of ancient days before him as vital and living people; it broadens the world for him, almost placing cities, towns and people in his living room, and presenting them in such a manner that there is no confusion in his mind (programs dealing with such facts receive special care). It brings science up to date, creating a living subject from an otherwise abstract matter of debate.

It brings a realization that history has a part in his daily living; it brings the music of the masters to him in a way that will not confuse him, and last but not least, it brings to him the great people of the day to stimulate his thinking.

All in all, the loud speaker brings to the listener a richness which he could not otherwise gain by himself except through the guidance of well-rounded, well-educated persons. He is more fortunate than he realizes; he actually receives more than he expects.

FROM THE SPECIAL EVENT AND ITS ANNOUNCER

By BEN GRAUER

The primary function of the special events announcer is to inform. The listener expects him to tell clearly and simply who, what, where, when, why, just as the reporter for a newspaper does in the opening sentence of any story. Then your listener expects to be entertained, and the degree of skill an announcer displays in fulfilling this listener-expectation is the measure of his announcing art.

The special events audience is a varied one, made up of men, women, and children of all ages, creeds and social stations. The broadcast appeal must be aimed at average people, the ones who comprise the greatest number of listeners-Mr. John Public himself. The announcer must hew to this painful middle way and avoid offending or irritating any considerable groups which may be located on either side of the middle path. There is one danger in doing this; the announcer can quickly lose color, personality; become dull, average, stereotypeddevelop "announcer's mouth." His only recourse is to be constantly on the alert for ways to expand the average understanding and appreciation of his listeners, to introduce variety and personality into his speech. This must be done most judiciously. Any excess becomes affectation. The better special events announcer develops a more picturesque speech by a combination of instinct

and precise knowledge; and of the two, I feel that instinct (it may be called talent, too) is by far the more important.

There are a few rules of thumb that every announcer observes. When he is presenting a musical, variety or dramatic show, which generally includes prepared continuity, he obtains a clear feeling of the mood of the show. He is very careful not to sell himself on routine studio programs because he would distract or steal the attention of listeners from the program. In these routine presentations, he serves the same purpose as the printed program which the theatre or concert-goer finds in his orchestra seat. If he tries to stand out above the program, he does neither the program nor himself any good. When his style of approach is correct, he informs by stating the facts of the program—who is singing, what, where, etc.,—and he entertains by adapting his presentation of these facts to the mood of the show.

In special events, however, these standards are changed. The announcer can be, and often must be, the whole show. He must first get his "lead" over with particular clarity. What may be a jumbled, confused scene to his eyes must be clarified by his mind and emerge from the loudspeaker as an ordered occurrence with meaning, so that the listeners can easily visualize and recognize just what is being described. In doing this, he must be very careful not to lose the spirit of the show but, at the same time, he must edit the impressions he receives of the event he is reporting, in the light of what he thinks is newsworthy. Note, I say "what he thinks," for your announcer "ad-libbing" on a special event is the boss;

whatever he selects as a result of his thinking goes on the air.

A fast talking announcer is probably—in fact, he is thinking twice as fast as he is talking, thinking whether his network standards permit this reference or that phrase; which one, if any, of the dignitaries or participants in the action coming within microphone range, is most pertinent to what has happened or will happen; whether the main action is lagging enough to warrant his introducing a human interest side note; or whether he should turn the microphone over (called "bouqueting" in radio) and let the audience hear what is actually happening. It is in these situations that the special events announcer is able to enlarge the knowledge, horizon, and appreciation of his audience. He may decide that the majority of his listeners are older people, or more lively than learned, or some such generality that will help him gauge his announcing so that he can introduce and slant personality and color in his "spiel" to the particular group, and in that way more surely serve his listeners.

In short, first inform, then entertain, and let your instinct tell you when and how much.

FROM RADIO DRAMA

By Orson Welles

You hadn't noticed it before, but someone in your living room has been murdered. A young woman, no one you know, has started screaming.

"Butch is dead," she screams.

A bystander speaking in a weird oriental brogue says Butch has a poisoned South American blow-gun dart stuck in him and that such things don't happen in the twentieth century.

There is next a sound almost exactly like the wild crackling of a sheet of cellophane. This is followed instantly by shouts of "Fire!" and eventually by a small symphony orchestra rendering the first six bars of "Oncoming Presentiment."

By now you have solved everything.

Working silently and alone, you have turned off your radio.

Someone is still dead.

His name was Butch. He was murdered probably by the least suspicious one, the one least accented. The point is that nobody cares.

That's the whole point.

Butch's story was simple, even childishly simple, but that's not what you minded. You just couldn't follow it, and there is the chief abuse of a beautiful medium. That's why Butch is no longer in your living room. Of radio script shows there are many kinds; commercial and sustaining, good, bad and indefensible, and among these there is only one that you will listen to: the kind you can follow.

For that mysterious commodity which is referred to constantly as "radio drama" is endurable only at those moments when you are certain who is speaking. Engineering and sound effects must make it possible always for you to understand what is being said; and finally, you must want to understand.

That's all there is to it.

It never matters what a broadcast is about unless you care.

FROM THE SYMPHONIC BROADCAST By Alfred Wallenstein

If we could know exactly what the radio audience expects from that cloudy realm which is tagged "symphonic music," we should indeed consider ourselves Utopians of the blithest order, serene in the knowledge that we could do no wrong. But such, it is needless to observe, is not the case.

What we do know, however, are several of the causes which irk music-lovers, both the cultured and the relatively untutored, and some of the things which please them; and on that foundation we have managed to erect a sub-structure on which we build from day to day. Although we have arrived at many conclusions, we are not riveted to any set of fixed convictions.

We do know that we are safe in working on the premise that our audience, when it turns the dials for a symphonic concert, wants to be entertained—and, perhaps, "stimulated."

Certainly we know, too, that the business man, the professional man, the housewife, the laborer, the student—these listeners banded together with a common will-to-be-stimulated—have no wish to be "experimented upon"; no desire to act the guinea pig in the laboratory of experimental musical broadcasts. Finding the common denominator has been our job; and the fact that radio has become potentially the greatest medium for the presentation of symphonic music must testify, at least, to the

partial success of our efforts.

If we are agreed, then, that the listener wants "symphonic music" it becomes our immediate problem to determine what the cross section of the audience considers "symphonic." It is possible that the musical director and the audience do not see eye to eye on this problem; and thus arises the question of "educating" the listener.

One has only to consider the meteoric rise in the quality of broadcast music in the past decade to realize that the standards of music appreciation (as measured in radio audience interest) are refreshingly high; and that the radio audience is fast becoming a severe and intelligent critic.

This penetrating critic whom we have fashioned with our own standards will not be fooled. He will take a moderate amount of so-called "modern" music, but for the most part, we have found he subsists on the more substantial fare of Bach, Brahms, Beethoven, Wagner, Mozart, Handel, or any of the other masters. When our audience reads that a symphonic program is to be presented, it expects just that-and no less. The matter of a well balanced program, therefore, is of prime concern. He is a very unwise conductor, indeed, who tries a bit of leavening; who attempts to slip an ever-so-symphonic dash of Berlin between a Bach concerto and the Beethoven fifth. These modern compositions have their place, to be sure (and the young composer is looking more and more to the radio), but the unusual modern must be skillfully interwoven with the old. We cannot jolt our listeners into an awareness of the beauty or importance of either modern or ultra-modern composition. True, we must keep breathing a kind of vitality into our programs. But there is abundant opportunity for originality, variety, and even experimentation without offending the symphony addict. Brahms was once hooted, and Wagner was labeled "heathen," and how well we know that the ultra-modernist of this generation is the classicist of the next. Today's modern music is the life blood of tomorrow's programs, but it must be lightly administered in small doses.

From the technical side of symphonic production the radio audience has come to expect perfection. Seated before the loudspeaker the audience must feel that insofar as the reproduction of a concert is concerned, it must be as well treated as if it were ensconced in Carnegie Hall, itself.

There is an occasional tendency among radio's conductors to justify any of broadcasting's musical faultiness by citing the split second pressure of production problems, but I cannot hold with this defense. We must be meticulously exacting, for if we would present fine music, we must work hard and long to produce it.

Radio has the virtuosity, the brilliance, the technical equipment—all the facilities which make for the best in symphonic presentation—and since the best is what the audience has come to expect, our course is a clear one.

FROM THE ANNOUNCER By FRANK KNIGHT

 $\mathbf{I}_{ extsf{N}}$ no matter what type of announcing the young aspirant hopes to find his level, there are certain broad fundamentals that must become embedded in his mind. Without them, he will never become an announcer in the better sense of the word. He will be just another voice cluttering up the air. An announcer will only become a good announcer and remain one, by the continuous observance of these fundamentals, few though they may be.

When an announcer, by means of radio, makes an appearance in the home of a listener, he does so only through the courtesy of that listener. He must, consequently, become either a welcome guest or an intruder. The way of an intruder is hard, for a flick of the switch or a turn of the dial takes care of him very easily.

Quality of voice, or superiority of diction and enunciation will unquestionably raise one announcer over the heads of his fellows. The listener is entitled to expect simplicity, honesty, and good taste from an announcer. He is entitled to hear what the announcer has to say in plain, straight-forward language; language that is devoid of peculiarities and eccentricities; language that is clean, unaffected English.

The listener is entitled to the last word in accuracy. The announcer must never say anything on the air that is not absolutely correct. Within his own station, he will find every possible means for checking his material and his information. Failure of the announcer to investigate any uncertainty in the pronunciation of any word, or of any proper name either English or foreign, and to acquaint himself with any word's correct usage, is grievous negligence. The listener will not forget it. Nor will he forgive it. The listener will appreciate poised, smooth, easy announcing. This can be achieved through no short cut. Nothing can take the place of experience. Only a constant effort under fire will cultivate skill of delivery, and phrasing and dignity of expression, in proportion to the requirements and the nature of the program.

FROM A VARIETY SHOW

By KATE SMITH

As a radio performer who takes a busman's holiday by listening to my own radio in many of my off-days, I think I have a fan's perspective rather than a professional one in stating my likes and dislikes of a radio variety show; and I have tried to incorporate my "fan" idea into my Thursday night variety programs.

A really good variety show, it seems to me, should be true to its name in a presentation of different type performers of the first rank. Making the point concrete in home territory, I would suggest, in all modesty, the manner in which the situation is handled by our organization which features a comedian, a chorus and an orchestra as permanent parts of our show.

The change of pace, vital to all variety undertakings, is reasonably well assured in this set-up and greatly helped by the introduction of dramatic guest stars. The listener is always interested in persons from other fields of entertainment activity.

On this assumption, we have presented sports stars in our "Parade of Champions."

Occasionally I should like to hear other than entertainment—world figures when I listen to the radio. It was this desire that was largely responsible for our "Command Appearances," in which persons responsible for outstanding acts of courage appear before the microphone to receive cash awards after the circumstance of their heroism is dramatized.

Briefly, those are my expectations as a "dialer" of variety shows. Our particular fortune in using the ideas is indicated by the fan mail we have received.

FROM THE BROADCAST OF A SPORTING EVENT

By BILL SLATER

Perhaps a listener should write this. And yet, any single listener would likely find it hard to escape his own preferences and the influence of his own tastes. The mail of every sports announcer bears conclusive evidence of the fact that listeners' likes—and dislikes, too—vary over a wide and often contradictory range. What one listener may regard as a perfectly "swell" sports broadcast, another will call "putrid." And you may be sure that most listeners express their reactions in very colorful terms. Since this is the case, any sports broadcaster who pays as much attention to "pan" letters as to "fan" mail is in a good position to judge what the average listener expects.

It is a tribute either to the partisanship or to the sense of fair play of most Americans to note that, above all else, the listener expects the description of competitive games to be impartial. Sports lovers prefer to do their own rooting. They do not want the announcer to do it for them. Let any man describing an important sporting classic, or even an ordinary Saturday game of football, exhibit any marked enthusiasm for a particular team and his Monday mail bristles with resentment. The listener wants you to be his eyes and ears at the sidelines, but he does not permit you to be his heart or voice.

Since the man in the radio booth must represent his

listener at an event where that sport fan would rather be present in person, it naturally follows that the broadcaster is expected to offer a clear-cut and complete picture of what takes place. What is happening?—that is the insistent question constantly hammering in the mind of every radio-side sport addict. The announcer's answer to that question must be accurate and complete. He must bring to his tongue all essential elements of the action he is following. This action must be put into his microphone quickly and in plain, unmistakable form. The listener is no student of vocabulary and he is not impressed with an announcer's extensive word-facility. He wants his action straight—in four-square words that paint a clear-cut picture in his mind.

Accuracy is another requirement. An intelligent audience becomes impatient with a garbled account that reeks with glaring exaggerations or confusing distortions. Woe to the announcer who apologizes frequently for his mistakes! He is not supposed to make them, but when he does he will be frank, if he is wise; and he will devote great energy to a quick correction, and no energy at all to explaining how and why he happened to be wrong. Though a high standard is set for him, the average listener appreciates the fact that announcers are human and, as such, likely to err, even if the announcer himself may have lost sight of this truth.

Sports listeners have an insatiable appetite for the color of the game. They like to hear the bands play. The roar of the crowd sets their blood atingle. The weather, natural surroundings, and all unusual sights and happenings attendant upon the game are a part of the pic-

ture they are missing and hence, elements of what they want the announcer to give them. Too, they want word pictures of the players who are providing the action.

On the other hand, our average listener is not especially interested in a word picture of the announcer himself. He may be interesting at other times; but when he goes on the air he must put himself deep in the background. He does this best when he throws himself without egoistic reservation into the action that surges before him. The boast-to-boast broadcast, of which announcers are sometimes guilty, is boring. The listener wants what he would get if he were at the game. And that is a picture of what takes place.

If the listener were at the game he would not see the announcer, hence does not want to be too conscious of that poor creature when seated by a radio set at home. It might be easier for all of us if the fan at the game were to think once in a while of the man up there in the radio booth. For such a fan would then have a good chance, simply by looking at the teams in play and trying to find out what he could say about what he is seeing, to understand that a good sporting broadcast is not so easy to accomplish after all.

FROM THE NON-COMMERCIAL BROADCASTER

By Dr. SEYMOUR N. SIEGEL

Director of Broadcasting for the City of New York, and Managing Director of Station WNYC, New York.

There are less than a dozen radio stations licensed by the Federal Communications Commission in the United States which are owned or operated by municipalities. Some of these are operated on a non-commercial basis. Others, for all practical purposes, broadcast on the same basis as any commercial station. Likewise, there are approximately twenty-five radio stations in the United States which are operated by universities or colleges and which also may operate either on a commercial or non-commercial basis. The chief municipal user of radio facilities in the point of size and importance, is the city of New York which owns and operates radio station WNYC, probably the foremost example of non-commercial broadcasting operation in the United States.

It should be borne in mind that when a city goes on the air, it exercises private and not governmental functions and is, therefore, subject to the same regulation as any commercially-owned broadcaster, despite the fact that it does not sell time and therefore does not have the possible income of a commercial station. It must compete on an equal plane not only for listener approbation, but also for a right to a renewal of license before the Licensing Authority. In other words, the station must continue to broadcast matters which are in the public interest, convenience and necessity. On the other hand, a non-commercial station enjoys certain advantages which cannot be obtained by broadcasters who are in business to make money. The station has no copyright or royalty problem and may therefore offer programs which commercial stations would find prohibitive to produce. Musical unions look with tolerance upon the operations of a non-profit organization, and in general the station is permitted to make use of talent for which other stations would necessarily have to pay.

Being in no sense beholden to sponsors, a non-commercial station is in a position to pioneer and point the way for the otherwise advertiser-sensitive commercial station. For instance, in the broadcasting of authentic health information, WNYC has spoken as frankly as the family doctor. Our campaign of health education has been carried on to an extremely high point. We have felt that this was not a moral question as much as one of public well-being. Strangely enough and contrary to what normally may be expected, there has been no unfavorable repercussions as far as listeners are concerned.

A station with no commercial commitments can afford to render community services such as calls for blood donors and the broadcasting of alarms for missing persons. This type of broadcast, ironically enough, contains sufficient dramatic appeal to be of interest to the casual listener, while at the same time, it helps to alleviate suffering. The officials of a non-commercial broadcaster can be unconcerned about program material to satisfy public interest, convenience, and necessity as long as the source of broadcast material in their metropolitan area remains available; and as long as the pronouncements of the several departments of their city government remain vitally important to the people.

The Mayor of the city of New York has recently suggested the promulgation of a "Cultural Network" of non-commercial stations which might permit of the exchange of programs on a mutually advantageous basis. This may pave the way toward a system of government stations which might well operate side by side with the present commercial chains, a condition which characterizes Canadian broadcasting. Should the time come when the Federal government sponsors a network of stations, and a program policy and structure are to be considered, the present policies of the non-commercial broadcasters could be advantageously adopted for its proper pattern.

FROM A RELIGIOUS BROADCAST

A CATHOLIC VIEWPOINT

By ANDREW KEMPER RYAN
Editor Catholic Standard and Times.

The radio, through its many outlets, has become second only to the press, the greatest distributor of news and entertainment in this country. Indeed, in many rural sections the radio has taken the place of the newspaper. Therefore it is incumbent upon those in charge of radio broadcasting to be mindful of the duty imposed upon them and so select their offerings with discrimination.

The Catholic, aside from the usual run of programs, should expect that a certain definite amount of time each week, preferably on Sunday, be given by broadcasting companies for the dissemination of religious truths. Since this religious angle should, and must be used, bigotry or narrow mindedness should have no place in the program. Under no circumstances should it be used by persons who, having no religion of their own, seek to destroy the doctrines and beliefs that are held sacred by others. Broadcasting companies should take cognizance of the fact that religious organizations presenting stories of the Bible, lives of the saints, sacred plays and music, are not in a position to compete financially with the commercial enterprises.

To sum up, not only Catholics, but all those interested in the future welfare of radio as a means of education and clean entertainment, unhampered by a rigorous government censorship, should expect that clean plays, clean speech, free from vulgarity or lewdness, the presentation of news without bias or color in favor of a people, party or sect, be presented to them. In this way the radio can fulfill its mission of presenting "the truth, the whole truth and nothing but the truth." Above all it is important that the radio shall not reduce our cultural and educational level.

RELIGION ON THE AIR By William J. Miller, Jr., D.D.

The radio offers one of the great opportunities of the present day to present the claims of true religion and to make it applicable to every life. It should not take the place of the church and its services. It should not provide an easy way for men to secure religious instruction at the expense of attendance at divine worship. It should be the spreading of the blessings of the church to untold millions of people who would not otherwise be reached by the church.

In religious broadcasting all selfish motives should be absolutely ruled out. Personal aggrandizement under the cloak of religion should have no place. The religious speaker should consider himself as a spokesman for God and should consider the opportunity offered to him as a special trust for which he must give an account to God. The truth of God as presented in the person of Christ our Lord must be presented in its purity. The "listener-in" has a right to expect this. He has a right to expect an authoritative gospel and not a merely speculative theory. He has a right to expect that which will be constructive, helpful, worshipful.

With these things in mind the religious broadcaster must consider the people to whom he is going to speak, and should adapt his message to the meeting of the purpose of the particular broadcast. The various groups of people should be kept in mind. There are times when the specific needs of young people should be met. This may be by direct address or by the answering of questions

which should be cleared before a solid foundation of faith can be laid. Such services should hold forth the vital place that Christ must have in the building of strong, helpful manhood. Then there are times when the message should be directed particularly to the meeting of the needs of "shut-ins" and of those who are meeting perplexing questions or passing through great sorrows and trials. God has a message for all such, and they should be able to hear it from His messengers on the air. Again, there are times when there is "listening in" a group of people who are truly religious and who want a worshipful service which will draw them closer to God and which will stimulate their lives to higher living. These are the inspirational services. Another opportunity is presented by the group of men and women who have never yielded their lives to God, who seldom if ever darken a church door. and who are in little sympathy with the church. The truth should be so given that they may be attracted to God and may be led into personal acquaintance with Him. Many a man has been led from sin to God through the means of the gospel given over the air.

There is, moreover, a very definite place in religious broadcasting for devotional services of religious song. There are people who desire some favorite hymn to be sung. Mention may at times be made of their names. This often has been very helpful to many people. However, too much time may be given to the reading of names and this should be carefully avoided.

Thus we see the radio may be a wonderful help to the spread of true religion. It is "the voice of one crying in the wilderness, Prepare ye the way of the Lord."

THE VALUE OF THE RADIO SERMON BY REV. STANLEY MARPLE, D.D.

The benefits accruing to organized religion generally, and to personal faith in particular, as a result of religious radio programs, are undoubtedly great. However, it is to be recognized that some programs are good, others better, and still others best. Broadcasting systems, in their personnel, have at once a task and an opportunity to make an effective and impressive appeal to religious sensibilities.

From a somewhat extensive acquaintance with people in their homes, I may suggest what I regard as worth while and spiritually creative. Allowing for some difference in individual tastes, the simple but standard classical religious music is the most acceptable. The tawdry programs which are occasionally affected by some are of dubious value. When the appeal to spiritual thought and feeling comes over the air, there must inevitably be associated in the minds of most people, the thought of a sacred atmosphere which they have known through worship in the House of Prayer. To miss this point is to miss the real and deep appeal to religious faith.

I am convinced of the value of reading, by radio, the great Biblical passages of the Old and New Testaments. But the reading demands preparation of material, and a rendering by voice quality and expression that is truly appealing. There must be the "feeling tone," and by that I do not mean the merely sanctimonious, but a sincerity that is apparent. There can be a vast difference between

reading, and properly expressing the meaning, for example, of the Shepherd Psalm (Psalm 23).

Possibly the most appreciative audience radio has, lies in those who are ill, aged, or shut in. As a rule, because of their limitations, temporary or permanent, they are the least likely to be exacting in standards. But that does not mean any incapacity for enjoying the best. Many hospitals now have radio systems installed, with earphone attachments for each bed. To minister effectively to these by means of a religious program, will require cordial and sympathetic coöperation between the personnel of the studio, and the hospital or institutional authorities. For some suggestions, the recent book by Cabot and Dick, "The Art of Ministering (Religiously) to the Sick," is good. There are periods each day when both the studios and the institutions will find it mutually convenient to have announced programs of the nature indicated.

The value of sermons in their appeal by radio, will vary with the doctrinal background of each listener. For a general appeal, sometimes there is overmuch of theological teaching at the expense of practical Christian teaching. The present output of radio sermons would seem to be sufficient to satisfy all degrees of thought.

Probably the greatest response to phases of religious programs by air, is to be found in the multitude who enjoy the usual splendid chorus, and sometimes congregational singing. Of whatever creed, or lack of it, music speaks the universal language, and religious music is no exception. Therefore, we vote for continued, and even better, religious music, and the use of the great hymns of the centuries.



NORTH AMERICAN BROADCASTING STATIONS

Listed below are the names, addresses and kilocycles of North American Broadcasting Stations, for the convenience of those who would like to submit scripts or arrange for auditions:

	O.A.	ALABAMA		
Station	Kyes.	City	Owner	
WBRC	1000	Birmingham	Birm. Broadcasting Co., Bank- head Hotel	
WAPI WSGN WMFO WAGF WJBY	5000 100 100 250 100	, " Decatur Dothan Gadsden Huntsville	Ala. Polytechnic Inst. Birmingham News Company James R. Doss, Jr., Box 1025 Dothan Broadcasting Co., Box 25 Gadsden Brdestg. Co., 108 S. 6th St. Wilton Harvey Pollard	
WALA WSFA WHBB WMSD WJRD	500 500 100 100 250	Mobile Montgomery Selma Sheffield Tuscaloosa	Pape Brdcstg. Company, Box 288 Montgomery Brdcstg. Co., Inc. Selma Brdcstg. Co., Inc., Box 26 Muscle Shoals Brdcstg. Corp. James R. Doss, Jr.	
		ARIZO	NA	
KCRJ KSUN KOY KVOA KGAR KUMA	100 100 1000 1000 100	Jerome Lowell Phoenix Tucson "	Chas. C. Robinson, Drawer D Copper Elec. Co., Inc., Drawer C Salt River Brdcstg. Company Ariz. Broadcasting Co., Inc. Tucson Motor Serv., 142 S. 6th St. Dr. A. H. Schermann, Box 267	
		ARKA	NSAS	
KLCN KELD KFPW	100 100 100	Blytheville El Dorado Fort Smith	C. L. Lintzenich Radio Enterprises, Inc. Southwestern Hotel Co., Gold- man Hotel	

144 North American Broadcasting Stations

ARKANSAS (continued)

Station	Kycs.	City	Owner
KTHS	10000	Hot Springs	Chamber of Commerce, Box 86
KBTM	100	Jonesboro	W. J. Beard
KARK	500	Little Rock	Ark. Radio & Equip. Company
KGHI	100	44 48	Ark. Broadcasting Co., Pyramid Life Bldg.
KLRA	1000	40 00	Ark. Broadcasting Co., Box 550
KOTN	100	Pine Bluff	Universal Brdcstg. Corp., Hotel Pines
KUOA	5000	Siloam Spgs.	John Brown University, KUOA, Inc.

CALIFORNIA

	CALIFORNIA				
КРМС	1000	Bakersfield	Pioneer Mercantile Company		
KERN	100	81	McClatchey Brdcstg. Company		
KMPC	500	Beverly Hills	The Station of the Stars, Inc.		
KRE	100	Berkeley	Cent. Calif. Broadcasting, Inc.		
KHSL	250	Chico	Golden Empire Broadcasting Co.		
KXO	100	El Centro	F. M. Bowles, Box 140		
KIEM	500	Eureka	Redwood Brdcstg. Co Vance		
11123111	900		Hotel		
KMI	1000	Fresno	McClatchey Brdcstg. Company		
KARM	100	**	George Harm		
KIEV	250	Glendale	Cannon System, Ltd.		
KFWB	1000	Hollywood	Warner Bros. Brdcstg. Corp.		
KGER	1000	Long Beach	Cons. Brdcstg. Corp., 435 Pine St.		
KFOX	1000	4 4	Nichols & Warinner, Inc.		
KECA	1000	Los Angeles	E. C. Anthony, Inc., 1000 S.		
		Ŭ	Hope St.		
KFAC	1000	44 44	L.A. Brdcstg. Co., Inc., 3443 Wil-		
			shire		
KGFI	100	tt 44	Ben S. McGlashan, 1417 S. Fi-		
3			gueroa St.		
KRKD	500	46 64	Radio Broadcasters, 312 Spring		
			. Arcade Building		
KFSG	500	44 44	Echo Park Evangelical Assn.		
KNX	50000	44 44	C.B.S. of Calif., Inc., Sunset Blvd.		
KFVD	1000	** **	Standard Brdcstg. Company		

CALIFORNIA (continued)

Station	Kycs.	City	Owner
KHI	1000	Los Angeles	Don Lee System, 7th & Bixel Sts.
KFI	50000	44 44	Earle C. Anthony, 1000 S. Hope Street
KMTR	1000	44 64	KMTR Radio Corp., 915 N. Formosa
KEHE	1000	4 4	Hearst Radio, Inc., 214 S. Vermont St.
KYOS	250	Merced	Merced Star Pub. Company
KTRB	250	Modesto	McTaminany & Bates, Box 405
KDON	100	Monterrey	Mont. Peninsula Brdcstg. Co.
KLX	1000	Oakland	Tribune Building Company
KROW	1000	44	Educational Broadcasting Corp.
KLS	250	44	Warner Bros., 2201 Telegraph Avenue
KPPC	100	Pasadena	Pas. Presb. Church, 585 E. Colorado
KVCV	100	Redding	Golden Empire Brdcstg. Co.
KFBK	5000	Sacramento	McClatchey Brdcstg. Co., 708 I St.
KROY	100	**	Royal Miller
KFXM	100	San Bernardino	Lee Bros. Brdcstg. Co., Calif. Hotel
KGB	1000	San Diego	Don Lee Brdcstg. Sys., 1012-1st Ave.
KFSD	1000	44 44	Airfan Radio Corp., Ltd.
KGGC	100	San Francisco	Golden Gate Brdcstg. Co., 230 Eddy St.
KYA	1000	44 44	Hearst Radio, Inc., 988 Market St.
KJBS	500	66 66	Julius Brunton & Sons, 1380 Bush Street
KGO	7500	es es	N.B.C., Inc., 111 Sutter Street
KPO	50000	66 61	N.B.C., Inc., 111 Sutter Street
KFRC	1000	44 44	Don Lee Sys., 1000 Van Ness Ave.
KSFO	1000	** **	Assoc. Broadcasters, Russ Bldg.
KQW	1000	San Jose	Station KQW, 87 E. San Antonio St.
KVEC	250	San Luis Obispo	Valley Elec. Company

146 North American Broadcasting Stations

CALIFORNIA (continued)

Station	Kycs.	Gity	Owner
KSRO	250	Santa Rosa	Press-Democrat Pub. Company
KVOE	100	Santa Ana	Voice of Orange Empire, Ltd.
KDB	100	Santa Barbara	Santa Barbara Broadcasters, Ltd.
KTMS	500	** **	News Press Pub. Company
KWG	100	Stockton	McClatchey Brdcstg. Company
KGDM	1000	44	E. F. Peffer, 42 S. California St.
KTKC	250	Visalia	Tulare-Kings Counties
KHUB	250	Watsonville	Anna Atkinson
		COLORA	ADO .
KGIW	100	Alamosa	Leonard E. Wilson, Box 26
KVOR	1000	Colorado Springs	Out West Brdcstg. Company.
KLZ	1000	Denver .	KLZ Brdcstg. Co., Shirley-Savoy Hotel
KOA	50000	44	N.B.C., Inc., 1625 California St.
KPOF	500	и	Pillar of Fire, 1845 Champa St.
KFEL	500	64	Eugene P. O'Fallon, Inc., Albany Hotel
KVOD	500	44	Colo. Radio Corporation
KIUP	100	Durango	San Juan Brdcstg. Co., 2800 Main St.
KFXJ	100	Grand Junction	Western Slope Brdcstg. Co.
KFKA	500	Greeley	Mid-Western Radio Corp., Box 785
коко	100	La Junta	Southwest Brdcstg. Company
KIDW	100	Lamar	Southwest Brdcstg. Company
KGHF	500	Pueblo	Curtis P. Ritchie, 113 Broadway
KGEK	100	Sterling	Elmer G. Beehler, 109 W. 2nd St.
		CONNECT	TICUT
WICC	500	Bridgeport	Yankee Network, Inc., Stratfield Hotel
WTIC	50000	Hartford ·	Travelers Broadcasting Serv., 26 Grove St.
WTHT	100	44	Hartford Times, Inc., 983 Main Street
WDRC	1000	44	WDRC, Inc., 750 Main Street

CONNECTICUT (continued)

Station	Kycs.	City	Owner
WNBC	250	New Britain	State Brdcstg. Corp., 147 Main St.
WELI	500	New Haven	City Broadcasting Corp.
WNLC	100	New London	Thames Broadcasting Corp., Mo- hican Hotel
WATR	100	Waterbury	WATR, Inc., 47 Grand Street
WBRY	1000	66	American Republican, Inc., 136 Grand St.

DELAWARE

WILM	100	Wilmington	Delaware	Br	destg.	Corp.,	920
WDEL	250	41	King S WDEL,		ıoth	& King	Sts.

DISTRICT OF COLUMBIA

wjsv	10000	Washington	Columbia Brdcstg. Sys., Earle Bldg.
WOL	100	66	American Brdcstg. Co., 1111 H St
WRC	500	44	N.B.C., Inc., Nat'l. Press Bldg
WMAL	250	**	N.B.C., Inc., Nat'l. Press Bldg

FLORIDA

WFLA	1000	Clearwater	Fla. West Coast Brdcstg. Co.
WMFJ	100	Daytona Beach	W. W. Esch, 1261/2 Magnolia St.
WRUF	5000	Gainsville	University of Florida
WJAX	1000	Jacksonville	City of Jacksonville
WMBR	100	64	Fla. Brdcstg. Co., Carling Hotel
WLAK	100	Lakeland	Lake Region Broadcasting Co.
WQAM	1000	Miami	Miami Brdcstg. Co., 327 1st Ave.
WIOD	1000	46	Isle of Dreams Brdcstg. Corp.
WKAT	100	Miami Beach	A. Frank Katzentine
WDBO	1000	Orlando	Orlando Brdcstg. Co., Inc.
WCOA	500	Pensacola	Pensacola Brdcstg. Company
WFOY	100	St. Augustine	Fountain of Youth Properties
WSUN	1000	St. Petersburg	Chamber of Commerce, Recrea- tion Pier

148 North American Broadcasting Stations

FLORIDA (continued)

Station	Kycs.	City	Owner
WTAL WDAE	100	Tallahassee Tampa	Fla. Capital Broadcasters, Inc. Tampa Times Co., Tampa Ter-
wjno	100	W. Palm Beach	race Hazelwood, Inc.

GEORGIA

			A suitana Busa desetima Corm
WGPC	100	Albany	Americus Broadcasting Corp.
WSB	50000	Atlanta	Atlanta Journal Company, Bilt- more Hotel .
WGST	1000	64	Ga. School of Technology, Ans- ley Hotel
WATL	100	44	Atlanta Brdcstg. Co., 26 Cain St.
WAGA	500	46	Liberty Broadcasting Company
WRDW	100	Augusta	Augusta Brdcstg. Co., 309 8th St.
WRBL	100	Columbus	WRBL Radio Station, Inc.
WKEU	100	Griffin	Station WKEU, 906 Hill Street
WMAZ	1000	Macon	Southeastern Brdcstg. Company
WRGA	100	Rome	Rome Brdcstg. Corp., 10 Third Street
WTOC	1000	Savannah	Savannah Brdestg. Co., DeSoto Hotel
WPAX	100	Thomasville	H. Wimpy, 135 E. Jackson St.
WAYX	100	Waycross	Waycross Brdcstg. Co., Box 714

IDAHO

KIDO	1000	Boise	Boise Brdcstg. Sta., Hotel Boise
KGCI	100	Coeur d'Alene	Berger and Freeman
KID	500	Idaho Falls	KID Brdcstg. Company, Box 487
			H. E. Studebaker, Lewis-Clarke
KRLC	250	Lewiston	Hotel
KFXD	100	Nampa	Frank E. Hurt, Box 891
KSEI	250	Pocatello	Radio Serv. Corp., 141 S. 6th St.
KTFI	1000	Twin Falls	Radio Brdcstg. Corp., Box 521

ILLINOIS

Station	Kycs.	City	Owner
WJBC	100	Bloomington	Kaskaskia Broadcasting Co.
WCAZ	100	Carthage	Superior Brdcstg. Serv., Inc.
WDWS	100	Champaign	Champaign News-Gazette, Inc.
WMAQ	50000	Chicago	N.B.C., Inc., Merchandise Mart
WGN	50000	44	WGN, Inc., 435 N. Michigan St.
WBBM	50000	44	C.B.S., 410 N. Michigan St.
WENR	50000	44	N.B.C., Inc., Merchandise Mart
WAAF	1000	44	Drovers Journal Pub. Company, Palmer House
WCFL	5000	66	Chgo. Fed. of Labor, Lake Shore Drive
WCBD	5000	44	WCBD, Inc., 128 N. Pulaski
WMBI	5000	64	Moody Bible Institute
WJJD	20000	66	WJJD, Inc., 201 N. Wells Street
WCRW	100	44	Clinton R. White, 2756 Pine Grove
WEDC	100	44	Emil Denemark, 3850 Ogden Ave.
WSBC	100	44	WSBC, Inc., 2400 Madison Ave.
WGES	500	44	Oak Leaves Broadcasting Station
WHFC	100	Cicero	WHFC, Inc., 6138 Cermak Road
WJBL	100	Decatur	Commodore Brdcstg. Co., Gushard Bldg.
WKBB	100	E. Dubuque	Sanders Bros., Hotel Julian
WEBQ	100	Harrisburg	Harrisburg Brdestg. Co., 100 E. Poplar
WCLS	100	Toliet	WCLS, Inc., 301 E. Jefferson St.
WTAD	1000	Quincy	Ill. Brdcstg. Corp., 510 E. Main Street
WROK	500	Rockford	Rockford Broadcasters, Inc.
WHBF	100	Rock Island	R. I. Brdcstg. Co., Hotel Harms
WTAX	100	Springfield	WTAX, Inc., 416 E. Capitol
WCBS	100	ű	WCBS, Inc., 2081/2 S. 5th Street
WDZ	250	Tuscola	WDZ Broadcasting Company
WILL	1000	Urbana	University of Illinois

150 NORTH AMERICAN BROADCASTING STATIONS

INDIANA

Station	Kycs.	City	Owner
WHBU	100	Anderson	Anderson Broadcasting Corp.
WTRC		Elkhart	Truth Pub. Co., Inc., Hotel Elk-
WIRC	100		hart
WGBF	500	Evansville	Evans, on the Air, Inc., 519 Vine St.
wowo	10000	Fort Wayne	Westinghouse Radio Station
WGL	100	44 44	Westinghouse Radio Station
WWAE	100	Hammond	Hammond-Calumet Broadcast- ing Corp.
WHIP	5000	44	Hammond-Calumet Broadcast- ing Corp.
WIND	1000	Gary	Johnson-Kennedy Radio Corp.
WGVA	1000	Indianapolis	Glenn Van Auken
WFBM	1000	"	Ind. Power & Light Company
WIRE	1000	44	Indianapolis Broadcasting, Inc.
WLBC	100	Muncie	Donald A. Burton, Anthony Building
WGRC	250	New Albany	North Side Broadcasting Corp.
WKBV	100	Richmond	Knox Radio Corp., Box 308
WFAM	100	South Bend	South Bend Tribune, 225 W. Colfax Ave.
WBOW	100	Terre Haute	Banks of the Wabash, Inc.
WBAA	500	W. Lafayette	Purdue University
		IOW	'A
WOI	5000	Ames	State Col. of Agriculture
KFGQ	100	Boone	Boone Biblical College
WMT	1000	Cedar Rapids	Iowa Brdcstg. Co., Hotel Mont- rose
woc	100	Davenport	Tri-City Brdcstg. Co., 1000 Brady Street
KGCA	100	Decorah	Chas. W. Greenley, 201 Water St.
KWLC	100	44	Luther College
WHO	50000	Des Moines	Central Brdcstg. Co., 914 Walnut Street
KRNT	1000	46 46	Iowa Brdcstg. Co., 715 Locust St.
KSO	500	46 66	Iowa Brdcstg. Co., 715 Locust St.
			141.3

IOWA (continued)

Station	Kycs.	City	Owner
KDTH	500	Dubuque	Telegraph Herald
WSUI	500	Iowa City	State University of Iowa
KGLO	100	Mason City	Mason City Globe Gazette
KFNF	500	Shenandoah	KFNF, Inc., 407 Sycamore St.
KMA	1000	44	May Seed and Nursery Company
KSCJ	1000	Sioux City	Sioux City Journal, 415 Douglas St.
KTRI	100	44 44 .	Sioux City Brdcstg. Company
KFJB	(100 W	Marshall	Town Marshee Electric. ENPear
7		KAN	ISAS
I/ IPD I		Abilono	Farmers & Bankers Brdesta Corn

KFBI .	5000	Abilene	Farmers & Bankers Brdcstg. Corp.
KGGF	1000	Coffeyville	Powell & Platz, Coffeyville Jour- nal
KGNO	250	Dodge City	Dodge City Brdestg. Company
KIUL	100	Garden City	Garden City Brdcstg. Company
KVGB	100	Great Bend	Ernest Edward Ruehlen
KWBG	100	Hutchinson	W. N. Greenwald
KCKN	100	Kansas City	KCKN Brdcstg. Co., 901 N. 8th St.
KFKU	1000	Lawrence	University of Kansas
WREN	1000	44	WREN Brdestg. Co., 7th & Vermont Sts.
KSAC	500	Manhattan	State College of Agriculture
KOAM	1000	Pittsburg	Pittsburg Brdcstg. Co., 404 Com- merce Bldg.
KSAL	100	Salina	R. J. Laubengayer, Journal Bldg.
WIBW	1000	Topeka	Topeka Broadcasting Assn., Inc.
KANS	100	Wichita	KANS Broadcasting Company
KFH	1000	44	Station KFH, 1241/6 S. Market St.

KENTUCKY

WCMI	100	Ashland	Ashl	an	d Brd	cstg.	Co.,	Bo	X	106
WCKY	10000	Covington	L. I	3. 5	Silson,	Inc.,	6th	&c	M	adi-
		-	so	n S	Sts.					

152 NORTH AMERICAN BROADCASTING STATIONS

KENTUCKY (continued)

Station	Kycs.	City	Owner
WAVE	1000	Louisville	WAVE, Inc., 1525 Brown Hotel
WHAS	50000	44	Louisville Times Co., 300 W. Liberty St.
WLMU	100	Middlesboro	Lincoln Memorial University
WOMI	100	Owensboro	Owensboro Broadcasting Co.
WPAD	100	Paducah	Paducah Broadcasting Co., 2201 Broadway

LOUISIANA

KALB WJBO KVOL	100 500 100	Alexandria Baton Rouge Lafayette	Alexandria Brdcstg. Co., Box 788 B.R. Brdcstg. Co., 334 Florida St. Evangeline Broadcasting Co.
KPLC	100	Lake Charles	Calcaslieu Brdcstg. Co., Majestic Hotel
KEJB	100	Marshalltown	Marshall Elec. Company, Inc.
KMLB	100	Monroe	Liner's Broadcasting Sta., Francis Hotel
WWL	10000	New Orleans	Loyola University
WBNO	100	44 44	Coliseum Place Baptist Church
wjbw	100	64 44	Chas. C. Carlson, Godchaux Building
WDSU	1000	e4 66	WDSU, Inc., Hotel Monteleone
WSMB	1000	64 64	WSMB, Inc., Maison Blanche Building
KWKH	10000	Shreveport	International Brdcstg. Corp., Box 17
KRMD	100	44	KRMD, Inc., Box 1712
KTBX	1000	44	Tri-State Brdcstg. System, Box 17

MAINE

WRDO	100	Augusta	WRDO, Inc., 1 Commercial St.
WLBZ	500	Bangor	Maine Brdcstg. Co., 100 Main St.
WABI	100	44	Community Brdcstg. Service

MAINE (continued)

Station	Kycs.	City	Owner
WCSH	1000	Portland	Congress Sq. Hotel Co., The Eastland
WGAN	500	46	Portland Brdcstg. System, Inc.
'WAGM	100	Presque Isle	Aroostook Brdcstg. Corp., Main Street

MARYLAND

WCAO	500	Baltimore	Monumental Radio Company, 811 W. Lanvale St.
WBAL	2500	\u_	WBAL Brdcstg. Co., Lexington Bldg.
WBAL	10000	44	WBAL Brdcstg. Co., Lexington Bldg.
WFBR	500	et	Baltimore Radio Show. Inc., 7 St. Paul St.
WCBM	100	64	Baltimore Brdcstg. Co., Keith Theatre
WaXI	100	College Park	McNary & Chambers
WTBO	250	Cumberland	Associated Broadcasting Corp.
WFMD	500	Frederick	Monocacy Brdcstg. Company
WJEJ	50	Hagerstown	Hagerstown Brdcstg, Co., Lovely Dame Bldg.
WSAL	250	Salisbury	Frank M. Stearns

MASSACHUSETTS

WEEI	1000	Boston	Columbia Broadcasting System
WHDH	1000	66	Matheson Radio Co., 62 Boyls- ton Street
WORL	500	44	Broadcasting Serv. Orig., Inc.
WBZ	50000	44	Westinghouse Elec. Co., Hotel Bradford
WCOP	500	44	Mass. Broadcasting Corp., Cop- ley Plaza Hotel
WNAC	1000	66	Yankee Network, Inc.
WAAB	500	44	Yankee Network, Inc.
WMEX	100	aa	The Northern Corp., Hotel Manager

MASSACHUSETTS (continued)

Station	Kycs.	City	Owner
WSAR	1000	Fall River	Doughty & Welch Elec. Co., Inc.
WLAW	1000	Lawrence	Hildreth & Rogers Company
WLLH	100	Lowell	Merrimac Brdcstg. Co., Box D
WNBH	100	New Bedford	E. Anthony & Sons, Inc., 251 Union St.
WBRK	100	Pittsfield	Harold Thomas
WBZA	1000	Springfield	Westinghouse Elec. Co., Hotel Kimball
WSPR	500	44	Conn. Valley Brdcstg. Co., 63 Chestnut St.
WMAS	100	44	WMAS, Inc., Hotel Stonehaven
WTAG	1000	Worcester	Telegram Pub. Co., Inc., 20 Franklin St.
WORC	500	44	Alf. E. Kleindienst, 60 Franklin St.

MICHIGAN

WELL	100	Battle Creek	Enquirer News Company, 1 W. Michigan
WBCM	500	Bay City	Bay Brdcstg. Co., Hotel Wenonah
WHDF	100	Calumet	Upper Mich. Brdestg. Corp., Scott St.
WJR	50000	Detroit	The Goodwill Station, Fisher Building
wwj	5000	44	Detroit News, 616 Lafayette Blvd.
WXYZ	1000	M	King-Trendle Brdcstg. Corp.
WMBC	100	#	Michigan Broadcasting Co.
WJBK	100	4	Jas. F. Hopkins, Inc., 6559 Hamilton St.
WKAR	1000	E. Lansing	Michigan State College
WFDF	100	Flint	Flint Broadcasting Company
WOOD	500	Grand Rapids	King-Trendle Brdcstg. Corp.
WJMS	100	Ironwood	WJMS, Inc., St. James Hotel
WIBM	100	Jackson	WIBM, Inc., 306 W. Michigan Street

MICHIGAN (continued)

Station	Kycs.	City	Owner
WKZO	1000	Kalamazoo	WKZO, Inc., Burdick Hotel
WJIM	100	Lansing	Harold G. Cross
WMPC	100	Lapeer	1st Methodist Church, 81 Lib- erty Street
WBEO	100	Marquette	Lake Superior Brdcstg. Co.
XEI	125	Morelia	Carlos, Guiterrez M., Madero 545
WKBZ	100	Muskegon	Karl L. Ashbacker, Mich. Thea.
WEXL	50	Royal Oak	Royal Oak Broadcasting Co., 212 W. 6th St.
WHAL	500	Saginaw	Gross & Shields
		MINNES	OTA
KATE	250	Albert Lea	Albert Lea Brdcstg. Corp.
WEBC	1000	Duluth	Head of the Lakes Brdcstg. Co.
KDAL	100	64	Red River Brdcstg. Co., Inc.
KGDE	100	Fergus Falls	Charles L. Jaren
WMFG	100	Hibbing	Head of the Lakes Brdcstg. Co.
KROC	100	Rochester	So. Minn. Brdcstg. Co., Martin Hotel
wcco	50000	Minneapolis	C.B.S., Nicollet Hotel
WDGY	1000	44	Dr. Geo. W. Young, 909 W. Broadway
WLB	1000		University of Minnesota
WTCN	1000	46	Minn. Broadcasting Corp.
KVOX	100	Moorhead	KVOX Broadcasting Company
WCAL	1000	Northfield	St. Olaf College
KFAM	100	St. Cloud	Times Publishing Company
WMIN	100	St. Paul	WMIN Broadcasting Company
KSTP	10000	66 44	National Battery Brdcstg. Co.
WHLB	100	Virginia	Head of the Lakes Brdcstg. Co.
KWNO	250	Winona	Winona Radio Service
		MISSISS	IPPI
WGRM	100	Grenada	P. K. Ewing
WGCM	100	Gulfport	WGCM, Inc.
WFOR	100	Hattiesburg	Forrest Brdcstg. Co., Box 947
WJDX	1000	Jackson	Lamar Life Insurance Company

156 NORTH AMERICAN BROADCASTING STATIONS

MISSISSIPPI (continued)

Station	Kycs.	City	Owner
WHEF	100	Kosciusko	Attala Brdcstg. Corporation
WAML	100	Laurel	New Laurel Radio Sta., Box 26
WCOC	500	Meridan	Miss. Brdcstg. Co., Inc., Box 603
WQBC	1000	Vicksburg	Delta Brdcstg. Co., Inc., Hotel Vicksburg

MISSOURI

KFVS	100	Cape Girardeau	Hirsch Battery & Radio Co., Box 275
KFRU	500	Columbia	KFRU, Inc., 9th & Elm Sts.
KWOS	100	Jefferson City	Tribune Ptg. Company
WMBH	100	Joplin	Joplin Brdcstg. Co., Keystone
***************************************		Joh	Hotel
WDAF	1000	Kansas City	Kansas City Star, 1729 Grand Ave.
WHB	1000	44 44	WHB Brdcstg. Co., Scarritt Bldg.
KMBC	1000	44 44	Midland Brdcstg. Co., Pickwick Hotel
KCMO	100	44 44	KCMO Broadcasting Company
KXBY	1000	44 64	First Nat'l Television, Inc., 106 W. 14th
KWTO	5000	Springfield	Ozarks Brdcstg. Co., St. Louis at Kimbrough
KGBX	500	44	Springfield Brdcstg. Company
KFEQ	2500	St. Joseph	KFEQ, Inc., Schneider Building
KSD	1000	St. Louis	St. Louis Post-Dispatch
KFUO	500	66 66	Evangelical Luth. Synod., 801 DeMun St.
WEW _.	1000	64 6t	St. Louis Univ., 221 N Grand Blvd.
KMOX	50000	ôf 64	Columbia Brdcstg. System, Mart Bldg.
WIL	100	es 44	Mo. Brdcstg. Corp., Melbourne Hotel
KWK	1000	46 46	Thomas Patrick, Inc., Hotel Chase

MONTANA

Station	Kycs.	City	Owner
KGHL	1000	Billings	N.W. Auto Supply Company
KGIR	1000	Butte	KGIR, Inc., 121 W. Broadway
KFBB	1000	Great Falls	Buttrey Brdcstg. Co., Box 1817
KPFA	100	Helena	Peoples Forum of the Air
KGEZ	100	Kalispell	Donald C. Treloar, Box 1
KDNC	100	Lewistown	Democrat-News Company
KGVO	1000	Missoula	Mosby's, Inc., 240 N. Higgins Ave.
KGCX	1000	Wolf Point	E. E. Krebsbach

NEBRASKA

KMMJ	1000	Clay Center	KMMJ, Inc.
KGFW	100	Kearney	Cent. Nebr. Brdcstg. Corp.
KFAB	10000	Lincoln	KFAB Brdcstg. Co., Hotel Lin- coln
KFOR	100	64	Cornbelt Brdcstg. Co., Hotel Lincoln
WJAG	1000	Norfolk	Norfolk Daily News
KGNF	1000	North Platte	Great Plains Brdcstg. Co., W.
wow	1000	Omaha ·	Woodmen of the World, Insurance Building
WAAW	500	64	Omaha Grain Exchange
KOIL	1000	44	Central States Broadcasting Co.
KOH	500	Reno	The Bee, Inc., 440 N. Virginia
KGKY	100	Scottsbluff	Hilliard Co., Inc., 15171/2 Broadway

NEW HAMPSHIRE

WLNH	100	Laconia	Northern Brdcstg. Co., 523 Main
WFEA	500	Manchester	St. N.H. Brdcstg. Co., Carpenter Hotel
WHEB	250	Portsmouth	Granite State Brdcstg. Corp.,

NEW JERSEY

Station	Kycs.	City	Owner
WCAP	500	Asbury Park	Radio Industries Brdcstg. Co.
WPG	5000	Atlantic City	City of Atlantic City
WSNI	100	Bridgeton	Eastern States Brdcstg. Corp.
WCAM	500	Camden	City of Camden, City Hall
WAAT	500	Jersey City	Bremer Brdcstg. Corp., 50 Journal Sq.
WHOM	250	44 44	New Jersey Brdcstg. Corp.
WOR	50000	Newark	Bamberger Brdcstg. Serv., Inc.
WHBI	1000	**	May Radio Broadcasting Corp.
WBRB	100	Red Bank	Monmouth Broadcasting Co., 63 Broad St.
WTNI	500	Trenton	WOAX, Inc., Stacy Trent Hotel
WAWZ	500	Zarephath	Pillar of Fire, Zarephath

NEW MEXICO

KGGM	1000	Albuquerque	N. Mex. Brdcstg. Co., KiMo Bldg.
KOB	10000	44	Albuquerque Brdcstg. Company
KLAH	100	Carlsbad	Carlsbad Brdcstg. Company
KICA	100	Clovis	Western Broadcasters, Inc., Box
			111
KAWM	100	Gallup	A. W. Mills
XEXS	100	Portable	Dpto. de Salubridad Publica
KGFL	100	Roswell	KGFL, Inc., 507 N. Main Street
KRQA	100	Santa Fe	J. Laurance Martin, Box 985

NEW YORK

woko	500	Albany	WOKO, Inc., Hotel Ten Eyck
WABY	100	44	Adirondack Brdcstg. Co., Strand Theatre
WMBO	100	Auburn	WMBO, Inc., Metcalf Building
WNBF	100	Bingbamton	Howitt-Wood Radio Co., Arling- ton Hotel
WBBR	1000	Brooklyn	People's Pulpit Assn.

NEW YORK (continued)

Station	Kycs.		City		Owner
WMBQ	100	Brooklyn			Metropolitan Brdcstg. Co., 95 Leonard St.
WCNW	100	44			Arthur Faske, 846 Flatbush St.
WVFW	500	**			Paramount Brdcstg. Co., 4 & 5 Court Sq.
WBBC	500	44	ı		Brooklyn Broadcasting Corp.
WGR	1000	Buffa	lo		Buffalo Brdcstg. Corp., Rand Building
WBEN	1000	44			WBEN, Inc., Hotel Statler
WEBR	100	44			WEBR, Inc., 23 North Street
WKBW	5000	44			Buffalo Brdcstg. Corp., Rand Building
wsvs	50	44			Seneca Voc. High School
WBNY	100	44			Roy L. Albertson, 485 Main St.
WCAD	500	Canto	on		St. Lawrence University
WESG	1000	Elmira			Cornell University, Mark Twain Hotel
WGBB	100	Freeport			Harry H. Carman, 64 S. Grove Street
WJTN	100	Jamestown			James Brdcstg. Co., Inc.
WGNY	100	Newl	ourgh		Peter Goelet, 161 Broadway
WMCA	1000	New	York	City	Knickerbocker Brdcstg. Co., 1697 Broadway
WEAF	50000	44	44	44	N.B.C., Inc., 30 Rockefeller Plaza, Radio City
WJZ	50000	44	44	44	N.B.C., Inc., 30 Rockefeller Plaza, Radio City
WNYC	1000	66	64	44	City of New York
WABC	50000	44	44	44	C.B.S., 485 Madison Avenue
WHN	1000	44	44	44	Marcus Loew Booking Agency
WBIL	5000	44	66	44	Arde Bulova, 415 W. 59th Street
WOV .	1000	64	64	44	Internat'l Brdcstg. Corp., 16 E. 42nd St.
WINS	1000	66	66	86	Hearst Radio, Inc., 110 E. 58th St.
WNEW	1000	μ	44	44	Wodaam Corp., 501 Madison Avenue
WEVD	1000	44	44	44	Debs Memorial Radio Fund

NEW YORK (continued)

Station	Kycs.	Gity	Owner
WFAB	1000	New York City	5th Ave. Brdcstg. Corporation
WQZR	1000	44 44 44	Interstate Brdcstg. Co., 730 Fifth Ave.
WBNX	1000	44 44 44	WBNX Broadcasting Co., 260 E. 161st St.
WHDL	250	Olean	WHDL, Inc., Exchange Bank
WMFF	100	Plattsburg	Plattsburg Brdcstg. Corporation
WHAM	50000	Rochester	Stromberg-Carlson Co., Saga- more Hotel
WSAY	100	44	Brown Radio Serv., 192 S. Good- man
WHEC	500	44	WHEC, Inc., 40 Franklin Street
WNBZ	100	Saranac Lake	Smith & Mace, 70 Broadway
WGY	50000	Schenectady	Gen. Elec. Co., 1 River Road
WSYR	1000	Syracuse	Central N.Y. Brdcstg. Corp.
WFBL	1000	4	Onondaga Radio Brdcstg. Corp.
WHAZ	1000	Troy	Rensselaer Polytechnic Inst., 8th Avenue
WIBX	100	Utica	WIBX, Inc., 1st National Bank Building
WNNY	100	Watertown	Black River Valley Brdcstg., Inc.
WFAS	100	White Plains	Westchester Brdcstg. Corp.
WWRL	100	Woodside	Long Island Brdcstg. Company

NORTH CAROLINA

WWNC	1000	Asheville	Citizen-Times Company, Inc.
WBT	50000	Charlotte	Columbia Brdcstg. Sys., Wilder Bldg.
wsoc	100	44	WSOC, Inc., 516 W. Trade St.
WDNC	100	Durham	Durham Radio Corp., Wash. Duke Hotel
WBIG		Casanihana	
	1000	Greensboro	N.C. Brdcstg. Company, Inc.
WMFR	100	High Point	Station WMFR, Inc.
WFTC	100	Kinston	Station WFTC-Jonas Weiland
WPTF	1000	Raleigh	WPTF Co., 324 Fayetteville St.
WEED	100	Rocky Mount	Wm. Avera Wynne. Box 221

NORTH CAROLINA (continued)

Station	Kycs.	City	Owner
WMFD	100	Wilmington	Richard A. Dunlea, Hotel Wil- mington
WGTM	100	Wilson	H. W. Wilson & Ben Farmer
WAIR	250	Winst Salem	Radio Station on WAIR
wsjs	100	66 46	Piedmont Pub. Co., 416 N. Marshall St.

NORTH DAKOTA

KFYR	1000	Bismarck	Meyer Brdcstg. Co., 320 Broad- way
KDLR	100	Devils Lake	KDLR, Inc., 1025 Third St.
WDAY	1000	Fargo	WDAY, Inc., 118 Broadway
KFJM	500	Grand Forks	University of North Dakota
KRMC	100	Jamestown	Roberts McNab Company
KGCU	250	Mandan	Mandan Radio Assn., 404 W. Main Street
KLPM	250	Minot	John B. Cooley, Box 707
KOVC	100	Valley City	KOVC, Inc.

OKLAHOMA

		OILLIII	,
KADA	100	Ada	C. C. Morris
KVSO	100	Ardmore	Ardmoreite Pub. Company
KASA	100	Elk City	E. M. Woody, Casa Grande Hotel
KCRC	250	Enid	Enid Radiophone Company, Oxford Hotel
KBIX	100	Muskogee	Muskogee Press, Barnes Building
WNAD	1000	Norman	University of Oklahoma
WKY	1000	Oklahoma City	WKY Radiophone Company
KFXR	100	44 44	Exchange Ave. Baptist Church
кток	100	44 64	Okla. Brdcstg. Co., 1113 N. Broadway
KOMA	5000	44 . 44	Hearst Radio, Inc., Biltmore Hotel
KHBG	100	Okmulgee	Okmulgee Broadcasting Corp.
WBBZ	100	Ponca City	Adelaide L. Carrell, 615 W.

OKLAHOMA (continued)

Station	Kycs.	City	Owner
KGFF	100	Shawnee	KGFF, Inc., 9th & Bell Sts.
KVOO	25000	Tulsa	Southwestern Sales Corporation,
			Wright Bldg.
KTUL	500	**	Tulsa Broadcasting. Co., Inc.

OHIO				
wjw	100	Akron	WJW, Inc., 41 S. High Street	
WADC	1000	**	Allen T. Simmons, Box 29	
WICA	250	Ashtabula	Ash. Star-Beacon, 221 Center St.	
WHBC	100	Canton	Edw. P. Graham, 319 Tuscola St., W.	
WLW	500000	Cincinnati	Crosley Radio Corp., 1329 Arlington St.	
WKRC	1000	44	Columbia Brdcstg. Sys., Hotel	
WCPO	100	61	Scripps-Howard Radio, Inc.	
WSAI	1000		Crosley Radio Corp., 1329 Arlington St.	
WCLE	500	Cleveland	Cleveland Brdcstg. Corp., 1224 Huron St.	
WTAM	50000	64 .	N.B.C., Inc., 1367 E. 6th Street	
WHK	1000	64	Radio Air Corporation, 1311 Terminal Tower	
WGAR	500	44	WGAR Brdcstg. Co., Hotel Stat- ler	
Wosu	750	Columbus	Ohio State University	
WHKC	500	**	Associated Broadcasting Corp.	
WCOL	100	44	WCOL, Inc., 33 N. High Street	
WBNS	500	"	WBNS, Inc., 33 N. High Street	
WHIO	1000	Dayton	Dayton Daily News	
WSMK	200	•	WSMK, Inc., 121 N. Main St.	
WBLY	100	Lima	Herbert Lee Bly, 1424 Rice Ava.	
WPAY	100	Portsmouth	Veebee Corporation	
WTOL	100	Toledo	Community Brdcstg. Company	
WTOL	100	44	Community Brdcstg. Company	
WSPD	1000	ee	The Fort Industry Co.	

OHIO (continued)

		(······/
Station	Kycs.	City	Owner
WKBN	500	Youngstown	WKBN Broadcasting Corp., 17 N. Champion St.
WALR	100	Zanesville	WALR Broadcasting Corp.
		OREG	ON
KAST	100	Astoria	Astoria Broadcasting Co., 1611 Commercial St.
KOAC	1000	Corvallis	State Agricultural College
KORE	100	Eugene	Eugene Brdcstg. Sta., 733 Willamette St.
KFJI	100	Klamath Falls	KFJI Broadcasters, Inc., Willard Hotel
KLBM	100	La Grande	Harold M. Finley
KOOS	100	Marshfield	Pacific Radio Corp., Hall Bldg.
KMED	250	Medford	Mrs. W. J. Virgin, Sparta Bldg.
KGW	1000	Portland	Oregonian Pub. Co., 325 Adler Street
KOIN	1000	44	KOIN, Inc., New Heathman Hotel
ĸwjj	500	64	KWJJ Brdcstg. Co., Inc., 622 Salmon St.
KALE	500	64	KALE, Inc., New Heathman Hotel
KBPS	100	44	Benson Polytechnic School
KXL	100	64	KXL Broadcasters, Multnomah Hotel
KRNR	100	Roseburg	News-Review Company
KSLM	100	Salem	Oregon Radio, Inc., 343 Court St.
'		PENNSYL	VANIA
WCBA	500	Allentown	B. B. Musselman, 39-41 Tenth Street
WSAN	500	44	WSAN, Inc., 39 Tenth Street
WFBG	100	Altoona	Gable Brdcstg. Co., 12th Ave. & 13th St.
WEST	100	Easton	Assoc. Broadcasters, Inc.

PENNSYLVANIA (continued)

Station	Kycs.	City	Owner
WLEU	100	Erie	Leo J. Omelian, Commerce Bldg.
WIBG	100	Glenside	Seaboard Radio Brdcstg. Corp.
wнjв	250	Greensburg	Pitt. Radio Sup. House
WSAJ	100	Grove City	Grove City College, 418 Poplar Street
WKBO	100	Harrisburg	Keystone Brdcstg. Corp., Penn Harris Hotel
WHP	500	44	WHP, Inc., 216 Locust St.
WAZL	100	Hazleton	Hazleton Brdcstg. Serv., Inc.
WJAC	100	Johnstown	WJAC, Inc., Locust Street
WGAL	100	Lancaster	WGAL, Inc., 8 W. King Street
WFIL	1000	Philadelphia	WFIL Broadcasting Co., Public Ledger Bldg.
WIP	1000	66	Penn Brdcstg. Co., 35 S. Ninth St.
WPEN	1000	64	Wm. Penn Brdcstg. Company
WRAX	1000	44	WRAX Broadcasting Co., 217 S. Broad St.
KYW	10000	44	Westinghouse Elec. Co., 1622 Chestnut St.
WCAU	50000	44	WCAU Brdcstg. Co., 1622 Chest- nut St.
WHAT	100	44	Independence Broadcasting Co.
WTEL	100	64	Foulkrod Radio Eng. Co., 3701 N. Broad St.
WDAS	100	64	WDAS Brdcstg. Station, Inc.
KDKA	50000	Pittsburgh	Westinghouse Elec. Co., Grant Building
WCAE	1000	44	WCAE, Inc.
WJAS	1000	ee	Pitt. Radio Supply House, 7th Avenue
KQV	500	86	KQV Brdcstg. Co., 1406 C. of C. Bldg.
wwsw	100	es	Walker & Downing Radio Corp., Hotel Keystone
WEEU	1000	Reading	Berks Brdcstg. Co.
WRAW	100	"	Reading Brdcstg. Co., 533 Penn Street





PENNSYLVANIA (continued)

			•
Station	Kycs.	City	Owner
WGBI	500	Scranton	Scranton Broadcasters, Inc.,
		•	1000 Wyoming
WQAN	500	44	Scranton Times, 149 Penn Ave.
WKOK	100	Sunbury	Sunbury Brdcstg. Corp., 1150 N. Front St.
WMBS	250	Uniontown	Fayette Broadcasting Corp.
WBAX	100	Wilkes-Barre	John H. Stenger, Jr., 70 S. Main St.
WBRE	100	44 44	Louis G. Baltimore, 16 N. Main St.
WRAK	100	Williamsport	WRAK, Inc., 224 W. 4th Street
WORK	1000	York	York Brdcstg. Co., 15 S. Beaver St.
		RHODE I	SLAND
WIAR		Providence	0.41:.0
WEAN	1000	rrovidence	Outlet Company, Weybossett St.
WEAN	1000		Yankee Network, Inc., New Crown Hotel
WPRO	500	"	Cherry & Webb Brdcstg. Co., 15 Chestnut St.
		SOUTH CA	ROLINA
WAIM	100	Anderson	Wilton E. Hall, Anderson Col- lege
WCSC	500	Charleston	S.C. Brdcstg. Co., Francis Marion Hotel
WIS	1000	Columbia	Station WIS, Inc., 1811 Main St.
WOLS	100	Florence	O. Lee Stone, Imperial Hotel
WFBC	1000	Greenville	Greenville News-Piedmont Co., Imperial Hotel
WSPA	1000	Spartanburg	Voice of S.D., Ravenel & Avant
		SOUTH D	AKOTA
KABR	100	Aberdeen	Aberdeen Broadcasting Co.
KFDY	1000	Brookings	S.D. State College, Box L
KGDY	250	Huron	Voice of S.D., Inc., 347 Dakota St.

SOUTH DAKOTA (continued)

Station	Kycs.	City	Owner
KGFX	200	Pierre	Mrs. Ida A. McNeil, Box 573
WCAT	100	Rapid City	S.D. State School of Mines
KOBH	100		Black Hills Broadcasting Co.
KSOO	2500	Sioux Falls	S.F., Brdcstg. Assn., Carpenter Hotel
KELO	100	44 46	S.F. Broadcasting Assn.
KUSD	500	Vermillion	University of South Dakota
KWTN	100	Watertown	Greater Kampeska Radio Corp.
WNAX	1000	Yankton	WNAX Brdcstg. Co., 2nd & Capitol Sts.

TENNESSEE

			· · · · =
WOPI	100	Bristol	Radiophone Station WOPI, 22nd & State Sts.
WDOD .	1000	Chattanooga	WDOD Brdcstg. Corp., Hotel Patten
WAPO	100	44	W. A. Patterson, 9th & Broad Sts.
WTJS	100 .	Jackson	Sun Publishing Co., Inc., Sun Building
WNOX	1000	Knoxville	Scripps-Howard Radio, Inc.
WROL	100	16	Stuart Brdcstg. Corp., 524 S. Gay St.
WREC	1000	Memphis	WREC, Inc., Hotel Peabody
WMC	1000	44	Memphis Commercial Appeal Co.
WHBQ	100	64	WHBQ, Inc., Hotel Claridge
WMPS	500	44	Memphis Commercial Appeal Co., Box 445
WSM	50000	Nashville	National Life & Accident Ins. Co.
WSIX	100	44	WSIX, Inc.
WLAC	5000	44	WLAC, Inc., 2421 West End Ave.

TEXAS

KRBC	100	Abilene	Reporter Brdcstg. Co., Box 263
KGNC	1000	Amarillo	Plains Radio Broadcasting Co.

TEXAS (continued)

Station	Kycs.	City	Owner
KNOW	100	Austin	KUT Broadcasting Co., Norwood Building
ктвс	1000	44	State Capitol Brdcstg. Assn.
KFDM	500	Beaumont	Sabine Brdcstg. Co., Inc., Box 2950
KBST	100	Big Spring	Big Spring Herald Brdestg. Co.
KNEL	250	Brady	G. L. Burns, Box 1077
KGFI	100	Brownsville	Eagle Brdcstg. Company, Inc.
WTAW	500	College Sta.	Agric. & Mechanical College
KRIS	500	Corpus Christi	Gulf Coast Brdcstg. Company
KAND	100	Corsicana	Navarro Broadcasting Assn.
WFAA	50000	Dallas	A. H. Belo Corp., Baker Hotel
KRLD	10000	64	KRLD Radio Corp., Adolphus Hotel
WRR	500	**	City of Dallas, Southland Bldg.
KFPL	100	Dublin	C. C. Baxter, Box 176
KTSM	100	El Paso	Tri-State Brdcstg. Co., Box 1976
WDAH	100	44	Tri-State Brdcstg. Co., Box 1976
KROD	100	44 44	Dorrence D. Roderick
WBAP	50000	Fort Worth	Ft. Worth Star-Telegram
KTAT	1000	66 66	Tarrant Broadcasting Co.
KFJZ	100	44 44	Ft. Worth Broadcasters, Inc.
KLUF	100	Galveston	Geo. F. Clough, Buccaneer Hotel
KGVL	100	Greenville	Hunt Broadcasting Assn.
KPRC	1000	Houston	Houston Ptg. Corp., Lamar Ho- tel
KTRH	1000	44	KTRH Broadcasting Co., Rice Hotel
KXYZ	1000	64	Harris County Brdcstg. Co., Gulf Building
KOCA	100	Kilgore	Oil Capital Broadcasting Assn.
KFRO	250	Longview	Voice of Longview, Box 616
KFYO	100	Lubbock	Plains Radio Brdcstg. Co., Box 1448
KRBA	100	Lufkin	Red Lands Broadcasting Assn.
KRLH	100	Midland	Clarence Scharbaur

TEXAS (continued)

Station	Kycs.	City	Owner	
KPDN	100	Pampa	R. C. Hoiles	
KNET	100	Palestine	Palestine Broadcasting Assn.	
KPLT	250	Paris	North Texas Broadcasting Co.	
KIUN	100	Pecos	J. H. Hawkins & B. H. Tubbs	
KPAC	500	Port Arthur	Port Arthur College	
KGKL	100	San Angelo	KGKL, Inc., St. Angelus Hotel	
KTSA	1000	San Antonio	KTSA Broadcasting Company	
WOAI	50000	44 44	Southland Industries, Inc., 1038 Navarro	
KMAC	100	64 44	W. W. McAllister, Smith-Young Tower	
KONO	100	44 ££	Mission Brdcstg. Co., Milam Building	
KABC	100	64 64	Alamo Broadcasting Co., Inc.	
KRRV	250	Sherman	Red River Valley Brdcstg. Co.	
KTEM	250	Temple	Bell Broadcasting Company	
KCMC	100	Texarkans	KCMC, Inc.	
KGKB	100	Tyler	East Texas Brdcstg. Co., Com- mercial College Building	
WACO	100	Waco	KTSA Broadcasting Company	
KRGV	1000	Weslaco	KRGV, Inc.	
KGKO	250	Wichita Falls	Ft. Worth Star-Telegram, Fort Worth	
		UTA	н	
KSUB	100	Cedar City	Johnson & Perry	
KLO	500	Ogden	Interstate Broadcasting Corp.	
KEUB	100	Price	Eastern Utah Broadcasting Co.	
KSL	50000	Salt Lake City	Radio Service Corp., Vermont Building	
KDYL	1000	64 66 66	Intermountain Brdcstg. Corp.	
KUTA	100	ed 44 es	Utah Broadcasting Co.	
VERMONT				

WCAX	100	Burlington	Burl. Daily News, Inc., 203 Col-
			lege St.

VERMONT (continued)

Station	Kycs.	City	Owner
WSYB	100	Rutland	Philip Weiss Music Co., Box 328
WQDM	1000	St. Albans	Regan & Bostwick, 8 Kingman Street
WNBX	1000	Springfield	WNBX Brdcstg. Corp., 39 Main St.
WDEV	500	Waterbury	Chas. B. Adams, Administrator of Mary C. Whitehill Estate, Waterbury, Vermont

VIRGINIA

WCHV	100	Charlottesville	Community Brdcstg. Corp., Box 221
WBTM	100	Danville	Piedmont Brdcstg. Corp., Miller Bldg.
WSVA	500	Harrisonburg	Shenandoah Valley Broadcasting Corp.
WLVA	100	Lynchburg	Lynchburg Broadcasting Corp.
WGH	100	Newport News	Hampton Roads Brdcstg. Corp.
WTAR	1000	Norfolk	WTAR Radio Corporation
WRNL	500	Richmond	WLBG, Inc.
WRVA	5000	*4	Larus & Bros. Company, 22nd & Gary Sts.
WBBL	100	44	Grace Presb. Church, 1627 Mon- ument Ave.
WMBG	500	66	Havens & Martin, 914 W. Broad Street
WRTD	100	44	Times Dispatch Pub. Company
WDBJ	1000	Roanoke	Times World Corp., Box 150

WASHINGTON

KXRO	100	Aberdeen	KXRO, Inc., Hotel Morck
KVOS	100	Bellingham	KVOS, Inc., 115 W. Magnolia Street
KELA	500	Centralia-Chehalis	Central Broadcasting Corp.
KRKO	50	Everett	Lee Mudgett, 2814 Rucker Ave.
KWLK	250	Longview	Twin City Broadcasting Corp.
KGY	100	Olympia	KGY, Inc., 11th & Capitol Way

WASHINGTON (continued)

Station	Kycs.	City	Owner
KWSC	1000	Pullman	State College of Washington
KIRO	1000	Seattle	Queen City Brdcstg. Co., 66 Cobb Bldg.
KXA	250	46	Am. Radio Tel. Co., 312 Bigelow Bldg.
комо	1000	64	Fishers Blend Station, Inc., Skin- ner Bldg.
KJR	5000	•	Fishers Blend Station, Inc., Skinner Bldg.
KRSC	250	44	Radio Sales Corporation
KTW	1000	44	First Presb. Church, 7th & Spring Sts.
KOL	1000	*	Seattle Broadcasting Company
KEEN	100	44	KVL, Inc., 2101 Smith Tower
кно	1000	Spokane	Louis Wasmer, Inc., Sprague & Post Sts.
KEPY	1000	54	Symons Broadcasting Co., Symons Bldg,
KFIO	100	**	Spokane Brdcstg. Corp., Zieglar Bldg.
KGA	5000	64	Louis Wasmer, 1023 W. Riverside
KVI	1000	Tacoma	Puget Sound Brdcstg. Co., Rust Bldg.
KMO	1000	44	KMO, Inc., 9141/2 Broadway
KUJ	100	Walla Walla	KUJ, Inc., Marcus Whitman Hotel
KPQ	100	Wenatchee	Westcoast Brdcstg. Co., 20 2nd St.
KIT	100	Yakima	Carl E. Haymond, 1091/2 E. Yakima

WEST VIRGINIA

WHIS	500	Bluefield	Daily Telegraph Ptg. Co., Bland
wchs	500	Charleston	Street Charleston Brdcstg. Co., West Virginia Network Building

WEST VIRGINIA (continued)

Station Kycs.	City	Owner
WBLK 100	Clarksburg	The Exponent Corp.
WMMN500	Fairmont	Monongahela Valley Broadcast- ing Co.
W\$AZ 1000	Huntington	WSAZ, Inc., Box 729
WPAR 100	Parkersburg	Ohio Valley Broadcasting Corp.
WWVA 5000	Wheeling	W.Va. Brdcstg. Corp., Hawley Bldg.

WISCONSIN

WEAU 1	000	Eau Claire	Central Broadcasting Company
KFIZ 1	00	Fond du Lac	Reporter Printing Co., Lange Building
WHBY 1	00	Green Bay	WHBY, Inc., Bellin Building
WTAQ 1	000	u u	WHBY, Inc., Bellin Building
WCLO 1		Janesville	Gazette Ptg. Co., 200 E. Milwaukee Street
WKBH 1	00	La Crosse	WKBH, Inc., 409 Main Street
WHA 5	000	Madison	University of Wisconsin, Radio Hall
WIBA 1	000	**	Badger Brdcstg. Co., 111 King St.
WTMJ 1	000	Milwaukee	The Journal Co., 333 W. State Street
WISN 2	50	66	Hearst Radio, Inc., 231 W. Michigan St.
WEMP 1	00	ee	Milwaukee Brdestg. Co., 711 Empire Bldg.
WOMT 1	00	Manitowoc	Francis M. Kadow, Box 326
WIBU 1	00	Poynette	Wm. C. Forrest, R.F.D. #3
WRJN 10	00	Racine	Racine Brdcstg. Corp., Hotel Racine
WHBL 29	50	Sheboygan	Press Pub. Co., Press Building
WLBL 50	000	Stevens Point	State of Wisconsin, Box 233
WDSM 10		Superior	Fred A. Baxter, 1507 Tower Avenue
WSAU 10	00	Wausau	Northern Brdcstg. Company

WYOMING

			.,	
Station	Kycs.	City		Owner
KDFN	500	Casper		Donald Lewis Hathaway, Box
KVRS	100	Rock Spring	S	Wyoming Broadcasting Co.
KWYO	100	Sheridan	•	Big Horn Brdcstg. Company
			ALASE	KA
KEOD		A al		
KFQD	250	Anchorage		Anchorage Radio Club, Inc., 411 4th Ave.
KINY	100	Juneau		Edwin A. Kraft
KGBU	500	Ketchikan		Aaa. Radio & Serv. Co., 107 Front Street
		DOMIN	NON OI	F CANADA
CFAC	1000	Calgary,	Alta	South Western Pub., Ltd., Southam Bldg,
CFCN	10000	ee	66	Voice of the Prairies, Ltd.
CJCJ	100	**	44	Albertan Publishers, Ltd.
CFRN	100	Edmonton,	**	Sunwapta Brdcstg. Company
CJCA	1000	44	46	Taylor & Pearson Brdcstg. Co.
CKUA	500	44	44	University of Alta
cjoc	100	Lethbridge,	44	Lethbridge Brdcstg. Co., Marquis Hotel
CHWK	100	Chilliwack,	B.C.	Chil. Brdcstg. Co., Ltd., Box 507
CFJC	100	Kamloops,	**	Review Pub. Co., Wilcox-Hall Building
CKOV	100	Kelowna,	64	Okanagan Broadcasters, Ltd., Box 243
CFPR	50	Prince Ruper	t. "	Felix E. Batt, Box 132
CJAT	1000	Trail,	44	Kootenay Brdcstg. Co., Box 1959
СКМО	100	Vancouver,	66	British Columbia Brdcstg., Ltd.
CKFC	50	44	66	Standard Brdcstg. System, Ltd.
CBR	5000	dd	4	Can. Brdcstg. Corp., 1150 Main St.

Western Brdcstg. Co., 801 W.

Georgia

CKWX 100

DOMINION OF CANADA (continued)

Station	Kycs.	City	Owner
CKCD	100	Vancouver, B.C.	Vancouver Daily Province, 198 Hastings, W.
CJOR	500	**	G. C. Chandler, 846 Howe Street
CFCT	50	Victoria,	Victoria Brdcstg. Assn., 620 View St.
CKX	1000	Brandon, Man.	Man. Telephone Sys., Rosser Avenue
CKPC	100	Brantford, Ont.	Telephone City Brdcstg., Ltd.
CFCO	100	Chatham, "	John Beardall, Wm. Pitt Hotel
CKMC	50	Cobalt, "	R. L. MacAdam
CKPR	100	Ft. William, "	Dougall Motor Car Company
CKOC	500	Hamilton, "	Westworth Radio Brdcstg. Co.
CHML	100	44 44	Maple Leaf Radio Co., Ltd.
CFRC	100	Kingston,	Queen's University, Fleming Hall
CFPL	100	London, "	London Free Press, Richmond Street
CHLP	100	Montreal, P.Q.	La Patrie Pub. Co., Sun Life Bldg.
CBM	5000	44	Canadian Broadcasting Corp.
CBF	50000	66 46	Canadian Broadcasting Corp.
CKAC	5000	44 66	LaPresse Pub. Company
CFCF	500	44 44	Can. Marconi Company, Ltd.
CKGB	100	North Bay, Ont.	R. H. Thompson
CJKL	100	ea da de	Northern Brdcstg. Co., R & E Bldg.
CFCH	100	16 11 44	Northern Broadcasting Co., Ltd.
CKCO	100	Ottawa, "	Dr. G. M. Geldert, 272 Somer- set
CBO	1000	41 64	Canadian Brdcstg. Corporation
CFLC	100	Prescott, "	Radio Assn. of Prescott
CRCK	1000	Quebec, P.Q.	Canadian Brdcstg. Corporation
CHRC	100	" "	CHRC, Ltd., Victoria Hotel
CKCV	100	**	CKCV, Ltd., 142 St. John Street
CFQC	1000	Saskatoon, Sask.	A. A. Murphy & Sons
CKTB	100	St. Catharines, Ont.	Silver Spire Brdcstg. Station

DOMINION OF CANADA (continued)

Station	Kycs.	City		Owner
CJIC	100	S.S. Marie,	Ont.	Hyland & Whitby, Windsor Ho-
CJCS	50	Stratford,	88	M. I. Higgens, Windsor Hotel
CKSO	1000	Sudbury,	64	Sudbury Star, 231/2 Elgin Street
CRCY	100	Toronto,	64	Canadian Brdcstg. Corp., 805 Davenport Rd.
CRCT	5000	44	**	Can. Brdcstg. Corp., 805 Daven- port Rd.
CBL	50000	Se	64	Can. Brdcstg. Co., 1 Hayler St.
CFRB	1000	66	44	Rogers Radio Brdcstg. Co., 37 Bloor St.
CKCL	100	**	64	Dominion Battery Co., Ltd.
CKCR	100	Waterloo,	64	K.W. Brdcstg. Co., 24 King St., S.
CKLW	5000	Windsor,	**	West. Ont. Brdcstg. Company
CBW	500	64	94	Can. Broadcasting Corp.
CKNX	100	Wingham,	**	Wingham Radio Club, Box 65
CKY	15000	Winnipeg, Man	1.	Man. Telephone Sys., Sher- brooke Street
CJRC	500	44 47		Jas. Richardson & Sons
VOWR	500	St. John's, Nfld	•	Wesley United Church, Box 157
VOGY	400	44 44		Newfoundland Hotel
VOAS	100	44 44		Ayre & Sons, Ltd., Water Street
VOCM	200	61 61		St. John's Evening Telegram
VONF	500	46 46		Dominion Brdcstg. Co., Box 135
cJcu	50	Aklavik, NW.T.		Dr. J. A. Urquarhart, Dept. of Interior
CFNB	500	Fredericton, N.	B.	James S. Neill & Sons, York St.
CKCW	100	Moncton, "	•	Moncton Brdcstg. Co., K. of P. Hall
CHSJ	500	St. John, "		N.B. Broadcasting Company
CHAB	100	Mosse Jaw, S	ask.	CHAB, Ltd., Grant Hall Hotel
CKBI	100	Prince Albert,	44	CKBI, Ltd., Canada Building
CKCK	1000	Regina,	44	Leader-Post, Ltd., 1853 Hamilton St.
cjgx	100	Yorkton,	44	J. Richardson & Sons, Ltd.
VAS	2000	Glace Bay, N.S.		Canadian Marconi Co., Inc.
CHNS	1000	Halifax, "		Maritime Brdcstg. Co., Ltd.

DOMINION OF CANADA (continued)

Station	Kycs.	City		Owner
CJCB	1000	Sydney,	N.S.	N. Nathanson, 318 Charlotte St.
CKIC	50	Wolfville,	44	Acadia University
CJLS	100	Yarmouth,	44	Laurie L. Smith, Box 684
CRCS	100	Chicoutimi,	P.Q.	Can. Brdcstg. Corp., 4 rue La- rouche
CKCH	100	Hull,	44	CKCH Hull Brdcstg. Co., Ltd.
CHNC	1000	New Carlisle	e, "	Gaspesian Radio Co., Box 101
CHLT	100	Sherbrooke,	44	La Tribune, Ltd.
CHCK	50	Charlottetow	n, P.E.I.	Burke & Gesner
CFCY	1000	**	ga	Island Radio Broadcasting Co., Queen St.
XETH	100	Puebla, Pue	•	Ramon Huerta G., Calle 17, Oriente 11
CHGS	50	Summerside	. P.E.I.	R. T. Holman, Ltd., 190 Water Street

CUBA

CMHD	250	Caibarien	Manuel Alvarez M., Escobar 17
CMIC	150	Camaguey	Felix Sanchez
CMIL	75	" ´ ´	M. Caymares, Republica 181
СМЈЕ	50	44	Manuel Fernandez Hnos., Ague- ro, 2
CMJF	200	81	John L. Stowers, Republica No. 88
CMIA	300	44	Rafael Valdez, Box 64
CMIX	-	"	Teatro Principal, Box 23
CMIK	250	ee	Cia. Nacional de Radio, Finlay 3
CMGE	150	Cardenas	Genaro Schater, Av. Cespedes 180
СМЈН	50	Ciego de Avila	Luis Marauri H., Castilla 37
СМЈО	50	" "	B. Ildefonso
CMJI	150	"	Gilberto Gesse Lopez, Box 28
СМНМ	100	Ceinfuegos	Hotel Union
СМНЈ	175	"	Romualdo Ugalde, Box 112
CMHW	100	44	Ramon Gonzales, Box 226
CMHŔ	250	Cruces	Virgilio Villanueva, Calle Heredia 61
CMCD	250	Havana	"La Voz del Aire," S.A., Vedado

176 NORTH AMERICAN BROADCASTING STATIONS

CUBA (continued)

Station	Kycs.	City	Owner
CMÓA	150	Havana	Juan Fernandez Duran, Aguilar
CMCQ	250	44	Calle Vista Alegre 90
CMCA	450	66	Testar y Gonzales, Galiano 102
смох		ee ,	,
CMCU	500	66	Estrada Palma No. 25, esq. F. Poey
CMC	150	44	Del Valle, Valdez y Cia
СМСО	•		Enrique Lasanta, Calle Oficios
CMBD	500	66	Luiz Perez Garcia, Calle 17. y o
CMBG	200	44	John L. Stowers, Hospital No.
СМСЈ	500	64	Radio Emisora Commercial Es- tevez 4
CMBX	500	44	Alberto Alvarez, San Miguel 194
CMCX	Ū	44	"La Onda Popular," Calle Ma- ceo 7
CMBZ		44	Manuel y G. Salas, Aptdo. 866
CMBY	150	44	Calle Infanta 132
CMX	1000	**	Casa Lavin, Aptdo. 32
CMQ		44	La Casa de las Medias, Vedado
СМСМ		ee.	"Radio Columbia," 23 No. 482, Vedado
CMCF	600	44	Oscar Gutierrez, Paseo de Marti
CMBS	150	64	"Radio Grunow," Calzada y H
CMCW	150	44	"Radio Pilot," San Lazaro 113
CMK	3000	**	Cia. Nacional de Radio, Hotel Plaza
CMCG	1000	44	La Onda, S.A., Calle Malecon
СМСВ	150	64	El Progreso Cubano, Maximo Gomez 139
CMBC		64	El Progreso Cubano, Aptdo. 132
CMW	1400	**	Troncoso y Gil, Paseo Marti 105
CMCY	5000	**	Outran Cia., los Presidentes 215

CUBA (continued)

Station Kycs	. Gity	Owner
CMKF 250	Holguin	Manuel J. DeGongora
СМКО	ű	•
CMGC 150	Matanzas	Oscar Mechoso, Independencia 56
CMGF 250	#	Calle Gral. Betancourt 51
CMGH 500	**	"Rialto," Box 87
CMKM 200	Manzanillo	Merchan P. Figeredo, Box 4
CMJP 75	Moron	Cesar Canall, Callejas 80
CMAB	Pinar del Rio	Hotel Ricardo
CMHA 50	Sagua la Grande	Abelardo Menocal, Carrillo 31
CKKR 100	Santiago	Jaime Nadal, Calle B, Maso alta
	**	71
CMKW	••	Reparto Vista Alegre
CMCK 150	44	J. A. Saco, Box 466
CMKX	44	
CMKD 250	64	Radioemisora Oriental, Box 23
СМНВ 50	Sancti Spiritus	V. E. Weiss y Cia, Independencia 33
CMHI 150	Santa Clara	Lavis y Paz, Independencia 34

OTHER NORTH AMERICAN STATIONS

XEBI	25	Aguascalient	es, Ags.	Alejandro Diaz
XEXC	350	**	ű	Gobierno del E. de Ags.
XEAO	250	Mexicali, B.	Cfa.	Luis L. Castro, Altamirano 156
XEAC	1000	Tijuana,	**	Aurelio Mateus, Box 28
XEC	100	44	**	Luis F. Encicso, Teatro Zaragoza
XEBG	1000	44	**	Angel B. Fernandez
XEOK	2500	44	*	Carlos de la Serra, C. 5a, 312
XEMO	5000	**	**	Box 202, San Diego, Calif.
XEAA	200	Mexicali,	44	P.O. Box 714, Calexico, Calif.
XEFI	250	Chihuahua,	Chih.	Feliciano Lopez Isles, Aptdo. 157
XEF	100	Juarez,	44	Box 70
XEFV	100	44	44	Jose Onofre Meza, Tlaxcala 1013
XEP	500	44	64	Apartado 89
XEJ	1000	44	44	Juan G. Buttner, Box 111
XEAT	250	Parral,	44	Box 90
XEBX	250	Sabinas, Co	ah.	Benito Garza Ortegon

OTHER NORTH AMERICAN STATIONS (continued)

Station Kycs.	City	Owner
XEFC 100	Merida, Yuc.	Julio Molina Font., Calle 59, No. 517
WPRA 100	Mayaguez, P.R.	P.R. Advertising Company
WPRP 100	Ponce, "	Julio M. Conesa
WNEL 1000	San Juan, "	Juan Piza, Box 1252
WKAQ 1000		Radio Corp. of P.R., Box 1414
KHBC 250	Hilo, T.H.	Honolulu Brdcstg. Co., Ltd., Box 595
KGU 2500	Honolulu, Hawaii	Advertiser Pub. Co., Ltd.
KGMB 1000		Honolulu Brdcstg. Co., Box 581

Note: Station names and addresses were furnished through the courtesy of The Radex Press, Cleveland, Ohio.

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