RADIO BROADCASTING

AN INTRODUCTION TO THE SOUND MEDIUM

EDITED BY

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To My Sister

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PREFACE

UNDERSTANDING TELEVISION, published by Hastings House Communication Arts Books in 1964, was intended for the beginning student and for the layman who wished to learn the basic fundamentals of "what" television is and "how-to" perform some of its functions. Its purpose was not to go into the "why" of television. There seemed no immediate need to present the kind of extensive historical and institutional material already found in several excellent books being used in our educational institutions and by the public.

The same holds true for *Radio Broadcasting.* It was developed as a basic book of "what" and "how-to," and does not attempt to substitute for or duplicate the historical and social impact materials already well researched and written and available in other works. It does attempt to add to what is available and to provide what is not available, by presenting some of the practical considerations, with background analysis where advisable, of the actual broadcasting areas of radio. In that sense, this book may be considered a companion work to *Understanding Television;* its formation, development and editing were similar. Selected persons experienced as practitioners and teachers of radio broadcasting were invited to contribute chapters on their respective specializations. Each chapter was carefully edited, and revised and rewritten as much as necessary to fit the over-all pur-

poses of the book and to complement the approaches in the other chapters. As with *Understanding Television,* a deliberate attempt was made to include, where feasible, repetition of ideas in different chapters when those ideas seemed important enough to bear repeating, frequently from a different point of approach. By the same token, differences of opinion on the same subject were deliberately included, thus providing the reader — student or layman — with the same kind of broad view of the field he would get in a well-staffed diversified academic department. It should be kept in mind that although there are basic concepts of radio broadcasting that, for the moment, may seem eternal, interpretation and application of principles and techniques may differ widely with different stations and in different sections of the country.

In *Understanding Television,* contributors represented educational institutions and organizations in several sections of the country. For *Radio Broadcasting,* it was decided to approximate the kind of material the reader might receive if enrolled as a student of radio at one good university. All the contributors, at the time they began work on their chapters, were members of the University of North Carolina faculty. This approach, it is hoped, provides not only a comprehensive base, but healthy differences within a consistent whole. It will be noted that several of the contributors have since become associated with other organizations, in retrospect further providing the reader, we hope, not only with cohesiveness, but with diversity.

It seems almost expected today, in the late 1960's, to offer an explanation for the need of any book on radio. With the advent of television, radio seemed to have declined. But, as indicated in the Introduction, this decline was more imagined than real. Whereas some 150 institutions of higher education teach courses in television, more than double that number offer some course work in radio. In addition, many secondary schools teach radio subjects. What is perhaps most pertinent for the student who is exploring vocational possibilities, there are jobs in the radio field for those qualified. And radio, in this country and internationally, is a continuing and growing vital and effective force. Further, there is no single, wieldy book that we know of — at this time as *Radio Broadcasting* is in its final stages of production — oriented as a basic introduction to modern radio broadcasting's various facets.

Our aim in producing this book, then, is twofold. First, to provide the teacher, student and professional with an up-to-date basic text or source book on radio broadcasting, covering those areas of practice most meaningful as an introduction to the medium: management and programming, studio and operation facilities, producing and directing, writing, and performance. Preceding these chapters is an Introduction containing background materials which furnish a base for understanding the broadcasting aspects of the medium. The second purpose is to make available to the layman and to the interested citizen that kind of information which may

enable them better to understand and, in their wisdom, to affect the programming, practices and progress of this medium which has such an important impact upon the thoughts and emotions of all of us, and which can play such a vital part in achieving mankind's goals of freedom and peace in the world.

The editor-author, as a member of the staff of the Federal Communications Commission, and as Chairman of the Federal Interagency Broadcast Committee, wishes to make it clear that this book has been prepared in his private capacity, and that no official support or endorsement by the Federal Communications Commission, or by the Federal Interagency Broadcast Committee, is intended or should be inferred. We are grateful to Russell F. Neale, publisher of *Communication Arts Books,* for his patience and assistance in the publication of this book.

ROBERT L. HILLIARD
Washington, D.C.
May, 1967

INTRODUCTION:
RADIO'S BACKGROUND

That radio has had a tremendous social impact, affecting attitudes and behavior, is undeniable. Mussolini once was quoted as saying that without radio he would not have been able to achieve the solidification of and the power over the Italian people that he did. In our country and from quite a different ideological viewpoint, who of us who heard them will ever forget the tremendous excitement and impact of President Franklin D. Roosevelt's fireside chats?

Radio's impact, too, on the economy, on business and industry, on marketing, on the entertainment field, has been great. With the growth of national network television in the early 1950's, prognostications were that radio would soon be dead. The prophets were partly correct, for net radio profits, which were $61 million in 1952, were $32 million in 1961. However, by 1965 profits had risen again — to over $77 million. The number of stations grew: in 1945 there were 950 stations on the air; in 1950, 2,900; and in 1967 over 6,000. Total revenues increased from just under $469 million in 1952 to more than $792 million in 1965.

In 1967, some 55 million or 95% of the homes in the United States had radios. A total of 242 million radio sets were in use, including homes, automobiles and public places. In the late 1960's the average time spent per week per person listening to the radio grew to about 25 hours.

A brief examination* of radio's history and development will be helpful in establishing bases for a better understanding of the procedures and techniques of broadcasting.

Early History

Radio communication was born of many minds. In the 1860's James Clerk Maxwell, a Scotsman, predicted the existence of radio waves. Two decades later Heinrich Hertz in Germany demonstrated that rapid variations of electric current can be projected into space in the form of waves similar to those of light and heat. In doing so he was the first man to create what are now called radio waves. In 1895 Guglielmo Marconi transmitted radio signals a short distance and in 1901 and 1902 conducted successful transatlantic tests. In 1907 Lee DeForest, considered by some to be the "father" of radio, patented what we know as the vacuum tube. The first practical application of radio was for ship-to-ship and ship-to-shore telegraphic communication. This new communications medium was first known as "wireless." American use of the term "radio" is traced to about 1912 when the Navy, believing that "wireless" was too inclusive, adopted the word "radiotelegraph." Though the British still use the older term, "radio" continues to be the American designation. The word "broadcast" stems from early United States naval reference to the "broadcast" of orders to the fleet.

There were many early experimental audio transmissions, but it was not until after World War I that regular broadcasting began. The "first" broadcasting station is a matter of conflicting claims, largely because some pioneer broadcast stations developed from experimental operations. Although KDKA, Pittsburgh, did not receive a regular broadcasting license until November 7, 1921, it furnished programs experimentally prior to that date. Records of the Department of Commerce, which then supervised radio, indicate that the first station issued a regular broadcasting license was WBZ, Springfield, Massachusetts, on September 15, 1921. There was experimental network operation over telephone lines as early as 1922. In that year WJZ, later WABC, New York, and WGY, Schenectady, broadcast the world series. Early in 1923 WEAF, New York, and WNAC, Boston, picked up a football game from Chicago. Later that same year WEAF and WGY were connected with KDKA, Pittsburgh, and KYW, Chicago, to carry talks made at a dinner in New York. President Calvin Coolidge's message to Congress was broadcast by six stations in late 1923. In 1926 the National Broadcasting Company started the first regular network with 24 stations. Its first coast-to-coast hookup, in 1927, broadcast a football game. That same year the Columbia Broadcasting System was organized. The first round-the-world broadcast was made from Schenectady in 1930.

* The material in the major part of this chapter was obtained primarily from "Broadcast Primer: Evolution of Broadcasting," Information Bulletin No. 2-B, published by the Federal Communications Commission in 1966, and from other public documents of the FCC.

Regulation

A wireless Ship Act of 1910 applied to the use of radio by ships, but the Radio Act of 1912 was the first domestic law for the control of radio in general. It made the then Secretary of Commerce and Labor responsible for licensing radio stations and operators. Early broadcasting was experimental and noncommercial. (It soon became a big business, however, and in 1965 in the United States 91 radio stations had a revenue and 15 stations a profit of over one million dollars. Some stations, though, in addition to those of educational institutions, are not only noncommercial, but public subscription supported and — notably those of the Pacifica Foundation — carry programs of a controversial quality not found on commercial radio.) In 1919 broadcasters were permitted to operate as "limited commercial stations." In 1922 the wavelength of 360 meters (approximately 830 kilocycles) was assigned for the transmission of "important news items, entertainment, lectures, sermons, and similar matter." Recommendations of the first National Radio Conference in 1922 resulted in further regulations by the Secretary of Commerce. A new type of AM broadcast station came into being, with minimum power of 500 watts and maximum power of 1000 watts (1 kw). Two frequencies (750 and 833 kilocycles) were assigned for program transmission.

So rapid was the development of aural broadcasting that, upon recommendation of subsequent National Radio Conferences (1923 and 1924), the Department of Commerce allocated 550 to 1500 kilocycles for standard broadcast (AM being the only regular broadcast service at that time), and authorized operating power up to 5000 watts. Increase in the number of AM stations caused so much interference that, in 1925, a fourth National Radio Conference asked for a limitation on broadcast time and power. The Secretary of Commerce was unable to deal with the situation because court decisions held that the Radio Act of 1912 did not give him this authority. As a result, many broadcasters jumped their frequencies and increased their power and operating time at will, regardless of the effect on other stations, thus causing bedlam on the air. In 1926 President Coolidge urged Congress to remedy matters. The result was the Dill-White Radio Act of 1927.

The Radio Act of 1927 created a five-member Federal Radio Commission with certain regulatory powers over radio, including the issuance of station licenses, the allocation of frequency bands to various services, assignment of specified frequencies to individual stations, and control of station power. The same act also delegated to the Secretary of Commerce authority to inspect radio stations, to examine and license radio operators and to assign radio call signals. Many of the early efforts of the Federal Radio Commission were required to straighten out the confusion in the broadcast band. It was impossible to deal with the 732 broadcast stations

as they were then operating, and new rules and regulations caused some 150 of them to surrender their licenses.

At the request of President Franklin D. Roosevelt, the Secretary of Commerce in 1933 appointed an interdepartmental committee to study the overall interstate and international electrical communications situation. The committee reported that "the communications service, as far as Congressional action is involved, should be regulated by a single body." Accordingly, it recommended the establishment of a new agency which would regulate all interstate and foreign communication by wire and radio, including telegraph, telephone and broadcast. The resultant Communications Act of 1934 created the present Federal Communications Commission for this unified regulation.

Federal Communications Commission

The Federal Communications Commission, an independent Federal Agency composed of seven commissioners appointed by the President, by and with the advice and consent of the Senate, began operating on July 11, 1934. One of the FCC's major activities is the general regulation of broadcasting, visual as well as aural. This regulation has two phases. The first deals with the allocation of spectrum space to the different types of broadcast services in accordance with Commission policies and rules to carry out the intent of international agreements, the Communications Act and other domestic laws affecting broadcasting. The second phase more directly concerns individual stations and includes consideration of applications to build and operate; the assignment of specific frequencies, power, operating time and call letters; the periodic inspection of equipment and the engineering aspects of operation; passing upon transfers and assignments of facilities and upon changes in existing facilities; modifying construction permits and renewing licenses; reviewing the general service of each particular station to determine whether it has been operating in the public interest; licensing operators of transmitters; and otherwise discharging domestic regulatory responsibilities.

Public Interest

Broadcast stations are licensed to serve the public interest, convenience and necessity. Because radio channels are limited and are a part of the public domain, it is important that they be entrusted to licensees who have a high sense of public responsibility. The normal broadcast license period is three years, but in 1960 Congress authorized the FCC to make shorter term grants at its discretion. The Communications Act sets up certain basic requirements which must be met by broadcast applicants. In general, applicants must be legally, technically and financially qualified and show that their proposed operation will be in the public interest. A 1960 amendment to the Communications Act empowers the Commission to fine broadcast

licensees up to $10,000 for willful or repeated rule violations. The broadcast license privilege is limited by law to citizens of the United States. It is denied to corporations wherein any officer or director is an alien or of which more than one-fifth of the capital stock is controlled by foreign interests.

Under the Communications Act, it is the responsibility of each broadcast station licensee to arrange his program structure so that his operations will be in the public interest. The FCC does not prescribe any percentages of time which should be devoted to particular subjects, which vary with the needs of a particular locality. However, the FCC does periodically review the overall performance of a station in engineering and in other areas, usually when it applies for renewal of its license, to determine whether it has lived up to its obligations and the promises it made in obtaining permission to use the public airwaves.

In 1960 the FCC issued a report and statement of policy in connection with the programming obligations of a station licensee. It said:

> "In the fulfillment of his obligation the broadcaster should consider the tastes, needs and desires of the public he is licensed to serve in developing his programming and should exercise conscientious efforts not only to ascertain them but also to carry them out as well as he reasonably can. He should reasonably attempt to meet all such needs and interests on an equitable basis. Particular areas of interest and types of appropriate service may, of course, differ from community to community, and from time to time. However, the Commission does expect its broadcast licensees to take the necessary steps to inform themselves of the real needs and interests of the areas they serve and to provide programming which in fact constitutes a diligent effort, in good faith, to provide for those needs and interests.
>
> "The major elements usually necessary to meet the public interest, needs and desires of the community in which the station is located as developed by the industry, and recognized by the Commission, have included: (1) Opportunity for Local Self-Expression, (2) The Development and Use of Local Talent, (3) Programs for Children, (4) Religious Programs, (5) Educational Programs, (6) Public Affairs Programs, (7) Editorialization by Licensees, (8) Political Broadcasts, (9) Agricultural Programs, (10) News Programs, (11) Weather and Market Reports, (12) Sports Programs, (13) Service to Minority Groups, (14) Entertainment Programming.
>
> "The elements set out above are neither all-embracing nor constant. We re-emphasize that they do not serve and have never been intended as a rigid mold or fixed formula for station operation. The ascertainment of the needed elements of the broadcast matter to be provided by a particular licensee for the audience he is obligated to serve remains primarily the function of the licensee. His honest and

prudent judgments will be accorded great weight by the Commission. Indeed, any other course would tend to substitute the judgment of the Commission for that of the licensee."

The FCC does not have the authority to direct a station to put a particular program on or off the air. Section 326 of the Communications Act states:

> "Nothing in this Act shall be understood or construed to give the Commission the power of censorship over the radio communications or signals transmitted by any radio station, and no regulation or condition shall be promulgated or fixed by the Commission which shall interfere with the right of free speech by means of radio communication."

The Commission has held that freedom of speech on the air must be broad enough to provide full and equal opportunity for the presentation of both sides of public issues. Licensees of broadcast stations not only have the right to editorialize, but have been encouraged by the FCC to do so.

Other Rules

Advertising. The FCC is concerned with "voice commercials presented in a rapid-fire, loud and strident manner; and the presentation of commercial matter at modulation levels substantially higher than the immediately adjacent programs." The FCC also considers whether overcommercialization contrary to the public interest may be involved, in considering applications for new stations, renewals and transfers. Also, under a cooperative arrangement with the Federal Trade Commission, which has jurisdiction over false and misleading advertising on the air, the FCC notifies stations of broadcast advertising cited by the FTC so that these stations may take any necessary action consistent with their obligation to operate in the public interest.

Political broadcasts. Section 315 of the Communications Act expressly provides: "If any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station: Provided, that such licensee shall have no power of censorship over the material broadcast under the provisions of this section. No obligation is hereby imposed upon any licensee to allow the use of its station by any such candidate. The charges made for the use of any broadcasting station for any of the purposes set forth in this section shall not exceed the charges made for comparable use of such station for other purposes." In 1959 the act was amended to exempt from the equal-time requirement appearances by candidates on "bona-fide" newscasts, news interviews and other news coverage.

Sources of materials. Payola and fixed quiz show revelations resulted in the Communications Act being amended in 1960 to make it illegal to

"plug" records and other commercial services over the air without identifying those instances in which money or other consideration is received for so doing. Also, penalties are provided for those who broadcast deceptive programs purporting to be based upon knowledge, skill or chance.

Lotteries, obscenity and fraud. The United States Criminal Code prohibits broadcast of information concerning "any lottery, gift enterprise, or similar scheme," also utterance of obscene, indecent or profane language, and fraud by wire, radio or television.

Time charges and station management. The Communications Act declares that broadcasting is not a common carrier operation; consequently a broadcast station is not required to sell or to give time to all who seek to go on the air. Because programming is primarily the responsibility of broadcast station licensees, the FCC does not ordinarily monitor or pass upon individual programs, or require the filing of scripts. However, broadcast stations are required to keep a program log and a technical log, and a record of all requests for political broadcast time. The FCC does not maintain surveillance of the day-by-day internal management of broadcast stations, or regulate their time charges, profits, artists' salaries or employee relations. It licenses only the stations and their transmitter operators, not announcers, disk jockeys or other personnel.

Networks. The FCC does not license networks as such, only individual stations. However, its licensees are subject to chain broadcasting regulations adopted to further competition in broadcasting. There is a prohibition against the same interest or group from operating more than one network, or more than one broadcast station in the same service (AM, FM or TV) in the same locality, or more than a total of seven AM, seven FM or seven TV stations throughout the country. Networks provide their affiliates with programming services and centralized national selling of these programs. In the evolution of radio since the advent of television, local time sales have grown steadily, and in the mid-1960's accounted for about two-thirds of all radio time, with network time and national spot sales accounting for the remainder; a decade earlier the split was about 50-50.

The major radio networks are the American Broadcasting Company, with about 425 affiliates in 1967; the Columbia Broadcasting System, about 250 affiliates in that year; the Mutual Broadcasting System, over 500 affiliates; and the National Broadcasting Company, over 200 affiliates. There are advertising and regional networks, too, of varying sizes.

Receivers. Sets that are used for reception only are not licensed. However, there are limitations on their radiations which may interfere with radio or TV service. The advent of "wireless" prompted the use of receiving sets by amateurs and others interested in listening-in on Morse code radiotelegraph transmission. Inexpensive crystal detectors boomed the production of home-made and manufactured receivers. The advent of broadcasting aroused public interest in sets (at first battery operated) to receive regular

programs. Receiving sets operated by house current came on the market about 1928. A 1948 development called the "transistor" has replaced tubes in many sets.

Call letters. International agreement provides for the national identification of a radio station by the first letter or first two letters of its assigned call signal, and for this purpose apportions the alphabet among different nations. United States stations use the initial letters K, N, and W, exclusively, and part of the A series. Broadcast stations are assigned call letters beginning with K or W. Generally speaking, those beginning with K are assigned to stations west of the Mississippi River and in the territories and possessions, while W is assigned to broadcast stations east of the Mississippi.

AM Broadcasting

Amplitude modulation is the oldest system of program transmission. Besides being used in the standard broadcast band, it is also employed in most long-distance shortwave broadcasting and in the visual part of TV programs. The 535 to 1605 kilocycles portion of the radio spectrum was assigned for standard AM broadcast. This band consists of 107 channels, each 10 kilocycles wide. Individual stations are assigned frequencies in the center of each channel, such as 540 kilocycles, 550 kilocycles, and so forth. AM broadcast stations use power of from 100 watts up to 50 kilowatts. The latter is the present maximum power permitted.

There are four major classes of AM stations. A Class I station operates on a "clear" channel with 10,000, 25,000 or 50,000 watts power in order to serve remote rural areas as well as a large population center. A Class II station operates on a clear channel with a power of 250, 500, 1,000, 5,000, 10,000, 25,000 or 50,000 watts. It serves a population center and an adjacent rural area, and is operated so as not to interfere with the extensive services rendered by major clear channel stations. A Class III station shares a "regional" channel with several similar stations, uses power of 500, 1,000 or 5,000 watts and serves a population center and adjacent rural areas. A Class IV station operates on a "local" channel which is shared by many similar stations elsewhere, and has a power of up to 250 watts nighttime and a maximum of 1,000 watts daytime. Almost half of all AM stations are licensed to operate daytime only — that is, sunrise to sunset.

FM Broadcast

Commercial FM broadcasting did not begin until 1941, although the principle of frequency modulation was known for many years before. Extensive experimentation by Edwin H. Armstrong in the 1930's spurred the development of FM, and on October 31, 1940, the FCC granted construction permits to 15 stations. By the end of the year 25 grants had been made. Official FM operation was authorized to begin January 1, 1941 on

35 commercial and 5 educational non-commercial channels. The first commercial station to be licensed was WSM-FM, Nashville, Tennessee, which operated from May 29, 1941 until 1951. In World War II all radio construction was frozen, but 40 FM stations continued to serve about 400,000 receivers. In 1945 the FCC moved FM from its 42-50 megacycle band to 88-108 megacycles, which provided less skywave interference, and increased the number of channels to 80 for commercial FM and 20 for non-commercial educational FM. In 1962 the FCC divided FM broadcast operations into three nationwide zones: Zone I, which includes part or all of 18 northeastern states and the District of Columbia; Zone I-A, which is the southern portion of California; and Zone II, which includes the remainder of the United States, excluding Alaska and Hawaii. Three classes of stations were created, Class A stations assigned to all zones, Class B stations to Zones I and I-A, and Class C stations to Zone II. Class A stations use power of from 100 to 3,000 watts to serve an area of about 15 miles; Class B stations have power of from 5,000 to 50,000 watts and a range of about 40 miles; Class C stations employ 25,000 to 100,000 watts power and reach around 65 miles. At the same time maximum antenna heights and co-channel separations were established by the FCC. Stations operating under authorizations prior to the adoption of the above rules were not affected. In 1963 the 80 commercial channels were assigned to specific states and communities, with a total of some 3,000 FM channel assignments to nearly 2,000 communities.

FM broadcast has several advantages over AM, specifically higher fidelity characteristics, and more freedom from static, from fading and from background overlapping of other stations. FM receivers have the ability to suppress weaker stations and other interferences. FM and AM broadcasts do not interfere with each other because they are on widely separated bands. FM broadcasters also operate subsidiary services such as background music on multiplexing authorizations, and many transmit stereophonic broadcasts.

Many broadcasters owning AM and FM stations in the same city duplicated the AM programming on the FM channel, thus providing additional advertising time without added programming costs. Beginning in 1967 an FCC rule forbid more than 50% such AM-FM program duplication in cities of 100,000 and over, thus providing greater diversity in channel use.

Educational Radio

Educational institutions were among the pioneers in experimental broadcasting and many held early AM licenses. By 1925, 171 educational groups had broadcast licenses, although the growth of commercial radio forced most of these off the air in the next few years. Though most educational stations are now FM, some 20 AM are still licensed to educational institutions and operate on a voluntary non-commercial basis. When regular

FM broadcasting began in 1941, five channels between 42 and 43 megacycles were allocated for non-commercial educational use. In 1945, as previously noted, 20 FM channels between 88 and 92 megacycles were set aside for non-commercial educational operation.* In 1948 the FCC authorized low power — 10 watt — operation on educational FM channels. Many schools began broadcasting under this provision, reaching a two to five mile radius with an investment of only a few thousand dollars. In 1951, to further aid the development of educational radio, the FCC authorized remote control operation for low power educational FM stations. FM educational stations are licensed primarily to school systems and colleges and universities, which provide not only instructional materials to teachers and students, but cultural, informational and public affairs programming for the public in general. In 1967 more than 300 educational FM radio stations were in operation.

International Broadcasting

Under international agreement, certain high frequency bands are allocated for broadcasts directed between nations. Authorization for non-government international broadcast stations located in the United States are issued by the FCC. The minimum power for such stations is 50,000 watts. During World War II international broadcast stations in the United States were operated and programmed by the Office of War Information and the Office of Inter-American Affairs of the Department of State. The "Voice of America" is the title given to programs now broadcast daily in many languages to many parts of the world by shortwave transmitters by the United States Information Agency.

Rules and Regulations, Documents

The reader — student or practitioner — will find it of value to obtain and study copies of the following FCC documents:

FCC Rules and Regulations, Volume III, "Radio Broadcast Services," available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

"Broadcast Application and Hearing Procedures," FCC Bulletin 1-B; "Radio Station and Other Lists," FCC Bulletin 4-G; "Publications and Services," FCC Bulletin 6-G; "Educational Radio," FCC Bulletin 21-B; "Fairness Doctrine," Public Notice of July 1, 1964; all of these are available from the Office of Reports and Information, Federal Communications Commission, Washington, D.C. 20554.

In addition, copies of applications for radio station construction permits (form 301 for commercial, form 340 for noncommercial) and licenses (form 302 for commercial, form 341 for noncommercial) are available from the FCC.

* In early 1967 the Federal Communications Commission was studying the advisability of establishing a nationwide table of assignments of educational FM channels.

GEORGE L. HALL

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• After almost 17 years in commercial radio and television, George L. Hall entered the field of educational broadcasting in 1960. He is currently associate director of the National Project for the Improvement of Televised Instruction of the National Association of Educational Broadcasters, Washington, D.C. Immediately previous to his appointment to NPITI in 1967, he served as director of the Teaching Resources Center at the University of Delaware. In that position his responsibilities involved supervision of an elaborate program of instructional technology as well as regular lecturing on broadcasting and related subjects.

An alumnus of the University of Virginia, Mr. Hall entered radio work in 1946 as a writer and announcer. Beginning in 1951 he served for five years as program director for WRAL-AM-FM and for the regional Tobacco Network. In 1956, after participating in the hearings that resulted in WRAL's receiving an FCC license for a television station, Mr. Hall became program director of WRAL-TV. His interest in the field of education prompted him to accept the position of program director at the Chapel Hill studios of educational station WUNC-TV in 1960. The following year he was appointed to the faculty of North Carolina State University at Raleigh as director of television. During his 4 years in that post, he helped N.C.S.U. develop a strong program in ITV, served as an instructor on mass communication in the department of sociology and acted as faculty advisor to campus radio station WKNC.

As a writer, Mr. Hall has had his plays produced in community and educational theatre, and on television and radio. In addition to newspaper and periodical articles, he is the author of a handbook for the United States Weather Service on Hurricane-Alert broadcasting for multistate radio networks. He has been active in both educational and commercial broadcasting associations and is a frequent speaker and panel participant. He is a member of the FCC's Committee for the Full Development of the Instructional Television Fixed Service.

1

PROGRAMMING AND MANAGEMENT

BY GEORGE L. HALL

This chapter is divided into three sections. The first concerns definitions of radio programming; the second, programming techniques; and the third, station organization and management of program operations.

Programming Definitions

Radio Programming is Communication

Basically, *communication* is the social process through which one person (the communicator) elicits responses from another person (the communicant) by the use of symbols. The communicator in radio programming is far more apt to be a group than an individual. Radio broadcasting is customarily an ensemble task in which numbers of people have a part: announcers, musicians, engineers, writers, publicists and others. The communicant in radio programming is almost always a member of a large group — the audience. (Some characteristics of audiences will be investigated later.)

Symbols are stimuli produced by a communicator and received by a communicant. They carry meanings which are more or less shared by both parties. (Words, pictures and gestures are kinds of symbols.) Only aural symbols can be used in radio communication. This is a limitation of sorts. Most people are more used to aural-visual symbols, notably those in the

speech-with-gesture category. Even so, radio can employ the rich and varied symbol categories of music and speech-without-gesture.

Meanings are the similar responses which both communicator and communicant would customarily make to particular symbols when presented in similar contexts.

Responses are the specific behavior elicited by symbols. Sometimes such behavior is overt: a communicant moves, smiles, frowns or otherwise reacts in a way which can be observed by the communicator. At most times, however, response behavior is covert: a communicant thinks, imagines or feels without manifesting any physical reaction which can be observed by the communicator. When a communicator observes — or somehow discovers — overt response behavior by a communicant, he is said to be receiving feedback from his symbols.

Feedback enables a communicator to ascertain whether or not his symbols have elicited from the communicant (or listener) the responses he intended. It can also help a communicator find out if he and the listener are sharing the meanings of the symbols employed. Feedback is difficult to obtain in radio programming because the communicator/group is physically separated from the large audience. Overt response behavior by individual members of the audience usually cannot be observed directly by the broadcasters. Instead, feedback is sometimes obtained by various, complex methods of statistical discovery. For example, a small "sample" group of listeners will be asked to report on their own response behavior, particularly in regard to which programming they actually tuned in. Statisticians will convert the resulting data into figures by which the broadcasters may infer the response behavior of the whole audience.

Broadcasters, like personal communicators, are apt to let feedback help determine their courses of future action. Positive feedback, indicating that the communicator's intentions have been realized, is interpreted as a sign of success and is likely to cause continuance of that programming. Negative feedback may not represent a communicator's failure so much as indicate the need for the communicator to try again. This often leads to programming revision or repetition.

Revision involves a communicator's trying a different set of symbols to elicit the desired response. He may decide to choose symbols which have a certain redundancy. *Redundancy* is the term given the use of several different symbols which carry a common meaning, as with synonyms. Sometimes redundancy is inadvertent and unwanted. *Repetition* involves a communicator's trying the same symbols all over again after receiving negative feedback. This technique is often employed when the communicator suspects that the communicant did not receive the symbols on the initial try. Symbol reception is an essential aspect of communication.

Reception of symbols through the aural and visual channels is most important for most people in their everyday communication. Symbol re-

ception may be adversely affected when some physical block or extraneous stimulus (like noise) interferes with the symbols themselves. Still another cause of inadequate reception can result from a communicator's failure to attract or hold the attention of the person with whom he wishes to communicate.

Attention-attractants are particularly significant in broadcast communication. A communicator can attract attention in several ways. He may cause his symbols to have high stimulus *intensity;* that is, he may make them very loud, fast, large, bright, and so forth. Low stimulus intensity can also be an effective attractant technique in certain situations. Perhaps the most potent attractants are those symbols which serve as *psychological triggers.* People tend to pay quicker and closer attention to symbols which they associate with their basic drives and needs.

The basic needs of people also underlie the four social functions of communication: surveillance, prescription, cultural transmission and entertainment.

Surveillance is the label applied to communication which reports on happenings in the environment. In radio broadcasting it is manifested in such informational program types as newscasts and weathercasts. *Prescription* refers to communication giving advice or directions about measures which communicants might take in reaction to environmental conditions. Health talks and commercial announcements are likely to show this function. *Cultural transmission* is the imparting to new members of the community the beliefs and attitudes of the older members. Church sermons and educational lectures are broadcasts of this nature. Symbols used for amusement reflect the *entertainment* function. Disc jockey shows and quiz programs are obvious examples of entertainment.

Radio is a Medium of Communication

Basically, a communications *medium* is any material or device used to extend symbols over space or through time. There are many media available to modern communicators. Print, cinema, television and radio are the dominant media in our culture today.

Radio and television, as electronic media, are dependent on complex electromagnetic devices and associated materials. The symbol output of radio and television broadcasting is called programming. The broadcasting media usually extend their symbols over long space but not through long time. Their symbols are not usually re-used as are those in the print, photographic and film media, although various electronic recording devices can store the symbols for future use.

Radio Can be Used for Mass-Communication

Basically, *mass-communication* occurs when symbol materials are di-

rected through a medium toward a relatively large, scattered and heterogenous audience.

In radio broadcasting, a relatively large audience is that number which represents a significant percentage of the population living in the geographical area which a station or network serves. Its significance is dependent upon such factors as the day of the week, the hour of the day and the number of persons living in homes that are equipped with radios. For example, an audience of 30 percent of the population might be considered "large" on a snowy Sunday afternoon in a community of 30,000 where many homes are radio-equipped. In that same community, an audience of 1 percent might be "large" if the program being measured were broadcast at 3:30 a.m., Monday, when 97 percent of the population was asleep. The fact that a mass audience is scattered (that is, the individual members are not gathered together in one place) has much to do with the difficulty of feedback in radio programming. An even more consequential aspect of mass-communication for the radio programmer is that of audience heterogeneity.

Mass audiences are composed of people who are different from each other in a great many respects. These differences may be social, educational, economic, psychological, cultural, ethical, religious, political, physical or intellectual. This wide diversity of backgrounds, skills and attitudes produces problems for mass-communicators. In addition, audience members receive programs in a wide variety of different locales, each with a certain level of distractions present. Receiving sets of differing sound qualities are used, with a considerable risk that forms of technical distortion may interfere in some degree with program symbols. The immediate activity of a listener during reception is still another factor. Some people may sit and concentrate on a program while others may let the radio serve more-or-less as a source of background accompaniment to work or reading.

It should be remembered that the basic media — print, cinema, television and radio — can be used for private as well as mass communication, and it is only when radio is used for the latter that the process is termed *broadcasting*.

As noted earlier, the success of any communication is determined by the response behavior of the listener or viewer. Responses generally are intended to fall into two broad categories: attending and reacting. *Attending* responses occur when a communicant simply pays attention to the symbols. In radio, that means simply listening. Of course, even before listening can occur, a program must be tuned in on a receiving set. Therefore, tuning-in is also a kind of attending response. Another kind is found in the immediate, affective behavior of the communicant during symbol reception itself: laughing, crying, shuddering, or such. *Reacting* responses occur some time after the reception of a program. The range of desired behavior is varied. The programmer may wish audience members to do such things as buy the product advertised, make a contribution to a charity which was pro-

moted, drive more safely, or make a pudding with the recipe which was described.

Attending responses are primary in radio programming. Above all else most broadcasters wish mass audiences to tune in and listen to their programs. This is not to say that certain reacting responses are not also very desirable, particularly the subsequent purchase and consumption of advertised goods. However, such complex reacting responses are difficult to elicit from a mass audience because of its heterogeneity. Of course, broadcasters do not really attempt to elicit the same responses from all members of a mass audience. (Mass-communicators have long recognized the impracticality and impossibility of such a task.) Instead, they aim at what might be termed the *widest-possible-consensus*.

Although every member of a mass audience is genuinely unique, each is likely to have some characteristics which are similar to those of a number of other members of that audience. These characteristics may sometimes take the forms of attitudes, interests, prejudices, preferences and opinions. The individual audience members who have such characteristics in common are said to be "in a consensus." There exist many consensuses formed around many values in any mass audience, but only those which include relatively large numbers of people are generally important to broadcasters. The radio broadcaster seeks especially to find sizeable consensuses which result from common attitudes that can indicate which sorts of programming are most apt to be listened to. The wider the consensus numerically, the larger the probable audience for the programming in question. Years of positive feedback have confirmed the general worth of this strategy for programmers. The widest-possible-consensus includes listeners who are frequently designated "average." A program preference established by this kind of consensus is usually sanctioned by broadcasters as reflecting "popular taste."

The widest-possible-consensus is valuable not only in helping programmers elicit attending responses (tune-in and listenership) but also in assisting them to predict the probable success of obtaining various sorts of reacting responses. This knowledge (imprecise as it is) allows radio broadcasters to be fairly realistic about probable audience reactions to commercials and other messages.

Radio Programming Reflects a Variety of Social Forces

The total population of a community is a mass audience which contains a great number of attitudinal consensuses. However, attitude is not the only factor which can unite individuals into groupings. Other groups may emerge because of similarities in the roles, authority and possessions of persons. These might be called *status* groups because their very nature tends to rank them into a social hierarchy with the more powerful at the top and the less powerful below.

The groups at the top of this hierarchy are often referred to as the *power structure*. The individuals constituting the power structure tend to control the dominant economic, cultural and political resources of a community. It is important to note that the power structure is rarely gathered together in one consensus. Instead, there may be many different consensuses among numbers of its members. Some of these are even apt to be in disagreement or in conflict with others. These internal divisions weaken the power structure so that its control of dominant community resources is not rigidly directed by a single fixed attitude or philosophy. Nevertheless, there are enough consensuses to represent a general power structure philosophy about economics, education, politics, art and the like. More often than not these beliefs have come to be widely regarded as worthy standards for the community as a whole.

The status groups which are not included in the power structure fall into two distinct categories: the *bulk population* and *minorities*. The bulk population is composed of those people who tend to form the widest-possible-consensuses on a wide range of values and issues. While bulk attitudes might sometimes differ with those of the power structure, sharp conflict between them is not often present. The bulk population is customarily the "average" component of the social hierarchy. Minority groups differ in status or attitude from both the power structure and the bulk population. These differences may be broadly classified as being cultural, economic and political, although other terms like ethnic and religious are also applied. The members of some minorities are so unlike others in the community that they are said to constitute a *sub-culture*. This is notably true when the differences include language, manner of dress and such. Although some minorities are cruelly discriminated against, most actually blend into the general community life except when some sensitive attitude is at variance with that of the larger group.

Radio programmers have special relationships with the power structure, the bulk population and some minorities. These relationships have a direct bearing on the program output itself.

The power structure views broadcasting as an instrument for community good. People in these leadership groups regularly seek involvement in serious content areas about which they feel particular concern: religion, commerce, politics, education, public morals, property, medicine and such. Programs treating with these matters are almost certain to originate with the power structure or, at least, to receive its attention and sanction. This does not mean that the power structure exercises a blunt, external censorship *per se* over such programming. Instead, it means that the broadcast programmer tends to be so closely allied with the leadership elements of the community that their attitudes are also often his. Entrepreneurs constitute a significant status group within the power structure. They have established that the media of mass-communication can contribute to the economic

growth of a community through the inclusion of advertising content to stimulate consumption and the sale of goods. Consequently, entrepreneurs — acting as advertisers — have taken a guiding role in the operation of the mass media, radio among them.

The importance of the bulk population to the radio programmer has already been noted in the discussion about the widest-possible-consensus. It is necessary to add here only that the power structure generally accepts this approach because the technique does result in attracting large audiences, which are deemed necessary for effective advertising and perhaps also for other kinds of prescriptive programming. The program preferences of the bulk population and those of the power structure sometimes may be in disagreement. As a general rule, the numerically wider consensus will be allowed to prevail except where strong objection from a relatively unified power structure over-rides.

Broadcasters take minorities into account in two ways. First, some broadcasters regard certain, larger minorities as total audiences for their programming. This is notably true in metropolitan areas where the high number of competing stations may reduce the widest-possible-consensuses for a few stations to such relatively limited audience numbers, concentrating, for example, on Spanish language programming. Second, attacks on minorities in programming are customarily forbidden, this approach upheld by such organizations as the Federal Communications Commission and the National Association of Broadcasters, both of which possess attitudes strongly consonant with those of the national power structure.

Critics of broadcasting have sometimes expressed concern that many of the essential differences between the program preferences of the power structure, the bulk population and minorities have become too blurred over the years. Nowadays, they say, practically everybody tends to like the "limited" kinds of programming based on the widest-possible-consensus among the bulk population. Whatever the reason, such programming, often labeled "popular entertainment," is certainly the dominant type in American broadcasting today.

Programming Techniques

Length

The programming output of a station is usually broken up into a sequence of individual units which vary in length. Those which last from a few seconds to three minutes are customarily called *announcements* or *"spots."* Units of greater length are referred to as *programs*. Program lengths are ordinarily stated as round figures which are multiples of five minutes. However, in actual practice such programs will often last for 30 to 60 seconds less than the stated length. For example, a so-called 15-minute program might actually last on the air for only 14 minutes or 14 minutes,

30 seconds. This enables the broadcaster to insert one or more announcements before the start of the next program. It is customary to include in this kind of transitional interval a brief announcement which identifies the station by call letters and location. The Federal Communications Commission requires these "station breaks" at regular times in a schedule, generally on the hour and at the half hour. Occasionally these may fall between parts of a longer program.

The written schedule from which a station actually operates is called a *program log*. (See Fig. 1.) Conforming to certain regulations of the FCC, a program log is prepared in advance by staff traffic specialists and later signed by announcers, engineers or production technicians who can vouch for its accuracy as a record of programming actually broadcast.

In the days before television, most radio programs were neatly 15 or 30 minutes in length (i.e. 14:30 or 29:30). Nowadays the tendency is for stations to schedule programs which last for several hours, although brief news-type programs may be interspersed at convenient intervals. The longer units are apt to be recorded music shows: disc jockey, background music, classical concert.

Frequency

Most broadcasters keep track of their program schedules by drawing up a "traffic board" with seven vertical columns to represent the days of the week. Horizontal lines are drawn across the chart to represent the hours of the day (and perhaps shorter intervals as well). The names of programs (and announcements) are entered in the appropriate spaces. The traffic board is the primary source of information necessary to prepare the program log each day. (See Fig. 2.)

Radio programming usually operates in daily and weekly schedule patterns. The five weekdays tend to show a common scheme, with Saturday and Sunday showing separate schemes. Programs which recur in the same broadcast day show a *vertical* relationship because they appear in the same vertical column on the traffic board. News, weather and comparable "service" programs often have vertical relationships. Programs which recur at the same hour on different days of the week show a *horizontal* relationship. When there is a week-to-week program recurrence, the relationship is *cyclic*. In radio, many programs have vertical, horizontal and cyclic relationships. If the horizontal relationship involves all five weekdays, the programs are said to be scheduled "across the board." Nowadays strong patterns of frequency relationship in programming seem to contribute to listener convenience and habit.

Juxtaposition

Obviously, programs fall ahead and behind one another in the daily schedule. These juxtapositions are an important matter for programmers.

WPTF WPTF-FM RALEIGH, N. C. **PROGRAM LOG** DATE FRI SEPT 18, 1964 PAGE NO. 2

ANNCR	TIME SCHEDULED	ORIG.	TITLE AND SPONSOR, DISC NUMBER AND TRACK	CLASS	TIME ANN. AS MECH. REC	PROGRAM TIME (ON)	PROGRAM TIME (OFF)	STATION IDENTIFICATION ANNOUNCED	ANNOUNCED & SPONSORED	LOG KEEPER	NOTES
	(4)	B	American Oil Co (T)(MIN) K-1	SA							
	(5)	B	Sir Walter Chevy (SM)(MIN)(LT) 7	SA							
	(6)	B	PP-News Map Offer (SM)(MIN)	NCSA							
A	7:00	B	NEWS-WEATHER (BC REMEDY)(T CML) E-3	S							
J	7:05	B	DAILY BREAD (TR) 5	S							
J	7:10	B	THE BJ SHOW (T)(P)	M							
	(1)	B	American Oil Co (T)(MIN) F-5	SA							
	(2)	B	Lucky Strike (T)(MIN) 1	SA							
	(3)	B	Doans Pills (T)(MIN) B-660	SA							
	(4)	B	Hudson Belk (SM)(MIN)(LIP)	SA							
C	7:29	B	NEWS HEADLINES	S							
A	7:30	B	HOW'S THE WEATHER (RALEIGH SAVINGS)	S							
J	7:35	B	THE BJ SHOW (T)(P)	M							
	(1)	B	Sir Walter Chevy (SM)(MIN)(LT) 7	SA							
	(2)	B	PP-Gadabout with Gaddy (CB)	SA							
	(3)	B	SSS Tonic (T)(MIN) 2	SA							
	(4)	B	Dale Carnegie Course (MIN)	SA							
A	7:53:50	B	Station Iden Durham Life (Q)	SA							
J	7:54	B	REGIONAL REPORT (SM SIG)(SANFORD BRICK) S								
A	7:59	B	Pine State (SM)(MIN) 3	SA							
A	8:00	B	(FIRST CITIZENS)(SM INTRO)(LOCAL CUT IN) WORLD NEWS ROUNDUP (TR)(DB NBC)(SM CML) S								
J	8:10	B	JOE GARAGIOLA (TR)(DB NBC)(KY CLUB-MENNEN) S								
J	8:15	B	Equitable Life (T)(MIN)(LT) A-3	SA							
J	8:16	B	TALK ABOUT THE WEATHER (REM IN PART)	S							
J	8:19	B	Guardian Maintenance (T)(MIN) 1	SA							
JA	8:20	B	LET'S GO TO THE FARM (HICKORY FARMS)	S							
J	8:25	B	THE BJ SHOW (T)	M							
J	8:29	B	NEWS HEADLINES	S							
J	8:30	B	PP-News Map Offer (SM)(MIN)	NCSA							
J	8:31	B	THE BJ SHOW (T)(P)	M							
	(1)	B	R J Reynolds (T)(MIN) A-2	SA							
	(2)	B	PP-Tarheel Fisherman (CB)	SA							

ABBREVIATIONS
(NBC) Network (CB) Chainbreak (P) Participating (T) Disc Recording Pa—Public Service Annct
(DB) Delayed Broadcast (MIN) Minute (LT) Live Tag (TR) Tape Recording PT—Program Promotional Annct
(Q) Quickie (REM) Remote (SM) Spot master Co-op—Cooperative

PROGRAM CLASS: D—DRAMA M—MUSIC S—SPEECH V—VARIETY

ANNOUNCEMENT CLASS: (SA) Spot Announcement (NCSA) Non-Commercial Spot Annct

COMMENTS (See Reverse Side)

INSPECTED AND APPROVED PROGRAM MANAGER: _____ DATE _____ CHIEF ENGINEER: _____ DATE _____

Fig. 1: A Sample Program Log

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
6:00 a.m.	Alarm Clock Club						Hymns of Faith
7:00	News						
7:05	Alarm Clock Club (continued)						Music for Sunday
7:30	News						Music for Sunday
7:35	Alarm Clock Club (continued)						Music for Sunday
7:45	Sportsnews						Religious Newscast
7:50	Alarm Clock Club (continued)						Religious Newscast
8:00	News						
8:05	Alarm Clock Club (concluded)						Organ Melodies
9:00	News						
9:05	Homemaker Harmonies					Hits in Review	Choir Time
10:00	News						
10:05	Homemaker Harmonies (continued)					Hits in Review (continued)	Melodic Cameos
11:00	News						
11:05	Homemaker Harmonies (concluded)					Teen Time	Church Remote
12:00	News Roundup (International)						

Fig. 2: Typical Traffic Board Layout (omitting detailed data about announcements, origin, release, etc.)

Stations must attract and hold audiences. Several techniques can be employed to keep audiences tuned in from one program to another.

Often broadcasters juxtapose two or more similar programs. The presumption is that audiences sometimes prefer variations of the same content to an outright change. These "sound alikes" are most likely to be scheduled during well-defined activity periods like mid-morning (when women do their housework) or late afternoon (when commuters are en route home by car). On other occasions broadcasters may deliberately break the flow of such cognate materials by scheduling a *marker* program. Markers are apt to appear at times of day which "mark" a significant change in audience activity patterns. The insertion of comprehensive newscasts and other talk materials at noon and around the dinner hour frequently constitutes marker programming. When a broadcaster finds it necessary to change programming during an audience activity period, he may choose to buffer the two very dissimilar broadcasts with a short *bridge* program. Bridges are generally talk materials of wide appeal, like news, weather, sports or Hollywood gossip.

Nowadays stations tend to program in cognate *blocks*: early morning (around 6:30 a.m.-9:00 a.m.), mid-morning (around 9:00 a.m.-12:00 noon), afternoon (around 1:00 p.m.-4:30 p.m.), late afternoon (around 4:30 p.m.-6:00 p.m.), evening (around 7:00 p.m.-11:00 p.m.), and late evening (around 11:00 p.m.-1:00 a.m.). In addition to being scheduled during the luncheon and dinner periods, shorter markers are also used to separate the other cognate blocks. Bridges are rarely needed, since radical program changes within activity periods are very few.

Placement

The placement — or time scheduling — of programs is largely dependent on patterns of audience activity. Having first established which groups are probably available as listeners during a given period (families, housewives, teenagers, etc.), the broadcaster then must decide which kind of programming is most likely to suit that group's activity pattern at the time. In this way most radio stations find and fit programs to clock-hours.

Nowadays, a number of strong placement tendencies can be observed in American radio. The *early morning block* is apt to be given over to family-appeal programming: bright, recorded music interspersed with time and weather announcements, brief news reports, meeting notices and the like. The *mid-morning block* is usually beamed to the housewife: popular music compounded with household hints, shopping tips and other such informational items. The *luncheon period* carries marker programming of a fairly serious journalistic character: comprehensive news summaries, weather analyses, editorials and commentaries. The *afternoon block* is often cognate with the mid-morning, except that the recorded music is perhaps less "brisk" and the household hints may give way to short features about movie stars,

women in the news and other human interest topics. Telephone quiz "gimmicks" are also frequently included in these housewife-appeal programs. The *late-afternoon* block shifts emphasis to the commuting motorist: light recorded melodies interwoven with traffic advisories, news "quickies," sports scores and comparable elements. The marker programming scheduled during the *dinner hour* is like that of the luncheon period except that its tone may be even more serious-minded, presumably because more men are in the audience. For the same reason, stock market reports and business summaries are often found in these end-of-day marker sequences. The *evening block* is very apt to be aimed at the teenager and young adult: recorded "hits" and danceable music with relatively few talk elements added. On the other hand, the *late evening* block may veer off in quite a different direction. Many stations now schedule "adult level" interview programs with an accent on controversial personalities and issues. However, many other stations offer soft, romantic background music aimed at late "readers" and courting couples.

It must be remembered that these observations are about general placement tendencies. There are many striking exceptions, particularly on metropolitan FM stations which cater to minorities.

Counter-placement

Virtually all radio stations in the United States operate in competitive markets; thus, most broadcasters must be sure that their scheduling strategy takes their competitors' programming into account. On a day-to-day basis this is accomplished in three ways.

A station may attempt *cross-programming* its competitor. For example, Station A starts an especially attractive one-hour offering at 8:00 p.m., following a fairly routine program which begins at 7:30 p.m. Station B cross-programs by starting a strongly appealing one-hour offering at 7:30 p.m. Listeners presumably would be loath to tune from B to A in the middle of a "good" program at 8:00 p.m., thus injuring A's listenership. A second strategem is *scooping*. For example, Station A offers sports scores each evening at 11:00 p.m. Station B then offers the same scores at 10:30 p.m., thus "scooping up" A's audience ahead of time. The third technique is probably the best competitive approach: *monopolizing*. This is the exclusive offering of unique programs of greatly superior appeal.

Role

Programs and announcements are either *commercial* or *sustaining*. Commercial programs are *sponsored* or *participating*. A sponsored program is paid for by a single advertiser (although sometimes various portions of a single program may be sponsored by several different advertisers). A participating program is one divided into a number of convenient segments in order to permit the insertion of various commercial announcements. Stations

assume the cost of sustaining announcements, which are most frequently devoted to such public service topics as highway safety, Savings Bonds, military recruitment and fund raising for charities. Some sustaining messages promote programs to be broadcast by the particular station.

Format

The organizational form(at) of a program stems from the application of function to content. As noted earlier, function includes surveillance, prescription, cultural transmission and entertainment. Content is limitless, encompassing all aspects of life including commerce, industry, agriculture, health, politics, geography, foreign affairs, crime, romance, rhythm, urbanism, religion and so forth. As pure content, "weather" doesn't say anything. But applying the surveillance function to weather produces the familiar "weathercast." If we apply the prescriptive function to weather, we might get a discussion program in which several participants give advice about safe driving on icy roads.

Another aspect of format has to do with the kinds of symbols employed in presenting content. There are three sorts available to the programmer: speech, music and sound effects. Speech symbols can elicit very precise audience responses. Music symbols carry a wide range of emotive, ambiguous "meanings." Sound effects are aural symbols that sound like noises to which some fairly specific meaning is readily attributed. Of course, all three of these symbol forms are encountered in present-day programming, although sound effects are less important than they were in pre-television days when radio drama was a significant format type.

Nowadays certain format types reappear again and again as "carriers" of a great variety of content. The principal of these are disc jockey shows, newscasts, weathercasts, sportscasts, talks, interviews, panel discussions, telephone chats, concerts, actualities (including sports events), quizzes, background musicales and variety shows. (Analyses of format types may be found in Chapters 3 and 4.)

Appeal

A wise broadcaster makes every effort to see that his programming strongly appeals to the potential audience. In so doing, he strategically applies attractant techniques like intensity and psychological triggering — techniques which can be colloquially translated into the term *showmanship*.

He also keeps in mind that some aural symbols are understood by almost anyone who might hear them while others are really meaningful only to a small intellectual elite. Most radio programming nowadays reflects a sophistication level which is neither the lowest nor the highest, a practice in keeping with the dictates of the widest-possible-consensus.

Value

Content may be treated as being good or bad, right or wrong, real or fantasy, serious or trivial. As a general rule, the value accorded any content element will reflect the attitudes of the power structure, and probably the bulk population as well.

Pace

If the rate of presenting program material over a given time period is too fast, the audience may become confused and tune out. If it is too slow, the audience may become impatient and also tune out. Obviously, neither extreme is desirable. Nowadays, a tendency to fast pacing is compensated for by a considerable use of repetition and redundancy.

Figure

Most radio programs involve the (vocal) appearance of one or more persons: announcers, commentators, politicians, home economists, preachers or the like. Each such figure can be identified as having a certain role. The role he, or she, fills — or plays — carries with it a certain set of behavioral expectations. For example, we have come to expect a sportscaster to sound "manly and knowledgeable of his trade." An effeminate-sounding announcer who giggles at his own embarrassing ignorance of a football game he is supposed to be narrating would probably not prove popular with an audience. In equivalent ways, disc jockeys, newscasters, quiz masters and home economists are also expected to adhere to certain requirements of their separate roles. Because voice quality is so often (mis)taken as an indication of role, broadcasters tend to choose program figures largely on the basis of vocal characteristics. This is not to say that a figure's "knowledgeability" is altogether ignored, of course.

To a considerable extent, local programming must be built around available figures. For example, a station without a "mature, manly and authoritative" sounding voice on its announcing staff may be forced to deemphasize serious news and commentary programs which require a figure with such vocal characteristics. However, the same station might capitalize on disc-jockey programs for teenagers because its staff includes two or three "bright and youthful" sounding announcers who demonstrate an enthusiastic knowledgeability of popular recorded music.

Origin and Release

A radio program is a kind of aural "happening." The location of the "happening" is the origin of the program. A great variety of origins is possible: local and network studios, exterior locations in the community, remote points any place in the world — or even in space. Many programs designed

around the use of recorded music can be said to originate in "radio-space"; that is, although the immediate origin of the program is the studio, the content may come from other sources, seemingly extending the studio to include outside entertainment or recording spots.

Many programs are stored on audio-tapes or disc recordings for *delayed* release. Sometimes the release is *live*, the program transmitted simultaneously with its production. In either case, as explained in Chapter 2, the programming expert is dependent upon the proper use of a great deal of mechanical and electronic equipment.

Management

Radio station management involves the coordination of a number of specialized activities: engineering, sales and promotion, production and programming, business administration, and (sometimes) research. But programming is central to all the others. It is the primary management responsibility in every broadcasting station.

The investments in land, buildings, equipment, materials, labor, licenses, services and so on are all made in order to construct and operate an efficient means for the saleable production and distribution of attractive programs to the public. Every management decision revolves around some aspect of this complex communications activity. All the other activities, important though they are, are subsidiary to it. Transmission and studio engineering apparatus, even with the power turned on, is not really a system of communication until somebody causes it to transmit meaningful sounds, such as those of language or music, to listeners. Sales work also lacks purpose in and of itself. It requires the exchange of a commodity or a service for money or other consideration of value. Programs (including spot announcements) are part commodity, part service and are the things to be sold — in spite of the jargon which speaks of selling "time." Promotion departments exist primarily to publicize and exploit programming to achieve increased consumption and increased sales. Business administration concerns itself largely with providing the accounting, rights clearance and clerical support necessary for program operation. Research, when carried on in a systematic way by a station, is based on the study of programming and questions closely related to it. Production is simply a term used for the "manufacturing" phase of the broad programming activity.

In most station organization plans the Program Department is on a level with all (or most) of these other specialized divisions. Yet if it is genuinely central to the rest, why should it not occupy a special position of rank? This is because programming is really an activity of common concern, in which each of the departments shares a certain part. Management must supervise and harmonize these parts into a coherent and effectively operating entity. It is the collective "programmer."

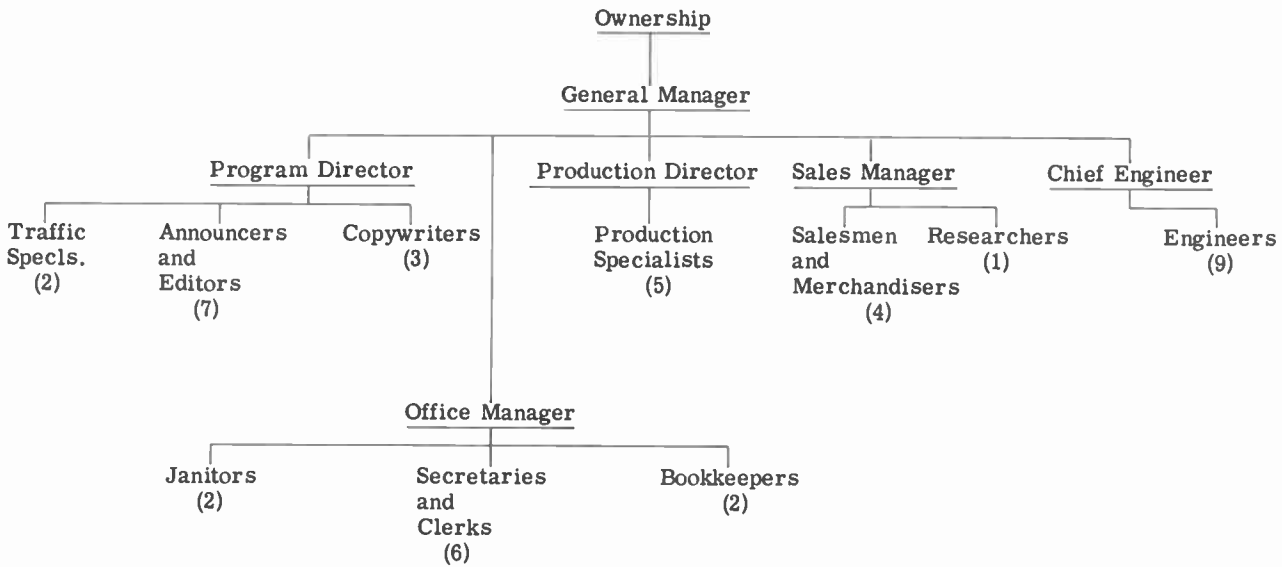

Figure 3
Staff Organization of a Station in a Medium-Sized City

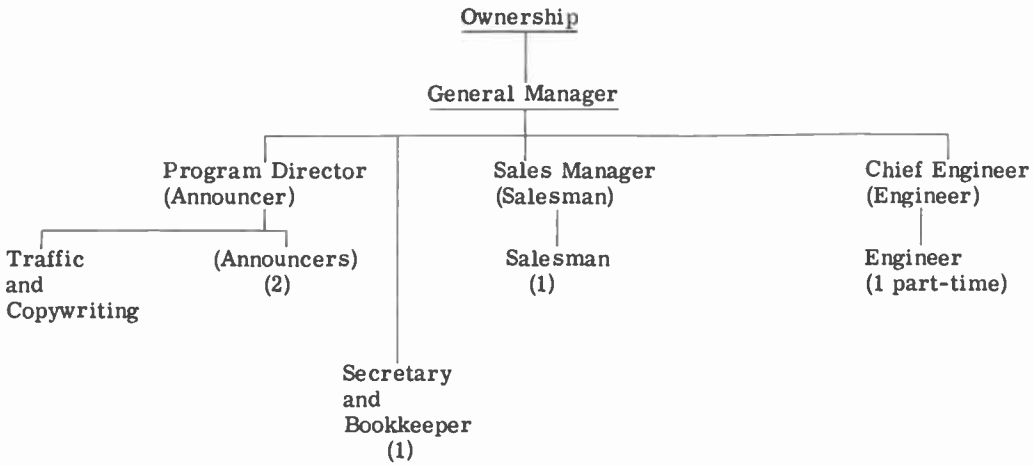

Figure 4
Staff Organization of a Station in a Small Town

The Program Department itself is simply that element of organization which is peculiarly responsible for executing management's decisions and policies about programming as a finished product. The head of the department, usually called the program director, is the executive who takes the most active role in making daily programming decisions within a context of long-range policies set by ownership, the station manager and the executive staff as a whole.

Staff Organization

The organizational patterns in broadcasting vary with the size of stations. In large stations, individuals are apt to hold single, specialized positions. In small stations, an individual may hold many positions — production, sales, management — at the same time.

Rank in a station is not necessarily an indicator of status factors such as income, seniority and prestige. For example, in a given situation, an announcer may enjoy very high status but may have an intermediate rank in the organizational structure of the station. The office manager in the same station may have a higher position of rank but may be making less money and enjoying far less prestige than the announcer. Conflicts sometimes arise between rank-holders and status-holders. A prestige announcer may resent being ordered around by a program director of higher rank but lesser status. In a well-managed station such problems rarely occur.

The organizational relationships within a radio station are, basically, similar to those of any large organization. There are collaborative relationships where people of comparable rank work at comparable jobs under the same authority. (For example, several transmitter engineers working under the leadership of the chief engineer, or several announcers supervised by the chief announcer.) A problem in large stations frequently comes from institutional relationships; that is, where people in different departments using different skills may have few direct relationships with each other, but whose totality of work must be integrated for effective functioning of the station as a whole.

One of the most important positional relationships in broadcasting is that of the "team," specifically in program production, where each person must play a particular role in a smoothly coordinated whole. For example, the team leader at a remote pick-up point might be a newsman who directs the work of several other persons of higher rank, such as the chief engineer, production director and chief announcer. In effectively completing such team efforts, normal organizational relationships are temporarily abandoned. Radio veterans will tell you that such occasions constitute "moments of truth" in which the real, professional relationships of the staff are revealed far more accurately than any study of organizational charts or observation of routine, everyday station operation.

Job Descriptions

There is no standard organizational pattern for radio stations in the United States. Therefore, the job descriptions which follow show general tendencies rather than any definite plan. The same limitation holds true for the sample organizational charts of large and small radio stations shown in Figures 3 and 4.

General Manager

Duties: 1) articulates the policies of the licensee-owner; 2) coordinates and guides the departments comprising the total station staff; 3) is responsible for the relationship of the station to the outside community and to all external institutions and organizations; 4) devises and maintains efficient business procedures for the station as a whole and as a collection of individual departments; 5) oversees and evaluates the work of department heads reporting to him; 6) is in charge of that part of the station's staff called "administration," including financial, personnel and managerial assistants.

Requisites: general, working knowledge of business administration, FCC regulations, NAB Code, radio advertising practices, copyright laws, personnel management, public relations techniques, radio programming and production, broadcasting technology, salesmanship and showmanship techniques.

Program Director

Duties: 1) supervises all units and employees of Program Department; 2) executes policies set by general manager and/or ownership; 3) is responsible for the daily scheduling of all local and network programming; 4) supervises all broadcasting talent not actually attached to the Program Department; 5) has primary supervision of "public service" and "public affairs" programming; 6) assists in the development of commercially exploitable programs and announcements; 7) supervises the auditioning and selection of program materials.

Requisites: broad working knowledge of FCC regulations, NAB Code, radio advertising practices, copyright laws, radio production, traffic procedures, showmanship techniques, broadcasting technology and journalism.

Position: supervisory; responsible to general manager; collaborates with production director in supervision of program execution; collaborates with sales manager in overseeing the design and scheduling of commercial materials.

Production Director

Duties: 1) supervises all employees of the Production Department; 2) executes policies set by the general manager and/or ownership; 3) is respon-

sible, with program director, for overseeing the physical execution of all local programming; 4) is responsible, with chief engineer, for planning studio and remote equipment needs for program production.

Requisites: working knowledge of broadcasting technology; specialized knowledge of broadcasting showmanship techniques.

Position: supervisory; responsible to general manager (or sometimes program director).

Chief Engineer

Duties: 1) supervises all units and employees of the Engineering Department; 2) executes policies set by the general manager and/or ownership; 3) is responsible for overall technical operation of the station; 4) is in charge of maintaining necessary technical records for FCC inspection; 5) works with production director in planning program equipment needs.

Requisites: professional knowledge of radiotelephony and FCC regulations; First Class Radiotelephone license.

Position: supervisory; responsible to general manager.

Sales Manager

Duties: 1) supervises all employees of the Sales Department; 2) executes policies set by the general manager and/or ownership; 3) maintains liaison with national sales representatives and networks; 4) meets with prospective and actual clients; 5) plans overall sales strategy; 6) works with program director in creating and scheduling commercials.

Requisites: complete, working knowledge of radio advertising practices, sales procedures, public relations techniques, radio programming and production.

Position: supervisory; responsible to general manager.

Announcer

Duties: 1) speaks and reads on the air; 2) plans and performs specific programs; 3) keeps (i.e. "fills out") the official program logs; 4) selects recorded music for use in programs; 5) compiles newscasts from wire services teletype copy.

Requisites: pleasant voice and personality; reading ability, fluency, poise; working knowledge of recorded music, current affairs and broadcasting showmanship techniques.

Position: responsible to program director (sometimes through a chief announcer); collaborates in program execution with other announcers, production specialists, newsmen, music librarians, copywriters and staff talent.

Production Specialist

Duties: 1) operates studio and remote control equipment during the assembly of programs and broadcast materials; 2) edits and files audio tape recordings; 3) devises sound effects of various sorts.

Requisites: skilled knowledge of broadcasting technology and showmanship techniques.

Position: responsible to production director; collaborates in program execution with other specialists, announcers, newsmen, music librarians, copywriters, staff talent and engineers.

Engineer

Duties: 1) operates and maintains transmitter, studio and remote equipment; 2) keeps engineering logs and records; 3) helps design, build, or install new equipment arrays for special program purposes.

Requisites: thorough knowledge of radiotelephony and FCC regulations; First Class Radiotelephone license usually necessary.

Position: responsible to chief engineer, collaborates with other engineers and production specialists in setting up remote broadcasts and studio equipment for program execution.

Salesman

Duties: 1) sells advertising to local and regional clients; 2) services existing commercial accounts; 3) helps plan commercial materials.

Requisites: thorough, working knowledge of radio advertising practices, sales procedures, public relations techniques, and radio programming and production principles.

Position: responsible to sales manager; collaborates with other salesmen, copywriters, traffic specialists, publicity planners and research people in mapping out and waging advertising campaigns.

Traffic Specialist

Duties: 1) prepares daily schedules and types daily logs; 2) maintains information relative to availability of program and announcement times for commercial or other scheduling.

Requisites: knowledge of FCC logging regulations; thorough set of clerical skills.

Position: responsible to program director; collaborates with other traffic specialists, copywriters and salesmen in various matters related to program scheduling and logging.

Copywriter

Duties: 1) writes commercial and sustaining announcements not externally supplied; 2) writes program continuity scripts except news; 3) maintains an orderly system for filing copy for daily broadcasting use.

Requisites: knowledge of radio advertising and showmanship techniques; high verbal skill; ability to type efficiently.

Position: responsible to program director; collaborates with other writers, traffic specialists, salesmen, production specialists, announcers, mu-

sic librarians and staff talent in planning and designing various broadcast materials.

Many station organization plans include a number of other staff-specialists: newsmen, women's editors, sports editors, farm editors, music (record) librarians, publicists, audience and sales researchers, sales merchandisers, office managers, secretaries, bookkeepers and chief announcers. The work of some of these people is examined in more detail in later chapters.

Visits to stations — local and regional, independent and network — would be extremely helpful in learning about their varying organizational patterns, job responsibilities and requisites, and intra-station relationships. Such visits will also clearly show that all management patterns focus on the central task of effective programming.

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2

OPERATING AND STUDIO FACILITIES

BY DONALD B. UPHAM

RADIO is sound which is instantaneously transported from one place to another by the use of electromagnetic waves. A man in a studio speaks. His words reach the sensitive diaphragm of the microphone before him and are changed into electrical energy. The electrical energy flows through a microphone cable to electronic amplifiers, which greatly increase the strength of the electrical energy. Electrical energy, however, cannot be sent through the air as it is; it must be superimposed on something called a carrier wave. This is done by a device called a transmitter. The carrier wave is radiated into space by a conductor called an antenna.

In the home, in the automobile or wherever a receiver is located, the process is reversed. An antenna intercepts some of the electrical energy being sent by the transmitter. Other transmissions are rejected by the receiver and the desired energy is amplified. The energy bearing the desired information is derived from the carrier wave, amplified again and applied to a loudspeaker. The loudspeaker converts the electrical energy into sound and the voice of the announcer in the studio is heard.

There are over 6,000 radio broadcasting stations in the United States today. They range in size from the powerful network "flagship" stations in our largest cities to the small local stations. The quantity and quality of equipment, personnel and production techniques are very different from one station to the next. However, all stations use certain basic equipment, and

through custom and federal government regulation, certain techniques have become fairly common. It is with "hardware" and techniques of use that this chapter is concerned.

Unless one intends to be an engineer, the study of the technical aspects of radio production and transmission might seem unnecessary. Yet, any artist in any field knows the importance of the mastery of the tools of his medium before he attempts to create a worthwhile product. This is particularly true in radio where, more and more, broadcasting is becoming a one-man job. Networks and some of the larger stations still use a staff of several people to produce any given program, but in most stations automated equipment and economics have combined to eliminate multi-person production work almost entirely. With the effective use of new equipment today, it is possible for one man to create radio productions similar to those that once required a crew of skilled personnel working under a good director. And in many cases, particularly in small local stations, the one man at the control board and microphone is also answering the telephone, operating the transmitter, keeping two sets of logs — program and technical — and doing as many other tasks as he has time and energy for.

The person who knows what can be done with the resources of a given station can be the more creative individual. He needs to know not only basic operating procedure, but what equipment to apply and how to apply it in special broadcast situations. He must know not only the potentials of the technical devices at his command, but their limitations as well. If something does not function properly or, as sometimes happens, breaks down entirely, whoever is on duty — whether an engineer, disc jockey, announcer or continuity writer — should have the basic insights into equipment operation which will enable him to continue on the air with a minimum of difficulty.

Changing Ways of Radio

Radio broadcasting in the United States has travelled a large circle and, in many ways, is back where it started. The first radio broadcasting stations used modified amateur radio transmitters. The microphone was in the same room with the transmitter and some of the entertainment consisted of phonograph recordings played on a wind-up machine set close to the single microphone. As radio grew in popularity, these techniques were refined. The microphone was located somewhere away from the transmitter, partly to eliminate interference from the transmitter and partly to accommodate the separate natures of transmitters and performers. It became customary to locate the transmitter in some out-of-the-way area where soil and other conditions were favorable for good transmission, yet not too close to large numbers of receivers which might result in blanketing of reception. One or more engineers were required to be on duty at all times

when the station was on the air. It was convenient to have the microphones in downtown rooms, called studios, where performers could readily reach them. And as radio broadcasting became a business dependent upon advertising, studios and offices were located in the business district of the city. The wind-up phonographs were soon replaced by electrical means of reproducing the recordings and, more significantly, by live performers. For many years it was a rule at CBS and NBC that performances were to be live — recordings were not to be used. The growing networks believed that the audience wanted to hear live performers rather than scratchy recorded voices. The huge revenues, first from the sale of receivers and later from the sale of advertising, permitted the use of large numbers of live performers in magnificently-equipped studios.

The post World War II years brought many changes to radio broadcasting. Numerous new stations were built, including many small ones owned by local businessmen without sufficient financing. Many of these stations derived most of their program fare from music on phonograph records. Their need for live performers and live programs was minimal. Construction and operating costs were thereby kept to a point where local stations in small towns and cities could not only survive, but make a reasonably good profit.

The introduction of magnetic tape recording in the late 1940's caused a great many changes. The cumbersome 16-inch disc transcriptions which usually sounded something less than satisfactory on the air were replaced. Subsequent refinements of tape recorders resulted in machines that operated with cartridges that eliminated threading and offered automatic cueing. Completely automatic programming became possible and by the mid 1960's was being used by many stations.

It was television that brought the greatest changes to radio broadcasting. At the network level, the best people were snatched away from radio production and put to work on the development of a television program service. As sales of TV sets increased, the audience for radio fell and network radio advertising revenues fell with them. One radio network reached the brink of bankruptcy while the other three held on by sustaining their losses from television profits. Dramatic and variety programs disappeared from network radio and were replaced with news and music, most of the latter recorded. At the local level, however, construction continued and stations prospered, particularly as radios became more portable. Most new automobiles came equipped with radios and after 1955 the small transistor radio effected a revolution in radio listening.

Frequency Modulation or FM broadcasting deserves special mention. Introduced in the late 1930's by the late Edwin H. Armstrong, it had gained a small toehold at the outbreak of World War II. At the end of the war, FM frequencies were shifted to a new and higher band where transmitting equipment and receivers were not immediately available. As a result, most

new postwar radios and transmitting stations remained with standard (AM) broadcasting. As equipment was produced for the newly-assigned FM frequencies in the late 1940's, FM radio boomed — and then slipped badly as public interest was captured by television. A slow revival in FM began again in the mid-1950's and has accelerated since then. The saturation of AM stations is the primary reason for the boom in FM, although FM's many advantages (freedom from static, higher fidelity, lack of fading, among others) are also important factors. Too, the special cultural and controversial programming sometimes available only on FM have attracted many listeners.

Many of the new stations, both AM and FM, were built with a combined studio and transmitter installation, permitting economies in construction and operating costs. As transmitters were refined, it became technically possible and legal to operate them with employees having only a bare minimum of technical training. For those stations having separate transmitter buildings and studios, it became feasible to operate the transmitters by remote control, thus eliminating the need and cost for an operator.

Thus, the typical radio station of the 1960's was not unlike its ancestor of the early 1920's: a microphone and a transmitter at the same location (or at least under the control of the same operator) with much of the program fare coming from phonograph records.

Completely automated radio stations are feasible and are being built. Of course, some human help is needed to record the announcements, supervise the transmitter and load the various machines with reels, cartridges and records. Technically, the results from automated equipment can be almost perfect. Yet, the impression on the audience created by the use of this equipment has not always been satisfactory. It would appear that the live announcer with his ad-libbed remarks about the state of the weather, and other timely and human comments is something many listeners desire which cannot be "programmed" by computers.

Transmission

The conscientious radio broadcaster aims to transmit sound in such a way that the listening public will be able to understand speech clearly and enjoy the reproduction of music. This seems a rather simple objective, yet the achievement of it is often difficult and, unfortunately, at many stations is never accomplished. After leaving the transmitter, sound is subject to all sorts of losses and quality degradations before it reaches the listener's ear. Therefore, it is necessary to keep the technical quality of the sound as high as possible at all times while it is under the control of the station. The station must not relax its efforts to provide "clean" audio, especially because much of the audience may be listening on inexpensive table model radio sets and tiny transistor portables. For example, although newspaper photos are

necessarily rather coarse in comparison with original photographs or magazine reproductions, expensive cameras, careful processing and delicate engraving methods are used to insure that the clearest possible pictures, within the limits of the reproduction process, result.

AM Radio. The letters AM stand for Amplitude Modulation. This is the standard method for transmitting broadcast programs. AM also refers to a type of program service, but will not be discussed as such in this chapter. Technically, AM is one way of impressing the information we desire to transmit onto a carrier wave. The strength (amplitude) of the carrier wave is varied (modulated). There are 107 channels available for this service in the frequency range from 540 to 1,600 kilocycles. About 4,000 stations in the United States operate on these channels. At night, outside metropolitan areas, reception is usually poor because of heavy interference between stations. But inasmuch as most stations operate only in the daytime the overall results are technically quite satisfactory.

FM Radio. FM, or Frequency Modulation, is a later development than AM. As with AM, it is a means of impressing information onto a carrier wave, but instead of the strength being varied, the frequency of the wave itself is changed, or modulated. FM radio broadcasting occupies a position in the electromagnetic spectrum far above the regular, or AM, broadcast band. In the United States and Canada, it is assigned 100 channels from 88 to 108 megacycles. Any discussion of FM radio inevitably includes the ambiguous term, "high fidelity." High fidelity refers simply to accurate reproduction of sound; any further attempts to define it involve personal opinion and technical terms too esoteric to use here. It is sufficient here to say that our FM broadcasting system has capabilities for producing superb sound.

Reception

Although radio reception is not under the direct control of the broadcaster, he should be aware of its qualities. Radio receivers vary tremendously in their ability to reproduce voices and music. Some of the smallest and cheapest transistor radios are only marginal in reproduction ability, yet the fact that they are in use must be kept in mind when creating sounds in the studio. At the other extreme, some home high fidelity FM installations reproduce all the speech and music frequencies, including the low thuds of footsteps in the studio and the "pops" and distortion of some phonograph recordings. In addition to variations in receiving equipment, sound is affected by conditions in the area where the radio is located; noise of children at home, traffic noise in the automobile, and other sounds tend to mask or interfere with what is coming from the loudspeaker. The broadcaster must compensate for these factors through careful control of sound quality and proper structuring of announcements.

Broadcasting Equipment

There are certain qualities that set professional radio broadcasting equipment apart from electronic equipment intended for home use. Equipment in broadcasting stations is designed for heavy duty service (24 hours a day if required) over a period of years. Portable equipment, for example, must withstand the bumps and bangs of regular hard usage. The sale and exchange of second-hand radio broadcasting equipment is an active business, and many small stations have been built entirely with equipment that once served larger stations. Equipment is designed, too, so that repairs can be made with a minimum loss of time. Major manufacturers keep good stocks of special repair parts and offer emergency air shipment to any part of the nation. Equipment is designed to work well within the limits of all components, and a certain safety factor or reserve is available to compensate for aging and other normal changes without the need for constant tuning and adjustments. Quality of this kind requires careful design and production. It is not inexpensive. Frequently, only after one understands what can be expected from a given item of broadcasting gear does the cost seem reasonable.

It is important to remember that many foreign broadcasting systems use equipment and techniques quite different from those employed in radio stations in the United States and described in this chapter.

Microphones

The microphone is a mechanical device that has just one job: to transform sound energy into electricity. Expensive microphones obviously do this more accurately than cheaper ones. Weight, bulk, usability under adverse weather conditions, ruggedness and directional characteristics are primary considerations.

Types. There are several kinds of microphones that *are not* used very much in commercial broadcasting service. These include the *carbon,* once used in broadcasting, but now considered useful only for telephones and communication equipment; the piezo-electric microphones, usually called *crystal* or *ceramic,* widely used with home tape recorders but not used to any great extent at broadcast stations. The crystal or ceramic microphone is inexpensive and rugged, but is limited in frequency response (ability to respond equally to all sounds — low, middle and high). They are technically classified as high-impedance microphones and cannot be directly connected to low impedance professional broadcasting equipment. They work well with the five or six foot cords normally supplied for home tape recorder use, but will pick up stray interference and lose sound quality if the cord is extended.

Fig. 1: Dynamic microphone suitable for general use. *EV*-655C
Courtesy of Electro-Voice, Inc., Buchanan, Mich.

The three types of microphones most commonly used in radio stations are the *dynamic* or *pressure* microphone, the *ribbon* or *velocity* microphone, and the *condenser* microphone.

The *dynamic* or *pressure* microphone is probably the most popular microphone in use in radio stations today. It is sturdy, is often packaged in quite small and easy to carry cases, is moderate in cost, can be made directional, has excellent frequency response and is inherently a low impedance device (microphone extension cables up to several hundred feet can be used without degradation of the sound or introduction of interference).

Dynamic microphones come in many forms. A popular type which may be used on a stand, as a hand-held instrument, or as a "lavalier" suspended from the neck for television is shown in *Fig. 1*. Many of the older

dynamic microphones still in use at stations can be identified by their shape and color. Though produced by several different manufacturers, many of them are about the size of a man's fist, have a heavy cast housing with slots in it and are often chromium-plated. Newer dynamic microphones are cigar-shaped and are finished with a dull paint which makes them usable for "on camera" television audio pick-ups. The dynamic microphone is popular for "remotes" — broadcasts originating outside the studio. In addition to its small size, light weight and sturdy construction, it is less sensitive to wind than are other studio microphones.

Some dynamic microphones do not satisfactorily reproduce the voices of certain individuals. The difficulty manifests itself in popping or oversibilant noises when the speaker pronounces certain sounds, notably "p's" and "s's." It is caused by a combination of the design of the microphone and the speech characteristics of the speaker. If difficulty is encountered, try moving the mike away from the speaker or have him speak across, rather than into, the microphone. Or if another type of mike is available, see if it is more satisfactory.

The dynamic microphone is constructed of a diaphragm, a permanent magnet, and some coils of wire wrapped around the magnet. The diaphragm is positioned within the field of the magnet. Movements caused by sound waves result in a disturbance of the magnetic field and a small electric current is induced into the coils of wire. Dynamic microphones are usually non-directional; that is, they respond to sound coming from all directions and do not minimize unwanted noise that may be in the background. The more expensive dynamic microphones, however, are directional and will respond best in one direction while rejecting sounds from all other directions.

The *velocity* or *ribbon* microphone is the next most used type of mike. It is easy to recognize from its oval or coffin-like shape. The name ribbon derives from the construction: a thin metallic ribbon stretched in the field of a powerful permanent magnet. As in the dynamic microphone, movements generate small currents of electricity in a coil of wire wrapped around the magnet. A widely-used velocity microphone is RCA model 77D. (*See Fig. 2.)*

The name "velocity" comes from the action of sound upon the ribbon. The ribbon responds to the *velocity* of the sound which reaches the microphone, rather than the *pressure* of the sound, as in the dynamic microphone. The velocity microphone is an "inside" microphone. Its bulk, weight, fragility, and a lack of tolerance for wind restrict it to stand or boom mounted positions. The fidelity of its response and adaptable features make it highly desirable as a basic microphone for studio speech and music pick-ups. The RCA 77D has a screw on the back face to select different pick-up patterns. In the first switch position it has a one-sided, or uni-directional pattern. Sounds from the back and sides are rejected, while sounds from the front

Fig. 2: Velocity microphone. *RCA* 77D.
Courtesy of Radio Corporation of America, Camden, N.J.

are picked up. In the second position it becomes bi-directional. The pick-up pattern approximates a figure-8, with sounds accepted from the front and back, but rejected from the right and left sides. In the third position, the microphone becomes non-directional — sounds from all sides are equally accepted. This "pick-up pattern" screw, plus another in the base which controls the amount of bass or low frequencies, make the 77D an almost universal microphone for studio use. A note of warning in the use of velocity and dynamic microphones: because both contain magnets, it is wise to keep them away from tape recordings, inasmuch as the magnetic force might partially erase a program if the microphone came into contact with a reel of tape.

The *condenser* (*capacitor*) microphone has a curious history. First used in commercial radio broadcasting in the 1920's and early 1930's, it went out of style because of technical problems. Improvements, many of them German-made, led to a re-introduction and wide use in the recording industry and in some radio stations in the 1950's. The condenser microphone is distinguished from the dynamic and velocity mikes in several ways. First, it is an expensive microphone (about $400), preventing its use by many radio stations. Second, it can produce a level of sound quality highly prized by high-fidelity fans and very popular with recording companies. Third, it can be used in sound laboratories for the measurement of other sound reproducing components. Finally, it has the disadvantage of being somewhat more inconvenient to use than other mikes because it requires a tube or transistor within the case, and a special power supply and cables. Indications are that these problems will be greatly modified, eventually making the condenser mike as simple, flexible and relatively moderate in cost as dynamic and velocity types.

Placement and stands. Correct speaking distance from a microphone depends upon the characteristics of the speaker's voice, the size and acoustic properties of the studio, the design and type of the microphone, and the desired effect. As a general rule, one can begin with the microphone about a foot away and adjust the distance until the desired result is achieved. Proper microphone placement for musical pick-ups can be a complex procedure. Sometimes one microphone, carefully placed, can pick up all instruments satisfactorily. More often, additional microphones are needed in order to balance the sound from the various instruments and vocalists.

Some microphones are light enough and small enough to be hand-held for special programs such as audience-participation shows. Usually, however, it is desirable to fix the microphone in one convenient position. A number of different types of stands have been devised for this purpose. The simplest is a small desk stand — something to hold the microphone up a few inches or so. More elaborate desk stands, sometimes called banquet stands, may hold the microphone up some two feet above the table top. Various flexible arms are available which make exact placement of

Fig. 3: Modern audio control board.
Courtesy of Gates Radio Co., Quincy, Illinois.

the microphone easy. Boom devices which suspend the microphones are very popular. They range from the simple "baby" variety — three feet long — to elaborate devices with huge floor bases and rubber-tired wheels.

Control Boards

Function. The control board, console, or just "board," as it is commonly called, is the nerve center of a radio station. It is the point where sounds coming from various microphones, record turntables, tape recorders and network telephone lines are joined together in various combinations. The resulting mixture goes to the transmitter and is sent out over the air. Although boards function generally the same way, not all are alike in specific detail. It is not necessary for the beginner to attempt to memorize all operating details of all boards. Once operation of a typical board is learned, it is fairly easy to adapt to the operation of all others. The "typical" board face consists of switches, potentiometers ("pots") for the control of sound levels, and a meter which visually displays the outgoing sound level. (*See Fig. 3.*) Internally, vacuum tubes (transistors in the newest models) and other electronic components make up the amplifiers which raise the incoming signals to the levels required to send the program to the transmitter and to various loudspeakers in the control room and around the radio station.

Operation. Although no detailed operating instructions can be given that are universally applicable, all boards have certain controls that are similar in nature. As you read the following descriptions of board controls, see the *Fig. 4* diagram for clarification of their typical appearance and placement.

1) Master gain control — "A" in *Fig. 4.* All boards have one knob which is distinguished from all other knobs by color, placement or shape, and which is labelled "master." In practice, it is usually set at a given number (volume level) and is so marked with crayon or tape.

2) Sub-master gain controls — "B" in *Fig. 4.* These are the active controls or "pots" which are used almost continually during a show. They are rarely labelled "sub-master," but are given the names of the inputs, such as microphone 1, microphone 2, left turntable, right turntable, tape, and network.

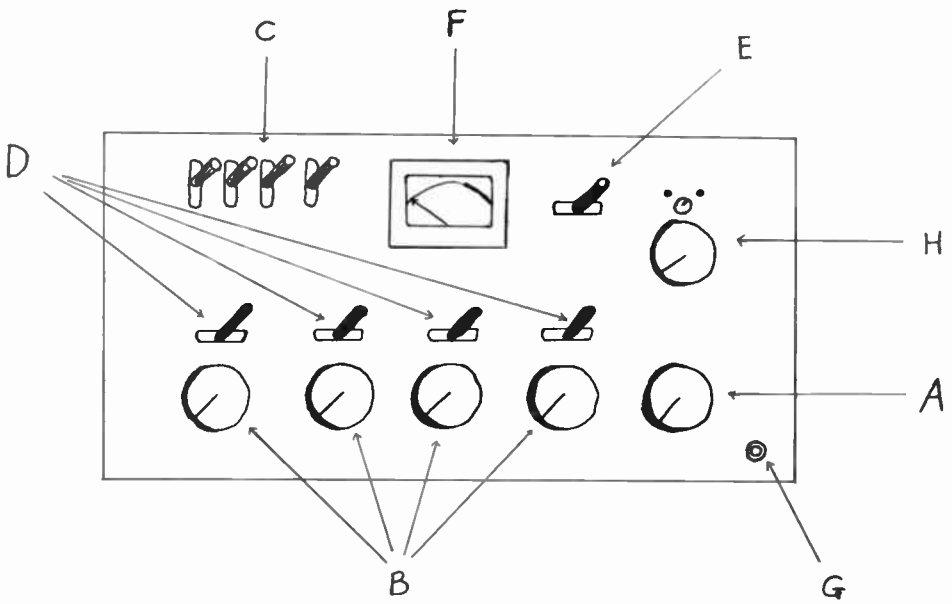
3) Input switches — "C" in *Fig. 4.* A selector switch for each sub-master pot permits a choice of various inputs to be "fed" into the given pot. This increases the number of possible inputs without the need and expense of putting a large number of pots and their associated preamplifiers into an already crowded console.

4) Audition or cue switches — "D" in *Fig. 4.* All boards incorporate some means of enabling the board operator to hear the sound coming from various inputs, especially record turntables, before the sound is sent out over the air. Sometimes this is done with a lever-type switch above the sub-master volume control, at other times with pushbuttons. The sound being auditioned may be heard on a special loudspeaker in the control room, on the regular control room program monitoring loudspeaker, or over earphones worn by the operator.

5) Output switch — "E" in *Fig. 4.* Most boards have some switch to control the output from the board. In one switch position no sound goes to the transmitter, though the board appears to be functioning normally. After the transmitter has warmed-up and the station is ready to sign on, the switch is thrown and the program goes on the air. The same switch often is designed so that a spare telephone line to the transmitter can be used in the event of failure of the regular program line.

6) Volume meter — "F" in *Fig. 4.* The volume meter, or "VU" (volume unit) meter as it is usually called, is the visual device used to determine the correct sound level. It is impractical to attempt to judge relative sound levels just by listening to the loudspeaker. The meter is connected to the output of the board and measures the strength of the outgoing signal. It is scaled from 0 to 100 and designed in accord with an established engineering standard so that all broadcast audio equipment has the same standard unit of measure.

7) Headphone jack — "G" in *Fig. 4.* This permits the plugging-in of headphones in order to listen to the output of the board. Additional means



A. Master gain control
B. Sub-master gain controls
C. Input switches
D. Audition or cue switches
E. Output switch
F. VU Meter
G. Headphone jack
H. Monitor gain control

Fig. 4: Diagram of Control Board

can allow listening via headphones to incoming remote, network and similar broadcasts. Some operators prefer to wear headphones; others rely on the loudspeaker. The former must remember to keep his voice at a constant level because hearing one's voice over the phones frequently results in a lowering of vocal volume.

8) Monitor gain control — "H" in *Fig. 4*. A separate, independent control for the loudness of the control room speaker permits the operator to adjust for a comfortable listening level, to turn it down for telephone calls, or to raise it to hear some important sound. This control does not affect the outgoing broadcast or other loudspeakers around the station, which have their own volume controls at each speaker location. If a microphone is turned on in the studio or the control room, the monitor loudspeaker in that room will automatically be shut off or "muted." This prevents "feedback." Feedback is caused when sound from the loudspeaker reaches the microphone and is amplified again and again until a continuous whistle results. The loudspeaker in the radio studio comes back on automatically as soon as the microphone is shut off. Similarly, warning lights inside and outside the studio go on and off as the microphone switch is thrown.

9) Talk-back provisions. Many boards permit the operator in the control room to talk to a remote broadcast location before broadcast time and to the studio(s) when they are not on the air. In some boards a single pushbutton is all that is needed; others require the operator to use more than one switch to accomplish the communication.

It should be noted that many stations use dual-channel boards. These are really two control boards in one and permit great flexibility and versatility in their operation. They are somewhat more complicated to operate than the single channel boards, but can be mastered either by taking just one section and learning how to run it or by applying previous knowledge of the operation of a single channel board. Control boards intended for stereo broadcasting or recording are similar to dual-channel boards, but have some of the controls ganged together to permit simpler operation and accurate coordination between the left and right channels.

Turntables

Phonograph records have always been a part of radio broadcasting. The special needs of radio resulted in the development of technically different turntables and recordings than those used by the general public. In general, the record playing equipment to be found in a radio station is sturdier, of greater precision and more expensive than that found in the home.

In broadcasting, the word turntable means more than just a revolving mechanical device, but includes the pick-up arm and cartridge, the necessary sound equalizers, the internally-mounted pre-amplifiers and even the

wooden case. Turntables often are built into a table or control desk at a convenient location and height, sometimes into their own free-standing, enclosed cabinets. They do not have loudspeakers of their own, as do home phonographs, but depend upon and must be electrically wired to the control console. Two and even three turntables usually are installed together in radio stations to permit continuous playing of music and recorded announcements without the delays which would be necessary if only one turntable or a mechanical record changer were present. Record changers have rarely been used in broadcasting except for some late-night broadcasts and with automated equipment at some stations.

Speeds. The typical radio station today is equipped with three-speed turntables: 78.26, 45 and 33⅓ revolutions-per-minute. Older turntables still in use usually are equipped for only 78 or 33 rpm. A very few stations have variable speed turntables which produce special sound effects by speeding up or slowing down recordings. Broadcast turntables provide easy and positive selection of the different speeds. They start very quickly, to permit close cueing. Many have synchronous drive motors which provide very accurate playback timing of transcribed programs.

Sizes. Many turntables used in broadcasting are quite large, oriented toward the 16-inch transcriptions which were in frequent use before fine groove recording made possible the use of smaller records. Because 16-inch records are becoming obsolete, more and more stations are installing turntables which accept records only up to 12 inches in diameter. Most 12-inch turntables include a depressed area to provide a secure hold for the 7-inch 45 rpm records which are widely used in broadcasting.

Pick-up arms, cartridges and styli. Although a large variety of models exist, all are relatively simple to operate. Arms and pick-up cartridges are all of precision construction in order to afford ease in use, protection for the delicate record grooves, and freedom from sticking in or skipping of grooves. Almost all have some means of changing the type of stylus (needle) in order to accommodate the various kinds of records. The most-often used pick-up cartridges have a quick and simple turn-around device for changing styli. The operator should take care, however, that the desired needle is seated exactly and is not jammed slightly out of position. If the stylus is not in place, the sound will be distorted, with much noise from the stylus itself, and the record will be damaged. Dust on the stylus sometimes causes this same problem. Some pick-ups require the detaching and exchanging of the end of the arm for another cartridge containing a different size stylus.

Records

As noted above, records, discs or transcriptions — as they variously are called — are of several speeds. In addition, groove size varies. The 45 rpm records are fine-grooved, as are most of the 33⅓ records today. Many

16-inch records have old-style wide grooves; some of the newest ones are fine-grooved. 78 records are wide-grooved. Unfortunately, records are not always labelled with groove information. Fine groove records should be played with a 1 mil stylus; older, wide-groove records with a 2.5 mil stylus; 78 records with either a 2.5 or 3 mil stylus.

Lateral and vertical recordings. All of our present-day disc recordings are recorded with side-to-side groove motions and are called *lateral* recordings. At one time several transcription services provided records that were made with up and down or *vertical* groove motions. Some stations still have and use these recordings. They should be played only on a turntable equipped with a special pick-up arm, and the vertical-lateral equalizer should be set on "vertical."

Stereo. Many stations now broadcast in stereo and have turntables which were either designed or have been converted to reproduce stereo recordings. Some stations which cannot broadcast in stereo have installed reproducing arms on their equipment to allow stereo recordings to be played monaurally (two channels blended into one). Stereo recordings are made with both up-and-down and side-to-side groove motions — a complex combination of vertical and lateral movements. They must be played with a pick-up arm designed for stereo because monaural pick-ups have been designed to respond only to lateral movements, cannot track the vertical movements of the stereo record groove, and will gouge and scratch the record.

Acetate recordings. Radio stations frequently use disc recordings that have been cut directly by a disc recorder, not stamped out of plastic as are commercial recordings. These acetate recordings are made of an aluminum base which has been coated with very smooth and soft material such as cellulose nitrate. Excellent reproduction may be obtained from these records if extra care is used in handling them. Because the grooves are softer than the grooves of "pressings," as standard records are called, care must be taken to avoid scratching the needle across the grooves and to avoid repeated cueing of the record.

Equalizers. All professional turntables have a control labelled "equalizer" or "filter" which allows compensation for different recording characteristics and which reduces noise when old recordings are played. It is a simple knob with several settings labelled as to type of recording characteristic. The audible effect is similar to a tone control on a radio or record player. At one extreme the sound is very crisp and record noise and distortion, if present on the disc, are noticeable; at the other extreme the sound is more muted, higher notes are reduced, and scratch and distortion are not as noticeable.

Cueing. Listeners are accustomed to hearing an announcer introduce a particular record, and then, without any delay, fumbling or scratching, they hear the music. This is accomplished by a process called "cueing."

The board operator selects the record to be played, places the pick-up arm on the correct band or "cut," if it is a long playing record with several selections, and lets the record run until he hears the very beginning of the music (via the cueing circuit — not on the air!). He stops the record at that point and backs it up a turn or a fraction of a turn. The record is now said to be "cued" or "cued-up." There are several methods for completing the process. Some involve holding the record itself, with the motor running, and letting it go on cue, with the music heard in a fraction of a second. Others involve the use of the turntable motor switch. Learn the practice best suited to the equipment and records at the given station. Be careful not to over-cue records — repeated plays and back-ups to find the precise spot for a quick start. This is hard on the records and will result in a noticeable amount of noise at the beginning of the music or speech.

Handling. Records will last longer and sound better if given proper care. When removing a record from its jacket, press the edges slightly so that the record is not dragged against the sides of the jacket. This will reduce scratches. Do the same when replacing a record. Hold the record by the center and the edges — don't touch the playing surface. Hands usually have a slight amount of oil on them and, on a record, this will attract dust and dirt. Handle the pick-up arms carefully to avoid scratching the record. Be careful not to drop anything on the turntable while the arm is resting on the record. Don't play the records on home phonographs unless the stylus condition is good.

Tape Recorders

Magnetic tape recorders are widely used in radio broadcasting. Most stations have one or more fixed-position professional machines in the control room. In addition, stations use "plug-in" and battery-operated portable machines for special events and news coverage. The sales and program departments, among others, often use home-type portable machines for auditioning tape recordings in their own or customers' offices. A special type of tape recorder, the automatic cartridge tape recorder, is widely used for the playing of announcements and musical themes at many stations. Some stations operate partially or entirely via automatically-controlled tape recorders.

A Danish inventor, Valdemar Poulsen, demonstrated magnetic recording in 1898, but at the time there were no vacuum tubes to amplify the weak sounds produced. In the 1930's German and American researchers produced magnetic recorders for experimental and limited commercial service. During World War II many wire recorders were produced in the United States for military use, and following the end of the war were introduced into the consumer market. They were briefly popular in the home and at a few radio stations, but were soon superseded by magnetic tape which has many advantages over wire. Until 1950, broadcast stations used

disc recording. Since that time tape recording has grown into virtual exclusive dominance.

Types. Broadcast-style tape recorders are similar to broadcast turntables in that they do not incorporate loudspeakers, but are connected electrically to the control console. The most common recording speed in the broadcasting industry is 7½ inches-per-second. Speeds of 15 ips and 3¾ ips are also used, the former for high quality music recordings and the latter where economy or maximum uninterrupted playing time is the prime factor. Broadcasters use the full width of the recording tape: full-track (or single-track) recording. In contrast, home recorders provide half-track (or dual-track) recording in order to double the amount of recording time that can be contained on a reel of tape. Full-track recording provides slightly better quality, eliminates possible confusion of location of the desired program on a tape, and permits editing without cutting into another program. Tapes made on half-track machines can be played on full-track broadcast machines if the second track is left blank. But if any recorded material remains on the other track, it will be heard playing backwards at the same volume as the desired program. Tapes made on full-track machines can be played on home half-track machines.

Stereo tape recorders found at well-equipped broadcast stations record two channels side-by-side on a tape. Many are equipped to play quarter-track stereo tapes that are commercially popular.

Broadcast machines often employ separate recording and playback heads in order to provide improved quality and reliability. With this arrangement it is possible to listen to a recording a fraction of a second after it has been recorded in order to be sure that it is going properly.

Studio mounting. Many stations prefer to have their most expensive tape recording machines permanently mounted in metal racks or separate consoles at the studio. (*See Fig. 5.*) This way they are always available in the control room and are not subject to the jars and abuses received by portable equipment. They may be used to record events occurring outside the studio by connecting them to a special line rented from the telephone company. The station sends a remote amplifier and operator to the outside event and at a prearranged time or upon a cue from the outside operator, the control room operator starts the tape rolling.

Portable equipment. Lightweight tape recorders for portable use are widely used. (*See Fig. 6.*) Good ones are rugged, fairly compact and will record with a fidelity approaching that of the larger studio machines. When plug-in power is not available or convenient, many stations use battery-operated tape recorders. Except for the most expensive kinds, these machines do not usually provide full fidelity recordings, but are nevertheless adequate for speech and low enough in cost so that a small station can buy one or more for use in gathering local news.

Cartridge machines. Tape recording made it possible for radio stations

Fig. 5: Console-mounted tape recorder for studio use. Note large 10½" reels. *Ampex* 351.

Fig. 6: Portable AC-operated broadcast-type tape recorder. *Ampex* 602.

Courtesy of Ampex Corp., Redwood City, Calif.

to effect economies in their announcing staffs without the monotony of having the same voice for every announcement. This required the threading, cueing and rewinding of many short reels of tape. The introduction of automatic cartridge tape recording machines eliminated threading and cued the announcements automatically. (*See Figs. 7 and 8.*) Operation is simple. A tape is inserted into the machine, automatically runs until it finds the start of the announcement, stops and waits until a button is pushed, starts instantly, plays to the end and then stops. The tape is wound in the cartridge in the form of a joined loop so there is no rewinding.

Automated tape equipment. Though the cartridge tape machine is a form of automation, automated tape equipment refers more specifically to equipment incorporating two or more machines, an automatic control panel, and sometimes an automatic record changer. Some stations operate for a portion of their broadcast day with automated programming equipment; a few operate entirely with automation. Many of the automation systems use prepared reels of tape which are furnished for a rental fee by central production organizations. The equipment is arranged so that local announcements (on tape) and network programs are cut in and out of the prepared music.

Tapes. Tape comes in a bewildering variety of thicknesses, base materials, coatings and lengths. The standard recording tape used by radio stations is 1.5 mils in thickness, is made of cellulose acetate, and is coated with a dark reddish oxide of iron. 1,200 feet of this tape will fit on a 7-inch reel and plays for a half-hour at a speed of 7½ inches-per-second. There are thinner tapes available and some stations use them, but they have some disadvantages, such as tendency to stretch, fragility, handling difficulty and higher cost, which limit their use for day-in, day-out broadcasting. Tape made of cellulose acetate may break, but ordinarily only if the equipment is poorly adjusted. It breaks "clean," however, and can be repaired with no loss of recorded material. Some other types of tape are stronger and stretch a section of the tape before breaking — but this requires the trimming of some of the program material before the tape can be spliced. Using a standard brand of recording tape will result in better functioning equipment and a consistent quality of sound. Unbranded tapes offered at bargain prices will record, but it is usually best to leave them for home use where less may be expected of them.

Reels. Radio stations make almost universal use of the 7-inch plastic reel. It is popular because of low cost, ease of handling, easy storage, adaptability to virtually any machine and convenient playing time (one-half hour of standard thickness tape). Many stations also use 10½-inch metal or plastic reels which hold twice as much tape as the 7-inch reels and are useful where an hour-long program, recorded at 7½ ips, must be handled by one machine. These reels are useful when recordings are made at 15 ips because they offer more uninterrupted recording time (one-half hour).

Fig. 7: Cartridge tape recorder. *Spotmaster* 500A.
Courtesy of Broadcast Electronics Inc., Silver Spring, Md.

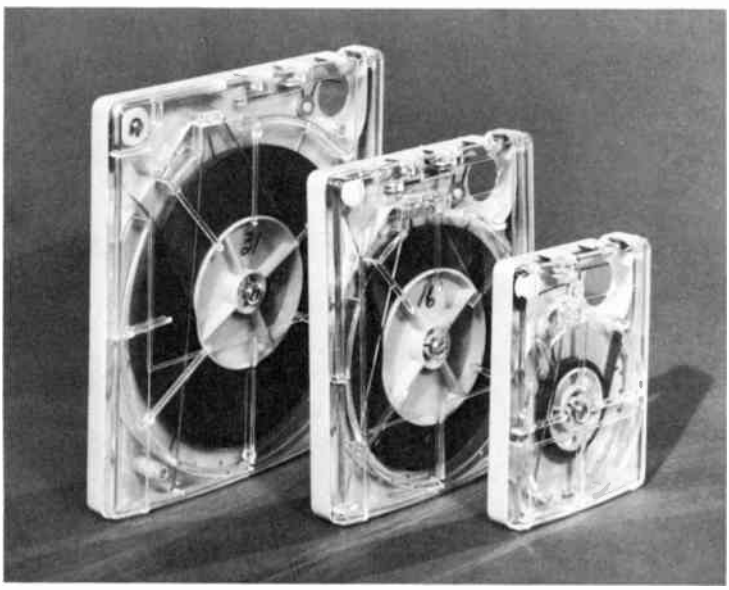


Fig. 8: Tape cartridges for automatic cartridge-style tape recorders.

Courtesy of Broadcast Electronics, Inc., Silver Spring, Md.

Five-inch and smaller reels are sometimes used, but one should check ahead of time to see if the equipment will handle them. Many professional machines have difficulty in pulling such reels evenly and will sometimes slow down, stretch or even break the tape as it nears the end of the small reel.

Editing and splicing. Editing recording tape is a simple process. The exact location where the cut is to be made is located, a mark is made on the back of the tape (shiny side) with a china marking ("grease") pencil, and the tape is cut with a pair of scissors. To join two pieces of tape together, a tape splicer may be used or, with care, scissors will do. A diagonal cut is made and the two pieces are joined together with a piece of special splicing tape applied to the back or shiny side of the tape. Don't use regular transparent mending tape for splicing because the adhesive will bleed through to adjoining layers of tape and will cause the tape to stick when it is played. If a recorded tape has been broken, join the tape together with splicing tape without cutting anything away. If care is taken, it is often impossible to hear the break.

Although tape recorders automatically erase any old recording as a new recording is made, radio stations are equipped with a device to completely remove old recordings from a reel of tape beforehand. A recording is a magnetized impression in the iron oxide of the tape and can be removed by a powerful electromagnet which demagnetizes the entire tape in a few seconds. The demagnetizer (or bulk eraser as it is sometimes called) must be used carefully so that the old program is removed entirely and no spurious noises remain or are created.

Devices for measuring the running time of a tape-recorded program come in several forms. Stopwatches are useful, but unless they are assigned to individuals who will care for them, their life is short. Larger and more sturdy wind-up or electrically-operated timing devices are often used in stations. A program for broadcast should not be timed on a home-type tape recorder. The speeds of non-professional machines are not exact and in a half-hour program usually result in a plus or minus error of several seconds to a minute.

Labelling and storing. Be sure the reels and tape boxes are properly identified. A china marking pencil for writing directly on the plastic reels or adhesive-backed labels may be used. Recordings should be stored in correct boxes, which should be placed on edge. To prevent crushing the edges of the tape if the boxes must be stacked temporarily on top of each other, there should not be too many in any one pile and nothing heavy should be set on top of them. Temperatures and humidity should be moderate. Tapes should not be stored next to an electric motor or transformer — for example, a refrigerator or a large television or radio receiver — because the magnetic field from the motor or transformer may alter the quality of the recordings. Permanent magnets, such as those found in microphones and radio receivers should be kept away from the tapes. Tapes

should be rewound before being broadcast if they have been stored for more than a month. Winding and rewinding loosens sticky splices that might cause jerkiness in the sound.

Sound Effects Equipment

In the days of network dramatic broadcasts, important among studio equipment were various mechanical and electrical devices to create certain sounds. A large library of recorded effects and a big multi-turntable sound playback console were considered essential to any well-equipped radio production studio. Skilled sound men were important members of production staffs. Sound effects are not so significant in radio today, although they are useful in creating distinctive commercials. Many effects involve modifications of the announcer's voice: echo effects, filters to make it sound as if it were coming over a telephone, and speeding or slowing it.

Echo. Mechanical devices, notably the EMT reverberation generator made in West Germany, and a reverberation device manufactured by the Hammond Organ Company, are effective in obtaining echoes. The former is very expensive, but has control and fidelity that make it useful for many other effects, including increasing the apparent "liveness" of music. The Hammond device is sold under several names, is inexpensive, and is even used in home high fidelity sound installations. An echo much used for commercial announcements, but unlike a natural echo, may be obtained with a professional three-headed tape recorder. The recorder is connected to play back virtually instantaneously any sound that is fed into it. A portion of the playback is fed back into the input of the machine and a feedback condition is created. The feedback is not in the form of the traditional whistle usual with audio equipment, but is a repetition of the sound at split-second intervals, determined by the time required for the recording tape to pass from the recording head to the playback head. Regular broadcast recorders may be used, but special machines are available that have either more than one playback head or a playback head that is adjustable in distance from the recording head.

Filters. Filters are often used to imitate the sound coming over a telephone or through a radio receiver, or to create a rather piercing, unusual sound. The output of a microphone preamplifier is connected to a filter that removes low notes and high notes and leaves only the middle tones. Sometimes the filters are adjustable and allow an operator to remove just the degree and portion of highs and lows that he wishes.

Recorded sound effects. Extensive collections of recorded effects exist and individual sounds may be purchased as needed. Many of the older sound effects records are nonbreakable 78 rpm discs, easy to cue, but sometimes rather low in fidelity. Many stations transfer new recorded effects onto tape cartridges to prevent wear of the originals and to provide convenient use.

Fig. 9: Remote pickup radio transmitter for portable or mobile use. 150 megacycle band, FM, 30 watts output. Marti M-30B.
Courtesy of Marti Electronics, Cleburne, Texas.

Other Input Sources

Radio programs originate from sources other than studio microphones, turntables and tape recorders. Programs from outside the studio are often an important part of the schedule. Programs from the national radio networks, ABC, CBS, MBS and NBC, come to the individual stations over special wire circuits leased from telephone companies. Regional and state networks provide programming for many stations, some of them through leased telephone lines, others through the facilities of an FM broadcast radio station. Stations receiving the network service via FM simply pick up the program with an FM receiver and route the signal through their own control console. Control boards usually have at least one switch or pot labelled "network" or "net," and many have a means of plugging in headphones to monitor the incoming network "feed."

Live remote broadcasts originated by the station itself are an important source of programs. These may be sent to the station by leased telephone wire or by radio. Recent improvements in radio remote equipment offer advantages over wire, formerly most often used: speed and flexibility, lines do not have to be ordered in advance, and no line installation and rental costs. (*See Fig. 9.*) Control boards usually have several input switches

that are set aside for remote broadcasts. If wire lines are used, the board feeds the regular broadcast program down the remote line to assure the operator at the remote that the line is in order and to furnish him with a starting cue. Regular telephone circuits may be used for special programs. Speed, flexibility and low cost can compensate for the inferior sound quality transmitted by telephones. Telephone connections may be brought directly into the board, though for some programs various devices are used to delay the speech a second or more in order to be able to interrupt the telephone connection if objectionable remarks are made.

Transmitter Control

License Requirements

Some radio stations operate with the transmitter in the same room with and under the direct control of the board operator. Some have the transmitter at a remote site with an attendant engineer. Others operate their transmitters by remote control from the studio control room. In all cases the board operator has responsibility for starting the transmitter, adjusting the power, reading several meters at half-hour intervals and maintaining general supervision of the transmitter, in addition to his other duties at the station.

A license from the Federal Communications Commission is required for operators who actually control transmitting equipment. Licenses are not required for operation of audio control boards, tape recorders, and similar instruments, though many radio stations expect all their operating employees to have an FCC license. Licenses come in different classes and are obtained through examination — the Third Class license requiring little technical knowledge, the Second and, especially, the First Class licenses requiring more specific knowledge of broadcasting equipment and practices. The Third Class Radiotelephone license is the basic license and is good for use at most stations needing a combined board operator-transmitter operator. Study guides for self-preparation are listed at the end of this chapter. The license is obtained by passing a rather simple multiple-choice test administered by an FCC examiner. Every radio station must have at least one technician on call with a First Class license, which must be posted at the transmitter.

Operation

All transmitters and remote transmitter controls differ, and no specific instructions can be given that apply to all situations. Some generalizations, however, may be made. Most transmitter problems develop at sign-on, so it is wise to arrive on the job early. In case of trouble, the extra minutes provide time to try different methods to get the transmitter in operation or to summon help from the chief engineer. Putting a transmitter on the air is often a two or more step process. Most transmitters require some warm-

up time. Many contain automatic timing devices which prevent operation on the air until the warm-up has elapsed. The meters should be read as required — i.e., every half hour. Readings help the engineers to determine if the equipment is operating properly, and can save time in diagnosing trouble when a transmitter has gone off the air. The only transmitter adjustment a Third Class licensee is legally permitted is to raise and lower the output power. FCC standards provide that the power is to be maintained within a range of 10% below to 5% higher than normal licensed power. If a malfunction develops, an engineer with a Second or First Class license must repair the equipment. (*Figure 10* shows an AM transmitter featuring but one vacuum tube in an otherwise all-transistor design.)

Certain stations have assumed obligations to participate in emergency networks to relay news concerning local, regional or national disaster situations. *All* stations are required to maintain monitoring equipment to warn of such disasters. Instructions concerning the Emergency Broadcast System are given to operators at individual stations.

Logs

The control operator must keep two sets of written logs. One is the program log and contains the beginning and ending times, the name of the program, the sponsor, an indication that the sponsor was identified, the source of the program and the time a recorded program was so announced. (*See Fig. 11.*) The second log is a technical record of the meter readings and other information relating to the transmitter. (*See Fig. 12.*) The program log is very important to the station as it tells the operator what to perform and, when it is filled out, serves as the master record of what went out on the air. Billings for advertising are usually taken from information recorded in this log. The FCC requires that logs be kept in a legible, permanent form; entries should be typewritten or in ink. Corrections may not be made by erasure, but by striking through the incorrect entry, initialing the correction and dating it. Only the person who made the original entry is authorized to make the correction. Logs must be kept on file by the stations and are open for inspection by the FCC. At license renewal times, sample logs are forwarded to the FCC with the renewal application.

Fig. 10: Modern 1000 watt AM transmitter. Uses transistors and one tube. Gates Vanguard I. *Courtesy of Gates Radio Co., Quincy, Ill.*

DAILY PROGRAM LOG

DATE_____

CHAPEL HILL, N. C. **WCHL** 1360 K.C.

DAY_____

PAGE_____

LEGEND ORIGIN

LR—Local Remote
ATR—Am. Tel. Remote
RD—Recorded
TR—Transcribed
ST—Local Studio
HB—Re-Broadcast
NET—Network

PROGRAM TYPES

PS—Public Service
RS—Recorded Sustaining
RC—Recorded Commercial
LS—Live Sustaining
LC—Live Commercial
SP—Station Promotion
M—Music
S—Sports
N—Newscasts
P—Participation
R—Religious
D—Drama

SCHEDULED TIME	ORIG	Program Type	PROGRAM AND SPONSOR	PROGRAM TIMES		ANN AS MECH	CALL LETTERS	OPER-ANNCR
				ON	OFF			

Fig. 11: Program Log.
Courtesy Village Broadcasting Company, Chapel Hill, N.C.

WUNC

OPERATIONS LOG

Sheet No._____

Date_____, 19 ____

OPERATOR SIGN	IN	OPERATOR SIGN	OUT	CARRIER		PROGRAM	
				ON	OFF	ON	OFF

TIME	PLATE CURRENT (ma.)	PLATE VOLTAGE (v.)	OUTPUT	FREQUENCY DEVIATION (kc.)	MONITOR CRYSTAL TEMP. ..... degrees cent-grade TIME .....
					MEMORANDA

Fig. 12: Technical Log.
Courtesy WUNC Radio, University of North Carolina, Chapel Hill, N.C.

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———, *First-Class Radiotelephone License Handbook*. Indianapolis, Ind.: Howard W. Sams & Co., Inc., 1964. A good study guide for use in preparing for a First or Second Class FCC license examination.

———, *Study Guide for Third-Class Radio-Telephone Operator License with Broadcast Endorsement*. Washington, D.C.: National Association of Broadcasters. Pamphlet.

Several periodicals should be consulted regularly by those interested in the technical operation of radio:

Audio. Mineola, N.Y.: Radio Magazines, Inc. "The original magazine about high fidelity." Many articles on recording and reproduction of sound, broadcasting. Monthly.

BME. New York, N.Y.: Mactier Publishing Corporation. "The magazine of broadcasting management/engineering." Monthly.

Broadcast Engineering. Indianapolis, Ind.: Howard W. Sams & Co. "The technical journal of the broadcast-communications industry." Monthly.

Broadcast News. Camden, N.J.: Radio Corporation of America. RCA radio and television equipment and feature articles on stations' facilities. Monthly.

Broadcasting: Yearbook Issue. Washington, D.C.: Broadcasting Publications, Inc. Includes broadcast equipment directory, lists of all stations and much other useful information. Yearly.

Journal of the Audio Engineering Society. New York, N.Y.: Audio Engineering Society. Acoustics, equipment relating to reproduction of sound. Monthly.

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Originally interested in art and theatre, Dr. Hawes has directed, designed and acted in university and community theatres. In 1956 he made an official tour of European theatres, and the following year won a major Hopwood Award in drama. In a joint venture with Eastern and Central Michigan Universities and WJRT, Flint, he taught the first television course in drama for those educational institutions, and subsequently taught courses in educational television and in radio at Texas Christian University and at the University of North Carolina. He has also produced various films, including three on ballet. He has been a speaker and panelist at conventions of professional organizations, and his offices include the position of secretary of the Radio-Television-Film Group of the Southern Speech Association. His articles on the mass media have appeared in publications such as the *NAEB Journal, Journal of Broadcasting, Television Quarterly* and the *Journal of the University Film Producers Association.*

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PRODUCING AND DIRECTING

BY WILLIAM HAWES

ENTERTAINMENT, information, commercials and announcements are the substance of radio programming. To a degree every moment of the broadcast day requires the services of a producer and a director, although in modern radio these titles as such are virtually non-existent. The functions of the producer and director have been absorbed by other members of the radio production team — the program director, the news director, the disc jockeys, and other people who double as producer-director and talent. For these people, producing and directing is just *part* of a day's work. It is, therefore, desirable, if not essential, for a novice to understand the diverse responsibilities of producing and directing so that he will be prepared to share these assignments. The purpose of this chapter is to examine in detail the philosophy, place and application of producing and directing in a modern radio station.

PHILOSOPHY

Producing and directing is a mixture of the ideal and the expedient. A producer and a director must have the ability to lead people and sufficient self-discipline to get the job done on time. Each must be familiar with legal restrictions and the industry's self-imposed rules of good practice. Each must have a temperament that will endure the most exasperating circumstances, and confidence in himself.

Producing. Producing is the task of bringing programs, commercials and announcements into existence. Its goal is to make the creative process possible. To do this, a producer may assemble artists, technicians, financiers and administrators from all over the world. He has a keen memory for talent, and is an originator of ideas. A New York producer once said that producing is a matter of getting people to believe in your ideas. A producer sells ideas: program ideas, ideas for commercials, ideas concerning how to utilize talent. He is a man with wide experience and many contacts in show business and finance. He constantly looks for new ideas, new talent, new sources of money. What does the public want to hear? What does the industry need? A producer attempts to answer these questions. He is a businessman. Although every venture involves a certain amount of risk, he is cautious with the money of his investors. That is the reason he selects highly competent, dependable people — in other words, "professionals." As accurately as possible he determines the cost of the production of a program or commercial, so that lawyers, accountants and sponsors can appreciate the ideas in terms they understand. Every moment on the air, even sustaining spots, is paid for by someone. In that sense each moment is a risk to someone. A producer attempts to minimize that risk. He works with talent agents, advertising agencies, unions and station executives. A producer may hire talent directly, or he may work with the talent's representative or agent. A producer negotiates contracts, which are often long and complex. A contract describes in detail the conditions under which a performer will work, and how much he will be paid. It is an agreement which protects both the producer and the performer. Large markets are highly unionized. Union membership adheres strictly to the contract; infringement may result in cancellation of the contract and/or a legal suit. A producer may be a salaried employee of a radio station or free lance. He may get a commission on each program or be reimbursed at the end of a series. He may have "residual rights," that is, he may receive money each time the program is repeated on the air, or he may sell all of his interests to the station at one time.

Directing. Directing is the process of artistically arranging sounds in a meaningful order. A director is a student of sound. He may be versatile enough to work in radio, recordings, television or film. Technically competent, he is equally at home directing a program from an acoustically treated radio studio, from a large auditorium, from a golf course or from a mobile unit. A director is an artist. He realizes that every sound has aesthetic value. How useful a sound is depends upon how sensitive a director is to it. A director uses speech, music and special effects the way a painter chooses colors from his palette. A director knows that a performer never utters just a word; he utters a sound that ignites a multitude of stimuli in the brain of the listener. Years ago the news commentator Gabriel Heatter sometimes began his program with "There's good news tonight" — a line which, by its very inflection, raised and lowered the blood pressure of a war-conscious

nation. A skillful performer can take a nonsense syllable and by sheer inflection make it vibrate with suggestive overtones, such as in a recent novelty recording consisting mainly of two people laughing. A classic case occurred during the 1930's when Mae West played Eve in a sketch on the Edgar Bergen show. As a result of the broadcast, Miss West was not heard on radio for many years. A good director remembers voices, their nuances and their dialects, so that he can use them whenever necessary. Sounds, like colors, have many shades of meaning and expression. Listening to a symphony orchestra, a director hears the exotic lilt of Rimsky-Korsakoff's *Scheherazade*, the delightful rhythms of Saint Saëns's *Carnival of the Animals,* the piercing notes of Paganini's *Caprices,* the majesty of Schubert's *Ave Maria.* A director keeps a mental notebook of sounds. Someday a few measures from Moussorgsky-Ravel's *Pictures at an Exposition* may provide a theme for a newscast, or a pastoral sequence from Debussy's *Prelude to the Afternoon of a Faun* may cast the proper mood for a moment in a documentary. Just as the length of a single note is important to a conductor, the duration of each sound is significant to a director. He also seeks the sound that is precisely correct.

Directors are continually finding new sounds. These days monaural sound is being replaced with stereophonic sound — sound that is, in a sense, bigger than life itself. One thing which the rock-and-roll era has taught the modern director is that *no sound should be overlooked.* Clever directors have styled relatively unattractive voices into a composite of highly popular sounds. What is a microphone to a director but a means of amplifying an irresistable sound? The incoherent lyrics of Elvis Presley, the "catch" in the throat of Judy Garland, the hand clapping of Harry Belafonte, the labored speech of Sophie Tucker, the whispers of Peggy Lee are superb uses of sound. Show business consists of people who have mastered sound, who have made an artistic use of their vocal gifts. Such an artist may seem larger than life itself because his "sound" is a *composite* of the skills of many people, including those of an imaginative director. A voice may succeed or fail because of the decisions a director makes. Noise is disorganized sound. But what is organized and what is not? Some composers are working with garbage can covers in their compositions. Strange? Yet, washboards have been used for years. Isn't oriental music dissonant to people in the Western Hemisphere? Radio directors have just begun to use sounds from other countries, to replace tired commercials with fresh, new sounds. Wind, heartbeats, engines running and fire were among the old sound effects; rockets, sonar devices, voices from outer space are the current ones. But what are the sounds of starvation? the sounds of learning? the sounds of the joys and sorrows that forge the will of men? A director hears these sounds, remembers them, knows where to get them and when to use them. A director conducts an orchestra that embraces all of the sounds the human ear can detect.

Basic Functions

From time to time nearly every employee shares the producer-director functions, although these duties are included primarily in the programming category. A radio station's staff ranges from less than a dozen to more than 40 people. No radio station is quite like any other; furthermore, they are constantly changing. One representative 250-watt station has about eight people involved in program production: a program director, a continuity writer, and a half-dozen announcers who operate their own audio consoles. One representative 50,000-watt network affiliate has 19: nine people in programming, one newsman, six in traffic-continuity, and three secretaries. The size of the staff depends upon the demands of the market and the solvency of the station.

Initial Conferences. Anyone at a radio station may originate an idea for a program or a commercial, but ultimately it will involve several people. Inasmuch as a lack of audience interest and high production costs have forced radio networks and stations to omit, for all practical purposes, dramas and documentaries from their schedules, radio production is a relatively simple task. It begins with three or four people — the program director, the talent, perhaps a continuity writer, and someone from promotion or sales — sitting in an office or conference room, where they develop a new idea for a program. They discuss the proposal from every point of view: content, talent, schedule, promotion, sales. If they agree that it is a good idea, each of them assumes part of the producing and directing function. They are primarily interested in keeping their ratings up and in selling as many commercials as possible. The program director usually coordinates all activities and sends out memoranda confirming their plans. He frequently assumes the chief producing responsibility or delegates it to a performer, who then develops the program. The entire process is informal.

Rehearsal or Practice Sessions. The directing functions are commonly shared by the talent and engineer, who are often the same person. Each should be a master craftsman and be acquainted with the aesthetic objectives of directing.

Establishing Purpose and Mood. The talent determines what the mood of the program should be according to the consensus established in the initial conference. He may consult further with the continuity writer, although his knowledge of the station's library should enable him to establish the appropriate atmosphere without much difficulty. All music and sound effects are carefully filed. The talent locates his own records, tapes and cartridges. He may have to reserve studio facilities.

Timing. Radio's time limitations require strict control over the length of program material. Optional cutting is one method. There are two kinds of cuts: structural and line omissions. Both are useful. The former refers to

entire segments or scenes; the latter to lines, phrases or words. Every segment of a program is timed with a stop watch before a broadcast or recording. A few extra seconds are allowed for music bridges, elaborate sound sequences, and so on. A set amount of time is specified for ad-libbed sections. Long scripts are immediately cut to the proper length. Paragraphs that can be omitted without destroying the intention or mood of the program are marked. These optional cuts are carefully timed and used as "pads" to lengthen a program on the air, if necessary. Timing and cutting are frequently handled outside of the studio during an early rehearsal or, for example, in the newsroom.

The Control Room. Anyone who wishes to direct should know how to operate tape recorders, turntables, a patchboard, a console, microphones and a cartridge machine. Regardless of whether the program is live or recorded, there is a basic, standard directing procedure followed by the director in the control room. The following is a chronological rundown of a typical sequence of control room procedure for the director.

To talent over the intercom: "Level check, please."

The engineer adjusts his "pots."

To talent over the intercom: "30 seconds to air."

To talent 10 seconds to air: "Stand by — quiet."

To engineer (in the control room): "Hit theme. Music to background."

To announcer (in announcer's booth): "Cue announce."

The announcer reads his copy.

To engineer: "Music up." (It plays for a few more seconds so as to establish the sound.) "Sneak music out."

To talent (gesturing from control room): Stand by and cue.

Talent performs. (During the broadcast the director gives whatever additional hand signals are essential. He may smile or gesture that the program is going well. He watches the time carefully. In long programs talent prefers cues at 15, 10, 5, 4, 3, 2, 1, and one-half minutes.)

The talent finishes.

To engineer: "Theme. Fade to background and cue announce."

The announcer reads his closing copy.

To engineer: "Theme up and fade out."

Everyone remains silent until the director indicates that the program is over. Speaking over the intercom: "That's it. Thanks, everybody. That was fine."

The longer the staff works together, the fewer signals are needed. Electronic devices such as "on-air" lights sometimes cue talent. Once a program is in progress, a director depends upon visual signals to contact the performer. Hand signals for cueing, for regulating the talent's relationship to the microphone, and for timing are commonly used. The signal chart (Fig. 1) indicates the appropriate, standard signals for all situations. Remember that not only the director and other production staff members, but also the

HAND SIGNALS

The following standard hand signals must be known by the performer and staff, obeyed virtually as reflex actions.

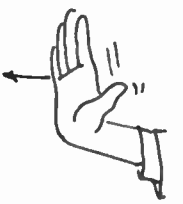
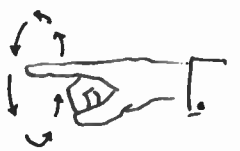
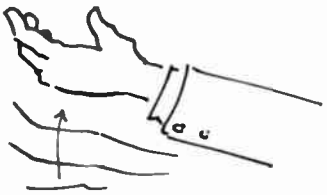
Signal	*Meaning*	
The director points directly at the performer.	Start what you are supposed to do. Cue.	
The director's hand is held up, palm toward the *performer* with a pushing motion.	Move away from the microphone.	
The director's hand is held up, palm toward *him* with a pulling motion.	Move closer to the microphone.	
The director's index finger moves in a rapid clockwise motion in front of him.	Speed up.	
The director's hands pull away from each other in a repeated stretching motion.	Slow down.	

Fig. 1: Signal Chart.

The director moves his hand upward, palm open and up.	Raise volume.	
The director moves his hand downward, palm open and down.	Lower volume.	
The director's thumb and index finger form an "O" with the other fingers stretched up. The colloquial "okay" sign.	In position. Every thing satisfactory.	
The director's index finger touches his nose.	On time or "on the nose."	
The director draws his index finger across his throat in a slashing motion.	Cut or stop.	

Prepared by Earl Wynn

performers (see Chapter 5) must be able to give and respond to these signals without a moment's hesitation.

Live Broadcasts or Taping Sessions. At most radio stations newscasts, disc jockey programs, a few commercials and announcements, and an occasional public service program are live. At some stations newscasts originate from the news room, at others from the control room or studio. Live sports programs are broadcast from remote locations. The microphones in these various locations are activated by merely throwing the proper switch in master control. In actual practice performers time their own programs and use specific verbal cues — "This is (name), (call letters) news, (location)," or "We pause 30 seconds for station identification. This is (call letters), the (sponsor) sports network." — to alert the man at the audio console to insert a commercial or switch to another program. The engineer in the control room has very little to do with program content unless he is also the talent.

Much radio broadcasting is pre-recorded, but at some time or other all programs are live. Interviews, feature programs, political speeches are often recorded live in the studio and broadcast later. A director may be appointed to assist in the production of these programs. For example, the program director might serve as director-moderator for a panel discussion. Time limitations on busy participants, economic factors, long-playing tapes, programs distributed by tape production companies, and pre-recorded commercials and announcements indicate a trend toward automation. A program may be — and frequently is — taped in segments and then spliced together. Every director should know how to edit tape. (See Chapter 2.) After the tape is ready, it is played for the program director and a salesman. If it gets their approval, it is heard by the sponsor. If approved, the program is broadcast.

Evaluation Conference. After several people, especially top management, have heard the program, mail has come in and ratings have been tabulated, it is evaluated. Improvements may be made or the program may be dropped.

Entertainment Programs

Traditionally, a producer and director were associated particularly with the entertainment aspects of radio programming: network dramas, musical programs, variety-comedy programs, quizzes, and similar formats. Even though radio drama has declined in the United States, it finds occasional revival at independent radio companies. Shakespearean plays, children's programs, serials and mysteries are frequently redesigned in highly abbreviated, segmented forms to attract radio listeners of the present generation. One firm, for example, divided three-hour Shakespearean plays into six half-hour segments. In 1965 the ABC Radio Network initiated *Theatre 5*, a half-hour dramatic series for radio. "Unless radio tries original programming meth-

ods," said Robert R. Pauley, president of the ABC Radio Network, "we can never become anything more than a news and music medium."[1] Radio dramas are being produced by educational groups and by foreign radio networks, such as the British Broadcasting Corporation and the Canadian Broadcasting Corporation. In Germany, where radio drama thrives, the Hans Bredow Institute for Radio and Television of the University of Hamburg seriously studies it as a literary art.[2]

The radio producer-director of entertainment programs in the United States in the late 1960's is less concerned with drama, however, as a practical production assignment, than with musical programs, contests, some forms of variety programs, and public service entertainment. Yet, the newcomer to the field, the student, has a need to study the producing and directing of drama programs. The drama often encompasses most, if not all, of the elements found in other forms of radio production, and knowledge of and familiarity in producing and directing the drama provide a firm base for creative and effective work in all other forms of radio production. The following material on the drama, therefore, is not meant to suggest an area for immediate application in the field, but a base for applicability and adaptation to other forms.

Dramas

The schedule for a producer and a director of a radio drama includes preliminary program planning, an off-mike rehearsal, an on-mike rehearsal, a dress rehearsal, and the on-air performance.

Preliminary Program Planning. The producer plans the program or series. He selects the director and the writer. He may contract some of the leading players, and he may take care of the legal and promotional aspects of the program. He often tries to interest an advertising agency or network or station in his idea while the program or series is still in the planning stage. He usually estimates budget requirements.

The director, meanwhile, studies the script in detail. He depends upon his own imagination and understanding of it to create the sound image necessary for complete visualization by the radio audience. The director consults with the writer, if possible. Some passages may need clarification and changes. For timing purposes, the director and writer decide where the script can be cut judiciously, if that should be necessary in production. Opinions may differ between the writer and the director. These differences should be resolved before rehearsal. Although a radio production is a composite effort, the writer's vision tends to prevail during this period. The director holds conferences with the composer and the sound technicians. If special sound effects are required or a new musical score must be composed or arranged, this will take time. The director must allow for its completion.

The director may select the entire cast. He may wish to be in on the

[1] For Notes, see end of this chapter, page 114.

choice of each voice, or he may let a competent casting director do the screening for him. It is common in radio dramas for a single actor to play two or three minor roles in a production. The judgment necessary for picking out such a versatile actor is another reason for the director's attendance at tryouts. Often a director is already acquainted with people who have ability and with whom he can work effectively. He tends to hire them if he can. A stimulating working atmosphere must exist between the director and his cast, if excellent results are to be obtained. The director may have to reserve space and studio facilities for specific time periods. Production space is limited and talent time is expensive. The director has to work out a well-planned rehearsal schedule. He may also have to allow for special technical rehearsals.

Off-mike Rehearsal. The director calls the actors and technicians together for a reading of the script. He assigns parts and he discusses the approach he will use by generally describing the characters and the sound effects as he hears them. The cast reads the entire script aloud. This reading rehearsal establishes overall continuity and a sense of the total dramatic effect of the script. The director times the reading. Each elapsed minute is noted in the script so that it can be used as a check point during the on-air production. This read-through enables the director and the cast to become acquainted. It also establishes the director as the organizational and artistic leader upon whom everyone depends for judgment and, practically speaking, for cues.

A competent actor will contribute immeasurably to the role he is portraying; however, if his interpretation is not consistent with the director's concept, the director probably will correct it during an off-mike rehearsal. It is equally important that he encourage the good aspects of the reading by giving some praiseworthy attention to each actor. Establishing a working rapport with an actor is one of the director's most delicate and difficult tasks.

On-mike Rehearsal. The director calls a production rehearsal in the studio, where he rehearses the drama, scene by scene, from the beginning. He attempts to integrate all elements — actors, music and sound. No attempt is made to time these segments.

This is the creative period for everyone. The director concentrates on the content of the script. He interprets it in terms of the sound medium. The actors' voices, the music and the sound effects require detailed attention. The director will stop and start the production many times. The director's skill is needed in proportioning the right amount of time to each production obstacle. Rehearsal time is very limited, and he will have about twice as many things as he will be able to do. The director must be highly selective. One thing the director works on is pacing. A script usually consists of a series of minor crises leading to the climax or turning point in the life of the protagonist. Often these moments of crisis alternate with moments that are relatively placid. The director tries to manipulate the internal rate at which

the scenes progress. He concerns himself more intimately with each characterization. He describes the total character first and then discusses the performance of each actor. The sound man, too, is considered an artist. The degree that the director can get the cast and crew to do what he wants is the essence of his contribution to the program. The psychology of human motivation, artistic sensitivity and technical skill are prerequisites to successful radio directing.

The director must also work with his engineer. The engineer will control, mechanically at least, the volume, the placement of microphones and special electronic sound effects; he may pick out some recorded music. The engineer's job can be complex. The on-mike rehearsal will indicate whether the engineer can manage all of the sound sources as rapidly as the script demands. A sensitive engineer can assist in making artistic decisions. Each microphone, for example, brings out certain qualities in an actor's voice. An engineer can alter these qualities. To some extent, he can regulate the relative loudness of voices and of other sounds by "riding gain." He can assist in determining actor "presence" by suggesting the relative position of the actor to the microphone. Standard "on-mike" distance for most scenes is about one foot.

Dress Rehearsal. The dress rehearsal is a facsimile of the on-air performance. The director, therefore, runs through the complete performance even though there may be obvious errors. The script, moreover, is accurately timed by the director or by his assistant. The director takes notes on every aspect of the entire production. He gives every cue to the cast, technicians and engineer just as they can expect to get them during the final on-air performance. During this period the director also must listen to the program as a whole, as the listener will hear it.

After the dress rehearsal, the director goes over his notes with the respective members of his cast and crew, and he rehearses any weak spot in the production. If a new cue is to be used, the director makes certain everyone knows what it is. Generally speaking, it is too late for him to change characterizations during the dress rehearsal, for such changes might endanger the final performance.

The producer, some members of the advertising agency and the sponsor may sit in on the dress rehearsal. They may even have a conference with the director prior to the on-air broadcast, especially if the sponsor disapproves of something in the program, The producer tries to keep both the sponsor and the director happy. His ability as a diplomat in moments of conflicting opinion is an important attribute.

On the Air. The strain and excitement of a production reaches its height just prior to air time; nevertheless, the director attempts to radiate confidence and composure. He gives those cues which were clearly established in rehearsal. He follows the script carefully, looking ahead to warn the engineer (and anyone else) about a difficult passage that is coming up.

Many directors give as meaningful a performance in the control room as the actors do before the microphone. This responsiveness on the part of the director to the performance of the actors is infectious. Some radio actors, especially comedians, prefer live audiences so that they can have the stimulation of a "live" reaction from them. The feeling that someone is paying attention creates a response within the performer which is invigorating. The director controls the mechanics of the program, too. He constantly checks the time to make sure it compares favorably with that recorded during the off-mike rehearsal. He lets the cast know whether the tentative cut will be deleted or not; he continues to indicate to his cast that the program is going well, even if mistakes are made. The director should not show displeasure during the program because this might create a bad psychological effect on the entire cast and crew, resulting in more errors. Besides, mistakes seem smaller in retrospect. The director blends the sound elements by listening and responding with the subjectivity of an artist and the objectivity of a member of the audience.

The producer, the sponsor, advertising agency representatives, network or station personnel and a few guests may attend the program. The producer attempts to point out some of the positive features and benefits of the program to the group. In short, he serves as a skillful public relations man. He listens carefully, however, to the opinions of the others. When the program is over, he dutifully thanks everyone. Later, he discusses the program with the director privately. The producer often has a more detached point of view which may be helpful to the director.

The history of radio has indicated that some dramas are particularly well suited to the sound medium. These programs stimulate the imagination — "the theatre of the mind," as Erik Barnouw called it — by suggesting scenes of horror, mystery, fantasy, and romance.[3] *Lights Out, I Love a Mystery, Let's Pretend,* and the "soap operas" were some of them.

With the advent of audio tape, the production techniques changed. Nowadays, dramatic productions are recorded on bits and pieces of audio tape, and they are so skillfully spliced together that every element blends with every other imperceptibly. For a WUNC (Chapel Hill, North Carolina) radio production of Charles Dickens' "A Christmas Carol," the director taped many elements out of sequence: first, the narrator; second, scenes with Scrooge and the cast; third, scenes with Scrooge only; fourth, crowd scenes. Some sounds (the phantom's chains, for example) and background music were added last. The director, producer and engineer heard all of the segments and arranged them in order. Then they began the long process of editing them and splicing them together. After 15 hours of recording the scenes and about 46 man hours of editing and splicing, "A Christmas Carol" was finally assembled for broadcast. The final, two-hour production consisted of over 250 splices. A vast difference from the days of the *Lux Radio Theatre*, which was presented live in one continuous performance.

Musical Programs

Music is the staple of entertainment programs in modern radio. For example, in Los Angeles in the mid-1960's, four-fifths of the average program schedule for thirteen radio stations was devoted to music; the highest proportion was 94 per cent, for a classical music station, and the lowest proportion was 50 per cent.[4]

The Program Director as Producer. The principal producer of musical programs is the program director. Usually the program director is in charge of all programming — its scheduling and its composition. On the one hand the program director is challenged to create new ideas or to improve established techniques. On the other there is the operational problem of translating ideas into action. The program director is hired to maintain or establish the entertainment image of the station. His selection of talent and his authority over programs give him the key responsibility for program innovation. Some stations attempt to ease these responsibilities on one man. As a result WFBM, Indianapolis, established the position of program operations manager for AM and FM radio: "While the program managers are still responsible for the operational area, they are freed from the day-by-day details of program operations, and can thus devote more time to creative activities."[5] Perhaps the main duty of a program director is to devise an attractive sound image for the station. A station image is a blend of all the programming elements — music, news, production techniques, promotional spots, announcements, jingles, talent, and its services to the community. It is the total concept a listener has of the station.

Stations are classified in various ways: Sherman Lawton, in his book *Introduction to Modern Broadcasting,* lists them as foreground, middle of the road, traditional, special interest and educational.[6] At many foreground or top-tune stations the program director controls what is played on the air by purchasing records for the station's library and by restricting the list of records that can be broadcast. He does this in consultation with talent and the music librarian. Records are chosen generally by personal taste and by published surveys. *Billboard, Variety,* local sales in records and juke boxes are among the many sources. In Los Angeles, radio station record libraries range from 3,000 to 900,000 selections. Playable records at a top tune station may be as few as 100 or 200, however. Many program directors go a step further than the list by using a formula or order in which the records are to be played. "An ideal quarter-hour of popular songs would include two current hits and two standards, done as a group vocal, a male vocal, a female vocal, and an instrumental," according to J. Leonard Reinsch and E. I. Ellis, of WSB, Atlanta.[7] Frequently, a disc jockey works within the list, but he chooses his own order for playing the music. At various middle-of-the-road or easy-listening stations, the program director merely reviews what the disc jockey decides to put on the air. The station may have

thousands of records to choose from, and so there is no list or formula so long as the disc jockey keeps within the basic philosophy of the station. One program director has put it this way: "We play those tunes the listener can sing, whistle or hum with very little difficulty."

In addition to top tune, easy listening, and traditional or classical music stations, some stations broadcast to social or ethnic groups. One station specializing in the Negro market bases its philosophy on a survey indicating that Negroes prefer rhythm and blues, news, spirituals, daytime serials and variety, in that order. Consequently, two and a half hours daily are devoted to spirituals. Negro personalities produce and announce the programs. In 1967, 33 stations were entirely and 348 partly foreign language speaking. Two of Hawaii's radio stations — KOHO and KZOO — programmed 100 per cent in the Japanese language. Their programs compared favorably with those of the mainland prior to television, when most stations offered a varied fare.[8] A further kind of radio operation is the automatic station. It is commonly an FM adjunct to an AM-FM combination. Its stereophonic and popular music is recorded on three-hour tapes, and its news is simulcast from its AM counterpart. In effect, the AM staff produces the FM programming, too, duplicating within the limits set by the Federal Communications Commission.

The program director, consequently, produces a sound image that is consistent with the philosophy of the station: foreground, middle of the road, traditional, special, or educational. He may even program two stations, where one is dependent upon the other. Commercial radio station philosophy is based on providing attractive entertainment programs that will sell products to a particular audience. The program director never forgets this concept.

The Talent as Producer. The program director may delegate the responsibility for the development of individual programs to the talent, such as a disc jockey or master of ceremonies. The program director thus would place himself in a supervisory capacity, leaving the internal production of the program — its continuity and its music selection (within limits) — to the talent.

Typically, these stations encourage "personalities." The program director has the job of deciding what personalities best convey the image of the station throughout the broadcast day. He may divide disc jockey shifts into the morning, early evening, and late night tours, using an entirely different personality for each. A Fort Worth top-tune station rotates six disc jockeys throughout the day. Each man has a unique style. The early morning man is a mature, veteran announcer playing top tunes and talking to housewives in an easy manner. As the day progresses other men pick up the pace slightly. During the evening hours, a young fellow playing the same records shouts and jokes in breathless delivery to attract the teenagers; and late at night another young man changes the pace and speaks in a mellow voice. Each man tries to project his own personality — mature, moderate,

boisterous, smooth. Personalities lend variety to top tune stations, where the record selection and order are relatively constant, by ad libbing continuity in a jargon peculiar to the disc jockey. The basic procedure:

1). The disc jockey arrives at the station in time to study the program log. It will list all of the commercials, PSA's and ID's that he must play on his program. There may be 20 or 30 separate items in addition to his music. He checks to be certain that they are in the control room, probably in the tape cartridge rack or "tape deck" or record rack. He also pulls his records from the station's library, if necessary.

2). The disc jockey is an expert in the operation of the audio console, having practiced long hours before going on the air. He is thoroughly familiar with the layout of the control room. The disc recordings, audio tapes and cartridges are within about an arm's length from where he sits at the console, and so are the machines to play them.

3). Before him on the console desk is the program log which he follows. Nearby is the continuity book containing all announcements that he will read live. If he has any extra copy such as gags from magazines or newspapers, it will be near also.

4). The disc jockey might begin his show with theme, program ID, transition to first record, first record, comment and lead to first commercial, first commercial, comment, second commercial, and lead to second record. Disc jockey comments are commonly under 10 seconds, pacing is lively with tight cueing at top tune stations; an easier style is used with other formats. If the disc jockey works his own board, he frequently has a third-class radiotelephone operator's license issued by the Federal Communications Commission. It should have a broadcast endorsement.

At many middle-of-the-road stations the program director prefers anonymous announcers. He depends upon the total programming of the station and its reputation to attract an audience, not personalities. Some stations are a combination of both philosophies. Network affiliates often use personalities from the network feed such as Garry Moore, Arthur Godfrey or Art Linkletter to attract listeners; but anonymous local announcers and disc jockeys fill out the rest of the day.

The Radio Team as Producer. At large stations in highly unionized markets talent and engineering duties are well defined and tend not to overlap as much as they do in small markets. That is to say, one man does not perform as many different services. The program director determines the composition of the program; the program operations manager schedules it; a continuity writer provides copy; the talent reads it; and an engineer controls the audio console. The modern radio production team at work consists of several professional people producing and directing a single moment on the air. The basic procedure:

1). After the initial conference described earlier, the talent, a continuity writer and the program director meet a second time to talk about

the program's content and other details. Most radio stations specialize in some kind of music, so the tunes they play are restricted to the format. An easy-listening station, for instance, might develop a program of Latin American music. The talent is asked to brush up on his Spanish and Portuguese pronunciation. The continuity writer will get short feature items about Latin America. The program director suggests a program title, theme music, and what the announcer's opening and closing remarks should include. They list the order for playing records (instrumental, vocal, novelty) and approximately where the spot announcements will go. This outline is called a "run down." The session is informal, and these plans are tentative.

2). The writer polishes all of the continuity before it goes on the air, and the talent reads it over many times. Numerous commercials are developed in cooperation with the sales department.

3). On the day of the broadcast, the talent arrives early enough to have an informal rehearsal with the director — who may be the engineer. The program director and writer listen to the first few programs and continue to make improvements, which gradually become the responsibility of the talent and the engineer, although the writer continues to update commercials.

Contests

Occasionally, radio programs which are involved with talent, guests, audiences, prizes, judges, accounting problems and contracts have a producer and/or director who function in the traditional sense. They meet with the talent and guests, plan the format of the program, rehearse it if necessary, work with sponsors and perform other traditional duties. These programs often duplicate a program already on network television. They no longer originate very frequently on the local level. Producing and directing the contest requires several special considerations:

1). The producer-director (or program director) must be thoroughly familiar with the complex laws concerning contests. No advertisement of or information concerning any lottery, gift enterprise, or similar scheme, offering prizes dependent in whole or in part upon lot or chance, are permitted on radio.

2). The producer-director may be required to obtain legal opinion before entering into any contracts, if there is the slightest doubt concerning the details of the contest. The Storer Broadcasting Company, for example, requires this of its managing directors.

3). After the program is approved, the producer-director gives full information to all contestants so that they can compete fairly. Contestants may also be rehearsed in the mechanics of the game, but they must not be provided with information which gives one contestant an advantage over another.

4). The producer-director reads the continuity to be sure that the

rules for judging entries are explicit. He determines the dates of the contest, and where, when and how entries must be submitted. He decides the number and nature of the prizes and the order in which they are to be awarded. Finally, he must be responsible for the prompt awarding of prizes, and he must be certain that the contest is conducted in accordance with the rules.

Contests are among the most difficult programs to produce because they arouse keen public interest and, as a result, bring the station's policy of fairness and responsibility under intense scrutiny.

Simple quiz formats and contests have been tried by local stations. They are a mainstay of top-tune stations. These programs consist of playing records and placing telephone calls to homes in the listening area, sometimes selected at random from the telephone directory, sometimes drawn from postcards sent to the radio station by listeners. After the talent draws the name, he calls the listener. If the listener is at home, he is asked a question. If he answers correctly, he, of course, wins the prize; if he does not, the prize often gets bigger. Such programs are attractive to listeners and furnish the station with some feedback concerning the audience. Record hops, treasure hunts, mystery voices, talent searches, word and number games are the bases for other contests. The list is unlimited. The basic procedure:

1). After a standard opening, the talent may play a record or two, and give a clue or answer to the day's question.

2). He draws a name at random and makes his call, relating every step to the listener: "While I play the next tune, I'll make the first call on today's *Telequiz.*"

3). He gets his party: "This is WXXZ Telequiz calling. To whom am I speaking? Hello, Mrs. (name). Have you listened to our program, and do you know the magic word?" The talent is friendly, but he usually specifies the allotted time in which the listener must answer the question. Frequently the talent repeats the question once.

4). The talent may have a winner, or he might have to call someone else. After the program the names of all prize winners are usually submitted to the Promotion Department. Prizes are often mailed to winners. Occasionally, the talent awards them in person because the ceremony publicizes the station.

Variety Programs

In recent years "magazine" formats have become popular in radio programming, especially on mornings and weekends. In the mid-1960's segments of music, comedy and conversation were heard regularly on NBC's *Monitor* and on the CBS equivalent, *Dimension.* These programs are a mixture of entertainment and information. A producer has the overall responsibility of integrating pre-taped program material, pre-taped commer-

cials, and live newscasts. Each segment is scheduled to the second so that local stations can insert local spot announcements, if they wish. Even the 20-year-old *House Party* began to reflect this trend in the early 1960's. It changed from strictly light fare concerning children, adults, games and prizes to some serious moments concerning special problems and other issues. It developed a "magazine-like" concept, according to its master of ceremonies, Art Linkletter. The antics and music of *Grand Ole Op'ry* are among the few survivals of radio's yesteryear.

On the local level, the producer of a variety show is often the talent. Listeners may provide some of the continuity either by letters or by calling the station while the program is on the air. Sometimes two people are talent and producers for this kind of a program. The job of collecting material is substantial. When they are before the microphone, one man can be assembling material or answering the telephone while the other man is speaking on the air. One Hollywood commentator obtains part of the copy for his casual variety-talk format from an information service. In all practical respects, the service dictates its "inside" reports over the telephone to the talent's secretary, who types them up. Subsequently, the talent reads these reports over the air. The secretary may also schedule interviews with celebrities, may research the guest's background and, in fact, may literally produce the program for the talent. Well known commentators are flooded with promotional materials from all areas of show business. Most celebrities are just as eager to be interviewed by disc jockeys or commentators as the local performers are glad to have them on the program.

The directing function for such a program, after an informal preliminary rehearsal, is principally a matter of cueing talent, riding gain, and playing music or sound effects as needed. The engineer does this at large "local" stations, such as WTOP, the CBS affiliate in Washington, D.C.

Public Service Entertainment

Special entertainment programs are broadcast by schools and civic groups for educational or fund raising purposes, historical ceremonies and holiday celebrations. The programs are produced and directed without charge by the group concerned. The station furnishes air time and technical skill through its program director. A typical example is a campus talent program that is sent to local stations on a regular basis. The program may be prerecorded at the institution or at the station. Virtually every local radio station is willing to accept such programs on a limited basis. Numerous universities have standing agreements with commercial stations for broadcasting student programs. Programs from educational institutions and civic groups vary in quality and frequency; nevertheless, these programs are a valuable supplement for educating students in broadcasting. They are also important to stations that could not afford to produce these programs and yet need them to round out their local program responsibilities. The basic procedure:

1). The producer-director (who is often an educator or civic leader) goes to the program director of the local commercial station. He explains his idea for a program or series. The program director usually asks what the station has to furnish in regard to personnel, facilities and air time. He may offer suggestions concerning the content of the program. If the idea is a good one, and air time is the only request made of the station, chances are that the program will be accepted. Radio stations usually are cooperative and generous.

2). The producer-director plans the entire program in detail. He enlists the assistance of the talent he will need. A telephone call may be sufficient. In some cases, governing boards must be consulted before students, teachers or public servants may participate as representatives of the institution where they are employed. Rehearsal times are agreed upon and coordinated with everyone.

3). The producer-director forms his radio team. An assistant and an engineer may be all the people he needs. The fewer the better. He should obtain the most competent people he can find. Many high schools have students who are capable engineers.

4). If possible, the producer-director should follow a procedure similar to that of the radio drama: off-mike rehearsals, on-mike rehearsals, and performance. Inasmuch as he would be working with inexperienced people, his instructions would have to be explicit, consistent, and perhaps repeated often. Practically speaking, people tend to be too busy to devote much time to complex programs. The producer-director therefore keeps the requirements on the talent to a minimum. He sets deadlines and he takes nothing for granted. He rehearses the program as much as time will allow. Most of his talent are devoting their spare time to the project; therefore, he should appreciate whatever they contribute.

5). The program may be recorded at the radio station or on other high quality equipment. The producer-director should have access to the equipment for several hours at a time because the editing and splicing process is a tedious one. After all of the segments are recorded, they are assembled in accordance with the script. Swift pacing, fast action and many voices maintain audience interest. The producer-director previews the tape in sufficient time to allow for changes. Some industrious producer-directors do all of the technical work themselves.

6). The producer-director delivers the tape to the station by placing it in precisely the right spot at the agreed-upon time. Program directors rarely play these tapes on the air themselves; the disc jockeys or engineers do. In order to avoid confusion, pickup and delivery times should be carefully coordinated with the program director.

7). If it is a series, the producer-director should meet with the program director occasionally for a critical evaluation. Both parties should consider the series as a serious contribution to the community. The station may wish to assist in promoting it.

Informational Programs

Informational programming is perhaps the fastest growing area in radio. Immediate or "hard" news and news-in-depth are its two principal categories. Both utilize several techniques — reporting, talking, interviewing and discussing — to reveal current happenings. Both are commonly divided into areas. Immediate news includes international, national, regional, local weather and sports events. Feature news runs the gamut from a one-minute editorial to an hour-long documentary. Broadcast journalism has gradually tended to reduce broadcast entertainment. When WNUS, Chicago, became the first all-talk AM-FM radio combination in the country, Gordon McLendon, president of the McLendon Broadcasting Corporation, announced: "No city in the world except Chicago can immediately tune news — on either band — at any hour of the day or night."[9] WINS, New York, a Westinghouse station, also adopted an all-news format shortly thereafter. A portion of its program log illustrates its dependence on continuous news and spot commercials (See Fig. 2.)

Informational programs have developed steadily from broadcasts of news, weather and market reports by pioneer stations KDKA, Pittsburgh, WHA, Madison, and WWJ, Detroit, to the intensive coverage of events in space by the networks. NBC Radio, for instance, began its coverage of the Gemini space mission claiming "the largest, most elaborately equipped mobile unit ever designed and built especially for radio reporting of space projects." The network initiated its broadcast an hour before scheduled launch time, continued its coverage through the first orbit, then issued ten-minute progress reports every half-hour. It broadcast the third orbit and recovery of the space vehicle completely. Extensive coverage along with documentaries before and after the flight were also on ABC and CBS radio.

News

News or "hard" news, as it is referred to in radio, is the day to day, minute to minute compilation and dissemination of current events. Providing the public with fair and comprehensive news coverage is a difficult job. Due to increased demands on newsmen, there is a trend toward hiring those with college degrees in journalism, broadcasting, government, history and political science. Despite increasing salaries, expanding radio news departments have difficulty obtaining good newsmen. This is particularly true at smaller stations.

The Local Newsman as Producer. The backbone of a news operation is the man or woman on the scene, whether it is in a small town in the South or in the jungles of Asia. A News Department at a local station may

Fig. 2: WINS All-news Format Program Log.

WESTINGHOUSE BROADCASTING CO., INC. (DEL)

RADIO STATION WINS
1010 KC • NYC, N.Y.

PROGRAM SCHEDULE & LOG

MO.	DAY	YR	PG
12	16	66	2

L/P	TIME SCHED HR.	TIME SCHED MIN	LENGTH SEC.	TITLE OR SPONSOR	SOURCE/ CART. NO.	TAB	CLASS	TYPE	EMPL. EDUC.	P.A. ✓	ACTUAL TIME	REMARKS
A	10	01		NEWS TO 1031			L	3				
A	10	05										
A	10	06										
A	10	07	60	SPENCER GIERIE INC								
A	10	12										
			20	PUBLIC SERVICE	43		SS					
A	10	13										
A	10	14		SHOPPING REPORT	TAP		L	3				
A	10	15	30	THE HARMONY SPOT								
A	10	19		BUSINESS NEWS TO 1020			L	3				
A	10	20	30	SPOTLIGHT WINES								
A	10	21										
A	10	22	30	F W INC								
A	10	28	30	ACME MARKETS INC								
A	10	28		STATION ID			L	S	7	00	*	
A	10	29										
A	10	30		WEATHER			L	3				
A	10	30	60	I LIKE IT SOUPS								
A	10	31		NEWS TO 1101			L	3				
			30	COMM EVENTS BG 70	LIV		SS					
A	10	37										
A	10	38	60	ROP THEATRES								
A	10	39										
A	10	44	30	WTXX TV								
A	10	45										
A	10	46		SHOPPING REPORT	TAP		L	3				
A	10	47	60	ESTABLISHED FOODS								

have one or two people. KGVL, Greenville, Texas, for example, has two newsmen, with the diverse producing and directing responsibilities of one of these men a graphic illustration of the situation in many small stations: he is a newsman, chief announcer, audio engineer, and program director (although most decisions are made by the station manager). He reads the news, checks the weather instruments, makes tape recordings of incoming news from the mobile units, or covers wrecks, fires and special events himself; he plays records, reads commercials and announcements, produces promotional spots, jingles and special effects; he purchases stock, helps in the office with the log, is in charge of the music library, carries out a multitude of engineering duties, and opens the station in the morning if the announcer fails to show up.[10]

At larger stations several newsmen may be "on assignment" anywhere in the world. These stations may have free-lance or part-time newsmen, called "stringers," who report significant news items whenever they occur in their vicinity. Each of these newsmen is, in fact, the producer of a news segment that may be used on a radio program.

The News Director as Producer. The principal producer of news programs is the news director and/or news editor. He works in cooperation with the program director on all matters, especially those involving program policy. He knows the station philosophy and so emphasizes the news accordingly. He has the responsibility for molding his staff into a news team. Multi-station news operations like those of the McLendon chain require an executive producer for news. He oversees and coordinates the activities of all the stations. Whether the responsibilities are placed with an executive producer for news, a news director or a local newsman, the newscast is produced essentially in four steps; planning the news, gathering news, assembling news, and presenting news.

Planning the Newscast. The news director must make several preliminary decisions in news programming. Length, frequency, emphasis and staff assignments are among them. Radio newscasts last from five to 30 minutes. Some stations give "headlines" and "the top story of the hour," both brief reports. Major newscasts are commonly presented at times which coincide with meals, driving to and from work, or going to bed. Minor news summaries are customarily presented on the hour or half-hour, although there are variations. Stations broadcasting "the news when it happens" and networks like CBS Radio's "Netalert" interrupt programs any time an important story breaks. The news director and program director determine the length and frequency of newscasts.

Most news directors emphasize the news of the locality. A low-power station has local coverage and local emphasis, whereas a powerful station may cover several counties and have regional coverage and regional emphasis. An extremely powerful station may be heard over many states. Emphasis in the news depends upon the nature of the station. Most news-

casts carry international, national and local news along with weather and sports. Often they are in just that order. It makes little sense for a network affiliate to concentrate its staff on national news, if the network is already providing it. For major events, however, a station that can afford it will send a reporter to the scene for a story with a local viewpoint. The Republican and Democratic conventions draw numerous local station newsmen as well as those from the networks.

At the network level, *World News Roundup,* broadcast by CBS from New York every morning for over a quarter of a century, illustrates the duties of the producer-director. The producer of *World News Roundup* begins planning the program at CBS News Headquarters on the afternoon before the broadcast. During this period he determines which stories will have direct reports from all over the world. He sends wire and transoceanic orders to appropriate correspondents for reports. A correspondent, moreover, may place an order for himself by notifying CBS News Headquarters. The chief newscaster or "anchorman" shares the producer-director responsibility. He checks the lineup of stories hours in advance of the newscast. The anchorman and the producer are, of course, constantly on the alert for late-breaking stories that may replace or affect the apparent lineup. Overseas and national spots are carried live, if possible; if atmospheric conditions do not permit it, the producer has the stories pretaped. Prior to air time, the anchorman at his microphone gives his lineup a final check. A news editor, sharing the director function, meanwhile, sits alongside the engineer in the control room. The editor speaks to the overseas correspondents and coordinates their reports with the newscast. He accurately checks the lead-in and -out cues, story content and length of the reports. The anchorman must be prepared to give ad-libbed introductions to live spots on a moment's notice; changing circumstances may require updating some reports. He must have planned in advance to have sufficient information on all news items. The CBS news team with its news editor and engineer share modern producer-director functions by carefully organizing each newscast in advance.

Gathering News. The newsman, particularly in the smaller station, will obtain his copy from a wire service. In fact, he may literally rip the copy from the machine and read it over the air — hence, the expression "rip and read." Lately this kind of news operation is looked down upon because the newscaster neglects to shape his material to his own audience. The newsman will make a few routine calls around town for additional items of local interest. At a large station the news gathering sources multiply and so does the staff. The news director assigns certain areas of city government to newsmen on his staff. They telephone their stories to the station, or report them from any one of several mobile units. These reports are recorded at the station on audio tape and at an appropriate time the news director or anchorman on duty inserts them into the newscast.

The most dramatic news gathering event in recent times occurred in Dallas, Texas, when President John F. Kennedy was assassinated. An account of how Dallas radio station, KLIF, and Fort Worth radio station KXOL, gathered the news on November 22, 1963 is illustrative of the efficient use of local radio news facilities and of the complex assignment many news directors have.[11] The Dallas radio and television stations had agreed that two reporters, one representing radio and the other television, would cover the President's arrival at Love Field. Joe Long, news director of KLIF, and Bob Walker, of WFAA-TV, represented each medium, respectively. The two newsmen stood on the roof of WFAA's mobile television unit, where they made a 45-minute broadcast of the landing. The President's motorcade was to travel more or less in a loop from Love Field to downtown Dallas and back again. KLIF newsmen Roy Nichols and Glen Duncan were positioned in two mobile units along the parade route, while Gordon McLendon (president of the McLendon stations) awaited Kennedy's appearance at the Dallas Trade Mart, where he was to make a luncheon address. The motorcade consisted of the President's car, followed by Secret Service men, and the Vice President's car. A fourth vehicle was the bus containing the White House correspondents. One was Bruce Neal, assistant news director of KXOL. As the President's car passed the Texas School Book Depository, Neal, who was near the front of the bus, recalled hearing "what sounded like firecrackers. . . . We didn't know what had happened. The bus speeded up and we went immediately to the Trade Mart, thinking the shots had missed."

In another part of Dallas, Joe Long was returning to KLIF when he heard a "Signal 19" police call, indicating a shooting. It was followed by the words, "The motorcade is involved." Long states: "Apparently the button stuck on a policeman's radio — probably someone on motorcycle — because I could hear sirens screaming. A voice said, 'We're Code 6 (have arrived) Parkland. There is a shooting. Two persons have been rushed to Parkland. No identification.'"

Both the Dallas and Fort Worth stations geared for action. They abandoned musical programming and commercials and switched to continuous news. Their approaches to covering the series of events were quite different, however. The news director at the Fort Worth station concentrated his staff at Parkland Memorial Hospital; the news director of the Dallas station placed his newsmen at key positions throughout the city. KXOL depended heavily on the Associated Press to amplify its stories; KLIF used United Press primarily for non-local events. Both stations set up a small staff and special facilities for feeding other stations.[12] A make-shift press room was prepared at the hospital. Within an hour four newsmen, two mobile units, a portable tape recorder, a walkie-talkie and a teletypewriter enabled the KXOL newsmen to switch from telephone communication (which was overloaded) to continuous two-way radio communication with their station

in Fort Worth. Neal directed the operation, assigning Russ Bloxom in one mobile unit to the front of Parkland, Jerry Hahn to the emergency entrance, Bill Hightower to the medical briefing room, and Bill Hicks to a second mobile unit that served as liaison and back up. At KLIF, Joe Long took over as anchorman and directed the operation. He called in extra reporters and dispatched them to key places in Dallas. Nichols and Duncan, who were in mobile units along the parade route, went to Parkland and police headquarters, respectively. At the book depository Gary DeLaune got an eyewitness account of the shooting; Nichols reported from Parkland that President Kennedy and Texas Governor John Connally were both struck; McLendon described the confusion at the Dallas Trade Mart; and Duncan made reports from police headquarters. "By one o'clock we had two reports from each man in addition to interviews from Jim Wright, Ralph Yarborough, and others."[13] In approximately one hour the KLIF news director had activated a ten-man news staff to cover the city. In the control room at each station the news director immediately defined the situation, decided how to cover it for his station, assigned his personnel, mobilized his facilities, and actually participated in the newscast as anchorman.

Because of the growing complexity and expense of covering important news events, networks, individual stations, and wire services have consolidated their efforts. Memo #2 (See Appendix, page 116) from Russ Tornabene, "pool" producer for Pope Paul VI's visit to New York City in 1965, illustrates the enormous amount of advance planning that such an event requires. Temporary phone lines between pool control and each location, and radio relay between control and the helicopter gave the pool producer command over the entire operation. Explicit "end" cues are especially noteworthy for they signal the next program segment. Notice that pool reporters were in eight locations only; therefore, networks and individual stations were assigned space at other key locations where they provided their own reporters.

Assembling News. The gathering process will bring in much more news than the news director will need for any broadcast, even on a "slow" news day. He must evaluate what is news from what is not, and then determine just which facts are essential for a clear understanding of what is happening. After every story is condensed to the irreducible minimum length, the news director arranges the stories in a meaningful order, and times them. He also determines where — in the studio or on location — each newsman will read his story and where tapes, telephone reports and commercials will be inserted in the program. A complete run down is then typed up, duplicated, and distributed to all concerned. This sample format for *Communique 30 — The News at Ten,* produced for WUNC, Chapel Hill, shows how the news director has organized the program:[14]

Report	*Time*	*Newsman*	*Location*
Opening Headlines (AP)	00:30	Buddine	Announce Booth
Introduction (Cartridge)	00:30	Engineer	Master Control
National/International (AP)	04:00	Buddine	Announce Booth
Promo "The Musician" (Cartridge)	01:00	Engineer	Master Control
National/International (AP)	03:00	Buddine	Announce Booth
NASA Report, "Gemini" (Tape)	03:35	Engineer	Master Control
National/International (AP)	02:00	Buddine	Announce Booth
State News (AP)	05:00	Neiburg	Studio
Weather Report (AP and Local Airport Tape)	03:00	Freakly	Announce Booth
Sports	02:30	Coates	Studio
Promo "Peace Corps" (Disc)	01:00	Engineer	Master Control
Sports	02:30	Coates	Studio
Wrap-Up	01:00	Buddine	Announce Booth
Closing (Cartridge)	00:15	Engineer	Master Control

Presenting News. A news director listens for a particular kind of voice or style of reading that fits the station's image. No criteria have been successfully established. The selection of a newscaster is highly subjective, but news directors seem to agree that a solid education and a good voice are both desirable. Newscaster David Brinkley has said that broadcasting hopefuls should "stop wasting their time with speech courses because it doesn't matter that much."[15] It is true that a man with a message does manage to communicate it in most cases. But the dynamic, compelling voices of an Edward R. Murrow, a Lowell Thomas and an Edward P. Morgan certainly have done a great deal to present the news in a listenable fashion. Inasmuch as newscasting is so highly competitive, there seems to be a trend toward greater perfection in its presentation vocally as well as in other aspects. Fewer nationally famous newsmen have noticeable dialects or speech defects. Many news directors, anchormen and major correspondents have virtually flawless speech; in fact, they not only report the news but they tend to set the national standards for enunciation and pronunciation. Furthermore, most of them read with great fluency. When a young man looks for employment as a newscaster, he will be screened through the submission of an audio tape.

The news director frequently uses production aids. Some journalists believe that these aids tend to destroy the basic reason for tuning in the news: that is, to hear accurate, immediate, unbiased reporting. Many news directors agree with production people, however, that production techniques help to attract larger audiences to radio. Many directors augment the news with "beeper" phone reports, remote reports and taped interviews. They use special effects such as a teletype machine, rockets blasting

off and musical inserts to focus attention quickly on the scope, dependability and immediacy of the newscast and, therefore, on the station. They employ these devices to give the station a unique sound for the opening, closing and transitions during programs. Special effects are mass produced and sold by various companies. They are heard typically on top-tune stations, where news directors strive for a dynamic sound image.

The following routine for a typical 5-minute local newscast summarizes the duties of a news director. The news director:

1). Assigns and dispatches all newsmen.

2). Edits wire service copy.

3). Obtains local stories by calling hospitals, government offices, educational institutions, churches, businesses and athletic departments, and by listening to police, fire and sheriff department monitors. He may rewrite an article or two from a newspaper, giving credit to it for originating the story.

4). Tapes incoming calls from reporters on assignment, special interviews, statements from public officials and reports from the weather bureau.

5). Rewrites and assembles each item, being wary of remarks that are inaccurate, libelous, or contrary to good taste.

6). Practices reading his copy.

7). Takes his cue from the engineer on duty.

8). Reads the newscast on the air.

9). Updates all stories for the next news report.

The news director's work is never finished. At many local stations he reads the newscast from a newsroom where microphones, telephones, tape recorders, monitors and teletype machines are located. The task, then, becomes noisy as well as hectic.

Sports Programs

Sports newscasting often consists of reading excerpts from the wire services. The biggest stories of the day are summarized and the scores of major contests are read. Sports news is treated as another news sequence in the routine newscast, particularly at a small station.

A sports director or sportscaster comes into his own during the play-by-play radio coverage of an entire sports event. Football, baseball, basketball and boxing receive the most complete coverage, primarily those contests of national interest but frequently on a local level, too. The national Indianapolis 500-mile auto race and the more locally oriented Fort Worth Colonial Golf Tournament both get full attention on radio stations. The sportscast can be programmed as a special event of the station; it can be sold as an entire program or as spots. It not only brings valuable extra revenue to the station, but is welcomed by tournament entrepreneurs as a source of promotion and money for the event. Interest in high school and regional contests has increased, and local rivalry provides as great a potential audience for the local station as do some national contests.

A sports director may undertake the role of producer-director and commentator. He will know in advance when and where the contest will take place and that he will probably broadcast from a remote location such as a press box, a mobile unit or a gymnasium. He must do a great deal of planning:

1). He obtains clearance from the university athletic department, country club, stadium or arena officials to broadcast the event. Broadcasting rights are restricted and must be cleared ahead of time. Accessibility to players is sometimes limited. Usually a public relations man representing the club and/or athletes handles arrangements for radio coverage. He is the contact man for the sports director.

2). The sports director advises the program director about the event and how extensively he would like to cover it. The program director schedules the sportscast by preempting the regular programs.

3). The sports director carefully plans what he will do with his equipment (microphones, cables), where he will park his mobile unit, where the power supply is located, where telephones are if needed. He anticipates every contingency regarding the physical setup of the program.

4). He discusses the organization of the program with his assistant, or "color" man, and if it is a big game he may line up interviews with local celebrities because they add background information, insights and personal rapport with listeners. He studies the contest and the players thoroughly. He memorizes the players' names and numbers. "Pre-game preparation is 90 per cent of the broadcast," according to Bill Currie, sports director for WSOC, Charlotte.

5). For football, the sports director must obtain good spotters. No one can spot by himself because he can not see the game that well. A sports director may place a spotter on either side of him. Each spotter observes one team, and records his observations by sticking pins into a cork-backed chart called a "spotting board." The spotting board — one for each team — lists each player's number, last name, age, weight, height and home town. The spotters give silent signals to the sportscaster concerning substitutions and other changes, while he is on the air. In basketball, spotters are too slow. The sports director must remember the names of the players, and must be able to see the game clearly. Baseball action is so relatively slow that the sports director needs to fill with a great deal of additional information about the players and previous games. Again, separate charts are used for keeping track of the team at bat and the team in the field.

6). On the day of the game the sports director and his assistants are at the site early enough to set up properly and to check out all equipment. There is always the possibility that they will have to return to the station for an emergency item, even though possible breakdowns have been anticipated. The sports director has an easier set-up if he broadcasts from a permanent press box, with an assigned area. He must, nevertheless, arrive soon enough

to check his lines with master control at the station, where an engineer on duty will take the sports director's signal or "feed" and broadcast it to the fans. Occasionally, a game does not start as scheduled. A rule-of-thumb one sports director uses is to ad-lib a delay of ten minutes or less, but to return to the station disc jockey if the delay is longer.[16]

7). The sports director is sometimes responsible for promotional materials and for attending numerous athletic functions (dinners, pre-season activities) to stimulate interest in the team. He must travel a great deal.

Weather Programs

Weather programs are produced at the weather bureau, at a station or on location. If the local weather bureau is the producer, the process is simple: the announcer on duty calls the weather bureau, the man at the weather bureau makes his report over the telephone, and the report is either broadcast live or is taped for replay later. If the weather report is assembled at the station, the procedure is the same as for any newscast, except that the announcer may check a few instruments (thermometer, barometer, rain gauge, radar) at the station.

When the possibility of severe weather exists, the announcer has informational and psychological responsibility as the link between known and expected conditions and anxious listeners. During the early 1950's, when tornadoes first brought real disaster to Michigan, most local radio stations were not prepared to handle warning reports judiciously. Many residents listened in fear for several hours while some radio stations meted out weather information as dramatic bulletins — to keep audiences tuned in. By contrast, Texas radio stations long since learned to issue advisories when the possibility of severe conditions existed, and then they proceeded to localize the severe activity for listeners. Michigan stations soon learned, of course, and now, by and large, they avoid undue emotional elements in weather broadcasts.

If the weather requires a direct report, the station weatherman (or newsman) goes to the scene. The basic procedure:

1). He packs two kinds of gear — emergency broadcasting equipment (audiotapes, batteries) and survival supplies (flashlight, first aid kit, blankets, matches, even food) — in his mobile unit.

2). He drives to the location and sets up his headquarters at an affiliated station, if there is one.

3). He observes conditions, checks with the local weather experts, and gets on-the-scene interviews.

4). He telephones his reports to his home station at pre-determined times unless an important story breaks. His reports are recorded by the engineer on duty in the control room, or by the news director.

Gathering information can be hazardous work. Porter Randall, veteran KFJZ (Fort Worth) newsman, gave this description of a hurricane

that ravaged the Texas coast in 1963. He and Gene Duncan of KOLE, Port Arthur, Texas, attempted to reach High Island during the height of the storm:

> The highway from this little town to High Island on the coast was — as we had been warned — impassable. And yet, somehow we got through. We maneuvered the car around the bodies of cattle that had died — drowned — in the storm. Great piles of brush had blown onto the roadway. The most pitiful thing was the birds. I saw thousands of dead ones. Others — still alive — would try to get out of the way of the car, but couldn't. Maybe they were half-drowned — or maybe they couldn't fly in that screaming wind — but anyway our wheels have crushed dozens of them; perhaps hundreds. There was not any way we could miss them.
>
> At High Island, on the coast, only about six people had remained. We were the only reporters on the spot. No one else had been able to get through. . . .
>
> High Island was a nightmare. Its fishing vessels had been carried up into the streets by wind and water. Its fishing dock was half destroyed. Stores and houses lay strewn about in pieces; like crushed match-boxes. But the tiny telephone exchange was still standing, and I learned it had just managed to restore service on emergency power.
>
> . . . I managed to get through two reports to KFJZ from High Island, and then I called A.P., the U.P.I., and finally the weather bureau at the Jefferson County Airport.[17]

In modern radio, weather information may be produced as on-the-spot coverage by two reporters from local stations. As with the hurricane disaster, coverage of the Alaskan earthquake of March 27, 1964 also illustrated how radio stations and wire services cooperate with each other. The owner of Radio Station KBVU, Bellevue, Washington, was talking to his brother in Anchorage when he heard his brother shout: "My God, we're having an earthquake!" The telephone went dead. The station owner quickly relayed his brother's words to The Associated Press in Seattle. This was the first report of the great, widespread disaster. At least 50 newspaper and broadcast members combined to help report that story.[18] Reporting natural disasters is another dimension of the news. Great personal risk to newsmen is often involved. Foresight, daring and ingenuity are combined with succinct reporting ability.

Feature Programs

Informational, and some entertainment programs, may examine a subject in depth. There are several ways to do this. Talks, interviews, discussions and documentaries are the most commonly used methods. Programs derived from these methods may be of interest to the public generally or to specific audiences such as women, farmers, children or other groups.

Broadly speaking, a talk involves one person, an interview two or more, and a discussion three or more. The content of a talk focuses on the beliefs of a single person such as a politician making a speech or a teacher giving a lecture. The interview is usually a study of the interviewee's knowledge, attitudes or personality. The discussion explores a subject ostensibly from many points of view. The documentary is a collection of these techniques assembled or edited by an outside party so as to express a certain point of view on a particular topic. Often the editor of a documentary assembles non-fictional or actuality materials as though they were fiction; that is, in the classic pattern of a beginning, middle and end. An individual (or group) has a problem, he seeks a solution, he does (or does not) solve it, he looks at the prospects for the future. The feature or news-in-depth type of programming has become increasingly popular during recent years. Talks, interviews and discussions are rather inexpensive. The documentary may vary greatly in cost, from a simple local program to a complex study of a world crisis.

The Talk. Speeches, commentaries, editorials and lectures are among the principal talk programs. In many instances the talent will produce his own programs, and the engineer on duty will give him basic cues. If a greater degree of perfection is desired by the speaker, he will probably have someone in the control room listening critically and functioning as a producer.

Politicians frequently use a campaign aide as producer. The political speech should be written and delivered with great care, concentrating on a vocabulary that is easy to understand and on conversational delivery that makes the most of simple, direct sentences. Many newspapermen record commentaries for the broadcasting media. In the early days of radio some newsmen won international fame by broadcasting their opinions to the world. The commentator is often his own producer-director and controls the entire program. He may seek outside help during the initial broadcasts so that he can make the transition from writing for print media to writing for broadcasting media more rapidly. On some occasions the commentator will simultaneously record a video tape for television and an audio track for radio. Editorials reflect the station's viewpoint and are usually no more than five minutes in length. The news director usually is the producer, although higher station executives sometimes assume that responsibility. Because of the fairness doctrine issued by the Federal Communications Commission, stations are supposed to seek and encourage opposing points of view. Sometimes an opposing view is presented in person, other times through letters read over the air. The basic procedure:

1). The producer files a request for air time with the station. A special form is provided for political candidates. It states that the candidate is legally qualified and that he or his representative will appear on the program. It designates other details about the broadcast such as payment, length, frequency and time. The station may require a statement releasing it from liability for remarks made by a political candidate.

2). The producer must arrange to have the script, records or transcriptions of the proposed broadcast ready for review by the station prior to air time. The station's program director will call attention to material that cannot be broadcast legally: obscene, indecent or profane language, language that advocates the violent overthrow of the Government, that incites to riot, that is libelous or slanderous. The producer can then expect the program to be broadcast in accordance with all aspects of the equal treatment of candidates regarding rates, sponsorship and announcements.

3). If the broadcast originates at the station, a director will probably be assigned. He may be the engineer on duty. In any event, the director makes the candidate or speaker comfortable in the studio, and follows standard directing procedure. The director may wish to have a read-through rehearsal; however, for simple talk programs this is seldom done.

The lecture is usually an educational program. A producer and/or a director are needed. For such programs the educational institution may provide both of them. Programs involving direct instruction are broadcast over educational radio stations almost exclusively. These stations provide staff members who assist the teacher in designing the lecture series. The producer may also direct the program and assume full responsibility for the production. He coordinates the broadcast schedule with the administrations of the schools using the programs, and will suggest various production aids that may improve the lectures. A teacher's personal approach to teaching must, of course, be respected; but the producer-director should seek ways to skillfully enhance the studio presentation. The basic procedure:

1). A producer-director is assigned to the series by the program director.

2). The producer-director schedules a conference with the teacher and with an administrator who coordinates the program on behalf of the school systems. Sometimes the producer-director must coordinate the program directly with the schools involved, which can be a very difficult and time-consuming task. More often, scheduling problems are handled at the highest administrative level so that uniformity can be assured. School supervisors and the teacher outline what must be covered, and the teacher develops it in detail. The producer-director suggests how the teacher's objectives might be more beneficially fulfilled using radio. He assembles all sound and music effects which the teacher needs.

3). The producer-director meets the teacher in the studio for a rehearsal that resembles the complex procedure of a drama: read through, on-mike rehearsal, dress rehearsal and performance. He will probably have a complete staff to assist him. The teacher reads through the script and the director times it, including ad-lib remarks and sound effects. Educational programs often involve large groups, especially children. The director and teacher may have difficulty in getting participants to speak naturally on microphone. Children are very good as a rule, but adults are often artificial.

A large group also increases the possibility of studio noise, and injects the danger of miscuing because of inattention. Explicit, polite instructions are among the director's more helpful tools. Another problem may be condensing the teacher's vast amount of material into the length of the program.

4). During the on-mike rehearsals, the director tries to correct any problems he might have on the air. Can everyone see the director? Will the teacher need a glass of water? No detail is too small. Hand signals are reviewed, levels are checked. Basic instructions are thoroughly discussed several times because non-professionals (children, guests) tend to become nervous and confused.

5). During the performance the director concentrates on encouraging and reassuring the teacher and her guests that the program is going well. This heightens everyone's spirits: if the talent enjoys the program, the listeners will.

6). After the performance, the director praises everyone, even though perfection is seldom obtained; an atmosphere of good will should be preserved for all succeeding broadcasts. As the teacher and director become better acquainted, they depend upon each other in numerous minor ways that strengthen the program.

The Interview. The producer-director of an interview must decide upon a subject, obtain a guest to interview, schedule a production date and work out the details of the program. He can begin with a topic or an interesting person. For example, if the community has a campaign for safe driving, the police chief may be the natural person to interview. On the other hand, there may be an entertainment personality in town who can be interviewed. In some cases the producer may also be the interviewer.

The producer schedules the program through the news director, if it is part of a news program, or through the program director, if it is a special series. Once the guest and the subject have been determined, the producer plans a list of questions that explore the topic thoroughly and effectively. The questions should blend from one to another without repeating themselves. A good interview takes consummate skill. The interviewer works under the pressure of limited time. He must get to the heart of the topic quickly and at the same time he must not appear to rush the guest. The producer's responsibilities for an interview differ somewhat from those for a talk:

1). The producer-interviewer visits his guest on several occasions before the program, reads what the guest has written or has had written about him, and then prepares a routine or run-down sheet, as described in the chapter on Writing. This is distributed to the director and production staff.

2). On the day of the program the producer-interviewer greets his guest well in advance. He assures his guest of the importance of the interview and attempts to make him comfortable in a brief warm-up session. The director explains the program procedure to the interviewee so the latter will not become annoyed or confused during the program. The pro-

ducer-interviewer has the duty of getting the broadcast on and off the air on time.

The Discussion. Technically, discussion programs have many forms — panels, which enable anyone to speak out at any time informally; symposiums, which give everyone an opportunity to make a formal presentation first, then include questions and cross discussion; audience participations, which are basically question and answer situations between the guest and the audience; and forums, which are formal presentations of several points of view. A discussion has two main characteristics: several participants and a sincere desire on the part of all of them to solve or work toward solving a problem. A debate, to the contrary, is a formal presentation of opposing points of view without attempting to reconcile the opposing sides. Instead, it is an effort to persuade a third party, the listening audience.

The producer's task in the discussion program is to get the right guests together to discuss only those aspects of a given subject which create excitement and enlightenment. Once the producer has an idea for a program, he selects a moderator who has insight and knowledge of the subject (or is willing to become informed). The moderator should have an understanding of human beings, an ability to listen attentively and a keen sense of organization. The producer and moderator outline the program. They decide which guests would be most effective. A guest who is responsive, intelligent and willing to speak candidly is rare. The producer and moderator may visit personally each potential member of the discussion group to discover where the individual stands on each issue, and whether he will talk about it on the air. Essentially, only those questions where there is disagreement are discussed, and these provide the base for the program outline. The moderator must maintain a neutral position during the program, although he may play the devil's advocate if the occasion calls for it.

Guests on discussion programs frequently do not wish to be controversial — to be involved in any situation where they might lose face or suffer embarrassment. The moderator must create an atmosphere that allows the free exchange of ideas, but which also protects the dignity of the participants. The procedure for the discussion is similar to that of the talk and the interview except that its complexity is multiplied by the number of guests:

1). During the program the producer and/or moderator keeps the discussion moving at a lively pace by asking the most controversial questions first, by including all of the guests in the conversation, and by striving toward greater understanding for the listening audience. Four guests with voices that are easy to distinguish are about maximum for radio.

2). In the control room the director gives the usual signals, knowing that it is more difficult to stop a stimulating discussion than an interview with a single person. At a prearranged time, perhaps two or three minutes before the end of the program, the director will expect the producer-

moderator to end the discussion and to read a prepared, pre-timed summary or to ad-lib one that will fit the time requirement. Well-prepared openings, closings and summaries add clarity and smoothness to the discussion program.

The Documentary. There are two basic types of documentaries: the actuality program, with on-the-spot reports involving real people and real events, and the dramatized or semi-documentary, which uses actors to recreate a real happening. The producer and director have a complex responsibility resembling that of the radio drama.

"With the advent of television, radio's function altered so drastically that the latter lost much of its significance as a documentary instrument. While sporadic individual efforts in a documentary style are still made by local stations, it is fair to observe that one of the central conditions we have established for documentary — to create a massive impact upon great audiences — has ceased, in radio, to exist."[19] Nevertheless, the artistic and informational impact of the documentary and its occasional production in many stations make it worth-while examining.

The producer sees a need to explore a certain theme or topic in depth. He (or his writer) does extensive research, organizes a script outline, arranges a budget and obtains clearances, as necessary. Next he assembles a production unit consisting of a director, a narrator, an engineer and, depending upon the complexity of the project, other artistic, production and technical personnel. (He may do two or three of these jobs himself.) They tape-record the events on location and bring them back to the station for editing. The tape is evaluated and assembled. WBT, Charlotte, for example, has produced a series called *Project 60.* Each hour-long program is a composite of interviews, discussions, comments by individuals and announcer narration concerning such topics as the lost continent of Atlantis, extrasensory perception, and sounds of the city. Numerous local stations have documentaries concerning civic issues, especially around election time. Although all creative radio personnel would like to produce documentaries, the factors of money, time and mass sales appeal discourage most from doing so. The basic producing-directing procedure is essentially the same for all types of stations and subjects:

1). The producer-director drafts an outline of his idea for a program or series. He gets approval from the program director to produce it.

2). The producer-director assembles all of the actuality tapes, transcriptions and sound effects that he will need. This process may take several months. In addition to live taping, he may depend on library resources of his station and of national and even international broadcasting organizations. Gathering material may require an extensive amount of preliminary listening as well as a great deal of time clearing copyrights.

3). The director re-records all of the assembled pertinent material on audio tape approximately in the order he will use it on the program. He edits and times each segment.

4). Next he carefully splices the segments together, checking each one for fidelity, length and relevance to the script.

5). After all of the editing and splicing is done, the director duplicates his "master" or final tape. The duplicate will be played on the air.

Commercials and Announcements

The creative genius of people in advertising is sometimes overlooked. Poetry, original music, original sound effects, comedy, attention-getting devices and audience research are some of the ways advertisers stimulate listeners to purchase products and services. Commercials and some promotional spots are the most expensive moments on the air. Many sponsors believe that radio can give a product more exposure than any other medium for each dollar invested: time sales surpassed $900,000,000 in the mid-1960's. The FCC's approval of an "all-ad" station in 1966 suggested even greater dimensions for advertising on radio. Because of the high investment in radio advertising, many employed in radio spend part of their time producing and directing commercials. The business is so lucrative and complex that several major manufacturers, department stores, and some nonprofit organizations have their own promotion departments which design commercials and public service announcements for all media. Radio stations and advertising agencies either produce their own commercials or hire a production company to do them.

Station Production. Many local sponsors work directly with the station. As a result the station makes money on selling the air time and on producing the commercials. In many instances two of the station's personnel — the operations manager and the sales director, for example — might spend a couple of hours in the evening after their daytime-only station goes off the air to produce a one-minute commercial. They might read all the roles themselves, operate their own console, and change the copy as they go along. Procedures differ, of course, for different stations:

1). Unless a sponsor dictates what his commercial shall include, the salesman and a continuity writer assume the chief responsibility for producing the commercial. If a sponsor wishes to put on an entire campaign or several different commercials involving a great deal of production work, the campaign may go through the several steps typical of a major radio program, beginning with an initial conference examining the product or service from every point of view.

2). Once the copy is written, it is sent to the program director who assigns it to someone on the production staff, probably an announcer. After his board shift is over, the announcer finds production orders accompanied by sales copy in a studio available for the production of commercials. One radio station, used as an example here, has two production studios. Studio A is used for most everyday production. Studio B — the larger of the two

— is the commercial production room with an array of microphones, three turntables, two tape recorders, a disc recorder, a record library and recorded sound effects. The station may have over 1,000 sound effects on file in addition to many commercial lead-ins and jingles. All production copy is initially recorded on tape. This work is done by the program director and the five station announcers. (At some stations audition copy is written, produced on tape and then played for a prospective client over the telephone. If the client buys the spot, it is then placed on the disc.) Because of the constant turnover in announcements, the production work is never finished.

3). Radio announcers are generally familiar with editing techniques and with unique sounds which will draw and hold the attention of listeners. The announcer reads and records the copy as it is written, integrating the sound and music that he believes will be effective. Recorded music typically is used. Live music is easier to pace and usually results in better spotting and more exact duration. Small combos and vocal groups can be hired. Good effects are achieved by such instruments as guitars, drums or even slide whistles. Electronic filters, reverberation synthesizers and delayed impulse echo equipment are useful devices. Experimentation pays.

4). As a final step the announcer-producer duplicates the completed audio tape of the commercial on a cartridge and puts it in master control. He marks the production order completed.

Although the process is not easy, many commercials and announcements are frequently done in a day. One station, for example, tries to give sponsors "same day" service, that is, it broadcasts the commercial the same day the order comes in! The writer has to constantly dream up ways of selling products over radio. The production people have to find new ways — attention getters or "gimmicks" — that will intrigue listeners. The problem is complicated further by a desire on the part of the radio station and the sponsor to have the listener indicate that he heard the commercial on radio, as described in the section on "feedback" in Chapter 1.

Advertising Agencies. An advertising agency is a business consisting of specialists who create and plan a company's entire marketing program. Nearly all national advertising (that is, other than retail) in newspapers, magazines, outdoor displays and broadcasting media is placed through advertising agencies. Radio stations in major markets like Washington, D.C., do not as a rule produce their own commercials. They receive them from agencies. Agencies also place most of the advertising in the professional, technical and business publications. An agency handles a number of accounts. Its function is to select, recommend and contract those it feels are best-suited to advertise a client's product or service. The radio and television department of an agency is one of its exciting and challenging divisions, because of the amount of money involved and the skill, judgment and taste entailed in selecting the radio and television programs and for produc-

ing the commercials.[20] Radio and television production calls for a high degree of talent and experience and the ability to work long hours under pressure.

These comments from Clarence M. Thompson, vice-president and creative director of Colle and McVoy, Minneapolis, illustrate the approach of one agency toward producing radio commercials for the modern farmer, an approach that can be usefully applied to any segment or type of listening audience:

> Be honest. Farmers can spot an overenthusiastic claim for any product or service in a second.
>
> Don't "talk down" to farmers. This is one of the most sophisticated markets in radio. The farmers of today are scientists and don't forget this point. Don't forget either that they are big businessmen. The average good farmer in this area runs an operation with a capital investment of well over $100,000.
>
> Be specific. Avoid superlatives. If your product is "best," better explain why.
>
> Be professional. Write crisp copy. Use first-class talent. Farmers are probably the most quality-conscious consumers around. Your commercials should sound "quality," too.
>
> Be creative. Don't use "corn" unless it is very well done. Farmers respond to a fresh approach as well as, or perhaps even better than others.
>
> Should you play it straight, with your commercials read by the station's farm director? Should you prerecord your farm commercials? Should you use jingles in your radio advertising? We have done all three successfully at Colle and McVoy.
>
> It's well to remember, except for his high degree of product knowledge, a farmer is just like everybody else you sell with radio. He wants "hard" information but he also wants to be entertained.
>
> If your product has definite competitive advantages, give the facts to your farmer listener. If your product is one of the crowd, entertain him![21]

If an advertising agency has studios, they are similar to those at a radio station, and the procedure for producing the spot is basically the same. Agencies send cartridges, tapes and discs to the station after the agencies have purchased air time through the station's sales department.

Summary

Producing and directing radio programs have changed greatly since the advent of television. The producer and director functions have been absorbed by individual members of the radio team: the program director, the news director, the talent, the continuity writer and other production people.

Nevertheless, producing and directing will always be a vital function of a radio station. Someone has to do it. There would be no radio otherwise.

The emphasis in this chapter has been purposefully oriented to local station operation because the bulk of the opportunities in radio are on the local level. A clear understanding of what a station expects of its programming personnel, as delineated in Chapter 1, should be of benefit to the aspiring radio employee. Good radio is more than just a voice over the airwaves. It requires skill, artistry, and knowledge of the technical aspects of the medium, of writing, of production, of performing. It is also a complex process of knowing people — what they like to hear and what they will buy. A radio producer and director or one who serves these functions must have an intimate knowledge of all of these aspects of the radio business, if he hopes to be successful.

Additional Directing Techniques and Vocabulary

Commercials. A director often records commercials and promotional spot announcements at a higher volume than the programs; as a result, the commercials receive greater prominence while they are on the air. Fewer radio spots are merely read today; most require production.

Cues. A director calls his cues aloud when working in the control room so that technicians there can hear him. He may use the expression "from the top," which means from the beginning of the script. As a psychological device, some directors smile prior to cueing, and periodically signal "on-the-nose" and/or "thumb-forefinger circle" to assure talent that the program is on time and/or going well.

Gain. Most programming can be properly recorded if the needle on the volume unit meter on the console remains in the black. Louder, more forceful sound is obtained when it "peaks" in the red. A director should watch the meter, for it is the only accurate gauge. A control room monitor can be deceptive at times.

Microphones. A director should not encourage performers to touch microphones. He should explain the beam pattern to the talent. Maximum "presence" and clarity are established when the talent speaks directly into the beam in a normal tone. Voices positioned at various distances from the beam give the production "perspective." Performers should never be allowed to yell, tap or purposefully blow into a microphone to test it. Microphones in auditoriums should be placed so as not to detract aesthetically from a concert or recital.

Mixing. A director may find taping his music, sound and voices separately is desirable, if he can combine them more easily by electronic than by live means. He should remember that the qualities of a soft voice can be easily amplified without strain on the performer. "Dubbing" is the process of filling in a missing segment on a tape or of duplicating it.

Music. For bridges and transitions, a director generally looks for passages that are not easily recognized. He allows about 10 seconds to establish a musical segment. "Fades" should occur at the end of musical phrases. Decreasing volume imperceptibly is referred to as a "sneak out." A "segue" is usually a transition from one musical selection to another. A "stinger" or "stab" is a brief, intense note(s) inserted for emphasis. If a director hopes to have amateurs sound like professional performers, he tapes them utilizing every electronic aid at his disposal.

Noise. A director should warn performers about script rattle. A disc jockey "wows" a record when he prematurely increases its volume before it is up to proper speed. Microphones used outside should be covered with a moderately light cloth to avoid unwanted noise.

Script Marking. A radio script can be marked in any manner that is meaningful to the director, but clear notations are essential because there is little time to figure them out during the performance.

Sound Effects. To deaden a room, a director may surround the talent with a "gobo," a two-fold covered with heavy material such as velvet. When he needs additional dimension in a sequence, he uses reverberation or filter. Slight reverberation or filter is sufficient, otherwise it is difficult to understand the talent. A "sound truck" is a movable bench containing turntables and storage space for live sound effects. A simultaneous fade out of one element and fade in of another is a "crossfade."

Voices. The closer a performer is to a microphone, the softer he should speak and the more intimate the sound becomes. Words with plosive sounds should be spoken gently, if a "pop" is to be avoided.

NOTES

[1] Robert R. Pauley, "'Creativity', Not 'Conformity', Radio Necessary, Says Pauley," *Radio-Television Daily*, Vol. 96, No. 54 (March 22, 1965), p. 23.

[2] Roger L. Cole, "European Radio Drama Still Lives," *NAEB Journal*, Vol. 24, No. 1 (January-February 1965), pp. 3-7.

[3] Erik Barnouw, *Handbook of Radio Production* (Boston: D. C. Heath and Company, 1949), p. 9.

[4] Don C. Smith, "Music Programming of Thirteen Los Angeles AM Radio Stations, 1963," paper read before the Speech Association of America, Chicago, Illinois, December 30, 1964. (Mimeographed.)

[5] "Total Service in Total Broadcasting," (Twin State Broadcasting, Inc., Indianapolis Division, December, 1959), p. 5.

[6] Sherman P. Lawton, *Introduction to Modern Broadcasting* (New York: Harper & Row, Publishers, 1963), p. 69.

[7] J. Leonard Reinsch and Elmo I. Ellis, *Radio Station Management* (New York: Harper & Row, Publishers, 1960), p. 126.

[8] Donald Klopf and John Highlander, "Japanese Language Broadcasting in the United States," paper read before the Speech Association of America, Chicago, Illinois, December 30, 1964. (Mimeographed.)

[9] "WNUS Expands to FM, 24-Hour, 'All-News'," *Radio-Television Daily*, Vol. 96, No. 54 (March 22, 1965), p. 4.

[10] John Paul Kimzey, "A Survey of Radio Station KGVL" (unpublished report, Division of Radio-Television-Film, Texas Christian University, 1964), p. 35.

[11] Interviews with Joe Long, Vice President of News, The McLendon Stations, and News Director for KLIF, Fort Worth; and with Roy Eaton, News Director, and Bruce Neal, Assistant News Director, KXOL, Fort Worth.

[12] KLIF fed 75 different radio stations in

addition to Radio France, the BBC, and the Voice of America. Roy Eaton estimates that KXOL fed over 100 stations.

[13] Interview with Joe Long.

[14] This "run down" happens to be for an educational radio station, but it serves equally well as an example of a segmented format for a commercial broadcast. *Communique 30 — The News at Ten* was developed by Bill Jennings, Producer, and Richard Buddine, News Director for WUNC radio, University of North Carolina at Chapel Hill.

[15] "Here and There," NAEB *Newsletter*, Vol. 30, No. 4 (April, 1965), p. 4.

[16] From a speech by Bill Currie, Radio and Television Sports Director, WSOC, Charlotte, at the University of North Carolina, June 16, 1965.

[17] Porter Randall, *My Date with Cindy*, Radio Station KFJZ (Fort Worth: KFJZ, 1963), pp. 5-6.

[18] *Earthquake in Alaska*, The Associated Press (New York: The Associated Press, 1964).

[19] A. William Bluem, *Documentary in American Television* (New York: Hastings House, Publishers, 1965), pp. 71-72.

[20] The reader is referred to *Advertising* (New York: The American Association of Advertising Agencies, Inc., 1961).

[21] Clarence M. Thompson, "Radio Serves Needs of Today's Big Business Farmer," *Broadcasting*, September 28, 1964, p. 20.

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APPENDIX
TO CHAPTER 3

TO: Those Concerned September 23, 1965

FROM: Russ Tornabene MEMO #2 Pope Paul VI Radio Coverage

This second memo to all interested parties of radio pool operations of Pope Paul's visit to this country will recap all planning to this date.

The pool will consist of the following members:

ABC—Dick Dressel, 39 W. 66th St. SU 7-5000
CBS—Sheldon Hoffman, 524 W. 57th St. 765-4321
WCBS—Marvin Friedman, 51 W. 52nd St., 765-4321
NBC—Jim Holton, 30 Rockefeller Plaza, CI 7-8300
MUTUAL—Jack Allen, 135 W. 50th St., LT 1-6100
WOR—Les Smith, 1440 Broadway, LO 4-8000
WNYC—Allen Levin, 2500 Municipal Building, 566-2283
WMCA—Barrie Beere, 415 Madison Ave., MU 8-5700
WINS—Stan Brooks, 19th Floor, 90 Park Ave. (39-40th St.), 867-5100
UPI AUDIO—Scott Peters, 220 E. 42nd St. Room 1216, TN 7-3995
RPI—Bill Scott, 604 5th Avenue, LT 1-6444
WBNX—C. Carroll Larkin, 801 2nd Avenue, 889-6880
WRUL—(RADIO N.Y.) Mitchell Krauss, 4 W 58th St., PL 2-3322
WABC—Robert Kimmel, 1926 Broadway, SU 7-5000
RADIO PULSEBEAT NEWS—Jay Levy, 340 E. 34th St., 686-6850
WNEW—Gerald Graham, 565 Fifth Avenue, YU 6-7000
USIA—Robert Rudine, 205 W. 57th St., 971-5641
WADO—Sydney Kavaleer, 205 E 42nd St. LE 2-9266

Events will be divided into two main areas: United Nations and outside the United Nations. United Nations facilities for unilateral feeds will be handled by Josef Nichols, PL 4-1234, ext. 2997. Outside United Nations activities will be handled by Papal Visit News Center, 866 United Nations Plaza, Radio and Television Public Relations: Jack Slocum, 421-1494. The news center has copies of the Pope's itinerary.

The pool will operate in the following manner: I, as pool producer, will be in control room 5B, 5th floor, NBC, 30 Rockefeller Plaza. All subscribers listed above will be linked with me by a producer's PL. This PL, which is being ordered by NBC Traffic Department, will have a phone installation, jack, head set and speaker box. This Command PL will be used to provide all cueing information. For example, the pool producer will say on the PL, "Coming up in two minutes from now, a report from Lester Smith in the helicopter, to run about two minutes, ending with the normal end cue. Starting in one minute and thirty seconds... starting in one minute, a two minute spot by Lester Smith from the helicopter." and so on, with the countdown going to "five seconds from now." I will then cue Les for a spot which I have pre-arranged with him.

The pool producer invites all members to suggest spots to be done by pool reporters, if at all possible.

The following are the termination points for the PLs:

CBS—Studio 1—524 West 57th St.
WCBS—Control A—51 W. 52nd St.
ABC—Studio 1A—39 W. 66th St.
WABC—Tie in with ABC network.
MUTUAL—Control A—16th Floor, 135 W. 50th St.
WOR—Control 6—1440 Broadway, 24th Floor
WNYC—Master Control—25th Floor, 2500 Municipal Building
WMCA—Master Control—415 Madison Ave.
WINS—19th Floor Broadcast Control, 90 Park Ave. (between 39 and 40 St.)
UPI Audio—Room 1216—220 E. 42nd St.
NBC—Control 5C—30 Rockefeller Plaza
RADIO PULSEBEAT NEWS—1st. Floor Suite 1-H—340 E. 34th St.
WNEW—Control room, 2nd floor, 565 Fifth Ave.
WBNX
RPI—Master Control—604 Fifth Ave.
WADO—Master Control—205 East 42nd St., 8th floor.

FEEDING ARRANGEMENTS

The pool will feed sound from all major events involving the Pope's visit, in the following manner:

Each of the remotes will be fed into NBC control 5B, mixed and sent on a landline to WNYC, which will re-feed the composite programs to all members of the pool listed previously.

WNYC will feed all members by pre-arranged lines. If any member does not have a line from WNYC, he must make this arrangement.

Each member of the pool is reminded that he must order all unilateral lines, though the pool producer is requesting broadcast positions from the Press Office and the Police Department.

Pool reporters will be at the following locations:

1. Helicopter
2. Mobile Unit
3. United Nations entrance
4. United Nations Reception
5. St. Patrick's Cathedral
6. Church of the Holy Family
7. Vatican Pavilion
8. Waldorf Towers for meeting with Johnson

In addition, the feed by the pool to the WNYC line of the Mass at Yankee Stadium will have a running commentary by a priest. This priest will make occasional theological explanations of what is occurring in the Mass. He also will briefly describe the departure of the Pope from the Stadium, so we may have a smooth close-out to this event.

We will offer clean sound, without reporters, from the following locations:

1. Airport Arrival.
2. Statements from White House and Vatican or Diocese spokesmen from Waldorf.
3. United Nations speeches and remarks by the Pope in the following manner: The major address to the General Assembly by the Pope will be in French. This feed and a simultaneous U.N. provided English translation will be mixed at Pool control and fed to the pool. The Pope's remarks to assembled groups in the three Council Chambers and to the UN staff later in the General Assembly, to be spoken by him in English, will be fed on the pool line.
   NOTE: The pool producer may, for the Pope's remarks other than the major address, be able to give very short notice on the Command PL. Therefore, it is strongly advised that all producers refer to live television picture to aid in cueing their commentators.
4. Yankee Stadium. The mass, with priest (name to be supplied) providing occasional comments.
5. Airport Departure.

POOL REPORTERS

Following is the list of pool reporters and their positions; a name or two may change before airtime, but the position and the reporter's instructions will remain the same:

HELICOPTER—Lester Smith. End cue will be "This is Lester Smith in the Helicopter."

ST. PATRICK'S CATHEDRAL—Joseph Michaels. End cue will be "This is Joseph Michaels at St. Patrick's Cathedral."

UNITED NATIONS: Public entrance of the General Assembly terrace position—Frank Singeiser. End cue will be "This is Frank Singeiser at the entrance to the United Nations."

Exception: Frank also will cover the departure of the Pope from the UN Building, reporting from his terrace position. With the help of a TV monitor, he will describe the departure from the building which will take place at the Delegate's entrance (on the West side of the General Assembly).

North Lounge—This is the site of the major reception in the UN.—correspondent to be announced. End cue: "This is_____ in the reception at the United Nations."

MOBILE UNIT— Definitely in the motorcade from the airport in the morning. Hopefully in all movements from one point to another during the day and into the night, ending at the airport for the departure—Dallas Townsend. End cue: This is Dallas Townsend in the mobile unit." OR upon

occasion, where it is important editorially, "This is Dallas Townsend at _____ in the mobile unit," to describe for example, "in the heart of Harlem," or "entering the World's Fair Grounds." But in all cases, the last words will be ". . . mobile unit."

HOLY FAMILY CHURCH —Meeting of Pope with other religious leaders—Harry Hennessy. End cue will be: "This is Harry Hennessy at the Holy Family Church in Manhattan."

WORLD'S FAIR VATICAN PAVILION—Paul Parker. End cue will be: "This is Paul Parker in the Vatican Pavilion at the World's Fair."

IN ALL CASES, AND IN ALL CIRCUMSTANCES, NO POOL CORRESPONDENT SHOULD SPEAK FROM HIS POSITION WHILE HE IS ON THE AIR AND THE POPE OR ANY DIGNITARY IS ABOUT TO SPEAK. WE MUST HAVE CLEAN FEEDS OF ALL STATEMENTS.

The pool producer will have individual PLs to each of the pool correspondents (except the helicopter and the mobile unit, which are RF) for coordination and cueing to air.

REHEARSAL

Because the Pope arrives on Monday morning, the pool rehearsal must be on Sunday, Oct. 3. Therefore, the following facilities must be checked out on Sunday, Oct. 3, in a runthrough scheduled from 11 a.m. to 1 p.m.

Both United Nations pool reporters' position.
Vatican Pavilion.
WNYC feeding line.
Command PL.

It is not absolutely necessary that the assigned reporter be at the rehearsal, but is desired to acquaint him with the position he will work the next day.

We do not expect to rehearse the helicopter, the mobile unit and St. Patrick's and the Holy Family churches.

Would all producers have someone on deck Sunday at 11 a.m. to answer the command PL?

UNITED NATIONS SCHEDULE

Here are the highlights of the announced schedule of events for Pope Paul within the United Nations:

3:20 to 3:30 p.m. Arrival by Canadian Doors, at Public Entrance (north end of building) of the General Assembly. Goes to Visitation Room.

3:30 to 4:00 p.m. Address to the United Nations, in General Assembly, speaking in French.

4:00 to 4:30 p.m. Visit to the three Council Chambers. Speaks briefly in each one.

4:30 to 5:15 p.m. Reception in North Lounge, 400 dignitaries will file past and meet him.

5:15 to 5:45 p.m. Private reception by U Thant on 38th Floor (no coverage of any kind permitted).

5:45 to 6:00 p.m. Remarks to UN staff members in General Assembly.

6:00 p.m. Departure for Church of the Holy Family.

NOTE: All remarks except major address will be in English.

MEETING WITH PRESIDENT JOHNSON

The Pope will leave St. Patrick's after his blessing there (approximately 12:30 p.m.) and go to the Waldorf, entering the Waldorf Hotel via the Towers entrance on 50th Street side. He will be greeted by President Johnson at street level, either outside the doors or immediately inside. They will take the Towers elevator to the 42nd floor. There, they enter the suite of Ambassador Goldberg, going immediately into the den for a private meeting. The length of this meeting is not known at this time, but it is estimated that the entire visit of the Pope, portal to portal, will last about one hour. After the private meeting, the two men will walk from the den into the living room, where they will pose, it is estimated, about five or ten minutes. The Pope probably will be accompanied by the President down the elevator to the spot where the two met, the street level exit of the Tower's side. The radio pool will have a reporter inside the apartment, and be able to describe the arrival in the apartment, and the picture taking. IF the Pope and the President speak in the living room, it will be fed as part of the Pool. If they do not speak, there will be statements by a White House and by a Vatican or Diocese spokesmen, at a larger room, probably on the ground level of the hotel. There, unilateral arrangements must be made for reporters; the pool will feed clean sound of these statements.

POOL-ARRANGED UNILATERAL POSITIONS

The pool was requested by the Papal Visit News Center to coordinate the requests for working positions of networks and stations where there is limited space. These include:

AIRPORT ARRIVAL
ST. PATRICK'S CATHEDRAL (EXTERIOR ONLY)
HOLY FAMILY CHURCH (EXTERIOR ONLY)
YANKEE STADIUM—MEZZANINE BOXES WILL BE ALLOCATED
VATICAN PAVILION (EXTERIOR ONLY)
AIRPORT DEPARTURE

I have received to date (10 a.m. Sept. 23) requests for positions from:

UPI	ABC	MUTUAL
WABC	RADIO NEW YORK (WRUL)	RADIO PULSEBEAT NEWS
CBS	WMCA	WNEW
NBC	WOR	WBNX
RPI	WINS	

Therefore, I have not heard from USIA, WADO, WCBS and WNYC.

Reminder: all members using unilateral positions must order their own lines after allocation of work space is made.

NOTE: The Papal Press office has provided two warnings: mobile units and/or reporters cannot expect to move from one major event to the next. Also, credentials for the airport departure will be different from those used for the airport arrival.

SHARE OF COSTS.

As you have noted, the pool requirements are rather basic and have not entailed great cost. Each network or station providing a correspondent and engineering to the pool will pay for these items. Therefore, the only expected costs to be borne by the pool are the special broadcast lines and PLs from each pool position, and the command PL system. Networks (there are eight) will be charged a greater share of the total cost than local stations (there are eight, with no charge to USIA and WNYC). These divisions will be made by Business Affairs experts.

AIRPORT ARRIVAL AND DEPARTURE

Today I surveyed the airport and have allocated all radio positions. No other radio positions will be set up except those listed below. As you know, the Pope arrives aboard ALITALIA airlines plane at 9:30 a.m. OCT. 4, at the International Arrival Building, and departs from the same spot sometime after 11 p.m. aboard TWA plane.

All radio positions will be on the OBSERVATION DECK as noted on the sketch below and in the attached drawing. Positions running WEST along the Deck from the corner will be even-numbered. Positions running SOUTH will be odd-numbered. Now you may order your own lines, PLs and production facilities from the telephone company.

The numbering was done alphabetically, with Vatican Radio getting a favored position, then three groupings: major networks, network-type services, and local stations. From all positions, it is possible to see the Pope easily. The spaces are easily identifiable: it is the space between the posts of the metal mesh fence on the OBSERVATION DECK. Each space is about eight feet wide. We will be permitted to use about 3-and a half feet deep, or away from the fence.

ROBERT L. HILLIARD

**Chief, Educational Broadcasting Branch,*
Federal Communications Commission

● *Radio Broadcasting* is Dr. Hilliard's third book for Hastings House Communication Arts series. *Writing for Television and Radio*, published in 1962, shortly became the leading work of its kind and required a second edition (updated) in 1967. *Understanding Television*, which Dr. Hilliard edited and contributed to, was published in 1964 and is a companion work to this book. Dr. Hilliard has also published more than 20 articles on communications and education in professional journals. He has been active in both the commercial and educational mass media fields as a writer, producer and director, has been the recipient of several playwriting awards and has had his plays produced in university and community theatres. His newspaper background includes five years as a drama critic in New York.

Dr. Hilliard received the A.B. degree from the University of Delaware, where he majored in philosophy and political science, the A.M. and M.F.A. degrees from Western Reserve University, and the Ph.D. degree from Columbia University. He began his teaching career in 1950 at Brooklyn College, subsequently taught at Adelphi University, and was Associate Professor of Radio, Television and Motion Pictures, University of North Carolina at Chapel Hill, prior to becoming a member of the FCC staff in 1964. He has been active in professional associations and has served as chairman of educational communications committees and projects of national and regional organizations. In 1963 he was on leave from the University of North Carolina to serve as a consultant on television in higher education for New York State. He has also served as a special consultant on television to the Council of Higher Educational Institutions in New York City.

Dr. Hilliard is Chairman of the Federal Interagency Broadcast Committee, which he founded in 1965, and is Executive Vice-chairman of the national Committee for the Full Development of the Instructional Television Fixed Service.

* Dr. Hilliard has written this chapter in his private capacity. No official support or endorsement by the Federal Communications Commission is intended or should be inferred.

4

WRITING

BY ROBERT L. HILLIARD

RADIO has been called the art of the imagination. The radio writer is restricted only by the breadth and depth of the mind's eye of his audience. He has complete freedom of time and place. He is not limited by what can be presented visually. The radio audience cannot select what it wants to hear (or "see" in its imagination). The writer, through effective combinations of sound, music, dialogue — and silence — can create whatever stimuli he wishes and may place the audience in any physical relationship to any character he wishes. A vivid illustration of this and, appropriately for this chapter, an example of good script writing is Stan Freberg's award-winning spot announcement, "Stretching the Imagination."

MAN: Radio? Why should I advertise on radio? There's nothing to look at . . . no pictures.

GUY: Listen, you can do things on radio you couldn't possibly do on TV.

MAN: That'll be the day.

GUY: Ah huh. All right, watch this. (AHEM) O.K. people, now I give you the cue, I want the 700-foot mountain of whipped cream to roll into Lake Michigan which has been drained and filled with hot chocolate. Then the Royal Canadian Air Force will fly overhead towing the 10-ton maraschino cherry which will be dropped into the whipped cream, to the cheering of 25,000 extras. All right . . . cue the mountain . . .

SOUND: GROANING AND CREAKING OF MOUNTAIN INTO BIG SPLASH!

GUY: Cue the air force!

SOUND: DRONE OF MANY PLANES

GUY: Cue the maraschino cherry...

SOUND: WHISTLE OF BOMB INTO BLOOP! OF CHERRY HITTING WHIPPED CREAM.

GUY: Okay, twenty-five thousand cheering extras...

SOUND: ROAR OF MIGHTY CROWD. SOUND BUILDS UP AND CUTS OFF SHARP!

GUY: Now... you wanta try that on television?

MAN: Well...

GUY: You see... radio is a very special medium, because it stretches the imagination.

MAN: Doesn't television stretch the imagination?

GUY: Up to 21 inches, yes.

Courtesy of Freberg, Ltd.

Unfortunately, the writer does not have complete freedom. While the medium itself provides wide aesthetic flexibility, the organization and control of the medium create restraints. Because radio broadcasting is dependent upon advertising revenue for its continued existence, the content of radio must be oriented toward the widest possible audience in order to provide the maximum potential in prospective customers. Unfortunately, the sponsor and producer frequently search for and often find the broadest common denominator, which usually turns out to be the lowest. Reliance as criteria for programming upon quantitative measurements of numbers of audience listening, as represented in the work of rating organizations, tends to adversely affect the qualitative contributions of the medium.

The radio writer is also restricted by censorship of various kinds. There is little quarrel with the fact that profanity and material in bad taste usually are not found in a script at all. On the other hand, the writer who considers himself and his medium a part of the world frequently finds that material dealing with the realities of life, with issues of a controversial nature, should be a vital and integral part of a given script. He learns, however, that the sponsor controls program content, and if any piece of material might tend to alienate any potential customer anywhere, almost always that material will be deleted before the script is finalized. Censorship also occurs

because of a sponsor's personal prejudices, which may range from attitudes about modern art to intolerance of specific religious or political ideals.

For the overt areas of content control, as voluntarily practiced by the stations themselves, the prospective writer should obtain a copy of *The Radio Code* from the National Association of Broadcasters, 1771 N Street, N.W., Washington, D. C. 20036.

It is true that the practical considerations of keeping a job in radio sometimes create a dichotomy for the writer between the potentials of the medium and the restrictions imposed by the industry. Yet, even while conforming to the latter if he wishes to continue working in the field, the writer should not lose sight of the capabilities of the medium or of the role he plays and the responsibility he assumes in affecting — as only the mass media can — the minds and emotions of the audience.

What are the areas of radio writing today? More and more they have become limited as television has taken away the more popular entertainment-art features that dominated early radio. For practical purposes, radio is no longer a source for drama or for variety shows. The radio playwrights, who for a time in the 1930's and early 1940's were among the most creative writers in America — the Norman Corwins, the Archibald MacLeishes, the Arthur Millers, the Ernest Kinoys and others — have gone into television, the theatre and the film or have disappeared from the field entirely. At the same time certain areas of radio writing have become more significant. Foremost of these are news and documentary writing. Radio, although faltering shortly after the rise of television, has come back and is even stronger than ever in terms of statistics of sets, stations, advertising and revenue. The commercial announcement is therefore at least as important as it ever was. The good stations — the large city stations, the regional stations, the exceptional local stations — make an effort to go beyond the platitudinous ad-libs of a top-forty music format, and try to prepare their recorded musical programs with taste and originality. Radio still is an important outlet for interview and discussion programs, especially on the increasing number of quality FM stations and on the all-talk AM stations that seem to be growing in number. Many local stations have found that the women's program is able to combine excellent public service features with a lucrative income from diverse local sponsors.

The primary areas of concern to the radio writer today and the areas with which this chapter will primarily deal are: commercials, news and sports, special events, documentaries, music, interview and discussion, and women's programs. The drama, however, is not ruled out as an area of study. Indeed, it is the base for all other writing. The radio writer of any program type should, as much as possible, be steeped in the techniques of good dramatic writing, for drama is an integral part of all other forms, from the dramatized commercial to the semi-documentary presentation. Accordingly, a brief overview of radio dramatic writing is included here.

Basic Production Elements

Just as the painter must know his media for expression on canvas, the radio writer must know the tools of his medium. He must have a basic knowledge of the potentials and limitations of the technical aspects of radio so that he may know just how far he can go in creating a mind's eye picture for his audience. He must also have command of the terms designating various production aspects so he may clearly state in his script the device or action called for. The elements of production that directly affect writing technique include use of the microphone, sound effects, music and the special devices of the control room.

The Microphone. The writer should know the five basic microphone positions: a) on mike, where the performer speaks directly into the mike and the audience is put in the same physical setting as is the performer; b) off mike, where the performer is some distance away from the mike, and the audience in its imagination sees the performer as some distance away from its own place in the setting; c) fading on (or coming on), where the performer gradually approaches the mike as he is speaking, and the audience "sees" the performer coming toward it in the imaginary setting; d) fading off (or going off), the exact reverse of fading on; and e) behind an obstruction, where either through an electronic or manual device the performer sounds as if there is a barrier, such as a wall or door, between him and the center of audience orientation.

Sound Effects. Sound effects, also designated by the writer in the script, serve seven major purposes: a) to establish locale or setting; b) to direct the audience attention to emphasis on a particular sound; c) to establish time; d) to establish mood; e) to signify entrance and exits; f) to serve as a transition between program segments or between changes of time or place; and g) to create unrealistic effects.

Music. The writer must know how and where to indicate the use of music in his script to achieve any one or more of five major purposes: a) as content for a musical program; b) as the theme for any program type; c) for the bridging of divisions in a program; d) as a sound effect; and e) for background or mood.

Techniques and Terms. When the writer wishes to designate how sound and music are to be employed he must use terms universally understood by radio production people. Essential terms are: a) segue (seg-way), the following of one sound immediately by another; b) cross-fade, the disappearing of one sound even as the next one is being heard and growing stronger; c) blending, the combining of two or more sounds at the same time; d) cutting or switching, the instantaneous and abrupt movement from one sound source to another; and e) fade in and fade out, the gradual appearance of a sound, and the reverse.

More detailed descriptions of how production elements are achieved and utilized may be found in Chapters 2 and 3 of this book.

Audience Orientation

The radio medium permits a subjective as well as objective orientation of the audience. That is, the writer can, through proper designation of technical elements to be used, take the audience along with a performer or situation in the radio script. For example, in a public service announcement on safe driving, the audience may be with a character riding in a car. The car approaches the edge of a cliff. The writer must decide whether to put the sound of the character's screams and the noise of the car as it hurtles down the side of the cliff "on mike," thus keeping the audience with the car, or to fade these sounds into the distance, orienting the audience to a vantage point at the top of the cliff, watching the character and car falling downward.

The Drama

Although, as previously indicated, there is little outlet for the play on radio in this decade, the basic form of dramatic structure applies to other forms of radio writing, including the oft-used dramatic commercial and the potentially highly artistic documentary.

Although the genius and inspiration of playwriting cannot be taught, the proven principles of good dramaturgic technique, which apply to the structures of all plays, whether written for the stage, television, motion pictures or radio, can be utilized as tools for the construction and development of effective radio drama.

The writer of radio drama must be as familiar with the basic techniques of playwriting as is the person who writes the Broadway play. He must remember always that drama is heightened life, not a literal interpretation of it, and that the comparatively short broadcast time alloted to a single drama on radio requires a special heightening and condensation. Sources for the play are several: an event or happening, a theme, a character or characters, a background. No matter what the source, however, it is important to remember that all dramatic action is expressed as manifestations of the needs and purposes of the characters of the play. The characters in a drama are not carbons of real life, but are most effectively developed from a quintessence of many characters from the actual world. Perhaps the best continuing dramatic series on radio, "The Eternal Light," most effectively illustrates the combining of dramatic form and characters of real life, approaching what shall be described later as a semi-documentary or fictional documentary form.

The writer who would write plays for radio would do well to concentrate first on the elements of dramaturgy as taught in a course on playwriting. For purposes of practical application in the commercial radio field today, it is sufficient here to note the special dramaturgical characteristics of radio that are important to the writer who would apply these principles

not necessarily to the play, but to the other forms of writing that are most often produced.

Foremost, the writer must remember that he is dealing in mental images, with an "art of the imagination." He is not restricted by *unities* of time and place, as is frequently the writer for the theatre. Radio may present a character in one setting and in a twinkling transport him — and the audience — to an entirely different one. Radio may move us from a polar ice cap to the moon to a battlefield to a jungle to the depths of Hades, creating without restriction the settings for our imaginations. Radio has no visual limitations and the writer must remember not to restrict his own imagination by what he can "see." Radio has no physical limitations and can accommodate a conventional battlefield — or peace conference — with tens of thousands — or dozens — of participants, or, within seconds, a dozen celestial battlefields — or meeting places — with millions of interplanetary participants. No matter how loose the unities of time and place, however, the unity of action must be inviolate: that is, the dramatic script must have a consistency and wholeness of purpose and development; each sequence must be totally integrated with every other sequence, all contributing to the total goal or effect the writer wishes to create.

The radio play must have a *plot* structure approximating that of the good play in any medium: exposition, a conflict, complications, a climax and, if necessary, a resolution. It must have rising action which creates suspense and holds the interest of the audience. Because of the limitation of time, exposition may be revealed even as the action unfolds, the conflict may come at the very opening of the drama, and the play may be limited to one simple plot line.

Character should be the motivating factor in the drama. Time limitations prevent development of character in great depth, however, and sometimes plot, not character, becomes the motivating force. The characters, in any event, should be consistent with themselves and appropriate with reality, although heightened from real life. Character is revealed by what a character does and not principally through what he says; this creates a difficulty in radio, where actions, not descriptions, must be presented through dialogue and sound. Because too many voices may become confusing to a radio audience, the writer should limit the number of roles in the play and the number of characters in any one scene.

Dialogue must be consistent with itself and with the character, appropriate with the situation and the characters, and dramatically heightened. Because everything on radio is conveyed through dialogue and sound — and silence — dialogue on radio serves to forward the situation, reveal character and uncover the plot line even more than in other media. The dialogue should clearly indicate all the action taking place, introduce the characters and tell who they are and even describe them. But it must be done subtly and not through trite description of oneself or another character.

Exposition is difficult in radio because of the time limitation and because it must be presented solely through dialogue and sound. To solve this problem, radio drama utilizes a narrator more frequently than do other media.

Preparation must be valid and presented subtly. The writer must be sure that the audience is prepared for whatever the character does at the end of the play. Because of the lack of visual cues, radio frequently requires an overabundance of preparation.

Setting is extremely important in radio, since it must serve as a visual base for the audience. The writer faces the difficulty of creating visual images solely through dialogue and sound; on the other hand, he is limited only by the audience's imagination. The mental picture he creates must be the right one for the situation; the locale and environment must be believable for the characters and must forward the psychological and aesthetic purposes of the author as well as the plot of the play. Sound effects and music are highly important in clarifying movement, setting and action. Transitions of time and place, and exits and entrances must be clear.

Announcements and Commercials

Spot announcements may be commercial or non-commercial materials. Messages may be of varying lengths. A station break, usually 10 seconds, may consist entirely of the ID (station identification) or it may have a 2-second ID accompanied by an 8-second announcement. Other announcements within the "break" time may include a public service announcement, a station "cross-plug" for one of its other programs, a news flash, a service announcement — combining public service information with a sponsor identification — and, of course, a commercial.

Word counts sometimes may be used to determine time lengths for straight verbal messages. Approximate counts are: 10 seconds — 25 words; 20 seconds — 45 words; 30 seconds — 65 words; 45 seconds — 100 words; 60 seconds — 125 words. Commercials may be inserted within programs purchased by a sponsor and may be of longer lengths, with a 90-second announcement including about 190 words and a 120-second message containing about 250 words. Sometimes an entire 5- or 15-minute segment of programming may consist entirely of a commercial.

Public service announcements ordinarily are given as part of the I.D. The local radio station usually receives such announcements in a form already prepared by the writer for the distributing organization.

20-SECOND RADIO ANNOUNCEMENT

The lost Colony's population in 1587 was 118, before it vanished mysteriously. In North Carolina last year, 21,000 persons died from heart disease—"a Lost Colony of Heart casualties every

48 hours." The North Carolina Heart Association urges regular "Health and Heart Checkups" for you. See your physician.

Courtesy of North Carolina Heart Association

Some special service announcements are written for specific programs, to be inserted at appropriate places in the format. The following illustrates how the writer not only can go beyond the general spot announcement, but orient it toward a particular station and locality.

DISC JOCKEY PROGRAM (30 SECONDS, RADIO)
(AFTER MILLION RECORD SELLER)

DISC JOCKEY

_____(title and artist)_____ ...a record that sold a million copies. Easy listening, too. But here's a figure that's not easy to listen to: Over 1,000,000 American children are seriously emotionally ill. During National Child Guidance Week, the _____ PTA, in cooperation with the American Child Guidance Foundation, is holding a special meeting to acquaint you with the problems faced by children in ____(town or area)____. It's to your benefit to attend. Be there... ____(date and address)____... learn what you can do to help.

Prepared for American Child Guidance Foundation, Inc., by its agents, Batten, Barton, Durstine & Osborn, Inc.

The public service announcement, although not selling a product, nevertheless attempts to persuade the listener to support some cause. It must, in that sense, follow the purposes and techniques of commercial writing. At the same time, it must be in good taste and appeal to the audience's highest attitudes and feelings.

Commercial Formats

The *straight-sell* format is a simple, direct statement about the product. The straight-sell frequently uses a slogan or a gimmick that is repeated for a relatively long period — weeks, months and even years. The *educational* commercial usually uses logical, rather than emotional appeals, and reflects institutional as opposed to product advertising. The *testimonial* varies from the endorsement of a product by a celebrity to the asserted use of the product by ordinary people with whom the audience can most readily identify. *Humor* may vary from gentleness to outright satire. *Musical* commercials have long been popular. From the early jingle, musical com-

mercials have developed in some instances into presentations by entire orchestras. *Dramatizations* are very effective, particularly if they can be incorporated into the action of the program itself. Through the use of the dramatization the writer can easily apply the five steps of persuasion, described below, by the solving of a problem by one or more of the characters involved in the action of the commercial.

The physical form of the radio commercial is relatively limited. It may be either live or recorded (on record, tape or cartridge).

Writing Techniques

At one time the art of persuasion was practiced primarily in speech making. Today it is effected largely through the writing of broadcast commercials. The relationship between the two can be found in the application of Aristotle's principles of rhetoric. Aristotle noted three appeals: logical, ethical and emotional. The three, particularly the last one, emotional, apply to the writing of commercials today. An emotional appeal is not used to make one laugh or cry; rather, it plays on the basic needs and wants of the person or persons to whom it is addressed. Analyze the next few commercials you hear. You will notice that in all probability they will appeal to the non-intellectual, non-logical aspects of the prospective customer's personality. The automobile commercial, for example, most often appeals to the need for power and prestige. Most commercials are not so overt, however, and the good writer uses subtlety in making his appeal. Other basic emotional appeals are self-preservation, love of family, patriotism, good taste, reputation, religion, loyalty to a group and conformity to public opinion.

In order to use appeals effectively, the writer must know his audience as intimately as possible. Because the audience of the mass media is so diverse, accurate analysis is almost impossible. However, depending on the content of the program in or around which the commercials appear, and the location and coverage of the station, the writer can come to some conclusions concerning the needs and wants of his audience. Before writing the commercial, the writer should attempt to determine, as far as possible, the following about his potential audience: age, sex, size, economic level, political orientation, primary interests, occupation, fixed attitudes or beliefs, educational level, knowledge of the product, and geographical concentration.

The five steps in persuasive technique (Dewey's, Borden's, and those of many recognized authorities who have examined the subject, are similar in almost all instances) are found in the organization of the well-written commercial. These steps, in chronological order, are a) getting attention, b) holding interest, c) creating an impression that a problem of some sort exists, d) planting an idea of how the problem may be solved, and e) getting action — in this instance, the purchase of a product. An analysis of the script below delineates the five steps of persuasion. First, attention is ob-

tained by the talking of an inanimate object. Interest is held through the presentation of a conflict: "It's cold out and we're going to try to get started," and through the sound effect of the hard starting of a motor. The impression that a problem exists occurs in the above, and is further verified by the groaning and the statement that the pistons "can't get moving." Because of the brevity of the commercial — just 30 seconds — the subtle planting of an idea of how the problem may be solved is bypassed for the direct statement: adding a can of the advertised product. That the product solves the problem is made clear through the starting of the motor, and is followed up by the statements designed to get action from the listener: purchase of the product.

MR. MOTOR: Now hear this... this is Mister Motor talking to the moving parts in this engine. It's cold out and we're going to try to get started.

SOUND: HARD STARTING

MR. MOTOR: Sounds like groaning among you pistons.

PISTON: It's so cold down here we can't get moving.

MR. MOTOR: Then we'll add a can of Wynn's Friction Proofing.

SOUND: GLUG, GLUG, GLUG

MR. MOTOR: It makes cars start fast in cold weather... eliminates the need to warm up a cold engine. Let's try again.

SOUND: MOTOR STARTING SMOOTHLY

MR. MOTOR: Smooth!

ANNCR: Wynn's Friction Proofing makes starting easier, eliminates the need for cold engine warm up. Guaranteed to satisfy or your money back!

Courtesy of Wynn's Car Care Products; and Erwin Wasey, Inc.

The persuasive technique approach varies according to the form of the commercial and its length. The longer the commercial, the easier it is to make each step of persuasion more effective. In some forms it is difficult to see just how the process is being used — but it is there. See if you can trace the use of the persuasive technique in the following examples of different commercial formats, one a combination of straight-sell and humor, and the other the musical form.

ANNOUNCER:

And now

MUSIC

Your Gal Thursday

The story of a girl from a little mining town in Rhode Island and her search for flavor in a coffee that's 97 percent caffein-free. Yesterday, as Midge was about to leave for her job at the lumberyard, Aunt Mimi had just offered her a cup of coffee. When Midge said thanks anyway but coffee always made her a little tense, Aunt Mimi replied that what she needed was a caffein-free coffee. One that helps you relax and get more fun out of life. In her day, Aunt Mimi said, those caffein-free coffees didn't have much flavor... but today, she added, Nestle's DECAF has changed all that. When she revealed that DECAF puts unexpected flavor in a caffein-free coffee by taking the caffein out before roasting the flavor in... Midge, unconvinced, said she'd try it. Now as we join them, Midge is just going back for a third cup of DECAF's unexpected flavor... when suddenly the doorbell rings.

Courtesy of Warwick & Legler, Inc.

* * *

CHORUS: I loved a lad but he went to sea
And the same kind of thing always happened to me,
My loves would all end just before they'd begin
'Twas because of the state my complexion was in.

Too-ra-la. Too-ra-ly-o

One day I awoke to some wonderful news
Of the glamorous make-up that cover girls use
The fragrant new make-up Noxzema created
New Cover Girl Make-Up. It's medicated.

Too-ra-la. Too-ra-ly-o.

My Cover Girl covers my problem so well
That if I have a blemish now no one can tell
The liquid and powder were made to conceal it
And they're good for my skin so they even help heal it.

Too-ra-la. Too-ra-ly-o.

My love is now true, what a difference it made
Using Cover Girl Make-Up in my own skin shade.

MALE ANNCR: Get Cover Girl Make-Up by Noxzema.

Courtesy of Cover Girl Make-up by Noxzema

It is important for the writer to try to keep the commercial in good taste. It should be sincere, direct and simple. It should fit the personality of the performer delivering it. It should be grammatically correct. In persuasion, action words are very effective. Important ideas should be repeated, usually in different words or phrases unless the writer wishes to present a slogan. Avoid false claims and superlatives; unfortunately, in some instances pressures are put upon the writer to write in that manner. Commercials follow trends and fads, as do program types. For example, in the mid-1960's satire, sophisticated humor and the family type commercial were popular.

News and Sports

Any real happening that may have interest for people is news. In some instances the radio newswriter has to gather the material; in most instances he rewrites the material as it comes from the newsgathering sources. Writing radio news is basically the same as writing newspaper news: the five W's — Who, What, When, Where and Why — apply. Special considerations of the radio medium, however, necessitate some important modifications in their use.

Sources

On most stations news is obtained from the wire services. Networks and larger stations use, in addition, special reporters and correspondents. The writer for a specific program frequently needs only to adapt and rewrite in terms of the format of that news program. In some instances a staff writer may do no more than prepare a basic format with introduction, ending and transitions, and leave the actual newswriting to a special staff. In some local stations the writer frequently seeks, writes and delivers the local news all by himself.

Styles

The writer, in utilizing the five W's, must remember that the audience does not have a chance to go back and re-hear the news, as the newspaper reader has a chance to re-read. Therefore, broadcast news must be presented concisely, clearly, simply and directly. Transitions between news segments must be smooth. The material should be thought of in terms of dramatic action, but at the same time should be scrupulously accurate. The nature of radio permits presentation of news almost as it happens, something that newspapers cannot do. The broadcaster is entering the home at all hours of the day, and the selection of material should be in keeping with the composition of the audience and their actions as far as can be determined by the writer. The criteria in the NAB code concerning the treatment of news provide a good guide for the writer.

Broadcast Types and Content

The 5-, 10- and 15-minute straight news broadcasts are the most common. The writer may, however, be required to prepare the same news material for other broadcast types, including the news analysis, the personal opinion of the news, the news in depth technique and the editorializing approach. The writer should be aware of whether he is really writing straight news or whether he is coloring or orienting it toward a special purpose. In addition, there are special categories of news broadcasts, such as financial news, garden news, women's news, campus news and so forth.

Organization

The proper organization of the radio news program is at least as important as is an effective layout for the front page and the placement of stories on the subsequent pages of a newspaper. No matter what special organization is used, the writer should be certain that it is clear and logical and easily understood. News broadcasts are developed around one or a combination of several major organizational forms. The most commonly used approach is to put the most important story first and the others in descending order, as does the newspaper, and to divide the remaining stories of lesser importance into international, national, state and local groupings, and into special content areas, such as sports and weather. Sometimes a geographical grouping, in which stories occurring in the same geographical location are put together, is used. Topical groupings (stories with the same subject area) and size groupings (international down to local) are sometimes used independently.

The physical format of a news program may vary. It may begin with the announcer giving the headlines, followed by a commercial, and then the commentator coming in with the details. It may start with the commentator beginning directly with the news. Radio frequently presents news roundups, either from various parts of the country or even from various parts of the world, thus requiring a format suitable not only to the purpose and content but to the various reporter personalities involved. The following is an example of a 5-minute local news script for a metropolitan area station, WMAL, Washington, D.C. The script was for a 5 P.M. newscast.

With Congress back on the Hill after an eleven day summer recess, the legislative forum faces a considerable work-load before the 89th can adjourn. Included on the legislative docket are numerous proposals of particular interest to the District. WMAL's Ed Meyer has the report: (AUDIO CARTRIDGE-1:07)

Tomorrow's Democratic primary election in Virginia is expected to capture the interest of a half-million voters. This would set a record for a primary. Three contests command most interest. The two U.S. Senate seats now held by Harry Byrd, Jr. and A. Willis Robertson, and the 8th Congressional District where House Rules Committee Chairman, Howard Smith, is challenged by George Rawlings. Battling for the Senate seat of veteran A. Willis Robertson is State Senator William Spong of Portsmouth. The other Senate race is between Harry Byrd, Jr. and Armistead Boothe of Alexandria. Both candidates joined today in an appeal to the voters. (AUDIO CARTRIDGE- :37)

In another contest, Virginia's 10th Congressional District, which includes Arlington, Alexandria, Falls Church and a portion of Fairfax County, Clive DuVal of McLean and Thomas Woods of Falls Church seek the nomination to take on Republican Congressman Joel Broyhill in the November general election.

Voters in Fairfax City will also decide two referendum questions on tomorrow's ballot. Both would establish a school system in Fairfax City apart from that of Fairfax County.

The National Capital Region Transportation Planning Board today agreed to integrate its functions with the Metropolitan Washington Council of Governments. Fred Babson, chairman of the Transportation Board, said the move will make his Board a policy committee on transportation problems within the Council of Governments.

Two officials of the Congress of Racial Equality in Baltimore were charged with disorderly conduct today as they demonstrated at a West Baltimore discount department store. Among those charged was James Griffin, chairman of CORE in Baltimore. Five other Negroes were also charged as they attempted to block a driveway of the store. Two of the demonstrators suffered minor injuries. They were protesting what they consider to be low wages paid Negro employees of the department store.

The weather for Metropolitan Washington after this from (COMMERCIAL).

Courtesy of WMAL, Washington, D.C.

Sports

The straight sports program is much like the straight news program except that in sports broadcasting one can use colloquial phrases and technical terms which are familiar to sports fans. Most sports programs are of the recapitulation type which gives results of contests. The most-important-to-least-important story approach usually is used, presenting the results first of the most important sport of the particular time of year and gradually working down to the coming events of the least important sport. Local sports news is coordinated with national sports news on most local stations. As with all news broadcasts, however, the most important story, regardless of the sport or season, is the lead story. The sports feature program is one in which interviews, anecdotes and background stories on personalities and events are incorporated.

The live on-the-spot sports broadcast is the most popular form of sports program and, although essentially a special event, will be mentioned here. The writer for live sports coverage is concerned with transition continuity, including opening, closing and filler material. This includes information relating to pre-event color and action, statistics, form charts, the site of the event, the participants and human interest anecdotes. More and more on-the-spot broadcasters provide their own filler material to accompany their or their partner's live description of the game or contest. Where this material is prepared by the writer, the writer's function is primarily that of a researcher, and his script may be little more than an outline and/or a series of statistics, individual unrelated sentences or short paragraphs.

Special Events and Features

Special Events

The special event has in the 1960's, possibly as a result of a demand by the public and the Federal Communications Commission for more programming in the public interest, become increasingly significant in broadcasting. The special event is usually under the direction of the News Department of the station and is essentially something that is taking place live and is of interest — critical or passing — to the community. These on-the-spot presentations are similar to live sports coverage in that they are narrated rather than announced, and the writer must prepare continuity accordingly. Sometimes interviews or features are taped beforehand for insertion at the proper time during the reporting of the event. Special events ordinarily originate independently and include such happenings as parades, dedications, banquets, awards and the opening of new supermarkets. More significant kinds of special events, perhaps, are political conventions and astronaut launchings. The tragic assassination of President John F. Kennedy in 1963 was covered fully by most radio stations in the country.

Where possible — as in an anticipated special event such as election night coverage — the writer must study news stories, press releases, historical documents, books, locales and all other material that may be pertinent and helpful to him in preparing opening, closing, transition and filler material that may be needed by the broadcasters. Because the form of the special event is extemporaneous, the material, though prepared as fully as possible, should be simple and sound as though it were ad-libbed. In some instances, where the coverage is of a special event that does not require commentary by the broadcaster, the writer needs to prepare only an appropriate opening and closing. The following illustrates continuity that may be used for a continuing special event that is broadcast more than once.

PRGM: FCC HEARINGS

DATE:

TIME:

ANN: Good morning.
Good afternoon.
In just a few moments, your city station will bring you the ____day of the Federal Communications Commission hearings on network television policies and practices.

The hearings are taking place in the Interstate Commerce Building in Washington, D.C., before the entire Federal Communications Commission. Chairman Newton D. Minow is presiding.

Ashbrook P. Bryant, the Commission's Chief of the Office of Network Studies, will direct the questioning. We take you now to Washington, D.C.

* * *

That concludes this (morning's) (afternoon's) session of the FCC hearings on network television policies and practices. Your city station is bringing you these important broadcasts direct from Washington, D.C., in their entirety, through the week of February 5th. We are interested in your reaction to these broadcasts. Write, FCC Hearings, WNYC, New York 7. And join us again (at 1:45) (tomorrow morning at 10) for the next session.

Courtesy of the Municipal Broadcasting System—Stations WNYC, WNYC-FM, WNYC-TV—New York City.

Coverage in depth of a special event requires considerable preliminary work. Russ Tornabene, Director of News for NBC Radio, states: "Extensive research goes into the preparation of material to be used as background for broadcasting special events. For example, the research document prepared for the 1964 Olympics ran to about 500 pages. The basic research continuity book for the Gemini 8 coverage in March, 1966, was about 400 pages long, with special tabbed sections for various categories, such as medicine, biographical material, the space capsule and so forth. The job of the writer, therefore, in preparing background material for special events is an important one. In addition, the correspondent doing the broadcast adds to the basic book with research, interviews and materials of his own."

Special Features

The special feature differs from the special event in that the former is planned beforehand and is controlled by the station as a planned program. In addition, the special feature usually is pre-recorded. The writer prepares a complete script, much as he would prepare a documentary. Special features usually are short — two to five to 15 minutes in length; the former for fillers and the latter for full programs of a public service nature. The subject matter for the special feature varies. Some of the types of programs include the presentation of the work of a special service group in the community, a story on the operation of the local fire department, an examination of the problems of the school board, a how-to-do-it broadcast, and a behind-the-scenes broadcast relating to any subject — from raising chickens to electing public officials. The special feature offers the writer the opportunity to create a program of high artistic quality closely approaching the documentary. Although the script is of a public service nature, it does not have to be purely informational or academic. It may include forms of variety and drama, as well as the more common news and discussion materials. Special features customarily are oriented around a person or thing or situation.

The Documentary

Although the documentary on the network level has moved, by and large, from radio to television, occasional first-rate radio documentaries are being broadcast in the 1960's. Many regional stations have contributed importantly to the public interest by creating and presenting radio documentaries on controversial and vital subjects, and even small local stations originate documentaries from time to time on local issues.

The documentary not only combines many of radio's forms, including news, special events, special features, music and drama, but at its best makes a signal contribution to public affairs by interpreting the past, analyzing the present or anticipating the future — and sometimes it does all three in a single program.

Type and Form

The documentary falls into what have become three basic classic patterns: the strength and nobility of man in a difficult or hostile environment, as exemplified by the father of the modern documentary, Robert Flaherty, in *Nanook of the North;* the socio-economic-political problems facing society and the ways in which they can be solved, as seen in some of Pare Lorentz's films of the New Deal era; and the details, artistically expressed, of seemingly ordinary, everyday existence, as presented by John Grierson in *Night Mail.* Any given radio documentary can — and frequently does — combine more than one of these approaches.

Although the documentary is dramatic, it is not a drama in the sense of the fictional play. It is more or less a faithful representation of a true story. This is not to say, however, that all documentaries are unimpeachably true. Editing and narration can make any series of sequences seem other than what they really are. The semi-documentary or fictional documentary has achieved a certain degree of popularity, presenting a story based on fact, but fictionalizing the characters involved in a true event; or changing the happenings to make the true characters more exciting; or even taking several situations and characters from life and creating a semi-true composite picture. Some of Norman Corwin's semi-documentaries raised radio to its highest creative levels. It should be remembered by the writer that though the documentary essentially deals with the issues, people and events of the news, it is not a news story, but an exploration behind and beneath the obvious. It presents not only what happened but, as far as possible, the reasons for the occurrence, the attitudes and feelings of the people involved, and the implications and significance not only for some individuals, but for the whole of society.

Ordinarily, the documentary is put together in the field with tape recorders. Occasionally, a good documentary can be done in the studio with

already existing material and good transitional narration. Interviews and commentary, as well as the actual voices and sounds of the happenings, are important elements in the creation and editing of the radio documentary.

Procedure

Essentially, the documentary contains the real words of real persons (or their writings, published and unpublished, including letters, especially if the persons are not living or cannot possibly be reached and there is no record of their voices) and the sounds of the event. These materials, sometimes seemingly unrelated, must be put together into a dramatic, cohesive whole and edited in terms of a script.

First, the writer must have an idea. He must determine what subject of public interest is worthy of documentary treatment. The idea for the program frequently comes not from the writer, but from the producer. The writer (and/or his colleagues on the production team) must decide on the point of view to be presented. Then his real work starts, from thorough research in libraries, to personal visits to persons and places, to investigations of what audio materials on the subject are already available. When his research is completed, the writer can begin to prepare a detailed outline.

From his outline he can determine the specific material to be accumulated and selected. After he has heard — perhaps many times — all the potential program materials, he can prepare a final outline and write his script. During the process of gathering materials he constantly revises his outline, as new, unexpected material becomes available and as anticipated material turns out to be unavailable or unusable. The final script is used for the selection and organization of the specific materials for the final taping or editing of the program. It is significant, in terms of the high degree of coordination and cooperation needed to complete a good documentary, that in a great many instances the writer also serves as the producer and even as the director.

Technique

Human interest drama is a key to good documentary writing. Even if you want to present only facts, even if the facts seem stilted and dry, make them dramatic, develop them in terms of the people involved or, if the subject is inanimate, in terms of live attributes. The documentary script is developed in a dramatized fashion: the exploration of character, the introduction of a conflict (the problem which created the happening that requires documentary treatment), and the development of this conflict through complications until a crisis is reached.

A narrator is almost always used in the documentary. Use the narrator judiciously. If he plays too great a role, he may distract from the "live" material. Avoid the possibility that the program will sound like a series of taped interviews or lectures. Make the points clear and concise. A narrator

frequently can crisply summarize on-the-spot materials that would otherwise seem long and drawn out.

One of radio's finest documentaries is CBS' *Who Killed Michael Farmer?*, an exploration in depth of a murder, the murderers and their environment. The beginning of the documentary is presented here, with analysis of the organizational approach and some of the techniques used.

"WHO KILLED MICHAEL FARMER?"

OPENS COLD:

MURROW: This is Ed Murrow. Here is how a mother and a father remember their son — Michael Farmer.

ET: MR. AND MRS. FARMER:

MRS. FARMER: Michael was tall and very good looking. He had blond hair and blue eyes. Maybe I'm prejudiced as a mother, but I thought he had a saintly face.

MR. FARMER: He was always laughing and joking. He was a very courageous and spirited boy. He was athletic, even though he walked with a limp from an attack of polio when he was ten years old. He was an excellent student who had great plans for his future. It's a hard thing to realize that there is no future any longer.

MURROW: Michael Farmer died on the night of July 30, 1957. He was fifteen years old. He was stabbed and beaten to death in a New York City park. Boys in a teenage street gang were arrested for this crime. Ten gang members — under fifteen years of age — were convicted of juvenile delinquency and committed to state training schools. Seven other boys — fifteen to eighteen — stood trial for first degree murder . . . were defended by twenty-seven court-appointed lawyers. Their trial lasted ninety-three days; ended last Tuesday. This was the verdict of an all male, blue ribbon jury.

ET: JUROR:

We found Louis Alvarez and Charles Horton guilty of murder in the second degree, and we also found Lencio de Leon and Leroy Birch guilty of manslaughter in the second degree. We found Richard Hills and George Melendez not guilty because we believe these boys were forced to go along with the gang the night of the murder. We also found John McCarthy not guilty because we were convinced, beyond a reasonable doubt, that this boy was mentally sick and didn't know what was going on at any time.

MURROW: It would seem that this case now is closed. All that remains is for a judge to pass sentence. Under the law, the gang alone is guilty of the murder of Michael Farmer. But there is more to be said. More is involved here, than one act of violence, committed on one summer night. The roots of this crime go back a long ways. In the next hour — you will hear the voices of boys and adults involved in the case. This is not a dramatization.

The tragedy first became news on the night of July 30, 1957. At 6:30 on this steaming summer evening in New York City, the Egyptian Kings and Dragons gang began to assemble. They met outside a neighborhood hangout — a candy story at 152nd Street and Broadway, in Manhattan's upper West Side. They came from a twenty-block area . . . from teeming tenements, rooming houses and housing projects. One of their leaders remembers the number of boys present this night.

"WHO KILLED MICHAEL FARMER?"

A standard method of effectively opening a radio documentary is to select carefully out of the mass of taped material several short statements by persons involved and present them immediately in order to get the audience attention and interest as well as to tell, sharply and concretely, what the program is about. This is especially effective here in the opening statements of Mr. and Mrs. Farmer. The stark nature of the beginning of the program — it opens cold, no introduction, no music — lends force to the opening. Short opening quotes are not usually sufficient, however, to provide enough background information. The narrator condenses and states in terse terms the necessary additional material. The type of documentary is suggested close to the beginning. The statement: "But there is more to be said. More is involved here . . . the roots of crime go back a long ways" indicates the line of development: not only will the event and the people involved be explored in depth, but a problem will be presented and solutions will be sought.

ET: GANG MEMBER:

We had a lot o' little kids, big kids, we had at least seventy-five — then a lot of 'em had to go home before nine o'clock; we was supposed to leave at nine o'clock but then we changed our plans to ten o'clock, you know. So I told a lot o' little kids I don't wanna see them get into trouble, you know, nice guys, so I told them they could go home. So they went home. That left us with around twenty-one kids.

MORROW: People sitting on the stoops and garbage cans along this street watched them . . . grouped together, talking excitedly. They called each other by their nicknames: Magician, Big Man, Little King, Boppo. No one bothered to ask what they were talking about. This boy remembers.

ET: GANG MEMBER:

They were talking about what they were going to do and everything. They were going to fight and everything. But they'd never planned nothing. They just said we were gonna go to the fight and we were just gonna get some guys for revenge. They said we ain't gonna let these Jesters beat up any of our guys no more.

MURROW: The Jesters are a street gang in an adjoining neighborhood — Washington Heights, where Michael Farmer lived. The two gangs were feuding. Boys on both sides had been beaten and stabbed. There is evidence that this night the gang planned to surprise and attack any Jesters they could find. They came prepared for a fight.

ET: GANG MEMBER:

Some picked a stick and some had got some knives and chains out of their houses and everything. One had a bayonette. No, a machete.

MURROW: Holding these weapons they lingered on the corner of a brightly lit street in the heart of a great city. A police station was one block away. One gang leader went to a candy store . . . telephoned the President of a brother gang . . . requested guns and cars for the night's activity . . . was told: "We can't join you. We have troubles of our own tonight." Shortly after nine PM, the gang walked to a nearby park . . . was followed there by some girl friends. A gang member, 14 years old, continues the story.

ET: GANG MEMBER:

We went down to the park and sat around for a while. Then we started drinking and we drank whiskey and wine and we was drunk. Then we started talkin' about girls. We started sayin' to the girls that if they get us to bring us some roses an' all that — that if we get caught to write to us and all this.

MURROW: In one hour, Michael Farmer would be dead. The gang prepared to move out. Some had doubts.

Suspense is an important ingredient of the documentary. But it is not the suspense of finding out what is going to happen. The documentary is based on fact: we already know. The suspense is in learning the motivations, the inner feelings, the attitudes of the persons involved even as the actual event is retold. This is implied in the narrator's previous speech.

ET: GANG MEMBER:

I didn't wanna go at first, but they said come on. So then all the big guys forced me to go. I was scared. I was worried. I realized like what I was doing I'd probably get in trouble.

MURROW: They left the park and headed for trouble at about ten PM. They walked uptown toward the neighborhood of the rival gang — the Jesters. They walked in two's and three's to avoid attention. Along the way, they met, by chance, this boy.

ET: GANG MEMBER:

I was walkin' uptown with a couple of friends and we ran into Magician and them there. They asked us if we wanted to go to a fight, and we said yes. When they asked me if I wanted to go to a fight, I couldn't say no. I mean I could say no, but for old-times sake, I said yes.

MURROW: He was a former member of the gang—just went along this night, "For Old-times Sake." Next stop: Highbridge Park . . . within the territory of the Jesters. Michael Farmer lived one block from the park. In the summer, the Egyptian Kings and Dragons fought the Jesters at the park swimming pool. This pool is closed at ten PM but not drained. Boys in the neighborhood frequently slip through a breach in the gate to swim here late at night. The Egyptian Kings and Dragons regrouped near the pool. Two gang members continue the story.

ET: GANG MEMBERS:

FIRST BOY: We were waiting over there, in the grass. Then two guys went down to see if there were a lot of the Jesters down there. To check. I was kind of nervous; felt kind of cold inside.

SECOND BOY: They sent three guys around the block. We walked around the block to see how strong the club was we was gonna fight. To see if they had lots of guys and what-not. What we saw, they had lots of big guys. I'd say about nineteen, twenty or eighteen, like that. And we figured it out so we kept on walking around the block.

MURROW: While their scouts prowled the neighborhood, Michael Farmer and his friend, sixteen year old Roger McShane, were in Mike Farmer's apartment . . . listening to rock 'n' roll records. This is Mrs. Farmer.

We can see the use here of D. W. Griffith's technique of dynamic cutting: switching back and forth between two or more settings and two or more persons or groups of people who are following a parallel course in time and in action. The actions of the gang have been presented in chronological order. Now time is moved back and the actions of Michael Farmer and Roger McShane will catch up in time and place.

ET: MRS. FARMER:

They stayed in his room playin' these new records that they had bought and Michael came out to the kitchen, just as I asked my husband what time it was, to set the clock. It was then five after ten. He asked for a glass of milk and as he walked from the kitchen, he asked, "I'm going to walk Roger home." And that was the last time I saw him.

MURROW: Both boys had been warned by their parents to stay out of Highbridge Park at night. But, as they walked along the street on this steaming July evening, they decided to sneak a swim in the park pool. At this pool, the Egyptian Kings and Dragons were waiting for their scouts to return. Here is what happened next; first in the words of Roger McShane; then in words of the gang members.

ET: McSHANE AND EGYPTIAN KINGS:

McSHANE: It was ten-thirty when we entered the park; we saw couples on the benches, in the back of the pool, and they all stared at us, and I guess they must 'ave saw the gang there — I don't think they were fifty or sixty feet away. When we reached the front of the stairs, we looked up and there was two of their gang members on top of the stairs. They were two smaller ones, and they had garrison belts wrapped around their hands. They didn't say nothin' to us, they looked kind of scared.

FIRST BOY: I was scared. I knew they were gonna jump them, an' everythin' and I was scared. When they were comin' up, they all were separatin' and everything like that.

McSHANE: I saw the main body of the gang slowly walk out of the bushes, on my right. I turned around fast, to see what Michael was going to do, and this kid came runnin' at me with the belts. Then I ran, myself, and told Michael to run.

SECOND BOY: He couldn't run anyway, cause we were all around him. So then I said, "You're a Jester," and he said "Yeah," and I punched him in the face. And then somebody hit him with a bat over the head. And then I kept punchin' him. Some of them were too scared to do anything. They were just standin' there, lookin'.

THIRD BOY: I was watchin' him. I didn't wanna hit him, at first. Then I kicked him twice. He was layin' on the ground, lookin' up at us. I kicked him on the jaw, or some place; then I kicked him in the stomach. That was the least I could do, was kick 'im.

FOURTH BOY: I was aimin' to hit him, but I didn't get a chance to hit him. There was so many guys on him — I got scared when I saw the knife go into the guy, and I ran right there. After everybody ran, this guy stayed, and started hittin' him with a machete.

MURROW: The rest of the gang pursued Roger McShane.

ET: McSHANE:

I ran down the hill and there was three more of the gang members down at the bottom of the hill, in the baseball field; and the kids chased me down hill, yelling to them to get me.

MURROW: Members of the gang remember.

ET: EGYPTIAN KINGS AND McSHANE:

FIRST BOY: Somebody yelled out, "Grab him. He's a Jester." So then they grabbed him. Mission grabbed him, he turned around and stabbed him in the back. I was . . . I was stunned. I couldn't do nuthin'. And then Mission — he went like that and he pulled . . . he had a switch blade and he said, "you're gonna hit him with the bat or I'll stab you." So I just hit him lightly with the bat.

SECOND BOY: Mission stabbed him and the guy he . . . like hunched over. He's standin' up and I knock him down. Then he was down on the ground, everybody was kickin' him, stompin' him, punchin' him, stabbin' him so he tried to get back up and I knock him down again. Then the guy stabbed him in the back with a bread knife.

THIRD BOY: I just went like that, and I stabbed him with the bread knife. You know, I was drunk so I just stabbed him. (LAUGHS) He was screamin' like a dog. He was screamin' there. And then I took the knife out and I told the other guys to run. So I ran and then the rest of the guys ran with me. They wanted to stay there and keep on doin' it, so I said, "No, come on. Don't kill the guy." And we ran.

ET: FOURTH BOY: The guy that stabbed him in the back with the bread knife, he told me that when he took the knife out o' his back, he said, "Thank you."

McSHANE: They got up fast right after they stabbed me. And I just lay there on my stomach and there was five of them as they walked away. And as they walked away they . . . this other big kid came down with a machete or some large knife of some sort, and he wanted to stab me too with it. And they told him, "No, come on. We got him. We messed him up already. Come on." And they took off up the hill and they all walked up the hill and right after that they all of 'em turned their heads and looked back at me. I got up and staggered into the street to get a cab. And I got in a taxi and I asked him to take me to the Medical Center and get my friend and I blacked out.

MURROW: The gang scattered and fled from the park. This boy believes he is the last gang member who saw Michael Farmer this night.

ET: GANG MEMBER:

While I was runnin' up the footpath, I saw somebody staggering in the bushes and I just looked and turned around, looked up and kept on runnin'. I think that was the Farmer boy, he was staggerin' in the bushes.

The suspense has been built and a climax reached. The selection and editing of taped materials to tell the story of the assault and murder are done magnificently. Excerpts from the taped interviews were selected to follow a chronological pattern and to present the actions, feelings and attitudes of the gang members in terms of increasing tempo and violence. Various physical and emotional viewpoints are presented, all relating to one another and building the suspense into an ultimate explosion. The documentary should be dramatic. Is there any doubt about the existence of drama in the preceding sequence? The audience is put into the center of the action, feeling it perhaps even more strongly than if the incident were fictionalized and presented, as such incidents frequently are, on a "private-eye" series. Could any line of a play be more dramatic than, in context, "That was the least I could do, was kick 'im," or "(LAUGHS) He was screamin' like a dog," or "The guy that stabbed him in the back with the bread knife, he told me that when he took the knife out o' his back, he said 'Thank you'."?

MURROW: He left behind a boy nearly dead . . . continued home . . . had a glass of milk . . . went to bed. But then.

ET: GANG MEMBER:

I couldn't sleep that night or nuthin' cause I used to fall asleep for about half an hour. Wake up again during the middle of the night. My mother said, "What was the matter with you? Looks like something is wrong." I said, "Nothin'."

MURROW: That boy used a baseball bat in the attack. This boy used a bread knife.

ET: GANG MEMBER:

First I went to the river to throw my knife away and then I went home. An' then I couldn't sleep. I was in bed. My mother kept on askin' me where was I and I . . . I told her, you know, that I was in the movies. I was worried about them two boys. If they would die . . . I knew I was gonna get caught.

MURROW: At Presbyterian Medical Center, Roger McShane was on the critical list. Before undergoing major surgery that saved his life, he told about the attack in Highbridge Park. The official police record reveals what happened next. The speaker: New York City's Deputy Police Commissioner, Walter Arm.

The remainder of the script, after detailing what happened, deals with actions and attitudes following the crime, indicating that there is more to the story than overt events and that the persons involved are not the two dimensional characters of a television fiction series. The script explores motivation and gets behind the problem. Interviews with experts provide the transition into the establishment of the problem as one that goes beyond the specific incident and area. After investigating the reasons for the problem, the documentary explores some possible solutions, those already attempted and those still to come.

It is not necessary to have a network budget and a plethora of personnel to do a good documentary. The following is the first part of an award-winning documentary put together by students without a budget and relying heavily on library research and interviews with persons locally available. In this composite of script and verbatim description, the final script is shown in capitals, and the material in parentheses is that actually recorded and incorporated into the program with the narration.

THE PIEDMONT NORTH CAROLINA FARMER AND POLITICS, 1961

OPEN COLD:	TAPE #1, CUT 1, DUPREE SMITH: "I WOULD LIKE VERY MUCH . . . BEST PLACE TO WORK."
	(I would like very much to spend my entire life here on the farm because I feel like being near the land and being near the soil and seeing the operation of God on this earth is the best place to live and the best place to work.)
MUSIC:	IN, UP, AND UNDER
NARRATOR:	THIS IS THE SMALL FARMER IN THE PIEDMONT OF NORTH CAROLINA.
MUSIC:	UP AND OUT
NARRATOR:	YOU ARE LISTENING TO THE "PIEDMONT, NORTH CAROLINA, FARMER AND POLITICS, 1961." THE VOICE YOU JUST HEARD WAS THAT OF DUPREE SMITH, A FARMER IN PIEDMONT, NORTH CAROLINA. IN RURAL AMERICA A CENTURY AGO THE FARM PROBLEM WAS AN INDIVIDUAL ONE OF DIGGING A LIVING OUT OF THE LAND. EACH FARMER SOLVED HIS OWN INDIVIDUAL PROBLEMS WITHOUT GOVERNMENT AID. NEARLY EVERYONE FARMED. TODAY, BECAUSE OF INCREASING COST OF MAINTAINING CROPS, LARGER SURPLUSES, HEAVIER STORAGE COSTS AND LOWER FARM INCOME, THE SMALL FARMER IN NORTH CAROLINA, AS WELL AS ACROSS THE NATION, HAS BEEN UNABLE TO DEPEND ON HIS LAND FOR A LIVING. PRODUCTION CONTINUED TO GROW. SURPLUSES MOUNTED. FARM INCOMES FELL AND THE GOVERNMENT SUBSIDIES NECESSARILY GREW.
PROFESSOR KOVENOCK:	TAPE #2, CUT 1: "THE COMMON PROBLEMS . . . ARE THESE."
	(The common problems shared by almost all national farmers today and, at the same time, most North Carolina farmers, are these.)

NARRATOR: YOU ARE LISTENING TO PROFESSOR DAVID KOVENOCK OF THE POLITICAL SCIENCE DEPARTMENT OF THE UNIVERSITY OF NORTH CAROLINA.

KOVENOCK: TAPE #2, CUT 2: "FIRST OF ALL . . . SHELTER FOR HIS FAMILY."

(First of all, a decline in the income going to the farmer—a problem of—this is particularly for, let us say, the marginal farmer, the farmer with a small operation in North Carolina and the rest of the country—the problem of obtaining employment off the farm, that is, some relatively attractive alternative to continuing an operation on the farm that is becoming insufficient for feeding, clothing, and buying shelter for his family.)

NARRATOR: THIS IS DUPREE SMITH'S PROBLEM.

SMITH: TAPE #1, CUT 2: "YES, THAT WAS MY DESIRE . . . PART TIME AND WORKING."

(Yes, that was my desire after returning from service, was to go back to nature and live and raise a family where I felt that I would enjoy living to the fullest. For several years, on this same amount of land, I was able to support my family and myself adequately. For the last year or two, this has been on the decrease. The decline has been to such extent, that I've had to go into other fields—my wife helping part time and working.)

NARRATOR: WHAT SPECIFICALLY ARE DUPREE SMITH'S PROBLEMS?

KOVENOCK: TAPE #2, CUT 3: "THE COMMON PROBLEM . . . OCCUPATIONAL PURSUIT?"

(The common problem shared by the North Carolina farmer and by the national farmer would be, first of all, the condition of agriculture, the relationship of the supply of agricultural commodities to the demand and, of course, consequently, the price that the farmer receives which, of course, now is somewhat depressed. The second major problem is the condition of the rest of the economy as a whole—that is, is it sufficiently good so that the farmer has some alternatives to continuing his, currently, rather unsatisfactory occupational pursuit?)

NARRATOR: FARMERS ARE MARKETING MORE, BUT ARE RECEIVING LOWER PRICES FOR THEIR CROPS AND PRODUCE. DR. PHILLIPS RUSSELL, A FORMER COLLEGE PROFESSOR AND RETIRED FARMER, HAS THIS TO SAY:

PHILLIPS RUSSELL: TAPE #3, CUT 1: "THE FARMER HAS BEEN LOSING . . . IN AN UNPROTECTED MARKET."

WUNC, University of North Carolina

Talks Programs

"Talks" is an all-inclusive term that covers such diverse program types as interviews, discussions, quizzes, panel and audience participation shows, and speeches. Most of these programs do not use complete scripts, partially because the program is in many cases more or less extemporaneous and partially because the non-actors who appear on many of these programs cannot make a script sound ad-libbed as can the professional performer. Yet, in order to make certain that the program is as good as it can be, the writer has to prepare each script as thoroughly as possible beforehand. In most instances he has only to write a detailed routine sheet — that is, scripts which are written out as fully as possible with as much of the dialogue and description of the action as can be prepared, at the same time leaving gaps for the non-memorized dialogue or action of the participants. Frequently, a key phrase or a question or a description of an action or routine suffices, with the master of ceremonies or principal performer or participants filling in extemporaneously during the program.

The Interview

The completely prepared interview is too risky because the interviewee, unless he is a professional performer, may sound too stilted and be embarrassing. The completely ad-lib interview is also too dangerous and is rarely used except for the man-in-the-street situation. The most frequently used form of script or routine sheet for the interview consists of carefully and fully prepared questions and, through pre-interviewing, general lines of answering. The writer of the interview, after research on the subject and on the interviewee, prepares preliminary questions. A pre-interview conference is held with the interviewee, during which time the preliminary questions are discussed and anticipated answers are set. On the basis of this information, the writer can prepare a detailed rundown and routine sheet. The rundown sheet — used for many types of programs — lists the program segment and the elapsed time for that segment (see page 159); the routine sheet — also used for many program types — contains more detailed material, as described earlier.

The interview program may vary from strictly questions and answers to discussion. In many instances a pre-interview is not possible. In that case, the producer will try to get the interviewee to the studio before the program for a rehearsal or at least a warm-up session. In any case, the writer must at least prepare the opening and closing, introductory material about the interviewee, and some transition material between program segments for lead-ins and -outs for commercials.

Types. There are three major interview types. The *opinion* interview is exemplified by the man-in-the-street ad-lib approach, for which the writer may prepare only an introduction, a question, and follow-up questions. When the opinion interview is with a prominent person, the *personality* interview may be combined with the opinion type. The *information* interview has as its purpose the eliciting of factual material of a public service nature from relatively unknown or well-known persons. Because the presentation of information is the object, the routine sheet may be more detailed than for other types of interviews. The personality interview is perhaps the most popular kind in radio because of its orientation toward the human interest or feature story. In all cases, the writer should obtain full background information on the interviewee, and in addition to the usual opening, closing, introduction and transition material, should have ready a series of follow-up and probe questions developed in light of probable answers elicited during the pre-interview. An interview may take place with one or more interviewees and with one or a panel of interviewers.

The following is an example of the routine sheet-outline script, omitting the formal opening and closing, prepared and used by Duncan MacDonald for her 30-minute interview program on WQXR, New York.

Twenty years ago the United Nations Charter was signed in San Francisco. In observance of this anniversary our guest today is Dr. Rodolphe L. Coigney, Director of the World Health Organization liaison office with the UN in New York City.

Dr. Coigney was born and educated in Paris. His career in international health began in 1944. In 1947 he became director of health for the International Refugee Organization. In his present post at the UN he represents WHO—the World Health Organization—at Economic and Social Council meetings, the Committee of the UN General Assembly, and other bodies of the UN.

1) Dr. Coigney, as one of the 10 specialized agencies of the UN, what is WHO's specific function?
   a) Is it included in the Charter of the UN?
   b) Active/passive purpose?
   c) Is WHO affected by various crises within UN? Financial/political?
      Your own crises in health?
   d) Do you have specific long term goals, or do you respond only to crises in health? Earthquakes/Floods/Epidemics?

2) How does the work of WHO tie in with other UN organizations?
   UNICEF/ILO/Food and Agriculture/UNESCO/International Civil Aviation/International Bank/Reconstruction and Development/International Monetary Fund/Universal Postal / International Communications / World Meteorological.

3) Background of WHO.
   a) How started? Switzerland?
   b) Headquarters for all international organizations?

4) How much would the work of WHO differ in a country medically advanced, such as Sweden, as opposed to developing countries: Africa, Far East?
   a) Religious or social taboos?
   b) Witch doctors?
   c) Birth Control?

5) Can you give an example of a decision made at Headquarters and then carried out in some remote area of the world?

6) What do you consider WHO's greatest success story in fighting a specific disease: malaria, yaws?
   a) Ramifications of disease?
      Economic/Disability for work?

7) Your secretary mentioned on the phone that you were going to Latin America. What specifically takes you there now?

8) How does a country get WHO assistance?
   a) Invited?
   b) Matching funds?

9) We are aware of the shortage of doctors and nurses in the United States. What is the situation world-wide?
   a) Do you think Public Health is an important career for young people? Now? For the future?

Courtesy of Duncan MacDonald, radio commentator on WQXR—the radio station of The New York Times.

Discussion Programs

Discussion programs, which are aimed toward an exchange of opinions and information, should not be confused with the interview, in which the purpose is to elicit and not to exchange. The writer of the discussion program has to walk a thin line between too much and not enough preparation. It is not possible to write a complete script, partially because the participants frequently cannot know exactly what specific material is to be presented at any given time. On the other hand, a complete lack of preparation would likely result in a program in which the participants would ramble and would present the moderator with the impossible task of getting someplace without anyone knowing where he or they were going. A detailed discussion outline distributed to all participants some time prior to the program and altered as they respond to it, also before the program

date, is the most effective kind of script. In addition, the writer should prepare opening and closing material, introductions of the participants, and general summaries for the moderator, based on the outline.

There are several types of discussion programs. The *panel* discussion — not to be confused with the quiz-type or interview-type panel — is the most often used and the most flexible. Ordinarily it presents a number of people in a more or less formal exchange of ideas on some topic of interest, with the participants having done as much or as little background preparation as they desired. A moderator attempts to keep the discussion on the track and frequently summarizes. The routine sheet consists of the moderator's opening remarks, the introduction of the panel members, a statement of the problem by the moderator, a flexible outline of the topics to be discussed and developed, and the closing. The *symposium,* now infrequent, but once made famous by the long-running "Town Meeting of the Air" radio series, is more structured, with participants given equal time for opening statements and closing summaries, questions from the audience occupying a center portion of the program, and the subject a highly controversial one, with clearly opposing opinions represented among the participants. *Group discussion*, where the participants come to mutually agreeable solutions to the problem, and the formal *debate* are rarely heard on radio.

The following is the beginning and end of a script-routine sheet prepared for a panel discussion program. Note the use of sub-topics to reinforce the discussion of the principal question. The script repeats the "principal question-subtopics" outline four times.

WUNC "CAROLINA ROUNDTABLE"

"The Berlin Crisis"

Thursday, 7-8 P.M.

MODERATOR (GEORGE HALL): (OPEN COLD) West Berlin—to be or not to be? This question has been reiterated thousands of times by the peoples of the world. With the erection of physical barricades between the Eastern and Western zones of Berlin, conflict between the East and West German regimes has become one on which may very well hang the future of the entire world.

This is your Moderator, George Hall, welcoming you to another "Carolina Roundtable."

All of us are by now fearfully aware of the critical importance of West Berlin. Most of us recognize that the East Berlin limitations on inter-city travel and the West Berlin opposition to negotiation with and recognition of the East have created an impasse that demands a response from both sides. What is that response to be—not only that of the West and of the United States, but that of the Communist East and of the Soviet Union? How will the choice of a course of action determine not only the fate of both Berlins, but of mankind? Are there any areas of compromise that would be satisfactory to all parties?

This evening, with the aid of our guests, we will attempt to seek answers to these questions.

Dr. Charles B. Robson is a professor of Political Science at the University of North Carolina and an authority on Germany. Dr. Robson teaches in the fields of German government and in modern political theory. He recently spent a year in Germany studying that country's political affairs. Good evening, Dr. Robson.

ROBSON: (RESPONSE)

MODERATOR: Dr. Leopold B. Koziebrodzki is an associate professor of Economics and History at the University of North Carolina. His special field is Russian foreign relations in the twentieth century, and he has observed first-hand governmental policies of eastern European countries in relation to the Soviet Union. Good evening, Dr. Koziebrodzki.

KOZIEBRODZKI: (RESPONSE)

MODERATOR: Dr. Samuel Shepard Jones is Burton Craige Professor of Political Science at the University of North Carolina. His area of specialization is United States foreign policy and international politics. He has served as cultural attache with the U.S. State Department, and has lectured before the National War College. Good evening, Dr. Jones.

JONES: (RESPONSE)

MODERATOR: I'd like to remind you gentlemen, and our listeners, that questions are encouraged from our listening audience. Any one having a question, for any or all of our panel members, is invited to phone the WUNC studios at 942-3172. Your question will be taped and played back for our panel to answer at the first opportunity. The number, again, is 942-3172.

Now, gentlemen, with the East German government having seized the political offensive, it seems as if the next step is up to the West. In view of the growing power and influence of the small and uncommitted countries in the United Nations, what concessions, if any, should the West be prepared to make in the interest of peace in Berlin? Dr. Jones, would you start the discussion on this matter?

(BRING IN OTHER PANELISTS ON THIS QUESTION. THROUGH PRE-DISCUSSION, DETERMINE TENTATIVE AGREEMENT ON SOME AREAS, AS BELOW.)

(SUB-TOPICS, AS NEEDED)

1. Berlin to be a free city under U.N. jurisdiction, as proposed by Soviet Union?
2. Limited recognition of East German government?
3. Demilitarization of West Berlin, with most Western troops withdrawn?
4. Eventual admission of East Germany into U.N.?

MODERATOR: (REMINDER TO AUDIENCE ON PHONE CALLS)

* * *

MODERATOR: (IF ABOVE TOPICS NOT CONCLUDED BY 8 MINUTES BEFORE THE END OF THE PROGRAM, SKIP TO FOLLOWING:) Of all of the possibilities discussed on the program, which, if any, do you think have the most chance of acceptance?

(IF FEW OR NONE, ASK ABOUT ALTERNATIVES AND POSSIBILITIES OF WAR.)

MODERATOR: (SUMMARY AT 3-MINUTE MARK.)

1. Possible concessions by West.
2. Attitudes and actions of East Germany and the East.
3. Attitudes and actions of West Germany.
4. Future of Berlin.
5. Chances of war.

MODERATOR: (AT 1-MINUTE MARK) Dr. Charles Robson, Dr. Leopold Koziebrodzki, and Dr. Shepard Jones of the University of North Carolina, we thank you for being our guests this evening on this "Carolina Roundtable" discussion of the possible solutions to the Berlin problem.

GUESTS: (MASS RESPONSE OF GOOD NIGHT, ETC.)

MODERATOR: We thank you all for listening, and invite you to join us next week at this same time when "Carolina Roundtable's" guests, _____, _____, and _____ will discuss _____.

This has been a presentation of WUNC, the FM radio station of the Department of Radio, Television and Motion Pictures, in the Communication Center of the University of North Carolina. Continuity was written by Gilbert File, and the program was directed by Reno Bailey. Your moderator has been George Hall.

Quiz, Panel and Audience Participation Shows

These mainstays of radio in the pre-and post-World War II years have virtually all migrated to television. A few of these programs are heard, however, on networks; local and regional stations occasionally develop their own programs along these lines. The goal in these formats is for someone to solve a problem, stump an expert, or successfully perform some feat that is somehow embarrassing and humorous at the same time. The writer does not create a full script; but because these shows communicate an extemporaneous quality, he does work up a routine sheet. Since the program must seem spontaneous, yet professional in quality, as much material must be prepared beforehand as possible. As far as the non-professional participants are concerned, the material cannot be in dialogue form. The detailed routine sheet should consist of the opening and closing, the introductions of the participants, the presumably ad-libbed gags, the questions and similar material, and the transitions between program segments. The writer tries to find a "gimmick" which will involve the audience in the proceedings, such as being phoned to share in a prize.

Speeches

Inasmuch as most speeches are prepared outside the station, the staff writer usually has no concern with them except for the opening and closing of the station's part of the program. In some instances, usually on the

local level, speakers unfamiliar with radio's time requirements may have to be advised how and where to trim their speeches so that they are not cut off before they finish. In other instances it may be necessary to help the speaker rewrite in terms of legal, FCC or station policy concerning statements made over the air.

Women's Programs

Perhaps one of the most potentially successful program types for radio which has not been exploited as fully as it might be is the so-called women's program. Although there are many programs which attract primarily women listeners because of the time of the day they are presented, the term "women's program" as used here refers to the presentation which carries content that is of interest primarily to women, regardless of the time of day it is heard.

The greatest opportunity for the writer of women's programs is on the local station level. The content of women's programs ranges from announcements of club meetings to advice on interior decoration to examinations of juvenile delinquency. Such programs are particularly effective on small, independent stations where matters of a social and civic nature are of more personal interest than in the larger community. The local women's show usually concentrates on local news, local fashions, local personalities, and local social and civic events and problems. The program can make an important educational contribution because of, rather than in spite of, its limited coverage. Many such shows have reinforced civic campaigns of interest to the housewife, such as promoting higher budgets for the schools or improvements in municipal services.

At the same time, the women's program has unlimited commercial possibilities. In a format which includes a number of subject areas such as fashions, food, personal grooming and interior decoration, there need be no dearth of advertisers. A sponsor most often may be found for the portion of the program dealing with his particular product or service. The program is usually written in a magazine format to accommodate these sponsorship potentials. Programs dealing with just one subject, such as gardening or cooking, often require a single sponsor for the entire time period. The writer of the women's show on the local station usually is the same person — a woman — who conducts the program. The writer's work varies, with the content of the particular portion of the program dictating the extent to which a brief routine sheet or a detailed script should be prepared. In any event, the program should be informal and chatty, although it should never condescend or talk down to its audience. Many other forms of programming can be brought in, including the interview, the special feature, the panel discussion, and even a live musical presentation. The more listeners who can participate in the program — even if only by phoning in questions to the guest expert — the more effectively an audience can be built.

Music Programs

Music comprises the bulk of radio programming today — almost exclusively on what has become known as the disc jockey show — through records, transcriptions and tape. Independent stations rely primarily on music for program content and even network affiliates devote most of their non-network time to music shows.

Music Types and Formats

In recent years the prepared script for the disc jockey show has virtually disappeared, especially for the pop program. Some disc jockeys can grab a batch of records at the last minute and somehow spontaneously organize them into a program with continuity, but such a haphazard procedure usually is reflected in the final result. This means, then, that even without a formal script, organic unity must somehow be created for the music program — that is, a central theme, a focal point around which all the material is organized and from which the program grows and develops. Even without the traditional script, preparation must be made. On good stations, such preparation, equivalent to actually writing a script, is arduous and time consuming. On page 175, Harold Green, program director for WMAL, Washington, D.C., details the kind of preparation required by his announcers, including the gathering and development of material to be used as continuity on the disc jockey show.

The central theme of the music program may be oriented around an event, a type of music, a holiday, a composer's birthday, a visit to town by a rock and roll star — anything that can give the show unity. Clear transitions should be developed from number to number so that the program builds, moving from a good opening selection through careful variation to avoid boring repetition, until a high point is reached at the climax of the program.

There are various kinds of D.J. programs, ranging from rock and roll to classical music, and including popular programs oriented around a personality, around a type of music and around a subject, special types such as folk songs or jazz, including variations on the latter from "New Orleans" to "cool," and other kinds such as marching bands and novelty combos. Two examples of central themes in classical programs are illustrated in the following opening statements from scripts. In each case, of course, the full continuity expounds on the themes in detail.

> ANNCR: The three greatest masters of the Viennese classical school are Ludwig von Beethoven, Wolfgang Amadeus Mozart and Franz Joseph Hayden. Today we will hear works by each of these three masters.

ANNCR: Today's program is devoted to musical works that deal with the supernatural. One of the three selections is from an opera, one is a suite from a ballet, and the third is a symphonic poem, later used for a ballet.

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Style

It is important to get variety into the music program, notwithstanding the fact that in many popular disc jockey shows the teen-age audience may seem to appreciate only the same seemingly repetitious sound and incomprehensible lyric. Be conscious of the ever-changing fads and fancies of the young D.J. audience. The disc jockey, in great degree, molds and determines the tastes in popular music. In the classical program the writer must be more of an "expert" than in the pop music show. The classical music audience expects more than cursory introduction and closing notes, and appreciates analysis on a mature level. The writer cannot simply say "This is the finest example of chamber music written in the 19th century." He should give the reasons why.

Continuity should not play down to what one thinks may be a low level of taste, either in the popular or classical program. The D.J.-producer-writer must analyze the potential audience, and though he gives the listeners what will interest them, he should nevertheless present the best of that type of music. He must adhere to the purpose of the given program; the audience tunes in because it likes that particular format, which may be for relaxation, for education, for dancing or for any number of other purposes. This suggests an adherence to a single type of music. Although there are exceptions, the mixing of Beethoven and "bop" or of "rock and roll" with string quartets is not likely the most effective way of building an audience.

Continuity should be fresh. In most disc jockey programs continuity sometimes seems to be limited to phrases where orchestras always "render" and singers always give "vocal renditions of," where pianists always play "on the 88" or are given to "impromptu meanderings," and where songs and singers are interminably "ever-popular" and "scintillating." If it is impossible to think of something new and fresh and not trite, the best style is to keep it simple. Because music itself makes up the bulk of the program content, continuity is comparatively short. Learn how much continuity is needed by first outlining the program and noting the time of each musical selection to be played. Rundown sheets, such as the following, are commonly used.

THE JIM LOWE SHOW, AUGUST 28, 10:10-10:30 A.M.

1. S'WONDERFUL SHIRLEY BASSEY MGM

LIVE: COMMERCIAL (60)

2. PUT AWAY YOUR TEARDROPS
STEVE LAWRENCE COL

LIVE: COMMERCIAL (30)

3. VOLARE ELLA FITZGERALD VERVE

LIVE: PROMO, NEWS (15)

4. THE JOLLY PEDDLER HARRY SOSNICK MERCURY

ET: COMMERCIAL (60)

5. I LOVE PARIS ANDY WILLIAMS CADENCE

6. COMIN' HOME BABY JACK LAFORGE REGINA

OFFTIME: 29:55

Courtesy of WNBC-AM/FM, New York

Live — that is, non-record — music programs and variety shows have all but completely disappeared from radio. Where they do exist, the writer usually orients them to a type of performance such as a vocalist or a twin-piano team or a novelty group or an orchestra. Writing the live program is essentially the same as writing the D.J. show, except that in the live situation the writer can include material that reflects the events of a variety program by inserting live personalities in the dialogue portion of the script.

The Radio Magazine

One of the interesting experiments of post-television radio has been the magazine format, in which a continuous stream of different kinds of materials — music, news, interviews, discussions, human interest, features, sports, special events, skits, and a voluminously interspersed series of commercials — is presented over a given, extended time period. This format seems oriented toward the person on-the-go, the listener who may be occupied primarily in other things and who will listen with one ear most of the time and with both ears some of the time and who can be held with a well-produced, interesting variety of short program segments.

The writer's job is two-fold: research and organization. He must prepare a routine sheet which clearly delineates the time length for each presentation and which accurately schedules the commercial announcements. He must provide accurate background material for introduction to

the differing sections of the program, and sometimes writes complete script material where a prepared and rehearsed segment is used at the pilot studio. Other scripting is done by local people in the "field," for most of the material on the program is usually "remote." Perhaps the most difficult job is total arrangement of the program, over many hours, to provide both continuity and variety in subject matter and length at the same time.

Probably the most successful of such programs has been the National Broadcasting Company's *Monitor*. Examine the following excerpt from one of its routine sheets (more akin to the "rundown" sheet described earlier) and the accompanying script for the same time period.

MONITOR PAGE

ROUTINE SHEET DATE

TIME

TIME	RADIO CENTRAL		NEMO
	BEEPER		
10:44:50	RAYBURN & CARTRIDGE: INTRO ON STAGE	(:30)	
10:45:20	TAPE: ON STAGE *BROOKS & REINER ARTIST*COFFEEHOUSE	(2:40)	
	OPENS: I WOULD LIKE TO CLOSES: GIVE IT TO YOU FOR $40.00 (applause & laughter—:03)		
10:48:00	RAYBURN: OUTRO	(0:05)	
10:48:05	CARTRIDGE & RAYBURN: MONITOR TIP	(:25)	
10:48:30	RAYBURN & CARTRIDGE: K2R COMMERCIAL	(1:00)	
10:49:30	RAYBURN: INTRO	(:10)	
10:49:40	DISC: (45) 1,2,3 - J. JONES RUNS 210 sneak 12	(1:58) fades	
10:51:45	CARTRIDGE: RING SOUNDER	(0.05)	
10:51:50	RAYBURN: INTRO RING	(0:10)	
10:52:00	CARTRIDGE: STATE FARM COMMERCIAL	(1:00)	(23)
10:53:00	RAYBURN: REINTRO	(0:05)	
10:53:05	TAPE: RING AROUND THE WORLD SEE SCRIPT FOR CUES	(2:30) approx.	
10:55:35	CARTRIDGE: RING SOUNDER	(0:05)	
10:55:40	RAYBURN: RING TAG	(0:05)	
10:55:45	CARTRIDGE: LUDEN'S COMMERCIAL	(0:30)	(5)
10:56:15	DISC: HARD DAY'S NIGHT - NO D.P. (45) runs (2:50)	(2:15)	
10:58:25	RAYBURN: OUTRO	(:15)	
10:58:40	STAFF ANNCR: COMPANY CUE		

BEEPER:

RAYBURN: Once again, it's MONITOR... Gene Rayburn, your host... and the next order of business is... "MONITOR, ONSTAGE!"

CART: THEME (UNDER ON CUE)

RAYBURN: ... Star performances, recorded live, at leading theatres, nightclubs, and concert halls throughout the world.

Our stars right now are Carl Reiner and Mel Brooks as a beatnick artist. The scene: a coffee house.

TAPE: MONITOR ONSTAGE (REINER-BROOKS) 2:40

OPEN: "I WOULD LIKE TO....

CLOSE: ... GIVE IT TO YOU FOR $40! (LAUGHTER AND APP. :03)

RAYBURN: "MONITOR, ONSTAGE!"
... And that was Carl Reiner and Mel Brooks.

CART: TIP SOUNDER (UNDER ON CUE)

RAYBURN: Next... a MONITOR TIP... for the housewife. Going to a group activity with the children this weekend? Why not take a large shopping bag along and stow all the caps, mittens, and scarves in it as they're removed. When it's time to leave, there'll be no frantic last-minute panic search for missing articles. Listen for useful information on MONITOR TIPS... throughout every weekend. Here's another tip:

CART AND RAYBURN: K2R 1:00

RAYBURN: Jack Jones sings for the "In" crowd. That's not an editorial comment, but the title of Jack Jones' latest album. And this is one of the high-flying songs from it: "One, Two, Three."

DISC: ONE, TWO, THREE, (SNEAK :12) 1:58 (FADES)

CART: RING SOUNDER (UNDER ON CUE)

RAYBURN: MONITOR'S "Ring Around The World"... a closeup of people and events both at home and abroad. "President Johnson's week leading up to his decision for the Hawaiian Conference on Vietnam." That story, in one minute, from Ray Scherer, NBC NEWS, White House Correspondent.....

... brought to you by STATE FARM MUTUAL, the world's largest car insurance company.

CART: STATE FARM 1:00

RAYBURN: Now.... Ray Scherer, NBC NEWS, White House Correspondent

TAPE: RING (WASH.) 2:27

OPEN: "PRESIDENT JOHNSON'S WEEK.....

CLOSE: .... WHITE HOUSE CORRESPONDENT."

CART: RING SOUNDER (UNDER ON CUE)

RAYBURN: "Ring Around The World"... another in our weekend series of closeups of people and events in other countries.

Now, here's Jonathan Winters for LUDEN'S:

CART: LUDEN'S :30

DISC: HARD DAY'S NIGHT (NOT A DEADPOT)

RAYBURN: You can credit the Ramsey Lewis Trio for that arrangement of "A Hard Day's Night." Credit NBC with the best and most complete coverage of the news around the nation and the world. For proof of that claim, just stay tuned now for NBC-MONITOR News On The Hour... coming up, immediately. This is Gene Rayburn.

BEEPER:

ANNCR:

SYSTEM:

Courtesy of NBC Radio Network.

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EARL R. WYNN

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● Professor Wynn has taught at the University of North Carolina since 1938, except for the years 1942-1946, when he produced films as a civilian for the United States Army and later as a Lieutenant in the Naval Reserve. During the World War II period he worked with several of the major motion picture companies in Hollywood and had an opportunity to study first hand the educational uses of the mass media by the armed forces.

Professor Wynn received the A.B. degree from Augustana College and the M.A. degree from Northwestern University. Until 1942 he taught in the Department of Dramatic Art at the University of North Carolina and introduced courses in radio into its curriculum. His radio work included the producing and directing of two thirteen-week series of Carolina Playmaker plays for the Mutual Broadcasting System network. In 1945, as a result of Professor Wynn's proposal, the University established a Communication Center for the purposes of bringing together radio, television, motion pictures and photography in order to extend education more effectively to the people of the State. In 1947 he proposed the establishment of a new academic department, that of Radio (subsequently Radio, Television and Motion Pictures), and was appointed the Department's first chairman. He served as Director of the Communication Center and Chairman of the Department of Radio, Television and Motion Pictures until his resignation from administrative duties in 1963. He continues to teach as a full professor. He has taught all phases of the mass media, including speech and performance.

During the formative years of educational television, Professor Wynn acted as a consultant to the Joint Committee on Educational Television and later served several terms as a member of the Board of Directors of the National Association of Educational Broadcasters. In North Carolina he was Executive Director of the Educational Communication Study Commission under Governor Kerr Scott, and Executive Secretary of the Educational Television and Radio Commission under Governor William Umstead. Professor Wynn is an experienced performer. In addition to extensive work in university theatre and summer stock, he has acted major roles in outdoor dramas, *The Lost Colony, Unto These Hills,* and *The Legend of Daniel Boone.* His 40 years of radio performing experience includes the narration, in the 1960's, of nationally distributed recordings by Erwyn Productions, his own company.

5

PERFORMING

BY EARL R. WYNN

RADIO communicates by speech and sound. The human voice, assisted by sounds and music, creates the illusion of reality, fantasy or varying aspects of either for an audience that cannot see. The radio performer may create any character or situation within the scope of the listener's imagination — a mature, resonant voice with careful speech may establish the image of a strong, generous patriarch; a dramatic scene enhanced by the music and sound of the orient and in the dialect of the country may produce a mental picture of setting and mores oriental and magnificent. There is no limit to the imagination of man. He is led by voice, sound and music to envision what the radio artist creates. This limitless aspect of radio applies to speeches, commercials, dramas or any broadcast in which the imagination of the listener is free to soar. Radio fertilizes an aspect of mankind far beyond the cold reality of seeing things as they are — the possibility of achieving perfection inevitably present in the human mind.

Speech encompasses all aspects of the voice in speaking; sound includes both music (for mood, atmosphere and entertainment) and effects (for setting a scene, establishing perspective and pinpointing an emotional reaction). Of these the speaking voice is by far the most important and subtle.

What are the performance opportunities in radio today? There is a

need for superior announcers, disc jockeys, on-the-air salesmen, news reporters and analysts, interviewers, moderators for panel, roundtable and discussion programs, masters of ceremonies, narrators, actors — principally for commercials — and sports broadcasters. In all of these positions there is a general pattern of performance required, reflecting a sound mastery of the fundamentals of voice and diction. It is imperative, therefore, that a knowledge of voice and diction precedes an application of the special techniques for various forms of performance.

The Fundamentals of Voice and Speech

Voice

A full, strong voice is supported by the whole person: his mental-emotional attitude toward what he is reading or speaking, his entire nervous system, and the muscles which control his breathing. Voice is not just one part of the performer, or an isolated factor; it represents the entire performer and is the product of his physical self times his mental-emotional self, plus the performance of the organs that produce it. The voice can be made more effective through attention to those muscular functions that cause it to be weak, metallic, harsh, husky, breathy or nasal in quality and to those mental-emotional attitudes of personality which cause it to be raspy, melancholy or cold in tone. The muscles which initiate the tone, the state of mind and feelings which determine the nature of it, and those organs which amplify and color it must function together with precision, accuracy and ease. They are responsible for the basic fundamentals of voice: attitude, breathing, phonation, resonance, and variety.

Attitude. Voice is affected by the nature of thinking and feeling. The performer knows from experience that temporary states of mind, such as excitement, fear or anger, affect the nervous system, the emotions and, consequently, the voice. The nature of one's disposition and attitudes governs tones of voice. Experiences and the intensity of one's reaction to them always register in the quality of a voice. Contrast the voice of the person who is embittered or beaten with the one who assumes a hopeful attitude; the known "crank" with the unassuming person; the conceited man with the humble one. Their attitudes are reflected, colored and illustrated by their tones of voice. Voice, then, is the channel through which the nature of character, attitudes and emotions are communicated.

Breathing. Breath is the control for voice and speech. Its power is located in the central abdominal region — the upper abdomen and the lower chest. Central control in breathing results in clarity of tone and the ability to produce sensitive variations in volume and intensity. There can be no effective speech performance without controlled breathing. This is especially true for radio, since the performer speaks close to the microphone where every nuance of the voice and speech is amplified.

Breathing is a basic biological function for sustaining life. Its control is vital for producing voice and continuous speech. Knowledge of how the breathing mechanism functions to produce voice and to support and control it provides a clearer understanding of phonation, resonance and articulation. Although the muscles of the lower rib structure, which encases the lungs and heart, may be responsible for inhalation and exhalation of ordinary breathing, a quick and adequate supply of air for energy and control in continuous speaking is governed by the muscles of the diaphragm and upper abdomen. The diaphragm, the convex structure of muscles and tendons in the concave surface below the lungs, forms a partition between the chest and abdominal cavities. These muscles are attached to the sternum (breast bone), the lower ribs and the spinal column in such a way as to give a forward-diagonal thrust when they are contracted. The muscles of the upper abdomen, primarily responsible for the strength and control of an out-going speech breath, are located in the triangle described by the sternum (as apex) and the right and left lower side rib areas. These muscles must relax as the diaphragm contracts (pulls down) in order to provide for expansion. The intestinal fullness of the abdominal cavity will impede if not obliterate the forward-downward pull of the diaphragm if this forward relaxation of the upper abdomen does not take place.

The spinal column is the only skeletal connection between the bony structure of the upper body and that of the lower. The ability to stand, walk and sit easily and without tension depends upon the weight balance relationship between the upper and lower body as adjusted by the flexible spinal column. *The key to this balance and adjustment is the pelvic basin,* the bony, basin-like structure of the hips. The pelvic basin may tip forward, backward or to the sides. The spinal column and upper body adjust to this "tipping" in order to maintain a balance of weight. When the pelvic basin is tipped to the front, the whole weight of the viscera is thrown forward against the abdominal wall, straining, if not preventing controlled breathing; the natural curve of the spine is also exaggerated in order to maintain balance. When the pelvic basin is tipped toward the back, the muscles of the abdomen become loose and cramped; the spine loses its natural curve, and arches forward into a "C." Good standing and sitting posture for all purposes is dependent upon keeping the pelvic basin at "even keel," the upper body at ease and the shoulders relaxed in a downward position.

Phonation. Vocal tones are initiated in the larynx by the breath stream passing over approximated vocal folds (cords), causing them to vibrate. This process is called phonation. The larynx, in which is located the sound-producing vibrators of the voice, is a skeletal structure of resilient cartilages resting on top of the wind pipe (trachea) and suspended from the base of the tongue. The length and thickness of the vocal folds vary from person to person; in men, they are about an inch long; in women, a little shorter and thinner. These physical differences account in general for variations in pitch

level between the sexes. Variations in pitch and loudness while speaking take place within the vocal folds by means of changes in their length, thickness and span of vibration. When the folds lengthen and thin, the pitch rises; when they shorten and thicken, the pitch falls; and when their span of vibration increases or decreases, the volume rises or falls.

In the production of vocal tone, the throat, mouth and nose should be open channels, free of unnecessary tension. The muscles of the throat are often tense in order to communicate intense emotions such as fear, anger, or hate; but the throat must never be closed or squeezed shut. The throat should be open, the muscles responding normally to thoughts and feelings. If all passages are open and free of unnecessary tension and squeezing, the mouth, nose and, particularly, the throat amplify and give emotional meaning to the vocal tone.

Functionally, faulty tones such as huskiness, stridency, hoarseness, breathiness and throatiness are the result of poor breath control, a squeezed throat or both. Controlled breathing and an open, functionally relaxed throat are always essential to effective voice production. In radio, no mistake goes unnoticed.

Resonance. Initial vocal tones are weak and colorless. They must be amplified to be heard and given color (quality or timbre) for richness and to communicate emotional meaning. Vocal tone amplification and changes in quality take place within the resonators of the human voice. The process is called resonance.

In the amplification of any initial musical tone, including that of the human voice, there may be two types of resonance: "sounding board" and cavity. A tuning fork held free cannot be heard with ease except at close range. When its stem is touched to a table top, however, the tone may be heard throughout the room; the whole table is set to vibrating in "sympathy" with the exact number of vibrations of the fork. The tone is amplified because the size of the vibrator has been increased. The quality of the amplified tone will change from table to table depending upon the size and composition of the table. This is an example of "sounding board" resonance. The violin is another. When the vibrating tuning fork is held inside one end of an open pipe and the hand cupped over that end, its tone will be amplified and projected through the open end. The encased air column is set to vibrating sympathetically and the concentration resulting from enclosure produces amplification. Again, the quality of the tone will vary from pipe to pipe, depending upon its diameter, length, shape, openings and internal texture. This is an example of cavity resonance. The clarinet is another.

All vibrators, including the human vocal folds, vibrate as a whole and in harmonic segments *ad infinitum*. The vibration of the whole produces the fundamental tone; the segmented vibrations produce harmonics, partials or overtones. Depending upon those factors already mentioned, resonators will select particular overtones for emphasis. Thus, one violin produces a richer

tone than another; one clarinet is thinner in tone than another; and one voice is metallic while another is mellow and full.

For cavity resonance, the more open and softer textured the resonators, the greater the emphasis upon the lower, richer overtones (those next in number of vibrations per second to the fundamental); and the smaller and more tense the resonators, the greater the emphasis upon the higher, thinner, less pleasant overtones (those farthest away from the fundamental). Since, in the human voice, tone quality is established primarily in the throat, this principle means that *an open, functionally relaxed, flexible throat will emphasize richer overtones; a tense, squeezed, inflexible throat will emphasize thinner overtones.*

There are three principle cavity resonators of the voice: the throat, the mouth, and the nose. All are located above the vibrators. The mouth is most variable; the nose most invariable. Below the vibrators are the invariable trachea and bronchial tubes, cavity resonators which, according to their size, openness and health, may emphasize certain overtones. Since these are fixed and untrainable, the only control over them is to keep them healthy and free of infection. The bones, cartilages and muscles of the chest, neck and head are "sounding boards" of the human voice. They vibrate in varying degrees during speech and influence both amplification of tone and selection of overtones. They, too, must be kept healthy and free of infection.

The throat must be kept open, free of unnecessary tension, and with sufficient flexibility to respond to any shade or degree of feeling. A healthy throat is capable of responding to any emotion which the performer feels or attitude he possesses. It should lengthen, narrow and change the texture of its muscle walls in response to feelings, but it must never be closed. Just as a muted cornet or reversed megaphone diminishes projection, so does a closed throat.

The sounds "m," "n" and "ng" are resonated in the mouth, nose and bony structure of the head. Adequate resonance of these sounds adds musical body to the spoken word; too much produces nasality; too little, denasality. Balance of nasal-head resonance depends upon a healthy, open nasal passage and a free-functioning soft palate. A lazy soft palate, one which is slow in opening and closing the nasal passage, causes too much nasal resonance or nasality. When the nasal passages are clogged with swelling from a cold, an allergic condition or by growths, the result is too little nasal resonance or denasality.

All vowels and diphthongs are shaped, given their recognized tone quality in the mouth by means of particular sets of jaw, tongue and lip positions. The tone quality of "AH" is different from that of "AW," for instance. For "AH" the jaw is open, the lips are relaxed on the teeth and the tongue is flat and forward. For "AW," on the other hand, the jaw is open, the lips openly rounded and the tongue slightly arched toward the back of

the mouth. Accuracy in shaping every vowel and diphthong is vital to correct and precise speech. A regional dialect, for example, is mainly due to incorrect shaping and production of certain vowels and diphthongs. Amplified vocal tone is finally projected to the listener through mouth resonance. If the jaw is held rigid and closed or the tongue bunched toward the back of the throat, no matter how open and flexible the throat resonator may be, the final projected tone will be impeded and squeezed. Jaw openness and flexibility and tongue forwardness and mobility are essential to the strength and richness of the final projected tone.

Balanced resonance requires a careful blending of throat, mouth and nose resonance. Without it the voice is inefficient and frequently disturbing. With a lazy soft palate, for instance, the whole tone may become nasal; when the throat is squeezed and inflexible, the tone seems thin, high-pitched and harsh; or, if the tongue is bunched toward the back of the throat, the projected tone sounds flat and thick. Normally, balanced resonance is achieved when the throat and jaw are functionally relaxed, flexible and never closed, and when the soft palate performs accurately its role of opening for the sounds of "m," "n" and "ng" and closing for all other sounds.

Variety. The radio performer must possess a voice which adapts easily to the mood, meaning and excitement of his assignment. No matter what the situation or copy, the performer must communicate to his listeners that he believes in what he is doing and possesses a natural excitement for it. All meanings must be clear. Monotony should never mar a natural vitality of the communication. All subtle changes in mood and feeling, dictated by the words and the situation, should occur as easily as they do in a conversation with a close friend. Such changes in mood, meaning and excitement appear most naturally in the voice when they are actually present, when they are felt by the announcer or actor.

The human voice with speech is capable of reflecting every conceivable shade of mood and meaning. Variations in vocal pitch, time, force and quality make this possible. Speech without thoughtful variation communicates only a shade of the full mood and meaning, and it may be monotonous and inaccurate. The performer must feel a mood and know a meaning if it is to be reflected in his voice with sincerity.

Pitch. Pitch inflections (glides) are of three kinds: upward, downward, and circumflex (curved upward, downward, or upward and downward in either direction). An upward inflection communicates uncertainty, question or partial expression with more to follow. A downward inflection reflects certainty, definiteness or authority. A circumflex provides an ironic, sarcastic, double or uncertain meaning. For instance, the word "really" inflected upward asks a question, inflected downward communicates understanding, and inflected with a curved circumflex (depending upon direction and lilt) provides any one of several ironic, sarcastic or double implications.

The vocal step or leap is a sudden change in key or pitch level either upward or downward. It is used to tell of a shift in subject, to make an item or series stand out or to place a phrase in apposition. For example, "The boys slithered off their sleds in all directions. *You saw it, didn't you, Joe?* Oh, it was a terrifying sight!"

Time. Changes in the rate of speech and the use of pauses while speaking are essential to understanding. Normal speech rate varies from 90 to 135 words per minute. A constant of any rate produces monotony. In general, rate variations reflect the importance of the subject matter. Important aspects are slowed; less important ones may be speeded.

The vocal pause is an oral punctuation mark. It makes possible the separation of thoughts and segments of thoughts. Without the vocal pause, meaning would be jumbled and difficult (frequently impossible) to follow. The vocal pause also provides a time for replenishing one's breath naturally and unobtrusively.

Force. Variations in the force (volume and/or intensity) of the voice provide a further dimension for vocal emphasis. A louder or more intense and slower passage is made more important than a quieter and faster one. Upon occasion, however, for reason of contrast, a quiet statement following a longer and highly intense one will be heightened in importance. Extended sameness of volume or intensity will cause monotony.

Vocal force combines with a form of time (duration) in producing another most essential means of achieving emphasis. The correct pronunciation of a word results from this combined emphasis upon an appropriate syllable or syllables. The intended meaning of a phrase or sentence is made clear by giving more time and force to a particular word or words. This form of emphasis is called stressing or pointing. For example, "Jerry announces at the local station" may communicate the following several meanings depending upon which word is stressed: *Jerry* announces at the local station (Jerry, not Ralph); Jerry *announces* at the local station (announcing is his specialty); Jerry announces *at* the local station (he is there physically); Jerry announces at *the* local station (the most important station); Jerry announces at the *local* station (not the regional station); Jerry announces at the local *station* (not at the local ball park).

Quality. Thoughtful variations of pitch, rate and force in large part make intellectual meanings clear. Variations in the quality (or timbre) of the vocal tone communicate variations in mood, attitude and feeling. The performer should possess the desired feeling, mood or attitude in order best to communicate it. Otherwise, insincerity may result. Such desirable personality characteristics as warmth, vitality and believability are communicated by radio entirely through tonal qualities of the voice. Coldness, fear, boredom and insincerity may likewise be projected if these are the attitudes and feelings of the performer. In radio, every subtle shade of feeling is transmitted by voice and voice alone. The performer must not only possess

such feelings but develop a highly flexible vocal instrument capable of communicating them.

Speech

Voice is the controlled sound of speech. Speech is the *articulation* of this sound into units and words and the *blending* of words into phrases and sentences.

Vowels, diphthongs and consonants. Vowels and diphthongs, the resonant sounds of speech, carry the tone of the word; the consonants, the obstructed sounds, give it frame. In the English language there are 15 separate vowel sounds, 5 major diphthongs and 27 consonants, 10 of which are voiceless. Recognition and accurate use of these is essential for easy articulation, correct pronunciation and smooth blending.

It is important for the radio performer to develop a full and flexible command of all vowel and consonant sounds. A course in voice and speech in which there is application of the voice requirements and standards stated in this chapter is essential for all potential radio performers.

The organs of articulation. Speech is produced by the action of the articulators: the tongue, the lips, the soft palate, and the jaw, with the teeth, gums, hard palate and upper throat as anchors. Of these, the tongue does the most work. The function of the articulators is to shape the vowels and diphthongs, articulate the consonants and blend them all into conventional patterns of pronunciation. Each sound has a particular and precise shaping or position which may become modified as it blends with other sounds in syllables, words and phrases. Distinctness and accuracy depend upon correct shaping of each vowel and diphthong, precise articulation of each consonant and easy blending of all sounds.

The moving articulators — tongue, lips, jaw and soft palate — must be flexible, mobile and free of restricting tension. During speech the tongue is in continuous movement from one sound to another with its back, middle, tip and sides playing separate but related roles in the shaping and blending of sounds. During one minute of moderately paced speech the tongue may take as many as 200 separate positions. The tongue is an integrated set of many muscles. It can be trained, as any other healthy muscle of the body, to perform with precision, accuracy and mobility.

The lips as constrictor muscles extend and vary the opening of the mouth. For the back vowels, variations in lip opening and extension are required. The lips, too, may be trained to be accurate and precise. The same is true of the jaw, which must vary in its openness among sounds, and of the soft palate, which must be open for "m," "n" and "ng" and closed for all other sounds.

Pronunciation. For the correct pronunciation of any word, a particular syllable is given *major* stress. In polysyllabic words, one or more additional syllables may be given *minor* stress. For instance, "hotel" and "idea" must

be pronounced with the accent or stress on the second syllable. In the word "inseparable" (five syllables) there is also only one stress. For "inarticulatory" (seven syllables), however, there are two stresses, one major and one minor. Some words have one major and two minor stresses: "autobiographic." Occasionally a word will have two major stresses: "backbone."

Spoken languages are always in the process of growth and change. A pronunciation acceptable 15 years ago may be second choice or incorrect today. Such changes are brought about by those men and women in the public view who use the language day in and day out. The only sure guide to correct pronunciation is a current edition of a standard dictionary or pronunciation handbook. There is no excuse for a performer being incorrect. Frequently a word may have more than one acceptable pronunciation. Shifting from one correct pronunciation to another, however, is poor practice and, particularly in announcing, gives the impression of uncertainty.

Performance Techniques

Microphone Techniques

The microphone is the radio performer's technical means of communication with the audience. Correct use of the microphone is vital to the effectiveness of a performance. Microphones have various directional patterns or characteristics: *non-directional* microphones pick up sound with equal intensity around their full circumference; *bi-directionals* on two (opposite) sides; and *uni-directionals* pick up from one direction only. Chapter 2 of this book includes an analysis of microphone characteristics that the performer needs to know.

General usage. For virtually all performers, the following principles need to be understood and effectively put into practice:

1. Speak in a normal, conversational voice, neither too quiet nor too loud. For such average volume the speaker should be approximately the distance of two stretched hands from the microphone. A weak voice will need to be a little closer, a stronger voice farther away. It is good practice to have the control engineer check the performer's volume "level" to determine his proper microphone distance. Balance among voices is essential when several people are using the same microphone. The director or control engineer will fix distances from the microphone for proper balance.

2. Never puff or blast directly into a microphone. A disturbing, explosive sound may result. This is especially true if a bi-directional, ribbon or velocity microphone is being used.

3. Maintain effective microphone distance. Moving toward and away from a microphone will produce noticeable variations in volume.

4. Handle scripts noiselessly. Be certain the pages are unstapled and in order. A good procedure is to read to the bottom of one page, meanwhile quietly sliding it to expose the first few lines of the next page. When the

new page is begun, either drop the completed page to the floor or carefully move it in a large sweeping motion to the back of the script. Heavy, soft paper produces the least noise, thin paper, such as onionskin, the most.

Special acting techniques

1. To give the illusion of moving into a conversation, start speaking five to seven feet away from the microphone and, still talking, move into the fixed distance position; to give the illusion of leaving, move away from the microphone while still talking.

2. The illusion of one person speaking to a second from another room may be created by the distant person speaking five to ten feet off mike. Both performers should raise volume slightly.

3. Actors may vary their distances from the microphone in accordance with the mood and intensity of the scene. For instance, a whispered love scene plays best three to four inches from the microphone, while an intense political speech may need to be as much as several feet away.

4. Know the standard hand signals, used by the director and other production staff members. They are illustrated on pages 80 and 81.

5. The five basic microphone positions, on mike, off mike, fading on or coming on, fading off or going off, and behind an obstruction are defined on page 126.

Performance Types

The professional performer, through analysis and rehearsal, knows exactly what he is going to do before he goes on the air. In addition to interpretation, mood, technique and relationships to other performers, he envisions his audience. He visualizes it as a small audience, seldom larger than two or three in any one place, frequently just a single person. He "sees" his audience where they are: in the study, in the kitchen, in the family room, in the bedroom, in an automobile. He knows to whom he is speaking: the teenage boy or girl, the housewife at her work, the salesman driving from one town to the next, the sports fan, the father interested in trading cars.

In a real sense, all radio performers are actors, using the actor's tools and techniques in whatever mode of on-the-air presentation they are engaged. It is appropriate, therefore, to consider the needs and potentials of the actor as a base for all other forms of radio performance.

The Actor

Acting is an art, and as such requires extensive study for adequate understanding. However, certain basic principles and suggestions which may be helpful can be presented here. Acting demands control of the mind, the feelings, the body and the voice. Such control comes only from practice

and experience under sensitive guidance. The only way to learn to act is to act!

The mind. Every character to be acted, no matter how few lines he may have to speak, must be analyzed. This is an intellectual process and should take place prior to rehearsal, if at all possible, and always after conferring with the director who must see that the script has unity and who will have visualized the kind of characterization he wants. Certainly, it is permissible and desirable for the actor to evolve a concept of character which is different from that of the director, but these must be melded and agreed upon by both. The director is always the final authority.

What takes place during this analysis? First, a clear mental picture of the character to be acted must be established: What is his function in the script? What is his relationship to other characters? How does he feel? What is his general mood and attitude? What does he look like? How does he walk, stand and sit? What is the sound of his voice? Is it resonant, high pitched, strident or nasal? Is his speech slow, rapid, hesitant or monotonous? Does he have a dialect? When these factors are determined and clearly in mind, the actor is ready to develop his role, to transfer these definitions into actuality.

The feelings and attitude. An actor may understand how a character feels and what his general attitude is, but to communicate feelings and attitude is often difficult. Since the voice responds naturally to actual, real feelings, the best approach is for the actor to feel anger, pity, remorse, love or any of the varying shades of these and other emotions. Lines spoken with real feelings present will usually result in the vocal communication of the feelings. Many trials and much experimentation may be necessary alone and with the use of a tape recorder before the desired effect begins to show.

The body. When an actor is seen, his body conveys a significant part of his characterization: the strength of his stride; the movement of his head or mouth when he speaks; the quick or slow movements of his fingers and hands; habits such as touching his ear lobe when nervous. The use of the body is, strangely, no less important for the radio actor. True, he is "chained" to a microphone. But if a scene takes place while two people are walking down a gravel path, actual walking in place at the microphone will better establish the illusion of walking. When one climbs a ladder or lifts a heavy stone, there is a sound of strain in the voice. This must be duplicated at the microphone. Twiddling the lobe of an ear, although it cannot be seen, will help emotionally to establish nervousness. In a covert way, the body must be used at the microphone to assist the voice in communicating the illusion of reality.

The voice. For radio, voice and speech alone communicate a character to the listener. There may be shuffling footsteps or other recognizable sounds made through movement of the body; the intellect and emotions, too, come into play to produce a full and well-rounded character. But it is

voice and speech that communicate, that build in the mind's eye of the non-seeing audience an image of how this "real" person speaking to them thinks, feels, acts, reacts and moves. For this kind of real communication, a radio actor's voice must be versatile, sensitive and completely under his control. The fundamentals of voice and speech must be automatic with him.

Rehearsal. For theatre, television and the motion picture, an actor memorizes his lines and normally has adequate time for rehearsal and the development of his characterization. Once rehearsals begin, a half-hour radio play, for example, is frequently completed and taped or aired in four hours or less. Of course, a radio actor reads his lines from a script, but his characterization must come to life in the brief time of the rehearsal period. Every moment at a radio play rehearsal must count. During this period the play is read once or more with the cast and director sitting around a table. Voice quality, speech rate and intonation, general characterization, even dialects are established and tentatively set at the table rehearsal. The next rehearsals are on microphone. The director usually will set the actors' positions, placement, and approaching and leaving the microphone at the first "mike" rehearsal. During these rehearsals the character must come to life: inflections, voice quality, dialect, tempo and all subtle aspects of interplay with other characters are firmly established. The director must now concern himself with coordinating the final production. He has time for only quick suggestions and will expect them to be adopted immediately. In a real sense the actor is on his own with responsibility for maintaining his role as it was established.

Radio acting requires quick judgments, the ability to respond instantly to direction, and firm control of body, feelings and voice. Such attributes come only from experience and intensive practice.

The Straight Announcer

This performer may be required from time to time to handle almost every radio-speech assignment at a station. As a straight announcer, he must be prepared to introduce speakers, announce classical and popular music programs, read commercials of all types, prepare and conduct interviews, present the news, deliver public service announcements, make station breaks and report on the weather, perhaps do color or even play-by-play for local athletic events, and even serve as master of ceremonies for special broadcasts such as the local beauty contest finals. On the spur of the moment he may be asked to extemporize the narration of an event which is immediate news but may in several hours have lost its importance and interest.

The straight announcer must be versatile, adaptable, quick-thinking and indefatigable. Vocally, he should possess variety, honest vitality and an ability to adapt quickly to the mood of the copy or the situation. Intellectually, he should have a vocabulary and a facility for its use that will bring

to mind and tongue the appropriate word for the occasion. The straight announcer is really all announcers in one. Today it is mainly in the smaller radio stations that such a man may be found or, more often, needed. Usually, in larger stations the varied announcing responsibilities are divided among a staff of announcers, taking advantage of and building special talents and abilities.

Harold Green, program director of radio station WMAL, Washington, D.C., offers an excellent analysis of the requirements for a good announcer — an analysis which applies to the other categories of announcing in succeeding sections of this chapter, including the disc jockey, salesman, newscaster and so forth. Mr. Green writes:

> The day of the "limited" announcer is about over. Just a beautiful voice, or just a snappy, witty, or attractive personality, is not enough for today's successful radio station. All the tricks, gimmicks, formats, points of view have been tried in one form or another. Some are quite successful in a limited way. The danger that the individual suffers is the strong possibility that he will remain submerged or anonymous. This is particularly true in a station that depends strongly on a particular "format." We feel that the stations that matter in the community don't limit themselves to a format, or other gimmick. The key is community involvement . . . information with a purpose . . . and a continuity of sound (in music and personality) that will continually serve — and please — the audience that particular station has cultivated.
>
> This type station requires a special person as an air personality. He may possess one of the unique abilities: voice, humor, style, wit, intelligence . . . any one of which is a big help . . . but he must have a think-box as well as voice box. He must be truly interested in his community. He must be completely alert to the world around him. He reads at least two newspapers every day, reads three or more quality magazines every week. He is probably taking a course or two at one of the universities. He has a natural, and genuine, interest in people. He realizes that he is in a highly sophisticated communications business . . . and he'd better have something to communicate.
>
> Our announcers go on the air each day with a thick folder of clippings, personal observations, letters from listeners, and tears from all the news and sports wires.
>
> By the time a man actually goes on the air each day, he is fully briefed on all that is happening that is significant in the news, in sports, special events in the community, special broadcasts of more than routine interest scheduled for that day and week, or anything else that amounts to information *with a purpose*. He has spent a minimum of two hours in the music library. Generally, each day's music preparation time amounts to approximately 50% of air time. A 4-hour program requires about two hours to prepare musically. This is for one who is thoroughly familiar with the library. Otherwise, it becomes a 1:1 ratio, or even longer. This is because the music list must reflect variety and balance: up-tempo music, boy vocal, lush orchestral, girl vocal, combo or variety, group vocal, and back around again. Spe-

cialty, novelty, or other types that break the pattern must be showcased by the DJ. There must be a reason for playing these "extras," and it must be explained.

It is safe to say that when a man does a smooth, informative, professional 4-hour show — one that teased the imagination, and piqued the curiosity — he did an equal four hours of preparation. If he doesn't, he'll know it in about an hour, I'll know it in about an hour and a half, and the listener will know it before noon the next day. Without preparation, background, genuine interest in the world around him, and diligent attention to getting informed and staying informed, a broadcaster sinks instantly into mediocrity. He is then relying on tricks . . . he is ordinary . . . he is short-changing his audience. He won't last long.

The Disc Jockey

The disc jockey program, which occupies a large portion of the small station schedule and serves as a personality or special audience program in the larger station, requires special talents. It is a one-man program which, in simple essence, introduces, talks about and plays popular music recordings with announcements, occasional interviews and commercials interspersed. There is much more required, however, for its success. The disc jockey should have a keen, vital sense of humor with a talent for meaningful comment and not just unrelated patter. Superior disc jockeys develop individual program formats and styles of delivery which become their trademarks. Such styles evolve from creative experiment based on the personality of the announcer and quite often with a selected segment of the audience.

The On-the-air Salesman

American commercial radio exists through the selling power of the medium. Announcers persuade listeners to buy the product or subscribe to the service. These commercial messages group themselves into several types; "punch" — in which the style is vital, intense and emotional for purposes of a quick sale; "institutional" — in which a straightforward, more reserved style is usually employed to create an image of the business organization and develop goodwill toward it; and "personality" — in which the known and popular style of a particular announcer is appropriate to the product being advertised. The announcer must be able to adapt to each type with sincerity. As the spokesman for the sponsor he must believe in the product for its potential customer.

There are also varying forms of commercials: the "ad lib," in which one knows the product and talks about it conversationally and with complete ease; the "straight," which is read from written copy with which the announcer should thoroughly familiarize himself; the "dual or multiple voice," in which the selling is shared by two or more announcers who are acquainted with the product; the "jingle," which titillates the ear with an intriguing verse set to music; and the "dramatic," in which a scene is quickly

set, a dramatic twist is established, and focus is emphatically placed on the product. All commercials require vocal variety, vitality and an ability to establish mood and believability.

The News Reporter

In addition to his vocal talents, anyone who broadcasts the news should possess background qualifications in some depth: he should be college educated in the liberal tradition with specialization in political science, radio-journalism and history, with a vital interest in current events; he should know how to edit the news with a disciplined knowledge of what is newsworthy; and he should be able to communicate his own resulting confidence to his listeners.

A station newscaster has access to the news wire services, but they should be only the beginning for him. Responsibility resides with the individual newscaster and his station, not with the wire services. Careful judgment, knowledge and responsibility must always be present in editing the news and delivering it to those many listeners who depend on radio for accurate and rapid reporting. The news wire services provide a serious temptation to the busy station announcer to rip the news from the teletype and read it "cold." What happens? Mispronunciations, misreadings, inclusion of items of unimportance to the region, and failure to communicate the meaning of the news. The responsible newscaster must prepare the newscast, editing it when necessary, reading it for meaning, rehearsing it aloud for proper phrasing and tempo, and determining the correct pronunciation for any unfamiliar words and names of persons and places. In delivery the newscaster should communicate with quiet vitality, warmth, ease and authority.

For the *news analyst,* who interprets the news, a greater amount of preparation is obviously required, a wealthier background of knowledge and experience is desirable, and a more highly developed vocal maturity is essential. His success is dependent upon his audience following, and his responsibility in forming public opinion is grave.

The Sportscaster

Normally, sportscasting is a specialized position in radio. The director of sports at a station is responsible for all programming in the sports area: play-by-play broadcasts of athletic events; the color or descriptive matter about the game, the teams, the fans and visiting celebrities before and after the game and during normal and special intervals; interviews at the time of the game; and sports news and interviews at the studio. The sportscaster (often the director of sports at the smaller station) usually has a "color" man with him at athletic events for relief and variety.

The sportscaster must know in depth the events he broadcasts and the terminology peculiar to the sport. He should be completely familiar

with the rules but must avoid any on-the-air disagreement with the judgments of the officials. He must possess a talent for extemporary speech in which the appropriate words flow easily and rapidly, allowing him to describe the action as it is happening. This allows for little or no hesitation, and even when action is temporarily halted, the sportscaster — as the eyes of the listener — must continue to describe what is happening. Normally a station sportscaster follows a "home" or special team and should memorize the names and numbers of players before the season opens. The names and numbers of visiting team members may be procured prior to the contest and should be memorized before game time. For the complex team sports and for those which involve many players, such as football, the sportscaster will employ a "spotter" and a "spotting board" to assist him in identifying substitutions and players involved in a particular action. One who is interested in sportscasting should observe at length a capable and experienced sportscaster at work. Should one wish to change from straight announcing to sportscasting, a fine opportunity to gain experience would be to do "color" with a good play-by-play sportscaster and eventually relieve him during a broadcast as the situation permits.

The "color" man is extremely important. Play-by-play work demands absolute attention; relief is necessary. The "color" man is responsible for the pre- and post-game introductions and summations and for filling the natural breaks for innings, halves, time-outs and official delays. His job is to set the mood of the occasion and to fill the allotted time with pertinent information which will interest the listener. This may include announcements of the line-ups, information about the team or individual players, appropriate comments about surroundings, special occurrences and statistics, and interviews with visiting guests and sports figures. Often he has the full responsibility for delivery of the commercials.

Both men must bring to sportscasting an exciting, varied, vital and believable style of delivery.

The Interviewer

An interviewer must be at ease, knowledgeable, vitally interested in the work of the person being interviewed, and professional in the conduct of his interview. The principal types of interviews are personality, opinion, and information. Basically, an interview follows a question-answer format with an introduction, a main segment or body of information, and a conclusion. In style of performance it must be natural, straightforward, and conversational.

The interviewer should find out as much as he can about the interviewee and his field, have a conference or pre-interview with him, if possible, and prepare a detailed question and answer outline. More questions should be planned than seem necessary for the length of the program, for it is poor practice to complete an interview with air time remaining. In

planning, the interviewer should organize his material to rise to an informational climax and fall briefly into a wrap-up conclusion, making it necessary to refer to his notes as infrequently as possible on the air.

During the show-time, a feeling of casual spontaneity should exist, a give and take between the interviewer and his guest, with the interviewer taking the responsibility of keeping the program moving in a conversational but vital atmosphere.

The Panel or Roundtable Moderator

A panel or roundtable program is comprised of a moderator and several participants. The subject is usually controversial but may be simply informational. The moderator introduces the subject and the participants, often identifying the viewpoint of each panel member. During the program he guides and paces the discussion, avoiding serious digressions from the central theme and working for a balanced presentation of the material. A good moderator must be well-informed on the subject, adept in asking appropriate questions, and gifted in expressing himself extemporaneously. At the close of the program he summarizes the salient points of the discussion.

The Master of Ceremonies

Occasionally an announcer must serve as a master of ceremonies, or m.c., for a high school rally, for a "meet the candidate" public forum, or in a variety of public situations where speech continuity must be provided in the mood of the gathering. A master of ceremonies should possess a sense of humor, be able to adapt quickly to the mood of the situation, know how to keep the program moving with variety and vitality, and be especially talented in picking up cues and taking advantage of what occurs. He should develop an extemporaneous or "ad lib" style of his own.

The Narrator

For regular radio program fare, narration is the running, descriptive presentation of an actual event, such as a parade, a funeral cortege, or a four-alarm fire; for radio drama it is the expository passages which set the scenes and tie them together; and for the documentary it is the commentary which links and underscores the actual events and gives them meaning. The first is extemporized, the latter two are read. The narrator is a combination of both announcer and actor, for he must not only make his listeners "see" but also feel. He describes the actual event or scene and sets the mood. His voice must be vital, varied and highly sensitive to the emotional implications of his material.

The Outside Speaker

Many lay citizens perform as speakers or interviewees. If they are

accomplished speakers, but lacking in radio experience, there is little to advise except in the use of the microphone. For the totally inexperienced, however, the following principles should be helpful.

1. Know and follow the suggestions on microphone use.

2. Outline the speech, giving it an introduction, a main body of information and a conclusion. Write out the speech from the outline, using simple, concrete words that create pictures. Read the speech aloud, timing it accurately with a *stop watch*. Cut or add to it until it fits the exact, allotted time segment.

3. Rehearse the speech aloud several times, possibly using a recorder for self-criticism. Work for a natural, conversational quality. Remember that any given audience will be a small one, one to three people at each receiver. Speak to them, not as from a platform, but with as much ease, naturalness, vitality and quiet enthusiasm as in talking directly to the same small group.

4. An interviewee will be briefed by the interviewer and the questions to be asked will be agreed upon prior to the broadcast. Approach the actual program with as much ease as possible, remembering that the area to be discussed is your field. Speak conversationally, but with natural enthusiasm, answering the questions fully without launching into a lengthy speech. If interruptions by the interviewer occur from time to time, take them in stride, helping always to make the program what it should be — a vital conversation. Be acquainted with the basic signals and microphone techniques.

Performance Opportunities in Radio Today

Radios, often two or more, are tuned in regularly in most American homes. Millions of automobiles are equipped with radios. In the late 1960's about 6,000 radio stations were operating throughout the United States, with the number steadily increasing. There is a large radio audience, a growing radio industry and a need, therefore, for competent men and women to staff these stations and to supply them with regular and public service program material. The voice of radio — the performer and what he does on the air — is radio's most important single element. A listener *tunes in* or *tunes out* because of the performer and his program. What are the performer's opportunities?

Stations

The basic jobs have been discussed under Performance Types.

Advertising Agencies

A variety of materials, including commercials, jingles, dramatic vignettes, public service spots, speeches and political announcements, are

written, produced and recorded by advertising agencies for distribution locally, regionally and nationally. Most cities of 50,000 residents and larger support at least one advertising agency. They employ superior announcing, acting and singing talent, usually on a free-lance basis.

Religious Centers

Most religious denominations operate national and sometimes regional radio and television centers. Religious plays, daily devotionals, spot announcements and other religiously oriented programs are produced at these centers. Many programs feature ministers and lay religious leaders, but announcers, singers, narrators and actors are also in demand.

Public Service Agencies

Public service agencies in the areas of health and welfare operate national, regional and often local offices. Such agencies must inform the public of their work; they need support. For this purpose they use modern media of communication, including radio. Stations and artists donate much time and talent to public service agencies, but frequently there are opportunities within the agencies for paid employment.

The Handicapped

The disc jockey and often the radio announcer sit as they speak and operate the turntables and control board. For those who are blind, radio offers a real opportunity. The blind person can learn by touch; the immobilized need not move from his seat.

If you choose radio as a career, choose it wholeheartedly. Work hard. Continue to grow. Never be satisfied with less than your best. Perfect your voice and speech and learn to adapt yourself to any kind of radio-speech assignment. Radio as a medium is expanding and offers many opportunities for the talented performer who is prepared.

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