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Fort Bragg, North Carolina

RADIO BROADCASTING
IN
PSYCHOLOGICAL OPERATIONS
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CHAPTER 1

CONTROL OF RADIO BROADCASTING

Each nation regulates and controls radio broadcasting within its own territory. Radiations from broadcasting stations, however, penetrate national boundaries. Competing stations within a country operating on the same frequency or close frequencies can bring chaotic conditions. To resolve differences and to prevent interference, government action is required.

To economically support broadcasting, two distinct systems were evolved between the years 1920 and 1940. The first, a commercially-sponsored system, uses indirect government regulation which is concerned primarily with technical matters. Each licensee has complete freedom to program his station, subject only to broad regulations concerning propriety, good taste, and equitable rights to all sides in controversial disputes. Here it is largely a sponsor, usually a commercial enterprise, who has to worry about public reaction. In the United States, all stations offer public service broadcasts, though they average well below 5 percent of the total broadcast time.

The second, a government-sponsored system, was developed largely by Great Britain and is used today in most countries of the world in some form. The British system is the prototype of absolute and direct government control of broadcasting. The British formed a government-controlled monopoly called BBC which was given a clear and liberal charter. Its revenue is derived from a yearly tax imposed on each receiving set owner. Compromise solutions have been worked out in some countries. In Canada, for example, the government-controlled Canadian Broadcasting Corporation operation parallels the BBC in principle, but the corporation also licenses privately owned stations. CBC permits paid advertising which is not permitted by BBC or by the government radio operations in most countries of the world.

The United States Congress passed the Radio Act of 1927 to provide for the issuing of radio broadcast licenses, to assign operating frequencies, and to regulate chains of stations. The Federal Communications Commission (FCC) was established in 1934. To resolve regional problems of frequency allocations the BBC sponsored the first meeting of the International Broadcasting Union in 1925. In the American hemisphere, a frequency agreement was reached through diplomatic channels between the United States and Canada in 1932, and with Canada, Cuba, and in 1937 through the Havana Treaty.

By international agreements, domestic broadcasting is assigned to mediumwave channels from 550 kc to 1660 kc. In the United States, the
550 to 1660 spread carries over 90 percent of all radio broadcasting.
Few receiver sets in use are capable of receiving longwave or shortwave.

International shortwave broadcasting is regulated by the International Telecommunications Union (ITU) which also regulates international disputes over other types of frequencies. The United States is not a member of the Union, although it participates at meetings in an observer status and tries to shape its international radio activities to conform with ITU decisions.

Additional frequencies are used for aviation and ship controls, police functions, commercial operations such as taxi fleets, and citizen's band frequencies. Military uses of radio are extensive. The special warfare officer is concerned primarily, however, with radio broadcast facilities usually in the medium and shortwave bands.

A commission appointed by Secretary of Commerce Herbert Hoover in 1924 gave full recognition to the work of private individuals and of private enterprise in the development of radio broadcasting in the United States. Later, both in legislative action and by determination of the courts, the United States recognized radio freedoms as being on a plane with press freedoms. Thus, through custom and tradition, radio has become the exclusive domain of private as opposed to public endeavor in broadcasting within the United States. The use by a government of radio broadcasting to inform, persuade, influence, and control its own nationals as a part of a program to promote national interests was first developed in other countries.

In the United States a high degree of self-regulation is imposed upon broadcasters through voluntary participation in the National Association of Radio and Television Broadcasters. The association prescribes a strong code of ethics by which the members abide if their membership is to be retained. Membership is greatly desired by individual stations as a prestige factor as well as a valuable endorsement used to secure advertising.

Another self-regulatory influence is exerted by the fact that the broadcast license is renewed by the FCC at specified periods and the broadcaster may be required to offer proof that his activity has been "in the public interest."
CHAPTER 2
HISTORY OF RADIO IN PSYCHOLOGICAL OPERATIONS

As early as World War I, when radio was still in its wireless stage, international broadcasting was used for espionage, intelligence, and propaganda. The Allies dropped Marconi senders in enemy territories to get reports from secret agents. Radio was also used to communicate with neutral countries circumventing telegraph and mail blockages. The belligerents used radio to send out "peace feelers" and to conduct preliminary armistice negotiations. It was not until the middle twenties, however, that efforts were made to use international broadcasting to influence public opinion abroad. These early efforts were not systematic and were limited to isolated occasions such as the "radio war" that broke out between Radio Berlin and the Eiffel Tower station in Paris during the invasion of the Ruhr in 1923.

The Bolshevik masters of the newly constituted government of the Soviet Union were among the first to make effective use of radio to spread world revolutionary propaganda. Moscow waged a radio war with Rumania over Bessarabia in 1926, and revolutionary appeals were broadcast to German workers in the critical years preceding Hitler's assumption of power in 1933.

Totalitarian governments have always been quick to recognize the value of radio broadcasting in building domestic support for their regimes, as well as to advance their programs and dogma. When Hitler came to power in 1933, his aides refined and expanded the use of radio. Here the brilliance of one of the most famous propagandists of all time was exercised when Dr. Joseph Goebbels was appointed German Minister of Propaganda.

In the early years of the Nazi regime, the radio facilities were centralized into a single German Radio Corporation. Radio became an instrument of the state. Beginning in 1937, German radio was given a key role in the expansionist plans of the Third Reich as well as in the German war plans. Though the role of the German press was not overlooked, the German radio assumed a function of far greater importance.

During the past 20 years, totalitarian government and the "strong man" regimes in Moscow, Peiping, Cairo, Cuba, and elsewhere have modeled the use of their radio broadcasting facilities along the pattern established by Dr. Goebbels for the Third Reich.

Not all early efforts at international broadcasting were unfriendly in intention. Nations exchanged good will broadcasts and occasionally linked their facilities for programs of common interest. The International Broadcasting Union was formed in 1927 to bring radio's warring parties together, to obtain agreements, to abstain from hostile
propaganda, and to avoid mutual interference. Fear of possible attack, however, caused the nations of Europe to expand their radio "defenses." This meant the construction of more radio transmitters, since retaliation or jamming operations are the only defense a nation has against enemy broadcasts.

Holland, Britain, France, Belgium, and Portugal used international broadcast to communicate with their nationals residing in the colonies. With its colonies spread around the globe, Great Britain decided to set up regular Empire broadcasting on a round the clock basis in 1932. In the same year, the League of Nations formed its own radio facility in Geneva to transmit international messages to individual countries and to communicate information to its far flung representatives.

The first use of radio as a weapon of direct warfare appears to have been made by Japan with its broadcasts to enemy armies and civilians during the Manchurian invasion of 1931. The Japanese were not content with using radio merely to win a speedier victory. After the conquest, broadcasting was organized in Manchukuo to instill new loyalties among the conquered and cut them off from Chinese influence. To do this, free receivers were distributed among the people. In 1935, Japan began short-wave broadcasting overseas to consolidate her empire.

The Nazi government used shortwave transmissions to reach distant countries and the mediumwave band to attract listeners in neighboring European countries. A thorough radio propaganda campaign helped prepare the people of the Saar basin for German re-entry in 1935. Hitler's next triumph took place in Austria where a combination of military threats, radio propaganda, and conspiracy by secret agents convinced a reported 99.75 percent of the total Austrian vote to approve the country's incorporation within the German Reich. In the days that preceded the plebiscite, the Nazis distributed 100 thousand radios among the Austrians. The German Government's next step was to set up a short-wave broadcast service to spread Nazi doctrine to its friends and potential supporters overseas. Foreign audiences of German birth or ancestry were organized into clubs for group listening.

From 1936 to 1939, during the Spanish Civil War, radio had its dress rehearsal for World War II. Childs and Whitton wrote, "By virtue of diabolically clever propaganda, the democracies were split internally from top to bottom and were not only neutralized into nonintervention for the duration of the war, but for years to come were politically paralyzed by the formation of appeasement parties hostile to any action against Fascism." In actual combat, Franco used radio to keep in touch with his fifth column in Madrid and to direct a propaganda barrage against the civilian populace. Advised by German and Italian propaganda experts, Franco used vituperation, threats, sadism, and braggadocio in his radio propaganda campaigns. A weary Spanish Republic split from within by Communist machinations, left without support from friendly democracies and battered by the propaganda campaign, finally succumbed.
Benefitting from its own successes and the Spanish experience, Germany launched a propaganda war against the Czechs before the Munich crisis of 1938. Radio laid down a barrage of terror and propaganda which continued even after the crisis was temporarily resolved and did not come to an end until the Czechs surrendered completely the next year. By the time German troops were ready to enter Prague, the Czech radio had capitulated along with the government, announcing the German occupation at 5-minute intervals and warning the people not to offer resistance.

In early 1939, the Western European democracies saw the danger of unanswered German propaganda and began a vigorous radio counteroffensive. An effort was launched to reach European populations in their native language. The BBC set up a European service which, by the outbreak of the war, was broadcasting in 16 foreign languages. Nazi reaction was violent. The German people were warned not to listen to the false foreign radio propaganda maligning German leaders and heavy penalties were imposed for listening to or for spreading news heard on foreign broadcasts.

World War II saw the full flowering of broadcasting, both domestic and international, as a vehicle for propaganda. The objectives of each belligerent were the same: (1) to demoralize enemies by confusing, terrifying, and dividing them; (2) to maintain the friendships of neutral countries by broadcasts justifying war aims and inviting cultural exchanges; and (3) to stimulate the morale of its own fighting forces and civilian populace.

Nations constructed transmitters to send out their own programs and set up listening posts to monitor enemy broadcasts in an effort to turn up clues to future enemy policy and to provide ammunition for counter-propaganda. By the war's end, there were more than 360 transmitters manned by thousands of skilled linguists and scriptwriters in more than 50 different countries.

Germany took early leadership in the radio propaganda war. Raising the image of defeat and subjugation, the Nazis followed up their Czech success with an incessant torrent of words against Poland, and later against France, Holland, and Norway. By 1941, Germany was using 88 of its own shortwave transmitters plus those it took over in occupied countries. At home, the Nazis clamped heavy penalties on shortwave listening and fed the German people a steady diet of misinformation which caused no problem as long as news of military victories continued to roll in, but began to wear thin as the prospect of defeat loomed.

Operating through the Overseas Service of the BBC, Great Britain relied on regular newscasts to point out the lies of the German leaders. To the occupied peoples of Europe the voice of the BBC, broadcasting in 50 different languages, came as a heartening sound in a world of darkness. An old lady in Holland wrote, during the Nazi occupation, "Nowadays I believe nothing but the BBC and the Bible." The BBC developed the "V for
The "Victory" slogan which became the most effective propaganda symbol of the war. At home the British used radio to sustain the morale of factory workers and civilian defense personnel, with "music-while-you-work" programs and "actuality" broadcasts from microphones set up in canteens and air-raid shelters.

The Soviet Union disclosed great technical ability in countering German radio propaganda. Ingenious technicians and quick-witted broadcasters learned how to track down and wreck German "newscasts" by transmitting on the same frequency as the German announcers, filling in pauses between German news bulletins with caustic comments on their probable falsity, and even mimicked Hitler. Within the USSR, Russian foreign propaganda concentrated on tearing down the Allies and celebrating Russia's lone role in the war.

Japan used shortwave broadcasting to hold together its scattered empire of islands and primitive populations and to wage propaganda warfare against American troops. Tokyo Rose broadcast to American troops hoping to make them homesick. Using racist propaganda, Japan sought to unite Asians, to turn them against Occidentals.

With the attack on Pearl Harbor, the United States established the Office of War Information to operate America's propaganda efforts at home and abroad. The OWI developed and executed all phases of the Federal program for radio and press propaganda activities.

The OWI, with 11 thousand employees, was divided into two main operations: the domestic branch, which channeled government information to the American people through press and radio, and coordinated the publicity efforts of official bureaus; and the overseas branch, headed by Robert Sherwood, which waged the strategy of truth through the Voice of America.

During the 4 years of its operations, the OWI sent out from its New York offices as many as 2,700 broadcasts a week in 25 languages and dialects, and an additional 1,200 programs in 22 languages from its San Francisco headquarters. About 700 people were employed for this work. News, news features, analyses, and entertainment constituted the main program. In the early stages of the war, emphasis was placed on military and political news, but later on more use was made of round tables, special events, interviews, and commentaries. Entertainment consisted of drama, music, poetry, and talks on non-controversial subjects. At the end of the war, the OWI had a world communications system of 35 transmitters in the continental United States and 14 overseas.

To sustain morale among soldiers and sailors overseas, the Army and Navy set up a joint broadcast operation called Armed Forces Radio Service, providing entertainment and information for troops stationed outside the United States. Small stations were built at headquarters or advanced bases to broadcast recorded music, news, transcriptions of the best network
shows, and specially prepared AFRS shows.

In 1944, the American broadcasting station in Europe (ABSIE) was set up in London to broadcast both locally originated and New York programs to the people of Europe as required by the immediate necessities of the invasion and the liberation of the continent. One of the great prizes of the European campaign, from the propaganda point of view, was the capture of Radio Luxembourg practically intact. In addition, psychological warfare units were established in the Army and Navy to make use of the latest techniques of strategic and combat propaganda.

To detect shifts in enemy policy, the Federal Communications Commission established the Foreign Broadcast Intelligence Service with a staff of 300 linguists and technicians who recorded and transcribed almost a million words a day of Axis propaganda broadcasts. These scripts were carefully studied for clues to enemy thinking; and daily analyses were prepared for State, War, and Navy department officials.

Systematized use of radio in the United States was begun by President Roosevelt, in 1933, with his series of "Fireside Chats." Private stations and networks were invited to carry his talks, an invitation to which they readily responded. All the Presidents who have followed have used radio broadcasting, recently including telectzcasts, to bring directly to the American people occasional messages, addresses, or to respond to press queries. But the stations and networks have always been invited, never ordered, to carry such materials.

Other governments had no need for such finesse. In Italy, during the 1930's for example, with the seizure of power by the Fascists, the dictator found it a simple matter to use the national radio facility to exhibit and expound his ideals and virtues to the Italian people by radio broadcasting. At the same time, dissenting views were easily denied access to the mass communication instrument.

It is hard to evaluate the total effectiveness of all these efforts at radio propaganda and counterpropaganda. Judging by the large sums of money and effort expended on radio by Germany, Britain, and the Soviet Union, it would seem that the military and diplomatic leaders of those countries firmly believed that radio was playing an important part in the war. Isolated instances of surrenders which were attributed to specific radio broadcasts by the defeated soldiers bolstered the belief in radio's power. From subjected peoples in occupied countries, there came repetitious but eloquent testimony to the great moral worth of international broadcasting; and from underground agents, contacted by radio, came evidence of specific military value.

As the field of radio grew, it was noted that the shorter wave lengths could be received over much longer distances. Shortwave broadcasting is now the normal channel for international broadcasting. In some areas of the world where distances provide unusual communications
problems, as in Africa and Southeast Asia, shortwave broadcasting is the rule more than the exception.

Some United States broadcasting stations have auxiliary shortwave transmitters. Prior to World War II, they were operated on an experimental basis. During World War II, when the United States Government began its "Voice of America" broadcasts, it leased existing shortwave stations. The use of directional antennas which concentrate radiation in a beam to a selected country was greatly refined and is used by all countries engaging today in international shortwave broadcasting.

Shortly after the Japanese surrender was announced in August 1945, President Truman abolished the domestic bureau of the Office of War Information and transferred the functions and personnel of its overseas branch to the Department of State. The "Voice of America" was then assigned the task of promoting better understanding of the peoples of the world and to strengthen cooperative international relations. The methods used to accomplish this objective have changed according to the demands of power politics. In the period directly after World War II, the Voice of America tried to act as a mirror for this country, telling the American story abroad as fairly and as accurately as possible, avoiding all efforts at systematic propaganda. With the announcement of the Truman doctrine in early 1947, this orientation shifted to a straight ideological campaign against Soviet communism aimed at countries behind the Iron Curtain. This policy characterizes, in part, current operations of the Voice of America.

The Voice of America broadcasts more than 75 separate programs on a worldwide network for approximately 40 program hours daily in 43 languages. These programs are transmitted via short, medium, and longwave over 73 transmitters, 30 located in the United States and 43 abroad. Seventy percent of the Voice's effort is devoted to the Communist-dominated countries.

Most of the programs are news analyses, news reports, and music. The programs are written, produced, and broadcast from studios in New York City and Washington.

While the Voice of America distributes its programming to the world, Radio Free Europe concentrates its efforts on 80 million people in the five Russian satellite countries of Czechoslovakia, Hungary, Poland, Bulgaria and Romania. Radio Free Europe's basic objective is to assist the people behind the Iron Curtain in their effort to regain their national independence.

Radio Free Europe programs are produced by freedom-loving exiles from the five countries to which RFE broadcasts. These escapees from behind the Iron Curtain give expression to their countrymen's struggle for freedom. This is one of the main differences between RFE and VOA. When General Lucius D. Clay, the founder and first leader of Radio Free Europe, left Germany in 1949, he had the firm conviction that the United
States propaganda effort needed something more than the Voice of America: "A different, broader voice, a voice of the free people, a radio which would not speak the words of government, but would speak to each country behind the Iron Curtain in its own language, and from the threats of its own leaders who had fled for their lives because of their beliefs in freedom."

Radio Free Europe went on the air on July 4, 1950, with a few hours of programming weekly, using 7.5 kilowatt portable transmitter. Today 28 powerful transmitters located in West Germany and Portugal are on the air almost 3,000 hours every week. They carry a full range of programming in six languages—Czech, Slovak, Hungarian, Polish, Romanian, and Bulgarian. As with the Voice of America broadcasts, RFE programs are broadcast over several transmitters simultaneously to combat Communist jamming efforts. This enables listeners in most areas of the captive countries to pick up any program at several points on their radios on one or more frequencies.

Another vital part of RFE's news and information service is a vast monitor network which tunes in some 50 radio stations and teletype services in the Communist orbit. By analyzing this propaganda, plus hundreds of Communist newspapers and other publications, Radio Free Europe knows what the Communists are saying at all times. Radio Free Europe is thus able to counter Communist propaganda. Foreign Broadcast Information Service (FBIS) is another operation that constantly monitors the world.

The East European exiles who write RFE's programs are chosen for their professional skill as newswriters, announcers, commentators, analysts, performers, and editors. Some of them were political leaders who had risen to prominence in their homelands before the Communist takeover. Also represented on the RFE staff are specialists on labor, agriculture, business, science, economics, education, and other fields.

Ten minutes of the latest news every hour is the backbone of RFE's program schedule. In addition to news of the free world, RFE reports the facts about events within the listeners' own countries and the Soviet bloc.

Evidence of the effectiveness of Radio Free Europe is demonstrated in many ways: through letters from the target areas and the ever-present Communist efforts against RFE. Ever since RFE went on the air, there have been ever-increasing protests, even from the Kremlin. At least 2,000 Communist jamming transmitters are in service, most of them located in Soviet Russia.

Since 1954, Communist newspapers and radio stations have attacked RFE more than 8,000 times. Following the Hungarian Revolt in 1956, the New York Times published an editorial which included the following passage:
"Looking for a scapegoat on whom to put the blame for the recent revolutionary events in Eastern Europe, the Communist world has settled on Radio Free Europe and accused it of every possible crime. Such attacks are, of course, the highest praise possible. They testify that Radio Free Europe has to a major extent fulfilled its mission. That mission from the beginning has been to break the Communist monopoly of ideas in Eastern Europe by providing a medium through which the people's opposition in each country could voice its demands."

The Russian counterpart to the Voice of America is Radio Moscow. The Russians use two different setups for their propaganda, depending on whether it is to be broadcast domestically to the Russian people or to other countries.

In the U.S.S.R. close control is maintained over what is broadcast and over the audience's choice of what it can hear. Most radio listeners in the Soviet Union can tune in on programs only over a loudspeaker wired to relay stations. In 1950, the ratio of loudspeakers to individual tube radio sets was 8 million to about 4 million, so it would appear that a majority of the Soviet people who have access to radio programs can hear only the propaganda which is being broadcast over their wired loudspeakers. Today, the Soviet transmitting system reaches about one-eighth of the people.

In accounting for the widespread use of the loudspeaker system in the U.S.S.R., the relative expense of a wired loudspeaker compared to a radio set is undoubtedly second in importance to the Kremlin's desire to retain strict supervision over everything the Soviet people listen to.

The American Committee for Liberation, founded in 1951, operates Radio Liberty, which broadcasts to the U.S.S.R. Former Soviet citizens raise the voice of criticism and opposition to the one-party Soviet regime.

Broadcasting in Russian, Ukrainian, Byelorussian, Armenian, Tatar-Bashkir and several other regional languages, Radio Liberty brings a picture of the free world as seen by fellow countrymen. Soviet internal affairs are carefully covered including the dispute with Red China and the uprising of workers at Temir Tau in Kazakhstan, in October 1959. Exposure and thorough coverage of internal news tends to force a more liberal information policy by the regime.

The activities of Soviet leaders, artists, scientists, and athletes visiting the free world are accurately reported to the Soviet listener. Most of Radio Liberty's listeners are the new generation of intelligentsia who have considerable importance in the present society and are presumably loyal Soviet citizens who wish to hear the opinions of the other side.
CHAPTER 3

BROADCAST RADIO AS A MEDIUM OF MASS COMMUNICATION

Radio uses sound to convey thoughts and ideas of one person or group to many persons or groups in many places at the same time. In broadcasting, we must remember that our audience is many people, not a single group made up of many people who influence each other while they listen. They are individuals or people in small groups. In face-to-face communication, the speaker influences the listeners by gestures, facial expression, and words. These listeners, in turn, influence each other by gestures, expressions, and words. The speaker also receives reaction or "feedback" from listeners, and he can instantly adjust his speech to suit audience reaction.

In television the speaker must get his reaction, or feedback, from only a sample audience, if he has one. This sample audience influences the mass audience, but only by sight and sound, not face-to-face. The speaker talks to individuals.

In radio, the gestures, facial expressions, and usually even the sample audience, are gone. If he is not famous, the speaker is only a voice; and he must remember that he speaks to many people, but only as individuals. Each listener sees the speaker in his imagination. Each listener has his own personal image of the voice he hears, good or bad, depending on what he says and how he says it.

Radio provides information such as news and entertainment such as music. Nobody wants to listen to propaganda. A good propagandist must believe in his mission or he won't convince anybody. He must believe he serves the best interest of the audience. A salesman may have an excellent, apparently convincing presentation; but if he is not sincere, the listener will not be convinced. The listener understands that mixed with the information and entertainment there is persuasion, appeal to emotions, and suggested solutions to his problems; but he does not want to be reminded of it. People who are bombarded with propaganda become very sensitive to it, very critical, and they resent obvious distortion or endless pounding on one theme. They insist on subtle propaganda. They refine and test their skill in recognizing and exposing it. Do not underestimate an experienced audience. Experience comes quickly. Persuasion takes time and skill. A decision to try for immediate reactions and short-term goals must be based on accurate intelligence of the audience. "Know your audience." One of the early tasks in a psychological warfare radio operation may be to "gain and hold an audience," although the final aim of all propaganda is to influence behavior.

Commercial radio practice in the United States is unique and should not be used as a guide. Radio was at its artistic peak in the United States during World War II.
Entertainment, information, and propaganda must be integrated. In the United States, where the creative art has been transferred to the television medium, radio is directed to the listener who is not able or not willing to devote full attention to the program. This gave rise to the "music and news" concept and the popularity of the disc jockey. The programming format was made up of popular music selections with commercial propaganda between each selection. The banal chatter of the disc jockey was the only thread of continuity. This concept is marked by frequent news reports; usually 5-minute newscasts each hour, headlines on the half-hour, sports news at other intervals. This concept is based on a complete "package" delivered every hour with the major differences from hour-to-hour being a change of the disc jockey-personality periodically during the day, late-breaking news items making up the newscasts, and a variation of the musical content. Some stations, however, went so far in trying to achieve this format that musical selections were limited to the "top 40" records selected by various polls. Recent years has seen a more diversified approach and the listener can usually find a station that appeals to his particular taste.

Psychological radio must have continuity and substance. In many countries, listening to foreign broadcasts is expensive, difficult, and dangerous. For instance, Radio Free Europe quotes a Hungarian school teacher who reported that the Reds organized teams of "listening visitors" to call unexpectedly on neighbors and report on who listened to Western broadcasts. She said that many family watchdogs were seized by the state on the excuse of an epidemic but actually because the watchdogs warned of the visiting spies. If your target audience is in danger, do not fill the air with junk. If your target is friendly or neutral, you must not bore them. They will turn you off. You are only one of many voices, all offering free information and free entertainment; each voice with a motive, each with a mission to persuade people toward his own ideology. Merely telling facts will not attract an audience. Facts may be true, but this does not guarantee that people will desire to listen to them. BBC has a reputation for accuracy. Radio Free Europe has a reputation for exaggeration. Both have large audiences in the satellite countries. But so do the local Communist stations. Each station tries to produce what is most interesting to the most people. Competition is very strong, and listeners constantly look for more interesting programs.

Another reason that United States commercial radio practice does not apply to psychological warfare radio is that national policy is the guide. Nazi policy was, "Lie, if necessary. If you tell a lie, tell a big lie; but be consistent and forceful and someday people will believe it." The Soviet bloc believes, "Use as much of the truth as will suit the purpose. Hide whatever is embarrassing. Interpret the rest to support Soviet national policy, consistently and forcefully, and people will believe you, even if you have to lie." The free world approach is, "Tell all the truth, to improve credibility. Give immediate, but routine treatment of things that are unfavorable. If an event is important, the enemy will find it out anyway. Emphasize the truth that is favorable to national
policy, forcefully and consistently, and people will believe you, and believe that you are truthful." BBC always announced Allied aircraft losses first. Sometimes the Nazis claimed less than BBC admitted, as some planes would have to be abandoned over the channel. This actually improved BBC's reputation for credibility.

Credibility is not the same as truth. Credibility is the listener's idea of truth—what he will believe. During World War II, an attempt was made to persuade German soldiers that the United States treated prisoners well. Prisoners, and even U.S. troops at the front, had eggs to eat. This truth had no effect on German troops. They laughed. It was not credible. The United States had grain, chickens, and eggs. But Germany had no surplus grain to feed chickens. Chickens were rare, and there were no eggs for German troops.

Unless it is countered, a false explanation may be credible. In most countries visited by United States soldiers and civilians, there is a rich class and a poor class. Even during war these visitors never resemble the poor class. They usually have enough money to resemble the rich class. Communist propagandists tell the world that these rich Yankees are supported by the mass of exploited United States citizens, living in misery and ready for revolution. This is easy to believe in most of the world. In the free world, we can have progress and comfort without exploitation of the masses, but we must explain this in ways that the listener will believe.

Consistency requires permanent national and military policy on radio broadcasting. Before August 1939, Red propaganda was anti-German. With the non-aggression pact, it became pro-German. On June 22, 1941, it reversed again. For 40 years Stalin was god. Several years after his death, he was turned out of the tomb. Yet Communist propaganda is consistent. It always promises victory for the Communist system of life. Free world policy is not unified. Our people and governments are not predictable. Each nation acts in its own interest. Perhaps this is a great advantage of freedom, but it makes consistency difficult. Be careful not to confuse the audience. If you have something to say, do not just say it once. Illustrate it, repeat it, develop it, rephrase it, so that everyone understands it, and keep it interesting to the new listener and to the regular listener.

The problem begins when you have different messages for different targets. By selection of language, time, antenna, power, and frequency, you can restrict the audience; however, if your message is inconsistent, your opponent will know it and use it against you, talking to the same audience.

Radio broadcasts words, music, and sound effects. The spoken word is the basic human communication. Ability to read is not necessary, but the audience's ability to understand must be known.
Sometimes we may want to reason. We will talk to the opinion-formers in the audience, the more intelligent listeners. Remember that the intellectual may be from the poor economic class. Do not use complicated words or literary language. "Big ideas expressed in conversational language" is the rule. By using simple terms, examples, and dramatizations, any idea can be explained in words the opinion-former can use in talking to his people, who respect him because he has better education than they.

We also use words to appeal to emotions. In World War II, the propaganda experts, in order to frighten a target audience, used words such as despair, panic, madness, awful, destruction, deadly, blood, annihilation, unbearable, tension, depression, shrieking, frantic, ominous, dreary, fearful, slaughter, ruin, suicide, devastation, foreboding, fateful, paralyzing, cataclysm, confusion, terror, dark, and many more. The ear not only analyzes the information in words, but also their musical equivalent. A skilled announcer can establish a minor mood in a few sentences, and the effect is depressing. Harmonics and pitch variation distinguish between speakers. Resonance given the listener the impression of strength. The emotional response to throbbing rhythm is universal and powerful. We can use angry words, hate words, happy words, sick words to influence mood. The situation, the personality of the speaker, background noises, music, and crowds can stir the listener to happiness, patriotism, anger, hate, and despair.

Music provides great flexibility, interest, and color. The new U.S. Psychological Warfare Organization has a music librarian. Music is used in dramatic programs to subconsciously regulate the mood. A steady increase in pitch, tempo, and volume builds a feeling of tension increasing to a climax with a fortissimo—or silence.

Music is used to gain and hold an audience by identifying the station with the culture of the audience. If you have musicians who can play and sing the music of the listener's region, this is superior to recordings of the same music. It is human interest and creates nostalgia and a feeling of nationalism.

Music is cultural propaganda. Music is sometimes criticized as a waste of time which could be used for verbal persuasion, waste of electricity, and worst of all, entertainment of the enemy. But a sophisticated, experienced audience with a free choice will not listen to very much propaganda. There is a limit to politics. If you do not provide music, your enemy will; you will lose the large part of the audience that considers itself non-committed. On the other hand, where control of listening is strict, music may be the only possibility for contact with the outside.

Music is a weapon when it is censored. The Allies, during World War II, broadcast the music of Jewish composers to occupied countries and to Germans who considered music as non-political. Today in the Soviet
Union, young people in search of expression copy the decadent popular music and barbaric dances of the West, which we thoughtfully provide. The Reds do not approve of this and consider it an act of aggression.

Sound effects stir the imagination. Many news programs use recorded teletype or crowd noise to suggest a busy newsroom. In dramatic programs, the combination of words, music, and sound effects permits the listener to escape from reality and build the situation as he wants to see it. Radio is superior to television in using suggestion. Each individual listener builds his own personal image, in his frame of reference. Thus he convinces himself of the details of this mental picture. He identifies himself with the characters of the drama, picturing them as he desires. Words must be interpreted by our reasoning, but music and sound effects appeal directly to emotion. Sound is economical. A few seconds of standard sound establishes a situation as interior or exterior, day or night, small room or large room, kitchen or prison, railroad, auto, or airplane, many people or few people, and so on. In radio the sound effect must be completely familiar to the audience to avoid distraction. A typewriter, tinkle of champagne glasses, bird songs, all have standard meaning.

Sound can be used in contrast: fast and slow, gentle and frightening, near and far. It can be used in similarities: marching feet and roll of drums.

An operating psychological warfare organization must develop a sound expert and a music expert.

In time, one person will collect recorded and artificial sound effects and will be able to produce any sound the director suggests. He will be able to construct a situation in sound that the audience will recognize and be willing to accept. He plays a recording of a foghorn and rippling water, a woman's voice sighs, "Isn't the moon lovely on the water?" and the audience locates itself on a beach, prepared to watch the story develop.

The normal tendency to participate in the story, feeling the emotions of the character, increases during time of stress. This emotional identification with the character is called empathy. Uncertainty and lack of information creates an emotional vacuum. The spreading of rumors and the desire for dramatic fantasy illustrates this need.
CHAPTER 4

BROADCAST RADIO AS A MILITARY WEAPON

Broadcast radio is a psychological warfare weapon whose mission is to support military operations.

During WWI, 1918, the Soviet was the only country that broadcast radio propaganda. In WWII, the radio voice of the Kremlin, Station RWL, was the strongest in the world with 500 kilowatts, the largest ever built at that time.

By June 22, 1941, when Hitler attacked, the Soviet transmitters were ready to wage a savage war against the Nazis. They developed the technique of using the enemy's frequency and insulting the speaker with a phantom voice. This repartee cannot be jammed and is limited only by station power. The British called the Soviet announcer "Ivan the Terrible." He created chaos in Joseph Goebbels's propaganda ministry and also imitated Hitler's voice.

With enemy troops and civilians, the objective is to undermine morale, reduce their will to fight, and render them more susceptible to suggestions, persuasion, and direction. The attitude of a person toward a fact or idea may be positive, negative, or neutral. We ultimately want to influence behavior. When we speak to a hostile enemy audience, it is useless to attack their attitudes directly. We may start with something non-controversial. "Life was more pleasant in the old days." By finding points of agreement, the propagandist can try to picture the facts in a different frame of reference. Subtlety and insinuation permit the enemy, even thoroughly indoctrinated, to laugh, to snicker, to see the stupidities of the situation.

If your enemy has prejudices which you consider hopeless, it is useless to discredit them or to tell listeners they are uncivilized barbarians or spineless puppets. Namecalling is inefficient. Instead, use their undesirable traits. Children and students are a good target. All ideologies try to indoctrinate their youth. Youth is a critical age full of uncertainty and protest. Instruct them on how to resist, to harass authority. Encourage free thinking. The Soviet Government worries about juvenile delinquency, as we do. They try to reduce and correct hostile or unsociable traits. Should we try to improve people's faults? Maybe we should try to take advantage of them. Play contraband music until the tune catches. It takes several weeks to popularize a tune, but the United States has developed this to an art.

With allies, friends, and neutrals, radio's objective is morale-building, information, counteracting the enemy, and selling ourselves. We may not appreciate the difference between persuasive information and opposition to totalitarian propaganda. Government may understand the need for persuasion as a wartime weapon against the enemy but may neglect
or refuse to support information and morale-building on a large scale. The cold war has finally forced us into peacetime use of radio in psychological activities.

In liberated areas, where fighting is still possible, radio provides news, instructions, stability, and encouragement.

To all audiences we oppose enemy propaganda. We do not reply directly to the charges of our competitors. This would help them. We remain always on the offensive. If an embarrassing event takes place, we announce it first and explain it in our frame of reference. He who speaks first defines the situation, and the second speaker must work twice as hard. Sometimes to admit a reverse before the enemy can broadcast it is to take the initiative and improve credibility. Another way to take the initiative is to be more original, more interesting, more surprising, more ingenious. Even if your troops are losing, if the enemy is jamming your stations, as long as your radio personalities and programs are unusual, people will take the trouble to listen through the jamming.

Most of the intelligence needed in psychological warfare radio is available from established sources. If you know whom to ask and develop good contacts, you can receive a flow of information from military intelligence, university studies, government agencies, letters, and libraries.

Basic background information covers sociology, politics, military, economics, and geography of a country, a region, or a people. In the United States, area studies are produced by universities, such as Human Research Resources Office of George Washington University; Operations Research Office, Johns Hopkins University, and Human Relations Area Files, Inc., which subcontracts area studies to a dozen different universities. More detailed studies of communications data, such as newspaper circulation, radio receivers, etc. are produced by the United States Information Agency. There is a great amount of information available throughout the world from universities and libraries on literacy, distribution of radios among classes, listening habits, preferences, dialects, opinions, attitudes, and behavior patterns.

Current intelligence is necessary to revise background data. Propaganda must be constantly revised. In order to be more interesting than your competitors, your intelligence must be better and newer. Audience research is conducted by VOA, BBC, RFE, RLN, and other agencies. Interviews with tourists, war prisoners, refugees, and informers are conducted by military and civilian intelligence agencies. Technical intelligence, internal propaganda, and scientific publications from the target country are studies. Letters from listeners are valuable if you can decide which are genuine and which may be deceptions. Informers are a good source of recent developments, but they must be protected. When Khrushchev denounced Stalin in secret session, the speech was delivered to the West before the Soviet people could be prepared for the shock, allowing a
tremendous propaganda scoop.

Some of the essential elements of information (EEI) desired in radio broadcasting are: What is the trend of enemy propaganda? Are there changes? New developments? Why?

What is popular with the audience? What is not popular? What music and cultural material do they prefer? What produces a reaction? A measurable reaction is rare in radio, although there are a few cases of direct reaction to a broadcast.

What factors produce cohesion in an audience, draw them close together? What factors are divisive? What draws them closer to their central government? What increases sectionalism or regionalism?

Is electrical power available? What time of day? Some communities must ration residential power during business hours.

What radio receivers are available and who has them? What signals can they receive? In some areas, shortwave sets are forbidden. In some villages there is only one receiver, under government control. Governments may distribute receivers which are sensitive only to strong local stations. Carrier radio and frequency modulation have even shorter range.

Which dialects are spoken by each economic class? By each intellectual class? Is news passed rapidly among the people?

Is radio reception limited in the target area by mountains, minerals, magnetic, or electric disturbance?

Find vulnerabilities—weakness, tension, fear, jealousy. These may be psychological opportunities. If the people are hungry and their leaders are living in splendor, this may be a psychological vulnerability but not if the people accept this and believe their leaders deserve privilege. For many years the Aga Khan received his weight in diamonds each year as leader of his people. Many governments and dictators exploit their people, but the people may not consider themselves mistreated. Propaganda opportunities must be developed fully before any change in behavior can be expected.

Select psychological tasks. One of the first of these may be to gain and hold an audience. Another may be to convince the people that their government cannot protect them or that they are colonial possession of Moscow or Peiping, or that we are friendly to their people but opposed to their leaders.

Select themes to use in a propaganda campaign that are in agreement with your national policy. Many times your national policy will be different than that of your allies'. This is a vulnerability which the
Communists use. In a propaganda campaign, to show that the Soviet Union is a colonialist power, permanent control of satellite possessions would be a theme. Use of sample audiences and group discussions may suggest effective themes.

To gain the confidence of the audience, the radio station must be credible. Generally the best way to do this is to tell the truth, but the truth is not always credible. By defining a situation in his own terms, a propagandist who has absolute control of his audience can distort a situation so that the truth will appear impossible. The Nazis did and the Soviets still use this method. When we are broadcasting into Soviet controlled territory, merely to tell the truth is not enough. We must explain it in their frame of reference or change their frame of reference. The truth must be selected to lead the listener to the desired conclusion. Due to the universal interest in news, the best way to gain confidence and increase the audience is by rapid, accurate news reporting. The raw material of radio propaganda is news. Radio is the only communication which can cross the international borders in both peace and war and defeat the strict censorship of information which the Soviet citizen receives.

Be consistent. Radio is heard by many groups. You cannot say something to one group which will insult another group if you wish to hold their confidence. You cannot persuade people if you insult them or make them angry. It is bad to ridicule or insult the enemy people. Your aim should be to gain their confidence. During wartime, your aim will be to persuade the enemy that his best course is to shorten the war, change his government, surrender honorably, or destroy property.

The radio propagandist does not give orders to the audience. He presents the situation in his own terms and uses logic, reasoning, and emotional appeals to convince the listener that this problem is important to the listener and then he presents a solution. He does not stir up trouble if he is unable to provide an answer. He may present his solution forcefully or subtly and results may be low, but if he maintains steady pressure he can change attitudes and influence behavior. The propagandist provides a new alternative and then makes it acceptable. He may act as an "opposition party" where there is only one party. The enemy isolates his soldiers and civilians by censorship. Although the propagandist is an outsider and has less authority than the home government, he has something interesting, different, and intriguing to offer.

Radio as a propaganda weapon has several advantages that must be properly used:

1. Speed. Radio is the fastest communication medium. Events can be described as they occur. One of the attractions of news is the feeling of importance it gives to the person who can tell others something they do not know. All countries maintain monitors to listen to the latest output from competing propagandists.
2. Wide coverage. Radio is the only mass medium that can penetrate national boundaries during peacetime. It is the only long-range medium that cannot be completely suppressed. It defeats censorship. VOA, BBC, RFE, and RLN measure their effect by comparing the Soviet efforts to jam, discredit, and counterattack them.

3. Broad appeal. The spoken word appeals to all levels of literacy. All levels of society listen to radio. Listening is easy, but distraction is also easy. Your appeal must be more interesting, more ingenious, more credible than your competitor's if you wish to attract his audience. Various techniques are used to limit the audience, but it is still composed of individuals of varied intelligence, interest, class loyalty, political belief, age, habit, occupation, and emotion.

4. Versatility. Radio is adaptable to drama, news, music, and discussion. The propaganda message can be concealed in the story. Ideas can be expressed in many ways and illustrated in familiar situations. Loudspeakers and leaflets are more direct and formal persuaders.

5. Familiarity. Radio listening is a habit in many places. Even where a radio receiver begins as a novelty, it quickly becomes familiar. The new listener soon begins to experiment, to search for new stations speaking his language. If this is impossible, then there is a propaganda monopoly. In 1935, Italy began a campaign to undermine Britain in the Arabic countries. At great expense they distributed free, among the Arabs, radio sets tuned to Radio Bari. The Arabs became radio conscious very rapidly, and those who could not read relied on Radio Bari for news, as they sipped coffee and listened to Italian propaganda. By 1937 Radio Bari spoke in 16 languages. In January 1938 BBC made its first broadcast in a foreign language; Arabic. BBC also distributed radio sets and broadcast news, music, and readings from the Koran. This brought competition to the Italians. Soon Germany and France broadcast in Arabic. Within 2 years the Arabs became experts in analyzing and comparing the four-way competition of foreign propaganda which formerly did not exist.

6. Emotional power. The response of the eye is intellectual; the response of the ear is emotional. The ear is easy to deceive, the ear is romantic, the ear is willing and eager to be deceived. A statement in writing is examined by the eye and accepted perhaps with reservation. On the other hand, word-of-mouth gossip, pure rumor, is accepted even by conservative minds in a tense situation and may lead to panic. The Orson Welles "War of the Worlds" broadcast in 1938 caused dozens of suicides and cardiac failures and sent hundreds of residents of New Jersey into the woods with only their families and firearms. This could never have occurred if visual media had been used.

After news, perhaps the most effective radio program is the "dramatic reconstruction." This does not require elaborate equipment, professional actors, or long rehearsal. What is needed is a director who understands PSYWAR, the tools of radio production, and the emotional and suggestive
nature of sound. This can be learned by study and experience. Even original thinking, vivid imagination, a feeling for fantasy and dramatics can be developed by study and experience.

Television producers and theatrical producers build expensive sets. Cinema producers buy old battleships and airplanes, lease mountains, and spend millions for realism. The audience watches critically, looking with the eye for a flaw or a painted backdrop.

The radio audience wants to believe the illusion of sound. Let us take a PSYWAR example of dramatic reconstruction. The program starts with mournful Russian music, fading to a background of strong gusty wind. There are sounds of artillery fire and the rumbling of tanks. The first voice with a German accent cries in fury and frustration, "Forward! Moscow is almost in sight!" The second voice, speaking through a filter and echo network says sadly in a French accent, "They're dying of cold and hunger." The first voice shouts over the rising wind, "But you had no tanks when you tried. I have the world's greatest army!" And the French accent on the filter replies, "Oh well, we all have to learn by experience."

At no expense whatever, with no introduction, no narrator, no scenery, we have unmistakably constructed something unreal, which the listener willingly accepts and enlarges in his mind. We have prima facie established the Russian winter, Hitler with his army, the ghost of Napoleon, and a scene of desolation and disaster. The propaganda message cannot be mistaken.

To produce this scene on stage, television, or film would be expensive and complex; the message would be no stronger, and the effect even less satisfactory.

The appearance on stage of Banquo's ghost at Macbeth's feast is always a little amusing, even when skillfully staged. These are advantages available only in radio. The radio propagandist must make the best use of them:

Limitations of radio must also be considered.

1. Fleeting impression. Visual impressions last longer than sound impressions, although an aural impression may last a lifetime if it was aroused by strong emotion. Repetition, but not monotony, is used to overcome this defect. Some events and actions are complex and difficult to describe because they are basically visual. Parades and sports events are more interesting if the listeners have visual background.

   a. The audience is not obligated to listen. They become bored and distracted easily. People pay money to go to the theater or cinema, and there is little distraction. The radio audience has visual distraction as well as audible ones. Radio has a most difficult audience
situation.

b. The listener cannot stop to consider what he has heard. He cannot reverse his attention as he can with a newspaper. He has no record except his memory. Be careful not to confuse him.

2. Lack of receivers. This can be minimized by making your message so important that it will be repeated by word-of-mouth. If there are no receivers, it may be possible to give them away, air drop them, or best of all, exchange them for some activity, information, or service which allows face-to-face contact with opinion-formers.

3. Technical limitations. Transmission disturbances, mountainous terrain, and long distances limit reception even without intentional interference.

4. Governments take preventive measures against radio propaganda. The employment of bans is a simple countermeasure whereby the people are forbidden to listen to broadcasts by public proclamation. This device is standard practice in many totalitarian countries. The use of coercion to prevent radio listening often acts as a fine advertisement for the propagandist. In such situations, the propagandist must give careful consideration to the problems facing his audience from their listening to "foreign broadcasts."

The most successful of enemy countermeasures against radio is jamming. Jamming is the transmission of a loud annoying signal on the same frequency being used by the broadcasting transmitter. The effect of a jamming signal on a radio broadcast is similar to the interference created by an electric razor when it is operated on the same circuit as a radio receiver. The most successful technique developed for overcoming enemy jamming activities is the employment of super-power transmitters which can override the enemy signal. When such equipment is not available or in cases where jamming transmitters are powerful enough to maintain interference, the use of "saturation broadcasting" has often been used to get the message through. This technique involves the transmissions of the same program on several frequencies and from several locations at the same time enabling the listener to receive the message.

A third measure against radio is the distribution of limited reception devices. This includes FM and TV. Another method used by the Soviets is wired radio. Radio programs are transmitted by the government to cities and villages by V.H.F. or over wire lines. Local receivers under government control then relay the programs to loudspeakers in public places. The carrier system does not transmit through the atmosphere but is carried along electric power lines in cities. The programs can be received on radios which are not sensitive enough to amplify distant signals, but will receive strong carrier and local radio signals. A government can permit radio sets to be sold to any of its citizens and still retain control of communications by regulating the design of the receivers. This may be used by newly-
developing countries to keep some control over what its citizens receive from foreign stations. Controlling the ownership of receivers is another control technique, but this limits the government's use of radio to indoctrinate its own people.
CHAPTER 5
RADIO SCRIPTWRITING AND PROGRAMMING

News is the basic feature of psychological broadcasting. In times of stress news is important to each listener. Some listeners are interested in local news, some in global news. For propaganda purposes we separate news into factual reports, news analysis, and commentary.

We try to convince the listener that our reports are faster, more accurate, and more reliable. The intention is to gain and hold an audience. We avoid distortion in factual reporting. If your reports are truthful, your persuasive arguments in more emotional programs will be more effective.

The listener expects you to state facts in your own way, but you cannot afford to change the facts. If you are reporting an event in his country, he may know more facts than you do. If possible, give facts that the listener can verify himself even if it is not vital information. This improves credibility, since a foreign broadcaster is not accepted without some suspicion. You may organize the facts, emphasize some of them, and select the ones which are favorable; but you cannot omit any essential facts. Consider this story:

"Koje Island: Thirty-eight die-hard Communists were killed today as American soldiers followed through with General "Bull" Boatner's iron-glove policy in the Korean prisoner-of-war camps."

In PSYWAR operations we speak in many languages to many audiences. The Voice of America treated the story differently:

"Koje Island: Hard-core Communist prisoners resumed their rioting today in their efforts to divert attention from the United Nations announcement that 60 percent of Communist prisoners would forcibly resist repatriation.

"An Eighth Army spokesman said today's series of riots were the most serious which have taken place on Koje Island. He said that some 38 POW's were killed, when U. N. troops were forced to open fire for their personal safety, after making every effort to quell the disorders without violence."

In the Voice of America story the facts are not distorted but the propaganda value is certainly improved over the other version.

Newspaper writing summarizes and concentrates the story at the beginning, then develops it partially in the middle, and expands it fully toward the end. A reader can stop reading when he has lost interest.
This is called pyramid style.

In radio, the story must be developed gradually throughout. All the details cannot be concentrated at the beginning. The listener cannot remember many facts unless they are related in logical order. A radio news story must not become less interesting as it continues. Each story should be simple and concise in your own language. This makes it easier for translation into other languages. If you need a dictionary to decide the exact meaning of a word in your own language, use another word.

A radio newswriter may have to use newspapers or material written for reading. This must be rewritten so that details are presented in the style of conversation. Consider your audience as a single person who listens to your story but who cannot ask you to repeat or explain. He may be distracted and hear only part of the story, so repeat names and places to unify the parts.

A brief story is best, but it does not necessarily leave out details which give local flavor, human interest, action, and authenticity. Use familiar words and colloquial expressions. This does not mean vulgarity, but words which build a mental picture. For instance, this is too concise and generalized:

"In Budapest, Hungarian housewives are complaining that ordinary household goods are not available in department stores this year. As a result, resistance is growing to the Communist regime's efforts to get more production."

Compare this more descriptive paragraph:

"In Budapest, Hungarian housewives are complaining that such daily necessities as shoes, brooms, and soap cannot be found in Budapest department stores this year. Long queues are found daily in the front of such large stores as Budapest's Maci's, as housewives scramble to get the few supplies on hand. One report says that only three dozen bars of common handsoap were available at Maci's during a seven-day period last month."

Of course, you cannot invent details to give a story interest: the listener may be closer to the facts than you are; but do not remove descriptive detail merely for brevity.

Colloquial expressions must be used with caution. Colloquialisms, local expressions, slang, or argot is excellent if the announcer is completely familiar with a particular target audience from recent experience. Slang and argot changes constantly, and an expatriate or refugee announcer who uses it to identify himself with the target should limit his use of so-called "authenticator" language to expressions which are generally used or known to be accurate at the present time.
The news item will answer the questions "What, Where, Who, How, When, and Why?" arranged in whichever order best tells the story; not all in the first paragraph as in a newspaper story. Radio composition needs a definite beginning, middle, and closing for each story. Sentences must be shorter but varied in length. A listener does not easily remember long sentences. The first sentence should contain the one point which is most important and interesting, using active descriptive words.

Unless an exact number is important, figures should be approximate. Rounded numbers are not only easier to announce; they are more significant and easier to remember.

Identify quotations in such a way that it is clear exactly which words are direct quotations. It is important, especially for translation, to identify the source. If you say, "It was revealed that..." or "Observers reported that..." the audience will be suspicious. An unidentified source is gray propaganda. Even if you think the source will not be important to listeners in another country, identification adds to credibility. If the position of the source is more important than the name, the position is announced first. "The Commissar of Public Decency and Morals revealed today at a news conference..." The Commissar's full name and other details are given later in the story.

Avoid unfamiliar names if they are not important to the story. In broadcasting to a specific audience, use the names of people and places which they know; but if your story is intended for a large target, unfamiliar names may be less important to the listener and should not be used.

Do not apologize if there is unfavorable news. Remain always on the offensive and never argue with an opponent. It sounds better to be "for individual freedom" than "against Red slavery;" to be "in favor of honest government," not "against corruption." This is an example of negative treatment:

"The United Nations Command at Panmunjom again rejected the Communist proposal that all prisoners of war be repatriated to Communist territory."

The story is more effective if our position is put in positive terms. Let the Reds do the rejecting:

"The United Nations command insisted that any armistice agreement in Korea must be based on voluntary repatriation of prisoners of war. The Communists have demanded that PW's be returned to Communist territory, by force if necessary."

Avoid repeating an enemy story. It is best not to even mention an enemy claim. Tell your side of the story in a positive way, connecting it if possible to a valid news item. You do not want to tell your listener that you are engaged in counterpropaganda.
"Radio Moscow tonight said that the disgust of United States voters with the major political parties is indicated in the fact that less than half the people voted in the presidential election."

In countering this, it is not necessary to deny, argue, or even mention the Moscow charge:

"The latest total on the U. S. Presidential election shows that 61 percent of eligible voters cast ballots. This is a new record both in percentage of voters casting ballots and in the total of 62-million votes."

A second method of handling the news is called news analysis. Facts must be put into a pattern, a frame of reference, so that the listener can reach a conclusion. Naturally, we want him to reach a conclusion favorable to us without feeling that it was forced on him. Whenever the opportunity is present, we use comparisons. In news analysis, we give the listener factual background, history, and information. In Iron Curtain stories, isolated developments may show a contradiction.

"The Soviet Union today complained to the Big Three High Commissioners in Berlin that Western plans for inclusion of German armed forces in a European army would violate the Potsdam agreement."

"In Leipzig last week, East German Communist officials announced that they plan to reorganize the East German police force of 250-thousand men into military cadres."

Be impersonal. The analyst tries to add his personal knowledge to the news in order to give it meaning, and at the same time omit opinionated comments. He must understand his audience so that he will make his points clear enough to the majority without being too obvious about it.

The third method of treating current events is the news commentary. The announcer in this field tends to be a personality, and the program takes on his style. He speaks more intimately, trying to persuade the listener. He needs a vast background in the subject. He may be a refugee from the target country. The style may be pleasant and chatty or it may be angry, critical of the audience's leaders, insulting, or sarcastic. The commentator uses suggestive words and phrases, insinuation and more obvious propaganda techniques, since he is not pretending to be objective. He usually writes his own script, based on the news, his special knowledge, and his personal opinion.

Generally, everyone connected with writing, announcing, and interpreting news should first have an interest in the news and its developments. All newsmen should have a news background and understand the significance of current events. Finally, they must be good communicators. The audience easily detects when the announcer merely reads a script with
no understanding. The writer must read aloud every script and change it until it is conversational. The announcer must read every script and understand the importance of what he reads, marking key words, and placing marks where pauses are important to separate ideas.

In musical programs the music itself is the script of the program; but since we are trying to influence the audience favorably, the selections must be suited for each audience.

Each program should have definite unity and structure. Choose an opening which will attract interest, a fast and colorful number with a full orchestra. Of course it helps if you have a staff of musicians, but a recorded program can be equally effective if it is planned. Vocals and slow numbers give a change of pace and prepare for a more exciting number. The most dramatic number is scheduled last for the climax. Theme music used at the beginning and end of the program gives a sense of completeness to the program, a feeling of satisfaction.

One device which has been successful is the musical connective or transition. A few instruments play softly while the announcer is introducing the next number. This prevents a feeling of start and stop. The announcer's script should also be written and planned in advance. He should be a person who likes and understands the music. Since the intention is to serve a propaganda purpose, it is necessary that the announcer understand the use of music, to gain and hold an audience, to identify the program with the target audience as cultural propaganda and as a weapon. His introductions may be used subtly to remind the audience that the composer is now in exile or, more obviously, as dedication of a number on the national holiday of an enemy-occupied country.

Whether your music is recorded or live, cabaret, popular, jazz, rock and roll, or serious orchestral music, the program should be planned for unity, variety, the emotional values of music, interesting melodies, dramatic climax, well-composed announcements, and propaganda value.

Drama is the most complex and difficult radio program to script and produce. Presentation of a play written by countrymen of the target audience may be good propaganda. Even if the play is a classic and contains no political or economic argument whatever, it is a reminder of national unity.

Shakespeare's plays have been translated into almost every language. His insight into human nature and vivid description of characters and locations within the dialogue makes them ideal for radio adaptation to many cultures. The scarcity of stage directions provided by Shakespeare ("Enter," "Exit," "They fight," "He dies," "The lady sings in Welsh") gives the radio director a chance to use his own imagination, music, and sound effects to best appeal to the audience. The local scriptwriter may be an excellent source of dramatic material. Rather than adapting other writers' material to his language, he may become an expert in dramatizing events in the emotional frame of reference and historical tradition of the audience. This "dramatic reconstruction" or imaginary treatment of current or ancient history, with a propaganda message, is valuable to psychological operations.

Not all radio operations will have trained and experienced exiles from behind the Iron Curtain, but the important requirement for writers, performers, and directors is that they sincerely believe in what they are saying. Actors always attempt to think, speak, and react "as if they were" the character they portray. This ability to consider other persons' attitudes and emotions, deliberately practiced by actors regarding individuals, should be used by all PSYWAR personnel regarding target groups. A military commander learns to think "as if he were" the enemy commander, and has an order of battle section to help him identify his enemy. His military success may depend on such strategic thinking.

David Hertz, in the Hollywood Quarterly, April 1946, has this example from his article, "The Radio Siege of Lorient," which describes the radio broadcast operation against a German naval base in France during 1944:

"...this first experiment was a failure. Our material was vaguely sentimental, presupposing a basic idealism in the Germans which we later discovered to be almost non-existent...

"There was a song the Wehrmacht sang about a division under General Steiner which got smaller and smaller until there was nobody left but General Steiner. Afterward, I realized this song was the only tactical propaganda we used which was along the proper line. It was their own "gallows humor," (or "graveyard humor,") which entertains them but leaves them bitter and depressed.

"Much later in Luxembourg, during the German breakthrough to the Ardennes, I learned exactly what "gallows humor" was. One of our prisoners was a young Schutz Staffel Captain...

"The Germans had just brought forth the Royal Tiger tank, which could only be knocked out at the expense of some five General Sherman tanks."
"We asked the S.S. Captain if the Germans had any new weapons. 'Yes,' he said, 'we have a tank with a 150-man crew.' During this great German offensive we were ready to believe anything and our spines froze. No tank in the world ever had a crew like that.

"One may steers," the captain went on, "and 149 men push."

Knowing the target audience is just as useful to a dramatic writer as is a creative imagination. Talent will develop anyway, but if you can find experienced people who believe in the propaganda mission, a more professional operation results.

The audience identifies with the nearest source of sound. If the main characters are speaking near the microphone and there is a crowd in the background, the audience will listen to the main characters. If it is desired to have the main characters join the crowd, the crowd comes closer to the microphone instead. Then if one character has something confidential to say to the other, he says it close to the microphone. Sounds made close to the microphone have a different quality, a great portion of higher pitches, than sounds made at a distance which have more echo or reverberation. This perspective is important and useful. As a character moves away from the microphone, he increases the volume of his voice, so that it remains audible, but the sound itself changes. This and other techniques are used by the director who must be careful to measure the effect only with his ears.

Every script must have a definite plan. In a dramatic script it must have a conflict between protagonist and antagonist. The conflict increases to a climax when one or the other wins. Various scenes provide information, establish the characters, and describe the action.

In order for the audience to have a clear mental picture of the scene, the writer, director, and actors must know at all times the exact locale, the geography, the location of the audience within the scene, and the position of each character. The audience is located by perspective. In a courtroom scene, if the listener hears audience whispers from a short distance and testimony of witnesses at a greater distance, the listener knows that he is sitting in the audience. Moving the audience from one place to another is difficult and must be done by perspective, dialogue, sound effects, music, a few seconds of total silence, or a combination of these, in a manner which the audience will accept. Your mental images must be consistent.

Dramatic reconstructions and documentaries are practical in a less elaborate PSYWAR operation where studio facilities are smaller, time is shorter, and personnel less permanent. The narrator is an important transitional device; and, in the documentary, he usually is the most important character, unifying the scenes and the propaganda message. All the emotional and informative elements, words, music, and sound effects,
are used in these dramatic reconstructions and documentaries as well as the addition of tape recorded excerpts of history. Many a dictator's old speeches have been used in documentary programs to attack his credibility.

Generally, all dramatic programs and most others also, should be tape recorded before broadcast time. This greatly reduces the pressure for perfection on a live broadcast, permits editing and timing, remodeling of a scene or line, and objective critique of the program before it is put on the air. Tape recording of all programs makes security checking and record-keeping much better.

In broadcasting speeches there is little need for scriptwriting since the speech is the script, but many speeches are intended for an audience which can see the speaker: crowds at a political rally or sometimes a television audience. If a speech is to be made by radio, the speaker should be reminded that gestures, facial expressions, and other emotion-building devices, cannot be seen by the radio listeners. The audible aids of band music and cheering crowds are still available. In fact, many radio speeches have been made in a studio with recorded march music, a recording of background crowd noise, and another recording of applause which can be added as needed.

The remote speech requires an engineer to set up microphones and control the sound so that public address and background noise are reduced, plus an announcer to introduce the program, describe the situation, and perhaps introduce the speaker. A directional microphone for the speaker, one for the announcer, and at least one for crowd noise is needed. If the speech is not so important that it must broadcast at once, it should be tape recorded. If it is a political speech in a highly competitive situation, the wire lines must be protected from sabotage or infiltration by a ghost voice. Equipment is available to relay a speech without wire from the speaker's lapel microphone to the transmitter.

The studio speech allows rehearsal and timing. The radio propagandist may write the speech, or suggest to the speaker improvements in interpretation, expression, and timing. The speech may be simultaneously translated and broadcast in several languages with the voice of the speaker heard as background. A remote speech from an auditorium can be translated this way, by interpreters in the studio, retaining the emotional advantage of crowd noises and music. A studio speech using a live audience, band, and controlled sound effects may be useful in some situations.

Discussions and roundtables are deceptively simple and there is danger that the participants will forget that they are trying to persuade or inform the audience and will try to impress each other instead. If some of the speakers are not radio experts, it is necessary to warn them not to pound on the table, shout near the microphone, kick the stand, or tap on it with a pencil or a sheet of paper. It is best to put a pad on the entire table top and suspend the microphone from above. Speakers who are
standing may feel they are addressing a crowd. It is better to have them seated in a chair which keeps them in a good position.

To interest an audience, it is necessary to present divergent points of view. Even though your speakers may all believe in liberty and progress, a good subject for discussion must involve differences of opinion; and, if it is important, representatives of these opinions must be heard.

The audience likes personalities. The audience appreciates a good argument. Avoid too much similarity in voice, personality, and opinion. In a series of discussions it is best to vary the cast.

A discussion may or may not reach a definite conclusion, but some outline must be followed and transition points used.

Although a written script is not necessary, rehearsal of two or three times the program length must be scheduled. This rehearsal time allows the participants to solidify their positions and their arguments, rehearse their speeches, reduce nervousness, and improve the audience interest.

The announcer should:

(a) Arrange microphone and balance voices.
(b) Warn against rattling paper or touching microphone.
(c) Record time spent on each topic.
(d) Prevent statements violating policy or security.
(e) Make sure members address each other by name.
(f) Prevent speech making.
(g) Make sure technical terms are explained.
(h) Make sure abstractions are illustrated by example.
(i) Keep all members participating and in good humor.
(j) Be sure to provide definite summary at the end.
(k) Record the rehearsal and play it back.

The final production should also be tape recorded to allow for timing and editing. The scheduled time can be maintained if the announcer will firmly control the discussion and:

(a) Introduce the members quickly.
(b) Keep the members from digressing too much.
(c) Make sure transitions are clear to the audience.
(d) Make sure the purpose of the program and propaganda points to be stressed are included in the summary.

Sports events attract a radio audience, but remember that the audience can be increased by relating the event with the listener. Propaganda points can be made in background material, introductory scripts, and announcements made during the program. Sports coverage is a specialized field and may require training of a sports announcer in propaganda technique.
An interview may be written completely in advance, but unless it is carefully rehearsed it does not sound natural. An interview may be completely unrehearsed, but this usually produces no useful conclusion and is limited to the man-in-the-street, taken by surprise, who has no organized opinion and is not willing to make a definite statement without time to plan one.

In a third kind, the questions are prepared by the announcer, based on his knowledge of the person interviewed, the material to be covered, and the results desired. These questions are discussed before the interview and the answers decided but not written out. This makes the interview conversational. The most successful interview is made when the announcer decides what the result should be in terms of the audience and the propaganda mission, but composes the questions during the preparation interview. If the subject is nervous or inexperienced, it is good to assure him that the interview is to be tape recorded and can be remade if necessary. This usually relaxes both parties and a good tape is made the first time.

The advantage of preparing the questions with the aid of the subject is that they can be related to the individuality or unique quality, experience, knowledge, or ability which makes the particular subject different. The most difficult part of the announcer's job is communication with the subject to find a point of unusual interest.

Perhaps you have a refugee from behind the Iron Curtain. The story of his adventures may or may not be interesting. If he raised orchids in a window-box, this is unusual and is a topic which interests him and which can be used as a base on which to let him do most of the talking. To humanize a voice, to present a living, interesting character to the audience, requires a skilled announcer. A propaganda message may thus be delivered without being spoken.

When the personality is well known, but is not a good speaker, the discussion method helps to take his mind away from himself; and he rehearse his interview without being aware of it. Short notes permit him to decide when a topic has been finished and how to start the next one.

Some celebrities are good talkers but cannot stick to a subject. In this case the announcer may insist on an agenda to prevent a waste of time. Informality is good; but lack of preparation ruins many interviews because they seem so easy that they produce no result, especially if a celebrity is bored or resents being interviewed.

Planning includes a definite opening, building interest to a climax by arrangement of topics so that the most interesting ones are saved for the last, and a definite close.

Humanizing a celebrity may require not only revealing unusual information but also showing that their lives and interests are similar to
those of the audience.

When the personality is not well known and the material is more important, for example, highly technical subjects, it may be necessary to do more writing so that he does not have to express complex ideas from memory. Still, with the use of tape recorders, this problem can be reduced.

Special events is the area in which broadcasting can excel. It provides spontaneity and excitement to the usual broadcast day. Speeches and sports are considered special events. Other kinds include political meetings, dedications, description of the arrival of an important visitor, departure of a rocket vehicle, natural disasters, and war events. This usually involves equipment and travel; but, if it can be tape recorded, difficulties are smaller. When no delay is possible, wire lines or radio relay may be needed.

Religious services, music, discussions, and ceremonies on holy days and feasts are part of psychological operations. Restriction of religion in Communist countries makes it more important. Religious services have long been part of radio in the United States, and the writings of all the great prophets and religions of the world are broadcast in many languages throughout the world.

Variety programs contain balanced drama, comedy, music, and guest performances. Although entertaining, considerable effective propaganda can be introduced into musical lyrics, satirical sketches, and jokes. There is a saying that humor should be used cautiously in propaganda—that is, a joke is too good, people will remember the joke and forget the propaganda message. This is just an excuse for bad jokes. If a joke is really good, people will remember the message too.

Scriptwriters are hard to find. Variety means a different combination of elements for each program, different talents, and different themes. Comedy cannot be measured until rehearsal. Writing comedy is a joint operation with writer, cast, and director working until something funny comes out. Trial and error, close cooperation, and a professional attitude based on a permanent organization are needed. If you have a chance to start such a show, observe the professionals, read the literature, copy successful operations, and you will soon develop a style suitable to your target audience.

A weekly variety show usually has a large orchestra and specialty acts, vocalists, and personalities from the entertainment field plus the regular personalities from the station.

A daily variety show will be made up of the station staff and fewer musicians with a more permanent format and fewer guests.

The scriptwriter must arrange the best use of the material for the
benefit of the audience and be prepared to rewrite if the effect is not satisfactory. In comedy, the feeling that it is unrehersed and ad-lib is produced only by extensive rehearsal in which the effect of inflection and timing of every line is studied. Sometimes the propaganda effect of a satirical skit will reduce the comedy. The only answer is to rewrite until it is correct, or else change it completely.

Even in a small "station family-type" variety show, where the station personnel write the scripts, sing the songs, and play the music, a studio audience is necessary. Play the program to the studio audience; they are part of the program. The studio audience must be prepared for the program so it will respond and feel welcome. This "warm-up" should continue up to show time.

An announcement is a persuasive device, usually introduced by a "teaser"—attention getting words or sounds, and followed by a "compulsion"—an appeal for some action or behavior.

Elements of a good spot announcement are contained in the word: "AIDA."

A—Attention of the listener
I—Impart the idea and create interest
D—Discuss the advantages
A—Induce action

A classic form of announcement is the political proclamation, used in military operations to regulate civil affairs. This is most effective if read by a person with the accent of the country in control, a "Voice of Authority."

Announcements may cover any subject, from martial law to the opening of a class in cooking.

During wartime, one subject is always interesting—the prisoner-of-war list. During WWII, our stations broadcast the names of PW's at random intervals in various programs to build the size of the audience. It also informed the enemy which of their comrades were out of the fighting and presumably safe. Captured letters were also read over the radio, not for the information of the addressee so much as to make the listeners think of home and family.

Short features add spice to the broadcast schedule and there is usually a wealth of material from which interesting features can be fashioned. Books and authors prohibited in captive countries, like Boris Pasternak's novel "Dr. Zhivago" may be reviewed, discussed, and read in serial form by radio.

Travel programs emphasize the legal restrictions imposed on many nations by their governments compared to the greater freedom elsewhere.
Farmer's programs, usually broadcast in the early morning, combine useful ideas and developments in agriculture with evaluation of political effects on farmers and exposure of Communist mismanagement. They stress the traditional independence of the peasants and their distrust of centralized authority.

Workers' programs contrast the standards of work and the rights of the individual in the free world with those under the Soviet system. History and current developments in the labor movement in the free world are reported.

Scientific and medical programs have many listeners. This is a fine opportunity to reach an influential audience and a student audience at the same time. Development of new drugs and medical techniques are not generally interesting enough for regular news programs.

Women's programs include discussion of food, fashions, care of children, and news of women in other countries and guide the listener's thinking into an international pattern. Colorful descriptions of tasty recipes emphasize the shortages and inconveniences of Communist life.

Cultural events include direct broadcasts of concerts, jazz festivals, theater, ballet, backstage interviews at the opera, and news about the fine arts.
CHAPTER 6

STATION MANAGEMENT

All broadcasting operations, civilian and military, have adopted a pattern of organization which has become stabilized over the years. Certain jobs have to be performed regardless of the size of the staff or whether the operation falls under the command of a field army, civilian agency, or combined forces organization. (See fig. 1, p. 42) The duties usually accompanying these positions might fall under a different position in actual operation, and some duties may be combined with other positions.

The **Director of Radio Operations** coordinates with other media engaged in the total operation who come under the director of psychological operations. He interprets policy guidance and insures that the broadcast operation contributes directly to the accomplishment of the mission through planning, supervising, reporting, and reviewing. These functions are performed through the effective use of intelligence which must be readily and constantly available if success is to be achieved. The director of radio operations usually has an executive officer and staff to assist him in planning the best propaganda approach to each target audience.

The **Director of Programming** is responsible for the actual operation of the station. He determines what shows will be used to carry out the mission of the station, establishes the times for the programs in the station schedule, delegates production directors for the supervision of writing and producing each show and insures that each production satisfies required standards. He should establish and revise his programming schedule using intelligence information about the target audience and continuously check on the quality of production and balance of program structure, constantly developing new concepts and ideas. The director of programming may have a staff, or he may operate without one, depending upon the mission. He has direct supervision over another element of the management group, the production directors. This group coordinates the actual makeup and broadcast of specific programs.

The **Production Director** supervises the scriptwriters and edits the final results. He selects actors and announcers for the particular show. He is in direct charge of rehearsal and air presentation. It is essential that the production director have an understanding of motivation, dramatic conflict, characterization, timing, music, and sound effects.

Casting and rehearsing a radio program is one of the most important responsibilities of the production director. The radio is a medium that immediately unmasks any defects in speech or phrasing. There is no visual aspect to add or to detract from the subject matter. A voice which may sound right for a given role in a face-to-face conversation will sound very differently over radio. A voice may exhibit extreme youthfulness which was not noticed before, there may be lisping, speech defects, or traces of an accent. The balance of voices is important to avoid discordant
sound combinations. Voices should differ enough to insure that the audience recognizes the character who is speaking. Except for reading the script, the production director's impressions should be formed by what he hears. It is essential that he be alert to the effect that any and every sound might have upon the particular culture and situation represented by the target audience.

When time factors permit, all programs should be recorded for broadcast at a later time. In addition to the convenience of recording without the pressure of prearranged schedules, there are very real psychological operations advantages to this method. The editing of magnetic tape is an art which should be mastered by the production director and his assistants. This art enables on-the-spot sound effects to be added without laboriously recreating these sounds in the studio. Mistakes and hesitations on the part of the cast may be eliminated. It is a simple matter to call back an actor and re-record a single incorrect-sounding paragraph, while it may be impossible to reunite the entire cast. This method also prevents any possibility of security leaks and breaches of policy by permitting complete review of any material before it goes on the air. Editing tape also enables the propagandist to take material out of context, perhaps from monitored and recorded speeches of the enemy leaders, and present it to the target audience in the way most helpful to our mission.

The timing function is in many ways a purely technical job, but it is the responsibility of the production director to make certain that all of the factors of production begin at exactly the right moment and to insure that the show is concluded at the correct time. In a network-type operation, or one in which the target audience has grown to depend upon hearing a program at a specific time every day, this is essential. During rehearsals it is necessary to time and edit each segment of a show to the second.

Pacing the program is a creative task. Only experience, inherent feel for directing and timing, and detailed knowledge of the audience can make a good production director. He must, in most cases, be able to sense just how long a pause should be or just when a musical bridge should come in or fade out.

In addition to the overall pacing of the usual drama program, there are certain mechanical pacing restrictions. For example, some news will be broadcast at a very low speed, so that inexperienced personnel in the target areas may copy the subject matter for further distribution. An on-the-spot news broadcast, however, will be delivered at a much faster rate, for here the emphasis is on "color" and detailed descriptions rather than condensed summaries. Different cultures produce different styles of radio production. The right pacing for any program will depend upon the target audience and the program itself.
The Radio Engineer must be familiar with broadcasting operations from the technical aspect. It is his responsibility to procure and install technical equipment for broadcast transmission. He must test and repair local broadcast facilities left by the enemy. The radio engineer supervises the regular conduct of tests on transmission equipment and signal strength in the target area to make maximum use of the facilities. He is responsible for all studio technical operations which includes supervision of personnel who operate consoles and editing machines and who maintain equipment.

The Administrative Director handles financial, personnel and administrative problems, and files and records unique to broadcasting operations. It is his duty to arrange for news media and facilities. He must establish an archive and research section and train personnel. He directs operation of the tape and music library. He arranges for the procurement of local personnel, linguists, and target area specialists; arranges for security check of local employees and for their housing and protection if necessary.

Since the installation and its personnel are an important target for infiltration and sabotage, the administrative director will be constantly concerned with improving physical, personnel and information security.
Director of Psychological Operations

Director of Radio Operations
    (station manager)

Director of Programming
    Production Directors

Administrative Director
    Clerks
    Librarians

Radio Engineer
    Console Operators
    Technicians
    Monitors

Writers
Actors
Announcers

FIGURE 1
CHAPTER 7

RADIO BROADCAST FACILITIES
(Adapted from Radio and Television by Chester and Garrison)

Equipment

Studios require acoustical treatment according to the primary use that is made of the studio. In the early days of radio, heavy drapes and thick carpets were used to absorb sound and reduce echo. This caused the loss of low and high audible frequencies. The speaking voice did not suffer too much as improved microphones, amplifying systems, transmitters, and receivers were introduced but music and songs did. They sounded lifeless, lacked brilliance and tone color in comparison to concert hall reception due to the reduction in frequency range and the elimination of musical overtones. Some degree of reflected sound or reverberation for brilliance is normal for our hearing. If there is a high degree of reflection, however, it may create an echo effect and even distort sound to the point that it becomes noise.

As studio design improved, "reverberation without echo or distortion" began to be considered together with the need for isolating the studio from outside noises. Many modern studios in permanent locations are "floating." The studio is literally a room within a room, not directly connected by any rigid means to the building that houses it. Special acoustical felt or springs enclosed in absorbent material are used to keep the studio floor, walls and ceiling isolated from the regular frame of the building. This prevents the transmission of sound and shock vibrations from trains, traffic, street repair, office noises, etc.

In order to prevent corridor noises coming into the studio from the hall, a sound lock or indirect entrance is usually constructed. Observation windows or control booth windows in the studio have two or three panes of plate glass and are constructed so as to prevent solid connections between the jambs. With no outside ventilation, relatively noiseless air conditioning is essential.

In the acoustical treatment of the studio there are two general approaches. One is the "live end, dead end" kind with a neutral zone between. The live end section consists of a backwall constructed of seasoned wood or sound reflecting materials. Opposite the live end is the dead end with special acoustical material designed to absorb the sound without reflection. In this type of studio, a greater amount of reverberation may be obtained for singers and instrumentalists by placing them at the live end, or a lesser degree of reverberation may be obtained by moving the group toward the dead end. The degree of reverberation and change of quality are dependent upon the acoustical treatment of the studio, the directional characteristics of the microphone being used, the placement of the microphone in relation to the performing group, the distance between the microphone and the performing group, and individual differences in the musicians and vocalists and the size of the performing group. It becomes
apparent, then, that the setup to be used in this particular type of studio, (or any studio for that matter) can only be determined by experimentation.

The second general type of studio construction is more common among stations which require a more flexible use of their studios. It consists of uniformly distributed acoustic treatment. Many have saw toothed or "V" construction on walls and ceiling. Drapes or curtains may be drawn across certain sections to vary the acoustical characteristics. The same general principle of experimentation before going on the air holds true here as with the "live-end-dead-end" studio and the same factors of microphone type, distance from performers and individual performance difference must be taken into account.

The microphone transforms mechanical energy into electrical energy. When a person speaks, his voice creates sound waves in the air which radiate in every direction, as throwing a stone into a pool of water creates small waves which spread in all directions. In the "dynamic" type of microphone, these sound waves cause a diaphragm to vibrate at the same rate as the sound waves. The diaphragm is attached to a small coil which is centered between the poles of a powerful permanent magnet. When the diaphragm vibrates, it moves the small coil back and forth between the poles of the magnet. Because the coil is cutting the lines of force set up by the magnet, a voltage is induced in the coil. This voltage, though very small, is an electrical reproduction of the original sound in both tonal quality (fidelity) and loudness (amplitude). There are other types of microphones, "ribbon," "crystal," "carbon," and "condenser," using other electrical and mechanical principles.

Proper microphone selection (different microphones have different directional patterns) and placement with respect to the various artists or elements of a program is an important problem usually settled by trial during a rehearsal prior to the broadcast. The results are judged by listening to the reproduction of the program on the monitoring loudspeaker in the control room. The microphone and the individual performers are moved about until the desired balance is obtained.

The console allows individual control of each microphone and provides a means for smooth and gradual transfer from one microphone to another as various portions of the program may require. The control console also has provisions for connecting transcription and record turntables, tape recorders, and the telephone lines from remote broadcast locations and other stations of the network.

The blended signal passes through an overall or master volume control. This control determines the proper level by reference to the volume indicator—an electrical meter mounted on the console which shows relative intensities of the signal. In addition, the operator has a loudspeaker for monitoring the program, a telephone, and circuits for communication with the transmitter, main control room, or remote broadcasts. In large fixed
stations there may be a main control room to handle the switching and volume control of several studios in use at one time. The main control room is the central point for the sequence of programs from the different studios, remote origins, and networks. Programs from these various sources, after being amplified to standard intensity levels for telephone line transmission, are switched in scheduled order to the circuits which carry them to the broadcast transmitters. Other functions of the master control room include supervisory monitoring of all programs, communications in connection with program traffic, and program distribution to and from other stations in the network.

Other controls permit the operator to make announcements from the control room, regulate the volume of the speaker in the booth and to talk to the people in the studio over the talkback system. In many small stations, a single studio console serves as a master control system, since it is possible to control microphone channels from two studios as well as running the turntables and making announcements directly from the control booth.

An essential piece of equipment for smooth control room operation is a good loudspeaker. The volume-unit (VU) meter can register only the volume; the engineer and director, through the mixing of the microphones, control the balance and quality of broadcasts by "ear" judgment, not by meter readings. The rehearsal period is used to check these items. A control room loudspeaker with poor response in the higher frequencies may induce a director or engineer to change a setup to make it sound more pleasing when actually a broadcast would be harmed. There is a reverse caution needed, however. Extremely sensitive control room loudspeakers can lull the production director into thinking that certain tones and certain effects are going to be heard on home receivers, when, as a matter of fact, the average set is incapable of reproducing them. A specific example is the sound effect of jingling coins, which consists primarily of high frequency sounds and is extremely low in volume. A high fidelity microphone picks up this sound effect authentically as heard over a good control room speaker. On an average radio receiver it will be lost completely or be reproduced as the clinking of heavy washers.

Another source of program production error in control room loudspeaker operation is carrying the speaker at too high a level. This may emphasize minute sounds and delicate nuances of tone which seem to be suitable for transmission but are lost in the home with the average listener's set. To guard against these production errors, many directors and engineers drop the level of the speaker to correspond to home reception during portions of the rehearsal and some use another speaker with less fidelity or a speaker cone similar to those in the average home set. A regular home receiving set may also serve the same purpose.

The transmitter generates a high frequency carrier signal which can be received at much greater distances than sound travels. It also modulates this carrier in accordance with the audio signal received from the
studio, and then amplifies this modulated carrier to a high power. We have a specified radio frequency, the carrier frequency of the station, which is amplified in the radio frequency amplifier. The audio signal from the studio must be added to the radio carrier. This audio signal needs considerable amplification, until the stage where an audio amplifier called the modulator is employed. It must be capable of supplying audio frequency power to properly modulate the carrier.
Amplitude Modulation (AM) - The broadcasting system in which the audio signal causes the carrier wave to vary in strength.

Announcer's Book - Usually a looseleaf type folder which contains the program material for the broadcast day, including the statements to be made by the announcer.

Audio - In broadcasting, used to designate such equipment as microphones, amplifiers, cables, etc., connected with the transmission of sound. Also used to designate the range of audible frequencies.

Background (BG) - Sound, speech, music heard at low level behind dialogue or other program elements to provide a particular illusion.

Balance - The relative volume levels of different voices, music, and sound. Also, physical arrangement of musicians or speakers so that the correct impression is gained by the audience. A blending of sounds to create a natural effect.

Band - A group of radio frequencies assigned for a specific purpose. For instance, the standard broadcast band is from 540 to 1600 kc.

Bandwidth - The band of frequencies occupied by a single station's emission. It includes the carrier wave frequency, and the sideband frequencies to either side. It includes 99 percent of the total radiated power.

Board - The control panel in the control room, containing switches and volume controls for each microphone and turntable channel, through which the program passes from the studio to the master control or to the transmitter.

Bridge - A transition effect used particularly in dramatic programs. It may be accomplished by sound effects, music, etc.

Call Sign - A combination of characters or words which identifies a communications or broadcasting facility, command, unit, or authority. A method of identifying a station to its audience.

Carrier (or Carrier Wave) - The steady radio frequency wave produced by a transmitter which may be modulated to carry signals, voice, music, or pictures.

Channel - A facility for communications on a system or circuit. Also a band of frequencies assigned to a transmitter. In standard broadcasting, the band is 10 kc wide, 5 kc either side of the carrier frequency. Also used as common reference for television receiver tuning.
Coaxial Cable - A specially designed cable, consisting of two concentric electrical conductors, which will carry a very wide band of frequencies (such as is needed for TV and FM) with negligible distortion.

Combination - Man who acts as both announcer and engineer for radio broadcasting. Common to most radio stations and is best known in form of the disc jockey.

Continuity - The spoken introductory, transition or closing of dramatic or other programs; introductions for talks and musical programs; commercials; and the remarks of an announcer in general.

Cross-fade - The reduction in volume of sound from one channel, together with the simultaneous increase in volume of sound (music, speech, etc.) from another channel.

Dead Air - Silence. Intervals during which no audible signal or modulation is being transmitted.

Facsimile - A system of telecommunication for the transmission of fixed images with a view to their reception in a permanent form. In other words, a newspaper printed by means of radio.

Fade - A decreasing or increasing of the level of sound, usually by the audio engineer although sometimes by performers in relation to microphone.

Frequency - The number of recurrences in a unit of time. The rate of fibration of an audible sound or an electrical impulse, as measured in a unit of time.

Frequency, Assigned - The assigned frequency is the frequency coinciding with the center of the frequency band in which the station is authorized.

Frequency Modulation (FM) - A system of broadcasting in which the audio signal causes the carrier wave to vary in frequency within a channel, rather than in strength. Characterized by high fidelity and freedom from interference, fading, etc.

Gain - Amplification.

Head - The actual cutting or magnetizing device on recorders, and the pickup or reproducing device on playback equipment. In disc machines this unit utilizes a needle to act upon the recording medium, while with magnetic equipment (both wire and tape) an electromagnetic coil is used.
Ionosphere - A series of electrically charged (ionized) layers of air located from 60 to 250 miles above the earth and used to reflect radio signals.

Jamming - The interjection of a loud or annoying signal on the same frequency as a broadcasting transmitter. (This signal is produced by a jamming transmitter.)

Medium (Media) - A method of communication used for the dissemination of information, propaganda, and ideas.

Microphone - A device for transforming sound into electrical energy.

Mixer - The panel for control and blending of sound picked up by various microphones or other input equipment. (Similar to "Control Board").

Modulation - Modification of one frequency system by another. The electrical impulses corresponding to audio sounds impressed upon a carrier wave. The process in which the amplitude (AM), frequency (FM), or phase of a carrier wave is varied with time in accordance with the wave form of superimposed intelligence.

Monitor (Monitoring) - To check a program by means of audio equipment. To listen to a program for purposes of studying it or reporting on it. Also, the loudspeaker in the control room through which the director and technicians listen to a program is called the "Monitor." The act of listening to, reviewing, or recording one's own, friendly, enemy, and neutral communications and broadcasts for the purpose of maintaining standards, improving communications, reference, and intelligence.

Montage - In radio broadcasting, a series of abbreviated scenes and musical bridges which give the effect of time passing.

Motivational research - The attempt to determine the underlying psychological reasons for an audience to accept or reject an idea.

Net - An organization of stations capable of direct communications on a common channel.

Network - Two or more stations organized to transmit the same program matter in different localities and on different frequencies, and possibly scheduled at different times. Also the lines or wires connecting such stations.

Patch - A temporary and removable control room equipment interconnection, similar to the functions of a manual telephone switchboard panel.
Pot - Short for potentiometer. The volume or gain control with which the engineer reduces or increases volume. A fader.

Power (of a radio transmitter) - Normally defined as the peak power supplied to the antenna during one radio frequency cycle, at the highest crest of the modulation envelope taken under conditions of normal operation.

Primary Area - The area in which the signal of the radio station is heard with assured regularity.

Production Director - Person responsible for combining the aesthetic and technical aspects of radio into a finished program for broadcast.

Program Log - A chronological record of all pertinent information regarding program matter used on a station.

Radio (technical) - A descriptive term applied to the use of electromagnetic waves between 10 kcs and 300 thousand mcs. This spectrum is divided into sub-divisions according to use and frequency.

Radio (medium) - A medium of communication which uses sound to convey the thoughts and ideas of one person or group to many persons or groups at the same time, without direct contact.

Rebroadcast - Reception of a radio program from the air and broadcasting it over the station's transmitter. A delayed broadcast.

Receiver - A device for detecting radio waves and reproducing the original audio component of the received emission.

Relay Station - A station used to receive radio signals from a master station and transmit them to a second relay station or to a station transmitter. Used to bridge distances without the use of telephone lines.

Remote - A radio program that originates at some point outside the studios of the station. "On-the-spot" type of broadcasts.

Sound (technical) - Vibration of an elastic body (air) in relation to its ability to stimulate a sensory organ (ear).

Sound Effects - Electrical, vocal or mechanical sounds suggesting real sounds reproduced either live or on records.

Tape Recorder - A device for recording on magnetizing cellulose tape that has been coated with an easily magnetized material.

Telecommunication - Any transmission, emission, or reception of signals, signs, images and sounds or intelligence of any nature by wire, radio, visual, or other electromagnetic systems.
Television (TV) - A system of telecommunication for the transmission of transient images of fixed or moving objects.

Traffic Board - Some type of bulletin board which is maintained in the control room with a listing of the day's program schedule requirements.

Transcription (ET) - A disc recording, usually 16 inches in diameter, and revolving at a speed of 33 1/3 rpm, made for broadcast purposes, and having high fidelity.

Transmitter - A generator of radio frequency waves, modulated or unmodulated.

Video - The electric currents and other equipment used in transmitting the television picture. (Sometimes a synonym for TV.)

Volume-Unit (VU) Indicator - Electrical meter, showing on a scale by means of a needle, the relative intensity of sounds. The control room meter used in adjusting balance.

Wired Radio - Radio system using wire for most or all of the transmission distance.

Wow (wowing) - The effect produced by a turntable revolving at uneven speed, causing the sound to waver in pitch and intensity. Also, the sound heard if volume is turned up before the record has gained the proper speed.
APPENDIX II
CHECK LIST FOR RADIO SCRIPTS

1. Is content clearly understandable and concise?

2. Are controversial issues avoided or properly handled?

3. Is the script consistent internally?

4. Has policy guidance been complied with?

5. Has the correct format been selected?

6. Has the format been properly utilized?

7. Has the script been properly edited?

8. Have long sentences been avoided?

9. Have complex phrases been taken out?

10. Have conversation words and phrases been employed?

11. Does the script avoid sounding propagandistic?

12. Is the material applicable to the target audience?

13. Are suggestions specific?

14. Are names familiar or identified?

15. Is repetition used judiciously?

16. Has proper use been made of taped interviews and music?

17. Is use of figures and statistics minimized?

18. Are quotations properly identified?

19. Are expressions familiar and currently used?

20. Is the script properly timed?

21. Are comparisons judiciously employed?

22. Is the script well unified by transitions?

23. Is script written for the announcer and in conversation style?

24. Is script written in present tense?

25. Are complex ideas reduced to simple terms?

26. Have summaries been used?

27. Has newspaper copy been rewritten?

28. Have remote events been related to target audience?

29. Do news stories hold interest throughout?

30. Have propaganda techniques been artfully employed?