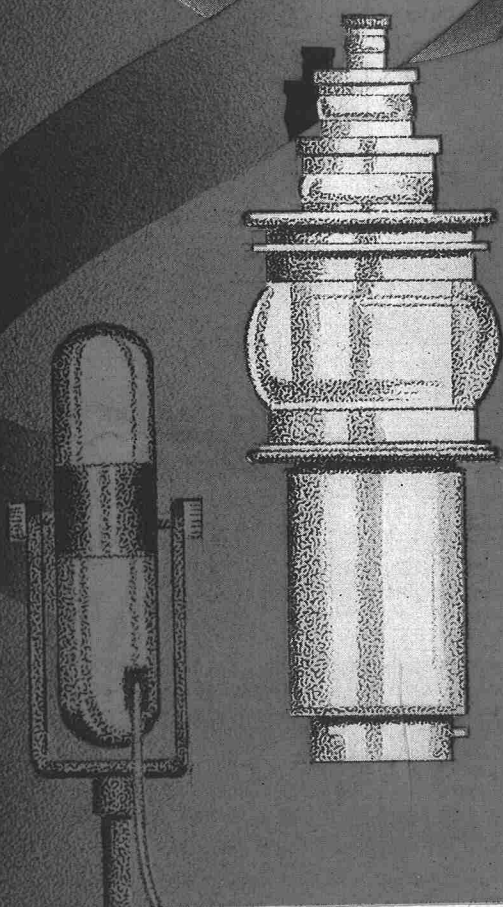


by FOY D. KOHLER, Director, *The Voice of America*,
as told to R. E. NELSON, Machlett Laboratories, Inc.

"THIS IS THE VOICE OF AMERICA . . .



Cathode Press is proud to present the first in a series of two articles prepared by State Department personnel to provide a more thorough understanding of the purposes, facilities and accomplishments of the Voice of America program. This first article by Mr. Kohler discusses the purposes to which this program is directed and the widespread operations necessary to achieve its aims.

The second article in this series, which will be published at a later date, will deal specifically with the technical aspects of Voice of America facilities, with particular emphasis on new developments.

...to promote a better understanding of the United States in other countries and to increase mutual understanding between the people of the United States and the people of other countries."

So reads the Smith-Mundt Act, known also as the United States International Information and Educational Exchange Act; it was passed on January 27, 1948. Under it the Department of State began to intensify its efforts to:

1. Strengthen the unity of those nations devoted to the cause of freedom and to show that their interests and those of the United States coincide.
2. Spread the conviction that the United States is an enlightened, strong, and determined power deserving the full support of other free nations.
3. Stimulate among free nations the building of the unified strength necessary to deter aggression and secure peace.
4. Develop and maintain psychological resistance to Soviet tyranny and imperialism.

Activities organized to accomplish the above objectives under the Information and Educational Exchange Program are carried on by the International Information Administration through media services:

- *The International Broadcasting Service (IBS)*
- *The International Press Service (IPS)*
- *The International Motion Pictures Service (IMS)*
- *The International Educational Exchange Service (IES)*
- *The International Information Center Service (ICS)*



FOY D. KOHLER

Foy D. Kohler, Chief, IBS, born Oakwood, Ohio, February 15, 1908. Graduated from Ohio State University in 1931 with B. S. degree. Appointed to U. S. Foreign Service in 1931, subsequently serving at Windsor, Bucharest, Belgrade, Athens, Cairo, London and Moscow. Served as Assistant Chief of Department's Division of Near Eastern Affairs, as Political and Liaison Officer at San Francisco Conference on the United Nations and as Secretary-General of the U. S. Mission to Observe Elections in Greece. Attended National War College. Served in Moscow successively as First Secretary, Minister-Counselor and Charge d'Affaires. Became Chief, IBS, November 1949.

There is also the Private Enterprise Cooperation Staff (ICO), which stimulates and guides cooperation from private enterprise to further the objectives of the Department of State's so-called "Campaign of Truth."

Major efforts have been concentrated on critical areas which are vital to world peace and to the security of the United States. These areas, comprising 31 countries, are divided into four main categories:

The first area is the hard core of the Soviet Union, which we must penetrate deeply.

The second area includes the satellite or captive countries, where millions of oppressed people still look with hope to the free world.

The third area is the crucial fringe of free peoples now living in the shadow of the Soviet threat but struggling desperately to maintain their independence.

The fourth area comprises those nations upon whose soil Communism has been planted and who are striving gallantly to weed it out.

The scope of activities of each major Service mentioned above is tremendous! Only a few aspects of the Voice of America (VOA) operation can be reviewed in this limited discussion.

The International Broadcasting Service (IBS)

"This Is The Voice of America"—with these words each broadcast, in any one of 46 different languages, goes "on-the-air," beamed to selected areas of the world—where there exists, outside North America, a total of 100 million radio receivers and a potential audience in excess of 300 million people.

About 125 separate programs, varying from 15 minutes to one hour and totaling nearly 50 hours, are prepared daily.

Programs broadcast from the United States fall into three categories, balanced as follows:

News, 36 percent

Analyses and Features, 54 percent

(These include political commentaries, press reviews, roundtable discussions, and documentaries.)

Music, 10 percent

To the Iron Curtain areas, including China, the content is 48 percent news and 52 percent analyses and features. In addition, VOA sends regularly to missions abroad transcribed musical programs and special feature material for placement on overseas local radio stations.

Facilities

More than 365,000 words, which if printed and bound would make up the equivalent of five novels, go out daily over a vast network of about 75 domestic and overseas transmitters, both medium wave and short wave. There are 38 domestic transmitters, ranging in power from 50 to 200 kilowatts, located in the United States; 20 of these are located in the Boston-New York area for programs beamed toward Europe and South America, 8 in the Cincinnati area for broadcasts to Central and South America, and 10 in the San Francisco area for coverage of the Far East and also countries south of the United States. These facilities are licensed to private broadcasting companies and operated under contract with the Department of State. Additional stations are under construction in the States of Washington and North Carolina.

Relay stations at overseas bases, shown on the map of the "Voice's" global network, figure 1, pick up and simultaneously rebroadcast programs from the United States on medium and short-wave frequencies. Government-owned and controlled short-wave relay broadcast stations are located at Munich, Manila, Honolulu, and Tangier, and medium-wave stations at Munich, Salonika, and Manila. Other relay facilities are leased from Ceylon and from B.B.C. in Great

Britain. Selections of VOA programs are rebroadcast on medium-wave by 120 stations in Western Europe, over 100 stations in Latin America, and numerous stations in other parts of the world.

In addition to the direct broadcasts, the Voice of America repeats many of its programs from overseas relay bases. Programs to Russia are repeated around the clock in order to provide every possible means of getting through Soviet jamming. Counting both original broadcasts and repeats, about two-thirds of the Voice of America transmissions are directed to the Soviet orbit. The remainder of the broadcasts are beamed to friends in the free world in an effort to cement the friendship between their peoples and ours, to strengthen the elements favoring United States policies and democratic principles, and to enable them better to combat Communism and thus contribute to the mutual effort to maintain peace.

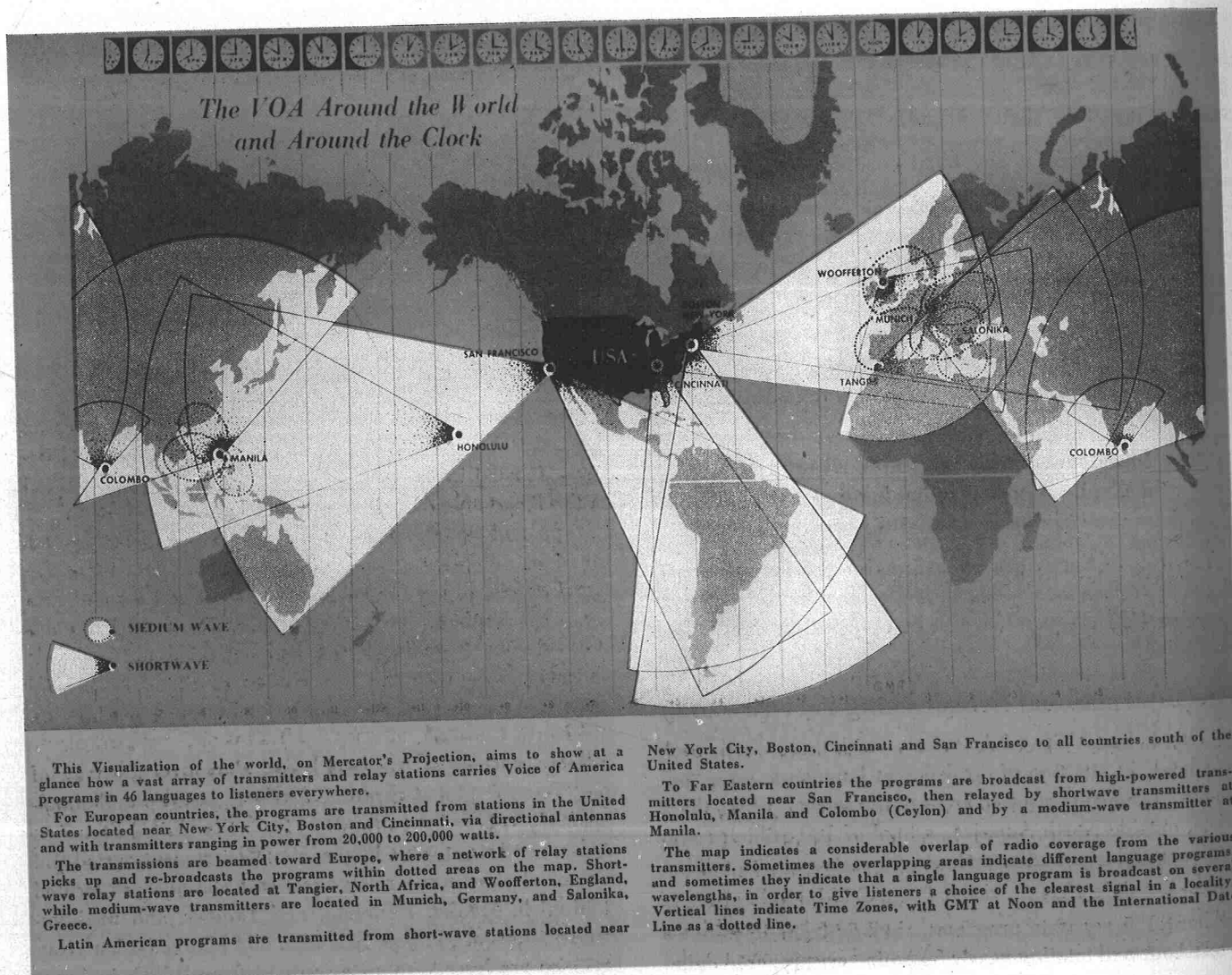
The question of effectiveness involves three main questions:

- First, are we delivering a clear, strong signal?
- Second, are we getting an audience?
- Third, are we affecting the minds and influencing the actions of our audience in a sense favorable to the interests and aspirations of the free world?

Development Of A Stronger, Clearer "Voice"

The importance of securing and maintaining effective radio penetration of the Iron Curtain cannot be overestimated. One obstacle to clear reception in the radio target areas includes electro-magnetic disturbances which circle the North Pole, interfering with the most direct and shortest transmissions to the prime audiences in Central Europe,

Figure 1 — "The Voice of America's global network of broadcasting facilities."



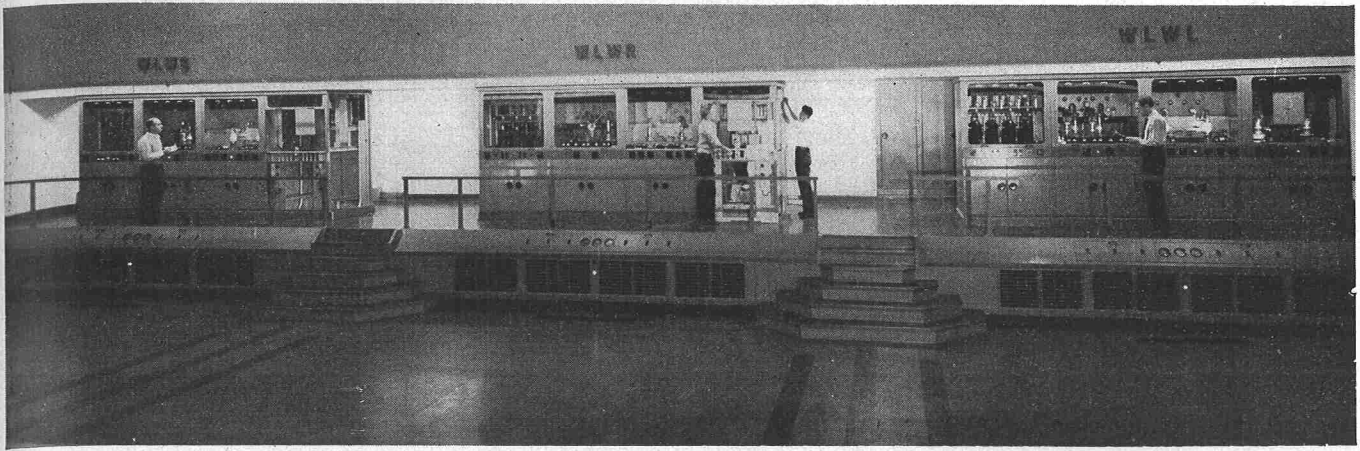


Figure 2 — View of typical VOA transmitter facilities at a short-wave station in the United States.

Russia, and a large portion of Asia.

In addition to this "electronic curtain," which results in a weakened signal, audio distortion, and static at the receiver end, is another which is Russian-made—jamming, referred to previously. This type of interference, heard as unpleasant noises and distractions, is transmitted at the same frequency as the Voice program which the Russians wish to make unintelligible. Soviet jamming of the Voice of America programs has been intensified to the extent that nearly 250 sky-wave jamming installations have been identified; in addition, it is estimated there are in operation at least 1000 ground-wave jammers in the heavily populated areas. The Voice, as well as other similar broadcast systems friendly to the West, can change transmitting frequencies in order to dodge jammers; however, such a procedure

is temporary in effect and loses audience for portions of the program.

The most effective way of overcoming the jamming handicaps is with more power, and the Voice has a project directed to that end. With the collaboration of the best electronic engineering groups in the country, we are pioneering in advanced techniques and super-power in order not only to provide a more intelligible signal but to blast our way through the northern auroral interference zone directly to Europe and Asia and also overcome to some extent the effects of Soviet jamming.

Already under operation-tests is the first of several 1000 kilowatt medium and short-wave transmitters operating as relay stations as well as for direct transmissions.

Figure 3 — Short-wave station buildings and antennae at an overseas relay base.

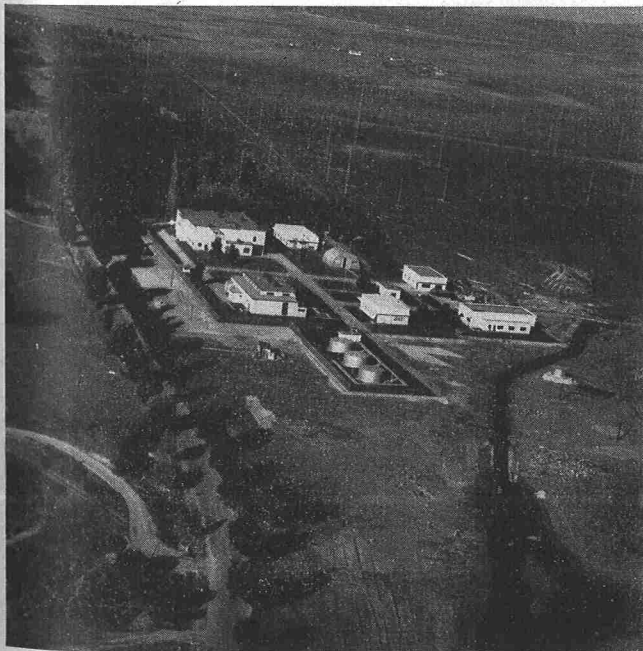


Figure 4—Transmitter control room with master control console in an overseas relay station.



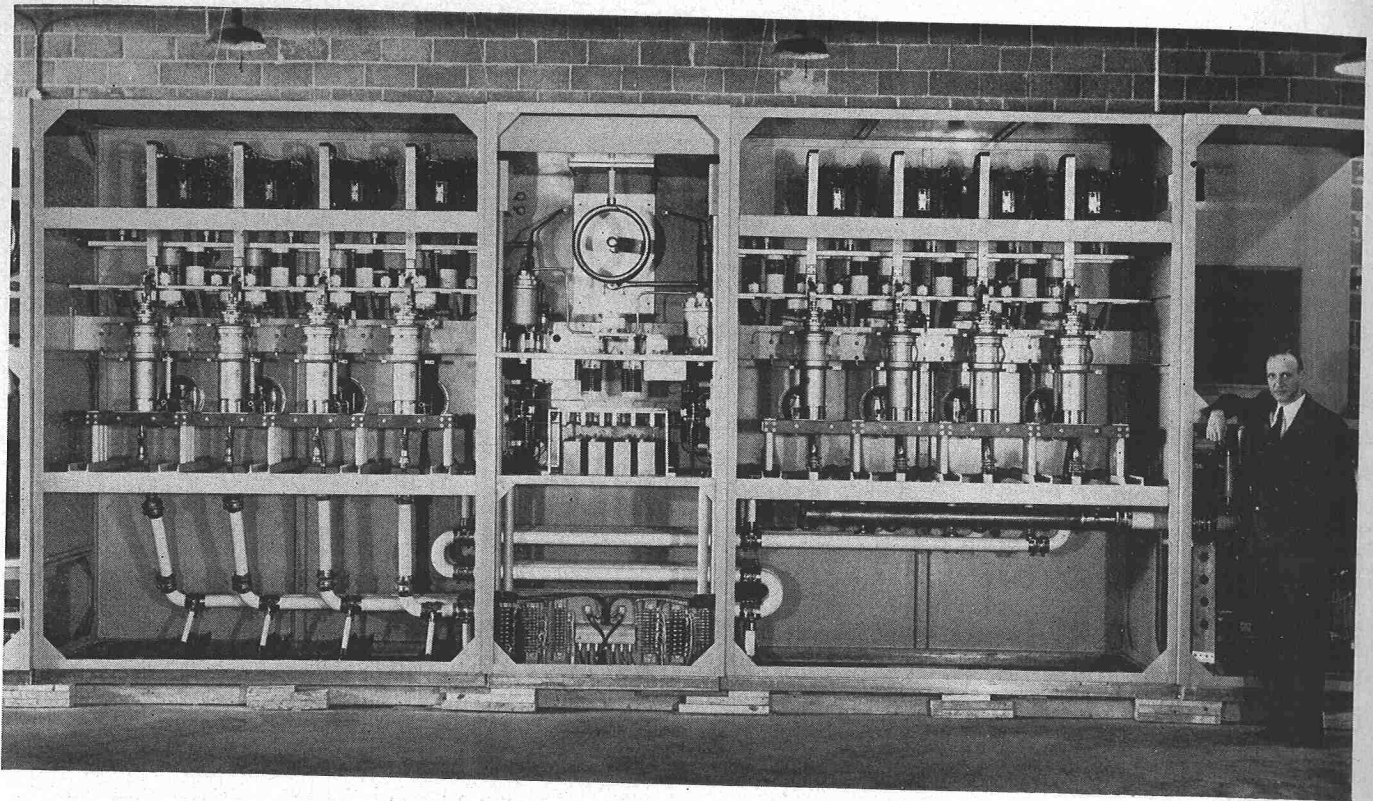


Figure 5 — View of 500 kilowatt section of mega-watt transmitter. Eight Machlett ML-5682 tubes are shown mounted in the Doherty high efficiency amplifier.

The effective radiated power of the super-power radio stations in the United States, called project "Baker," is further increased by their use of high-gain curtain-type directional antennae (Figure 6). The combination results in a radio signal, in the direction in which it is beamed, approximately 4000 times as strong as that of the most powerful commercial broadcast transmitters in the United States.

It is expected the super-power transmitters in the United States will give us direct transmissions to the oppressed peoples of Europe and Asia even though the relay bases be rendered inoperable by Communist action.

Another method of getting VOA broadcast transmissions through to the critical areas vital to world peace, in spite of auroral or sunspot activity and jamming, makes use of relay stations, indicated in figure 1. These relays serve to rebroadcast immediately, and sometimes on a repeat basis, programs originated in the United States around disturbing electro-magnetic conditions surrounding the North Pole and at multiple medium and short-wave frequencies to complicate as much as possible Russian jamming. To improve on the effectiveness of these facilities the Department of State is constructing five additional very-high-power relay stations.

A typical overseas relay base includes: a transmitting plant with at least one very-high-power medium or short-wave transmitter; at least two high-power short-wave trans-

mitters; communication transmitters, associated high gain antenna systems, and power generating equipment; and a receiving plant with a number of the most modern receiving units. The power requirements are comparable to those of a good size community, and the necessary power plant is a wholly separate and self-contained diesel operation.

In addition to "Baker" are two other facilities projects, named "Ring" and "Vagabond." "Ring" calls for fourteen short, medium, and long-wave relay broadcast stations around the Communist dominated domain. "Vagabond" calls for the use of fast sea-going vessels to carry powerful relay stations which are also capable of originating programs. Since the most ideal location for a jamming transmitter is close to a Voice of America transmitter, "Vagabond" complicates the Communist jamming system by transmitting from varied strategic waterways of the world.

The Audience

With respect to getting an audience, it is extremely fortunate that radio is an established and highly developed medium of communication even in relatively backward areas of the world. Either firm figures or informed estimates are available as to the number of radio receivers which can be reached throughout the world. Outside North America there are about 100,000,000 receiving sets, giving international broadcasters a potential audience of more than 300,000,000 people, not to mention secondary distribution, such

Figure 6 — Model of high-gain curtain-type directional antenna used with Voice of America transmitters. The scale-size automobile in the left foreground above arrow indicates the comparative size of a curtain antenna installation, which is as tall as a skyscraper building and about as long as two standard city blocks.

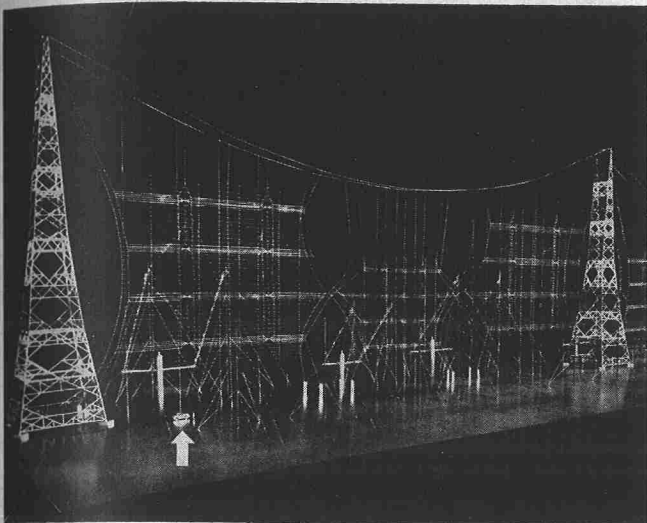
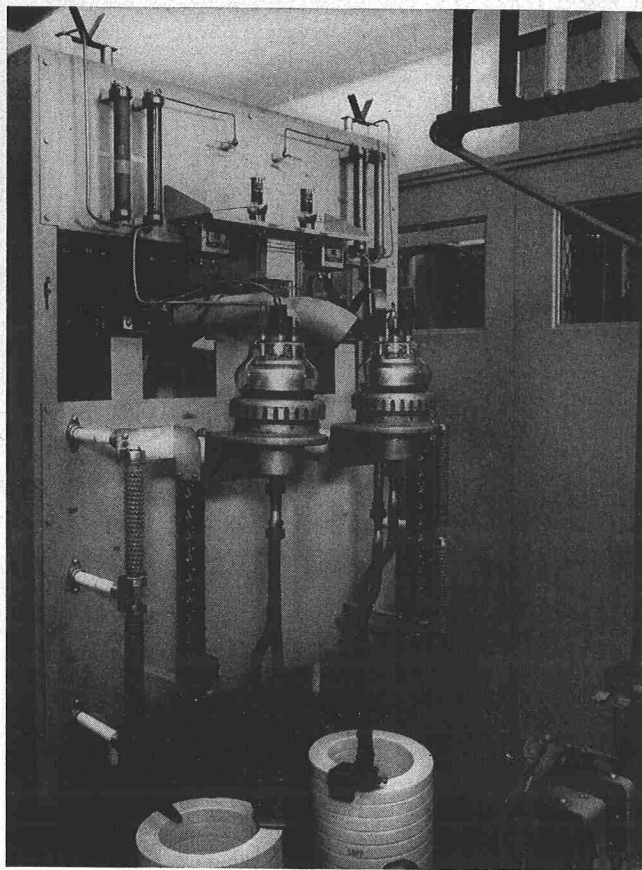


Figure 7 — View of Modulator Section using ML-5658 Electron Tubes in 50 Kilowatt Short-Wave Transmitter.



as newspapers and word-of-mouth, which is extremely high via the existing grapevines in every totalitarian country. In the free world it is possible to adapt and apply the techniques of quantitative audience surveys so highly developed in the United States. These provide an accurate measure of the size, composition, and characteristics of our audiences. For the most part such surveys are conducted by private contractors including such organizations as American Institute of Public Opinion (Gallup) and its overseas affiliates and the Bureau of Applied Social Research of Columbia University.

In addition to these surveys, letters from listeners, efforts by the Communist press and radio to discredit the broadcasts, interviews with Iron Curtain defectors, the reports from United States missions abroad, correspondents and travelers provide convincing evidence of a regular listening audience of many millions. Letters from listeners total as many as 40,000 in a month. Program schedules are published in twelve language editions, including English, and are available upon request to overseas listeners. These schedules are distributed to a mailing list of about 1,250,000.

In the Soviet Union in the early days of our Russian language broadcasts, which were inaugurated in February 1947, all the evidence which could be amassed at the Em-

bassy in Moscow indicated that the Voice had a regular listening audience of at least 10,000,000 people. Since the Kremlin launched its colossal jamming campaign in April 1949, it is impossible to estimate the audience accurately although much favorable evidence is available from indirect sources. Monitoring reports show that the programs can be heard about 26% of the time even in Moscow, where the heaviest jamming is concentrated, and 60% to 80% of the time in other areas of Russia. Defectors continue to provide evidence of widespread listening and the Soviet press and radio contribute additional evidence. During 1951 Radio Moscow attacked the Voice 312 times in an effort to discredit and refute the broadcasts, and Tass press transmissions carried 23 attacks which were printed in hundreds of provincial newspapers. Similar attacks are made on a continuing basis in all of the satellite countries. Even if the broadcasts were not getting through the Communist press and radio, in their effort to refute the programs, repeat enough of the content to make the broadcasting worthwhile.

Continued on page 28

"THIS IS THE VOICE OF AMERICA..."

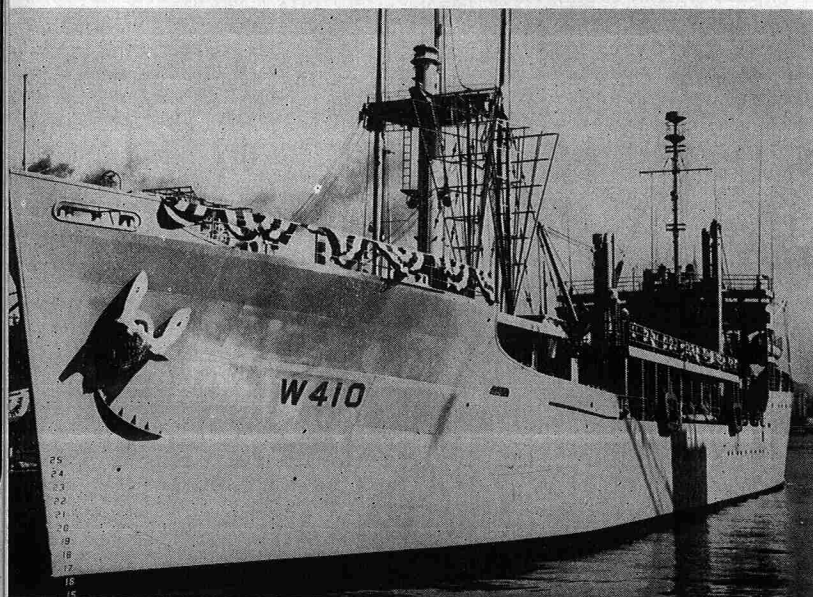
Continued from page 13

Effectiveness Of "Voice Of America"

As to the third question of Voice of America effectiveness—"are we affecting the minds and actions of our audience?"—many intangibles are involved. The contents of Voice programs, the reactions of sample audiences to special programs, and the level and quality of the 46 languages spoken undergo continuous appraisal. During 1951 evaluation of the VOA's effectiveness was based on evidence gathered from more than 325,000 sources.

In addition to other achievements the Voice has served to keep Communist propaganda on the defensive. One notable example was in the case of the Katyn massacre, which was brought to public attention by Congressional investigation. Although the case was one which the Kremlin and the Communist regime in Poland preferred to keep buried, their propaganda organs were obliged to make lengthy defenses of the Soviet position as a result of the heavy attention given the case by VOA's Russian and Polish broadcasts.

Figure 8 — The Voice of America's floating radio station "Courier." Some of the special antennae can be seen in this view. From the raised platform amidships captive barrage balloons may be released to carry antennae hundreds of feet above the ship.



The change in tide of the psychological offensive is attested by the constantly increasing size and interest of the free world audience. It is reflected in ever-growing demands for program schedules and by the upward trend of audience mail. Letters and interviews frequently provide striking examples of changes in audience attitude as a result of the Voice.

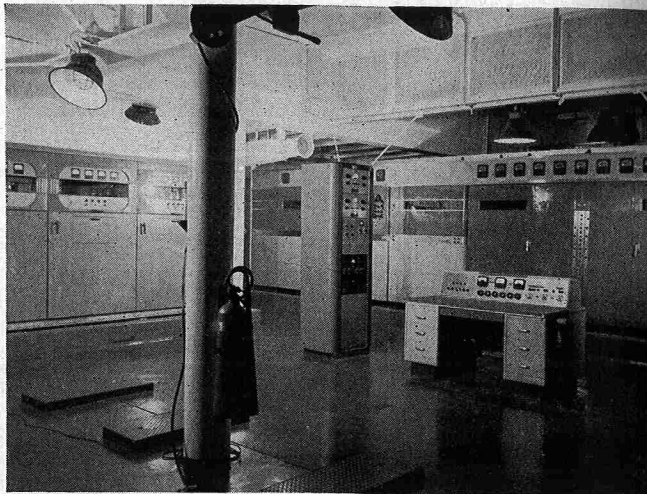
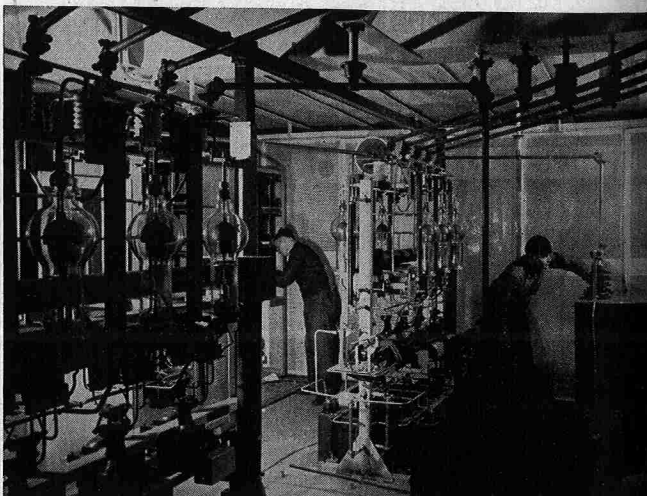


Figure 9 — Transmitter room aboard "Courier."

Figure 10 — Power supplies and rectifiers for "Courier" transmitters.



The unabated sages out of the jamming network estimate of our better is the co the Soviet radi concept of the they indicate th sensitive and f people. They ha parisons of liv outside world—provement in li is matched by a

In a general v of the credit fo mination of the peoples who sti

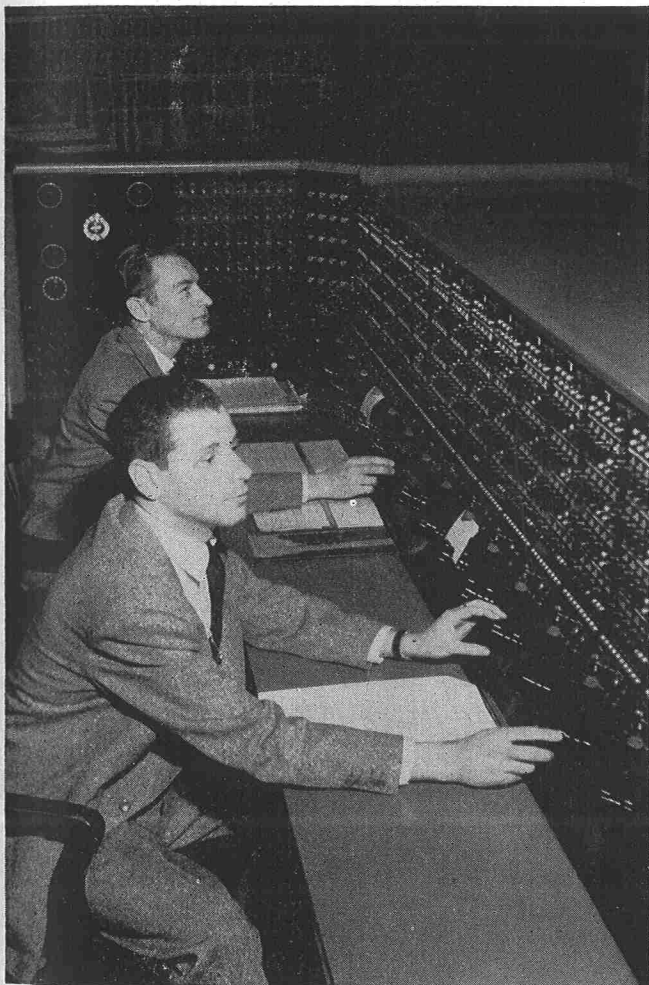
Figure 11 — Twenty pro



The unabated efforts of the Kremlin to keep Voice messages out of the Soviet Union by the use of their colossal jamming network is another measure of the Kremlin's own estimate of our effectiveness with the Soviet citizenry. Even better is the constant stream of attacks made on us over the Soviet radio and in the Soviet press. They give us a concept of the extent and composition of our audience, and they indicate the themes to which the Kremlin is particularly sensitive and feels compelled to try to rebut to its own people. They have reacted with special violence to our comparisons of living standards in the Soviet orbit and the outside world—to our demonstration that even minor improvement in living conditions in the Soviet Union proper is matched by a worsening of conditions in the satellites.

In a general way the Voice can claim a considerable share of the credit for fostering the growing strength and determination of the free world—and of Communist dominated peoples who still look to the free world for independence.

Figure 11 — VOA master-control in New York City. Twenty programs can be handled simultaneously.



Programming The Voice

With a few exceptions VOA programs originate in New York. The only broadcasts originating overseas are brief Polish, Russian, Lithuanian, Estonian and Hungarian programs transmitted daily from Munich; these programs are the first of a number planned for East Europe coverage and programmed close to prime audiences.

Voice broadcasts from the New York studio are fed through the largest master-control (Figure 11) in the United States, being capable of handling up to twenty programs at one time.

Programs go over land lines to one or more of the short-wave Voice transmitters in the United States for broadcasts to relay stations or direct broadcasts to radio target areas.

A staff of 1600, nearly all American citizens, work with VOA to win friends for the cause of democracy. Securing personnel qualified for the many special requirements of the Voice operation is a continual problem. Some of those who voice programs must prepare their own scripts—this requires a pleasant radio voice; knowledge of the language, customs, and psychology of the particular audience; editorial ability and knowledge of Department of State and VOA policies.

The technical staff required to engineer and operate Voice facilities is a large and important part of the I.B.S. Top caliber personnel, such as radio engineers, diesel power engineers, men familiar with installing and operating radio stations are in continual demand, particularly in view of the additional U. S. stations and overseas relay bases being set up.

The Voice of America has developed into a world-wide radio system worthy of the American people. Its total broadcasts now equal the combined output of the four major American domestic networks.

Since Voice broadcasts are beamed (at short-wave frequencies: 6, 7, 9, 11, 15, 17, and/or 21 megacycle bands) to listeners abroad and are in many foreign languages, the average American has little opportunity to make direct appraisal of what the Voice is saying or how well it is serving his interests. It is hoped that the foregoing general discussion leaves an impression of its importance to the security of the free world and its contribution to the struggle for peace.

An American Ambassador who recently returned from behind the Iron Curtain said that the Voice of America constitutes in effect, "a powerful opposition press which daily prevents the regime from blotting out the political consciousness of the people and which makes every measure taken by that regime infinitely more difficult and ultimately more susceptible to failure." This the Voice will continue to do to an ever increasing degree so long as millions of people remain subjugated.