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PROVISIONAL INTELLIGENCE REPORT

FOREIGN RADIOBROADCASTING RECEPTION POTENTIAL IN HUNGARY

CIA/RR PR-50

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FOREIGN RADIOBROADCASTING RECEPTION POTENTIAL
IN HUNGARY*

Summary

It is clearly evident that the Hungarian government has been and still is pursuing a program to limit foreign radiobroadcast listening. Numerous methods are being employed to achieve this end. Among them are (1) the institution of the necessary legal means to restrict the right of ownership and operation of radiobroadcast receivers; (2) the use of techniques to control listening, such as the technical alteration of existing receivers, the limitation of availability of receivers technically capable of foreign broadcast reception, the provision of wire-diffusion** loudspeaker reception networks, and group listening, and (3) the jamming of foreign radiobroadcasts.

Specially, Hungary provides a domestic radiobroadcast transmission base of national coverage. Seven radiobroadcast transmitters are in operation, and 2 others are proposed. Although this total of 9 transmitters is only 3 more than the number employed for the purpose in 1943, their combined power will be roughly three and one half times that employed in 1948.

Hungary's reception base is extensive. It is estimated that Hungary had some 787,000 radiobroadcast receivers at the end of 1952. By the end of 1953 this figure should have reached some 880,000. Hungary ranks third highest among the Satellites, with 1 receiver for every 3 families. Rounding out the reception base, Hungary is estimated to have had 100,000 loudspeakers in service at the end of 1952 and was expected to have about 220,000 by the end of 1953.

* This report contains information available as of July 1953, although information of later dates has been used where available.

** Wire-diffusion radio is a system of loudspeakers which are connected to a central program distribution point by either telephone circuits or by specially strung wire lines. The program distribution points are, in turn, connected to the broadcasting station by either wire lines, or, in the case of small places and remote areas, by radio receiving units. In effect it is State control of program and station selection.

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The rate of increase in the number of loudspeaker installations is higher than that of radiobroadcast receivers. Emphasis has been and is being placed on increasing the number of both types of facilities. Hungary is placing greater emphasis on the production and use of People's fixed-tuned radiobroadcast receiver units designed to receive only broadcast I and II transmissions. Approximately 100,000 of these units were produced in 1952 alone. The Five Year Plan (1950-54) called for the installation of 500,000 loudspeakers, but possibly because greater attention has been given to People's radiobroadcast receivers, only 101,000 loudspeakers were installed during the first 3 years of the Plan. During 1953, however, the number of new loudspeaker installations was expected to equal or exceed the increase in the number of radiobroadcast receivers. Imports of telecommunications facilities have been practically nil. Exports, however, particularly to the USSR, have been large.

It is virtually impossible to determine the numbers of radiobroadcast listeners in Hungary. From the available fragmentary reports, it is evident that listening to Western radiobroadcasts is quite prevalent and that word-of-mouth dissemination of items of interest is practiced by everyone, but with caution.

The authorities now have every legal means to restrict listening to Western radiobroadcasts from the restriction of ownership and operation to the alteration and confiscation of radiobroadcast receivers. Only occasional instances of enforcement of these laws have been observed and then only in connection with minority groups. It is expected that with an improvement in economic conditions these laws may be enforced on an ever-increasing basis.

The use of other techniques such as the alteration of radiobroadcast receivers, the increase in availability of inexpensive and less capable radiobroadcast receivers, the buying-up of the better types by the radio shops and substitution of the less capable ones, the installation of wire-diffusion loudspeakers and group listening centers, and the jamming of Western programs are constant efforts which condition listening to Western radiobroadcasts.

The jamming of Western radiobroadcasts has increased considerably each year since 1950. The jamming stations are heavily concentrated in urban and industrial centers, especially in the vicinity of Budapest. Despite this increase in jamming, Western programs do get through and are being listened to by many people.

Efforts to control foreign radiobroadcast listening involve expenditures of considerable magnitude. Jamming stations and wire-diffusion networks must be provided, operated, and maintained. Additional expenditures

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are involved in the services of state and police personnel for surveillance, intimidation, and investigation. Coupled with these costs are those disturbing and disruptive effects produced by that segment of labor which holds antistate attitudes created by or stimulated by listening to Western radio-broadcasts. These costs, however, benefit the economy to the extent that labor's propensity to work in a controlled economy is higher than it might otherwise be if foreign listening were freely permitted and practiced but not so high as it might be in a free economy enjoying a free press.

I. Transmission Facilities of Foreign Broadcasters to Hungary.

There are approximately 181 program hours being broadcast to Hungary each week from the following foreign countries: USSR, 14 hours; Yugoslavia, 12.25 hours; US, 124.25 hours; UK, 12.25 hours; and 6 other non-Communist countries, 18.17 hours. (See Table 1.) These are original program hours and are exclusive of any rebroadcasting hours.

Table 1

Reported Foreign Broadcasts into Hungary: Estimated Weekly Program Hours
and Number of Frequencies Used ^{1/}
January 1953

<u>Originating Nation</u>	<u>Weekly Program Hours</u>	<u>Frequencies Used ^{a/}</u>	
		<u>High</u>	<u>Medium</u>
USSR	14.00	6	2
Yugoslavia	12.25	4	2
UK	12.25	5	0
France	5.25	3	0
Italy	4.66	3	0
Spain	1.75	1	0
Vatican City	3.75	8	0
Turkey	1.75	2	0
Israel	1.00	2	1
US (VOA) ^{b/}	8.75	13	2
US (RFE) ^{c/}	115.50	5	0
Total	<u>180.91</u>	<u>53</u>	<u>7</u>

a. High frequencies generally extend from 3,000 to 30,000 kilocycles and are often referred to as "short waves." Medium frequencies generally extend from 300 to 3,000 kilocycles and are often referred to as "medium waves." Low frequencies generally extend from 30 to 300 kilocycles and are often referred to as "long waves."

b. Voice of America.

c. Radio Free Europe.

* Footnote references in arabic numerals are to sources listed in Appendix E.

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A. Radio Free Europe (RFE)

The Hungarian service of RFE transmits 115.5 program hours per week, and utilizes 5 transmitters simultaneously to create "saturation broadcasting" to Hungary. The transmitters are located in Bilibis and Holzkirchen, Germany, and in Lisbon, Portugal. In the broadcast of these programs one 7.5 kilowatt (kw) transmitter and four 50-kw transmitters are used on 5 high frequencies. 2/ Most of the programs are written in the RFE studios in Munich, although a small number are prepared in New York. The programs consist of news; commentaries on news, both worldwide and from the Hungarian press and radio; denunciations of oppressors by name, description, past record, and specific acts of tyranny, in village, factory, and public office; special programs for labor, youth, intellectuals, and Party officials; and music, satire, and entertainment. 3/

B. Voice of America (VOA)

VOA uses a total of 26 transmitters in the European service. Sixteen are in the Eastern US, and the remaining 10 are in Munich, Germany; Salonika, Greece; Tangier, North Africa; and Woolferton, England. 4/

VOA transmits a total 8.75 program hours per week to Hungary, using 13 high and 2 medium frequencies. The seven program hours per week originating in New York are transmitted via high frequencies to Hungary. These programs are broadcast simultaneously from 2 relay points, Salonika and Tangier, using 1 medium and 2 high frequencies, respectively. The remaining 1.75 program hours originate from VOA's Munich and Tangier centers, which broadcast simultaneously using 1 and 2 high frequencies, respectively. Repeats of the original broadcasts on both medium and high frequencies from various points in Europe increase the VOA broadcast time to Hungary to 24.5 hours weekly. 5/ Details of VOA's program schedule as of February 1953 to Hungary are contained in Appendix A.

C. British Broadcasting Corporation (BBC)

The BBC transmits 12.25 program hours per week to Hungary using 5 high frequencies from transmitting points in the British Isles. The programs, in the main, stress news services, but they also include exposition of British policy and thought on current affairs, projection of British life, and comments on internal conditions in Hungary. 6/

D. Other Western Broadcasters

France, Italy, Spain, Vatican City, Turkey, and Israel transmit a total of 18.17 program hours of news per week to Hungary. Nineteen high frequencies and 1 medium frequency are used for these broadcasts.

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E. Foreign Communist Broadcasters

The USSR is the only Soviet Bloc country broadcasting programs to Hungary. Eight high and 2 medium frequencies are used in transmitting 14 program hours per week. The programs consist chiefly of news, comments, features, music, and propaganda. 7/

Yugoslavia transmits 12.25 program hours per week to Hungary. It uses 4 high and 2 medium frequencies. The programs consist chiefly of news and commentaries.

II. Hungarian Broadcasting System.

A. History and Organization.

All telecommunications facilities in Hungary are owned and operated by the government. 8/ Soviet control of these facilities is often indirect but most effective, and all new developments are related to Soviet military plans.

The Ministry of Communications is 1 of 14 coequal cabinet ministries. It directs the General Post Directorate, which is responsible for all Hungarian Telecommunications. The Chief of Section IV of this directorate is charged with directing the administration of Telecommunications activities, and the six subordinate Regional Post Directorates supervise operations. On the other hand, radiobroadcasting and communications activities are administered by the Chief of Section IV, but operations are directed by the Budapest Regional Post Directorate.

The Communist government of Hungary requires that engineers and technicians be politically reliable. One source estimates that Hungary has only 500 to 600 qualified telecommunications engineers and technicians. This order of magnitude appears quite low for Hungary's economic status.

During and after World War II, Hungary's economy suffered severely. The removal of manufacturing telecommunications equipment plants and the destruction of facilities resulted from both German and Soviet occupation. Seventy percent of the manufacturing equipment remaining after the German occupation was dismantled and sent to the USSR in 1945. At present, approximately 60 percent of all telecommunications production is being diverted to Soviet use.

Although 80 percent of Hungary's radiobroadcast system was destroyed as a result of World War II, considerable progress has been made in its rehabilitation. 9/ The locations, frequencies, and power of these stations were approximately the same as the prewar stations, as shown in Appendix B.

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B. Transmitting Facilities.

There are seven medium-frequency radiobroadcast transmitters now operating in Hungary. Their reported locations, power, frequency, and service are shown in Table 2. With the exception of slight changes in location, increases in power, and utilization of frequencies, the radiobroadcast network is much like it was prior to World War II. Two additional stations are projected or perhaps are now under construction at Szombathely and Szeged. After the completion of these two stations, Hungary would have ample radiobroadcast facilities to cover adequately the entire country. ^{16/} The radiobroadcast transmitting facilities of Hungary are shown graphically on the accompanying map.*

Table 2
Reported Radiobroadcast Transmitting Stations in Hungary
June 1953 ^{11/}

	Power and Frequencies		Service
	(Kilowatts)	(Kilocycles)	
<u>Domestic Stations in Operation</u>			
Budapest	5	1,340 ^{a/**}	N A
Budapest I (Lakihegy)	135	539	Hungarian Home Service (Main)
Kossuth Radio			Budapest International Service to Europe
Budapest II (Szclnok)	135	1,187	Hungarian Home Service (Alternate)
Petofi Radio			Budapest International Service to Europe
Salatonszabadi	135	1,250 ^{b/}	Relay of Moscow
Masonmagyarover	24	1,340	Hungarian Home Service (Main) Gyor-Sopron Regional Service ^{c/}
Miskolc	6	1,340	Hungarian Home Service (Main) Miskolc Regional Ser- vice

^{a/} Following p. 22, below.

^{**} Footnotes for Table 2 follow on p. 7

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Table 2

Reported Radiobroadcast Transmitting Stations in Hungary
 June 1953 ^{11/}
 (Continued)

	Power and Frequencies		Service
	(Kilowatts)	(Kilocycles)	
<u>Domestic Stations in Operation</u>			
Nyiregyhaza	24	1,340	Hungarian Home Service (Main) Szabdes-Szatmar Regional Service
Pecs	6	1,340	Hungarian Home Service (Main) Laranya Regional Service
<u>Domestic Stations Projected</u>			
Szombathely Szeged	24 ^{d/} <u>d/</u>		
<u>International Station in Operation</u>			
Budapest (Diosd)	100	7,220 9,833 11,910 15,500	Budapest International Service to Europe, North America, and South America Relays of Moscow to Europe and North America Relays of Prague to Europe
	6 ^{e/}	N.A.	N.A.

a. This station is shown in the List of Broadcasting Stations, Geneva, Switzerland, Bureau of the International Telecommunication Union, July 1950, 12 edition. It has not been reported as being in operation for several years. It was probably used in the interim after World War II and before the 135-kw Budapest station was put into service.

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Table 2

Reported Radiobroadcast Transmitting Stations in Hungary

June 1953 11/
(Continued)

- b. It is believed that Dalatonszabadi is the location of this transmitter. Relays from Moscow in Macedonian, French, Serbo-Croat, Italian, and Slovene have been heard between 1900 and 2300 Greenwich mean time.
- c. Programs of the Gyor-Sopron Regional Service are reportedly the production of a studio in Gyor.
- d. Hungarian broadcasts have referred to broadcasting stations to be located in Szombathely and Szeged. These stations are projected for the future and construction may have already started. No reports of operation have been received.
- e. This is possibly a stand-by transmitter from one of the earlier installations.

In the Budapest International Service there are 3 100-kw transmitters, which presently operate on 4 high frequencies (see Table 2). There are in addition 16 alternate or allocated frequencies available in the high-frequency range of 6,000 to 21,700 kilocycles (kc) for use in this service. There is also believed to be available a 6-kw transmitter. If this is true it may possibly be a hold-over from an earlier installation for emergency purposes. This is the only international broadcast transmitting station in Hungary and is located at Diosd a few miles southwest of Budapest. 12/

All of these radiobroadcast transmitting facilities have been constructed since World War II.

The Hungarian Home Service programs, both main and alternate, and the Budapest International Service programs originate in the studios of the Hungarian broadcasting station in Budapest. Seventeen studios are believed available now 13/ with five more projected for operation by 1954.

C. Television and Aural Broadcasting above 30 Megacycles (m).

The preparatory work for television in Hungary had its beginning about the middle of 1946. In September 1953, Hungary was still without television. There is some indication that it may be in operation in 1954, but it is also quite possible that it will not be available to the public before the new Five Year Plan beginning in 1955.

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In 1951, Hungarian specialists were studying the results of Soviet experiments in this field. An article in Szabad Nép, the official Hungarian Government newspaper, on 15 January 1952, stated that the USSR would supply television studio, station, and reception equipment and specialists to instruct the Hungarians. More than a year later the same source, in reporting various articles in Magyar Nemzet, May 1953, stated that the new Five Year Plan (1955-59) will realize television in Hungary; that a 4-man delegation of electronic engineers studied for 6 weeks the Soviet television equipment in Kiev and Moscow; that the USSR had put at the disposal of the Hungarian Radio full documentation (blueprints and instructions) and equipment parts not procurable elsewhere; and that the first phase in the development of television programming, experimental broadcasting using films, would be implemented in 1954. In the second phase, outdoor events are to be broadcast, and in the third phase, the proposed studio will start operating. The size of the television picture is to be 5.4 by 7.1 inches. The price is to be about that of a super radio receiver, 3,135 forints (about \$285), or 4 months' pay for the average Hungarian.

At a conference held in Europe in 1952, under the auspices of the International Telecommunication Union, Hungary proposed to put into operation 10 television and 11 frequency-modulation (FM) stations. 15/ No other information is available as to plans the Hungarian government might have for FM.

III. Receiving Equipment in Hungary.

A. Number, Characteristics, and Distribution of Radiobroadcast Reception Facilities.

1. Number.

It is estimated that by the end of 1952 there were in Hungary 787,000 radiobroadcast receivers and that by the end of 1953 there were 880,000 such receivers. The growth in number of radiobroadcast receivers in all of Hungary for selected years is shown in Table 3. Also shown in this table is the growth in number of wire-diffusion exchanges and loudspeakers.

* Table 3 follows on p.10.

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Table 3

Estimated Number of Radiobroadcast Reception Facilities
in Hungary ^{a/} 16/
Selected Years, 1937-53

Year	Wire-Diffusion Systems		Radiobroadcast Receivers		Percent of Total in Budapest
	Exchanges	Loudspeakers	Total in All Hungary	Total in Budapest ^{17/}	
1937	not used	not used	383,505	N.A.	N.A.
1938	not used	not used	419,000	145,316	35
1942	not used	not used	797,507	N.A.	N.A.
1944	not used	not used	904,176	N.A.	N.A.
1945	not used	not used	178,312	90,330	51
1946	not used	not used	282,228	132,173	47
1947	not used	not used	385,538	163,474	42
1948	N.A.	N.A.	475,484	188,081	40
1949	N.A.	N.A.	539,187	203,511	38
1950	9 ^{18/}	1,600 ^{19/}	69,000	N.A.	N.A.
1951	40 ^{20/}	45,000 ^{21/}	701,000	N.A.	N.A.
1952	100 ^{22/} ^{b/}	100,000 ^{21/} ^{23/}	787,000 ^{24/}	N.A.	N.A.
1953 ^{b/}	220 ^{b/}	220,000 ^{21/} ^{23/}	880,000 ^{25/}	N.A.	N.A.

a. All information contained in this table, except that specifically indicated otherwise, was taken from source 16.

b. Estimate.

It was reported in July 1952 that the population of Hungary exceeded 9.5 million. ^{26/} The 1941 census showed 4.2 million persons married, or 2.1 million household units. Of the 5.1 million persons unmarried, widowed, or divorced, 4.0 million were under 24 years of age. The persons in this latter group, for the most part, were included in the 2.1 million household units. ^{27/} It is presumed that the population distribution indicated by the 1941 census has not materially changed. Based on the estimated 2.1 million household units and on those units composed of the 1.1 million unmarried, widowed, or divorced persons, it is estimated that the number of household units ranged from 2.3 to 2.4 million in 1952. On this basis, there is possibly 1 radiobroadcast receiver in Hungary for every 12 persons, in approximately 1 family in 3 has a radiobroadcast receiver. It is believed that the number of unlicensed radiobroadcast receivers in Hungary is small, perhaps about 2,000. ^{28/}

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2. Characteristics

Little information is available as to the characteristics of radiobroadcast receivers in Hungary. Hungary, however, has been known over the years as a producer of good telecommunications equipment. Since World War II, 60 percent of this production, which includes radiobroadcast receivers and radar sets, has been diverted to Soviet use. 29/ Table 3 shows that there were many radiobroadcast receivers in Hungary prior to World War II and that in 1944, there were more receivers in Hungary than any year since the war. One source estimated in 1942 that one-half of the receivers were equipped to receive high-frequency programs. 30/ A Hungarian scientist who defected in February 1952, stated: "Most radios date back to pre-World War II years or 1946-47; such receivers as Tungsram, Orion, and Telefunken could receive long, medium, and short waves." 31/ Classified advertisements often appear in the press referring to "wanted" and "for sale" receivers, specifying such names as Orion, Philips, and Siemens, and for other radiobroadcast receivers capable of receiving foreign stations. 32/ In October 1948, one source states that 93 percent of the radiobroadcast receivers were equipped with high-frequency tuning. 33/ In August 1951 it was estimated that 400,000 radiobroadcast receivers, or 57 percent, were equipped to receive high-frequency programs. 34/

The People's Radio, Nepradio, a radiobroadcast receiver, has been available for purchase by Hungarians since about 1950. This receiver sells for 380 forints (about \$35) and reportedly is being sold in large quantities. These receivers are pre-tuned to Budapest I and Budapest II transmitting stations and in some cases to one of the relay stations. It is reported that with careful manipulation, tuning to the side of these stations is possible, thus enabling Western radiobroadcasts to be heard. With the aid of an adaptor, or by a slight alteration, these receivers will tune to Western broadcasts. 35/

Repair costs of radiobroadcast receivers are reasonable, but there is some difficulty in getting spare parts, especially tubes for the older type of receivers. The repair business seems on the increase, with a new shop established about every month. The prevalence of repair services and the reported availability of older receivers, prewar and 1946-47, for sale at prices ranging upward from 1,500 forints (about \$135), indicate that there are many of these older and better radiobroadcast receivers still in use and in demand in Hungary. 36/

There appear to be many radiobroadcast receivers in Hungary capable of receiving Western programs. From available reports, it is estimated that of the total radiobroadcast receivers in Hungary in 1952, 75 percent were capable of receiving Western radiobroadcasts. This percentage will probably decrease as more People's radiobroadcast receivers are purchased.

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Table 4 shows the characteristics of the known radiobroadcast receivers on the market in Hungary for civilian consumption.

Table 4

Models, Characteristics, and Manufacturers
of Radiobroadcast Receivers in Hungary 37/

Model Number	Number of Tubes	Frequency Bands a/	Manufacturers in Hungary
221	5	H,M,L	Orion Radio Factory
313 (People's Radio)	4	M	Orion Radio Factory
323	4	H,M	Orion Radio Factory
324	4 b/	H,M	Orion Radio Factory
330	6 b/	H,M,L	Orion Radio Factory
381	6 b/	H,M,L	Orion Radio Factory
382 38/	8	H,M,L	Orion Radio Factory
Rava Jabaret	4	VH,H,M,L	Philips Factory
Kis Super 39/	N.A.	H,M	N.A.
1943-47 40/	3	N.A.	Siemens Factory and Telefunken Factory
Nep Super 39/	3	M	T N.A.

a. Frequency bands -- VH, very high frequency; H, high frequency; M, medium frequency; L, low-frequency.

b. Estimated.

There is little information relative to the cost of radiobroadcast receivers in Hungary. Reports indicate that many Orion models are for sale. Various reports confirm the price of the cheapest radiobroadcast receiver, Nepradio, at 380 forints (about \$35). The Kis Super receiver is reported at 800 forints (about \$75), and other receivers range from 750 forints (about \$70) upwards; various prices have been mentioned in reports ranging from 2,400 to 3,200 forints (about \$220 to \$290). Many reports confirm that there is a monthly tax of 10 forints (about 90 cents) levied on each radiobroadcast receiver. 41/ A very recent report relating to price reductions in Hungary shows that, effective 6 September 1953, receivers with 3 tubes, were to sell for 1,115 forints (about \$100) and those with 4 tubes for 2,418 forints (about \$220), a reduction of 15 and 20 percent respectively from the old prices.

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3. Distribution.

Budapest, the largest and principal industrial city in Hungary, has the greatest concentration of radiobroadcast receivers. Table 3 shows that, in 1938, 35 percent of all radio receivers in Hungary were in Budapest. It also shows that in 1945 the number had increased to 51 percent of the total and that by 1949 it had decreased to 38 percent. While the percentage of receivers in Budapest of all receivers in Hungary decreased quite uniformly each year from 1945 to 1949, the actual number of receivers in Budapest more than doubled. This indicates a rather rapid increase in the number of radiobroadcast receivers throughout Hungary, other than Budapest. Most of this increase was in the cities, towns, and rural areas where electricity was available.

In 1947 the Central Hungarian Agency realized that the linking together of towns and villages by means of radiobroadcasting was needed. The limited number of radiobroadcast receivers, their high costs, and the lack of electric power distribution, resulted in the production and sale of a low-priced battery receiver. Orders for this receiver are said to have come from all parts of the country. ^{42/} No information is available as to the actual production or use of battery receivers in Hungary. In 1948, less than 5 percent of the licensed receivers were owned by peasants. ^{43/} In 1950, 10 percent were owned by peasants and agricultural workers. ^{44/}

It is estimated that, with the exception of rural areas where electricity is not available, radiobroadcast receivers are now quite generally distributed.

4. Wire-Diffusion.

The wire-diffusion system was introduced into Hungary by the Germans during World War II. They employed it in factories, town halls, and public places primarily for the purpose of issuing orders, although recorded music sometimes was broadcast. ^{45/} In about 1950, the Communist Party took steps to minimize foreign radiobroadcast reception in Hungary by using wire-diffusion techniques. This system, an aspect of radiofication,* is one in which a program originated and controlled at a central point or studio is broadcast by means of wires and loudspeakers. The speakers are located in homes, public places and institutions, industrial plants, and elsewhere. ^{46/}

* Radiofikatsiya (Radiofication) is a general Russian term meaning the development of radio on the consumer side, thus including the manufacture and distribution of radio sets and loudspeakers as well as the organization of listening.

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Information relative to the operation of wire-diffusion in Hungary is very limited. One report states that only one program is offered the listener. 47/ No other specific information has been obtained, leaving the general impression that the report is true. It is believed that with few exceptions the home listener has only the option of turning his speaker off and on, and of regulating the sound volume. It is believed that Hungary has restarted to wire-diffusion operation because of its strained economic position and to control listening in line with the Soviet pattern.

Programs on wire-diffusion system in Communist countries are controlled at central points or studios and the listener receives only what the Party wants him to hear. The network, consisting of wires and speakers, is installed and maintained by the Hungarian postal authorities without initial cost to the listener. There is, however, a monthly rental of 6 forints (about 54 cents) per speaker. One refugee, a former tavern owner, said the monthly rental was 10 forints (about 90 cents) and that the speaker was installed whether the tenant wanted it or not. 48/

The wire-diffusion system employed by the Hungarian utilizes only one wire which it is believed to be the most economical system in use in the Satellites. One-wire operation requires ground return, making it subject to picking up static and other electrical noises of all kinds. This system is, therefore, less desirable. The system used in other Satellite countries generally uses two wires in its operation. There is no indication that the two-wire method of operation with carrier frequency is being employed by the Hungarians. It is possible that this method is employed, perhaps to some extent at least in Budapest, to permit program selection or to superimpose broadcast programs on telephone lines. A two-wire system with a loudspeaker on the outside of every tenth house is used in Fertoszeplak. 49/

Table 3 shows the extent of growth of the wire-diffusion system in Hungary since 1950. The installation of this system did not begin as early in Hungary as it did in the USSR and some of the other Satellite countries, nor has its growth been as rapid. As a result of World War II destruction, the removal of telecommunications manufacturing industries by Germany and the USSR, and reparations to the USSR, Hungary has not had available the necessary facilities to expand its wire-diffusion systems. Construction, expansion, and planning of land-line facilities since the war have been under Soviet influence and have reflected strong military considerations. The Ten Year Plan, inaugurated in 1947, called for fulfillment of the international commitments under Comite Consultatif International Telephonique (CCIT) during the first 3 years of the Ten Year Plan (1947-49). As late as 1952 the early commitments were not completed. During the last 7 years of the Plan, 1950-56, the domestic improvements will have been completed. 50/

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The ratio of the number of radiobroadcast receivers to the number of households has been relatively high in Hungary. This has resulted from the emphasis placed on their use for the dissemination of propaganda. It is believed that, because of the many radios in use and the inadequacy of domestic wireline facilities, the wire-diffusion installation program has been allowed to fall behind schedule. The current Five Year Plan, provides for the installation of 500,000 loudspeakers. 51/ It is likely that the Plan will fall short of its goal by approximately 100,000 speakers.

Less than a dozen reports include the names of places where exchanges have been installed. These places, 48 in number, are shown on the accompanying map.* It will be observed from this map that while exchanges are grouped to a greater extent in some localities than in others, although they are fairly well distributed over most of Hungary. On 1 January 1953, approximately 100,000 loudspeakers were connected to the various exchanges (see Table 3). A recent report, quoting an article from Nepszava, stated that, on 20 August 1953 the number of loudspeakers had reached the 200,000 mark. 52/ To carry forward the wire-diffusion program, groups of young post office workers are given special 7-month courses on the installation and maintenance of these systems.

Reports pertaining to the establishment of collective or group listening centers in Hungary, involving either radiobroadcast receiver or loudspeaker reception units, are not specific in nature. They relate more to regulations, instruction, and indications that authoritative orders have been issued and that such centers are probably in use. About 1947 a competition was arranged for the purpose of encouraging listening, but this was only in districts where there was no electricity. 53/

B. Availability of Radiobroadcast Receivers

1. Production

Hungary's telecommunications production industry has enjoyed a reputation for producing good equipment. One report stated that the radio industry is well organized and self-supporting. In 1947, practically all registered receivers and component parts were of domestic manufacture. 54/ Table 5** is an estimate of the production of radiobroadcast receivers in Hungary for civilian consumption and exports.

* Following p. 16.

** Table 5 follows on p. 16.

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Table 5

Estimated Production of Civilian Radio Receivers ^{a/}
in Hungary ^{57/}

Year	Number of Radiobroadcast Receivers		Total
	High Frequency ^{b/}	Medium and Low Frequency ^{c/}	
1946	4,000	7,000	11,000
1947	5,000	10,000	15,000
1948	6,000	18,000	24,000
1949	13,000	38,000	51,000
1950	25,000	75,000	100,000
1951	28,000	83,000	111,000
1952 ^{56/}	36,000	107,000	143,000
1953 ^{d/}	45,000	134,000	179,000

- a. It is believed that these are, in effect, receivers for radiobroadcast reception.
- b. These receivers are believed to have high-, medium-, and low-frequency bands.
- c. These receivers have no high-frequency bands.
- d. Estimated.

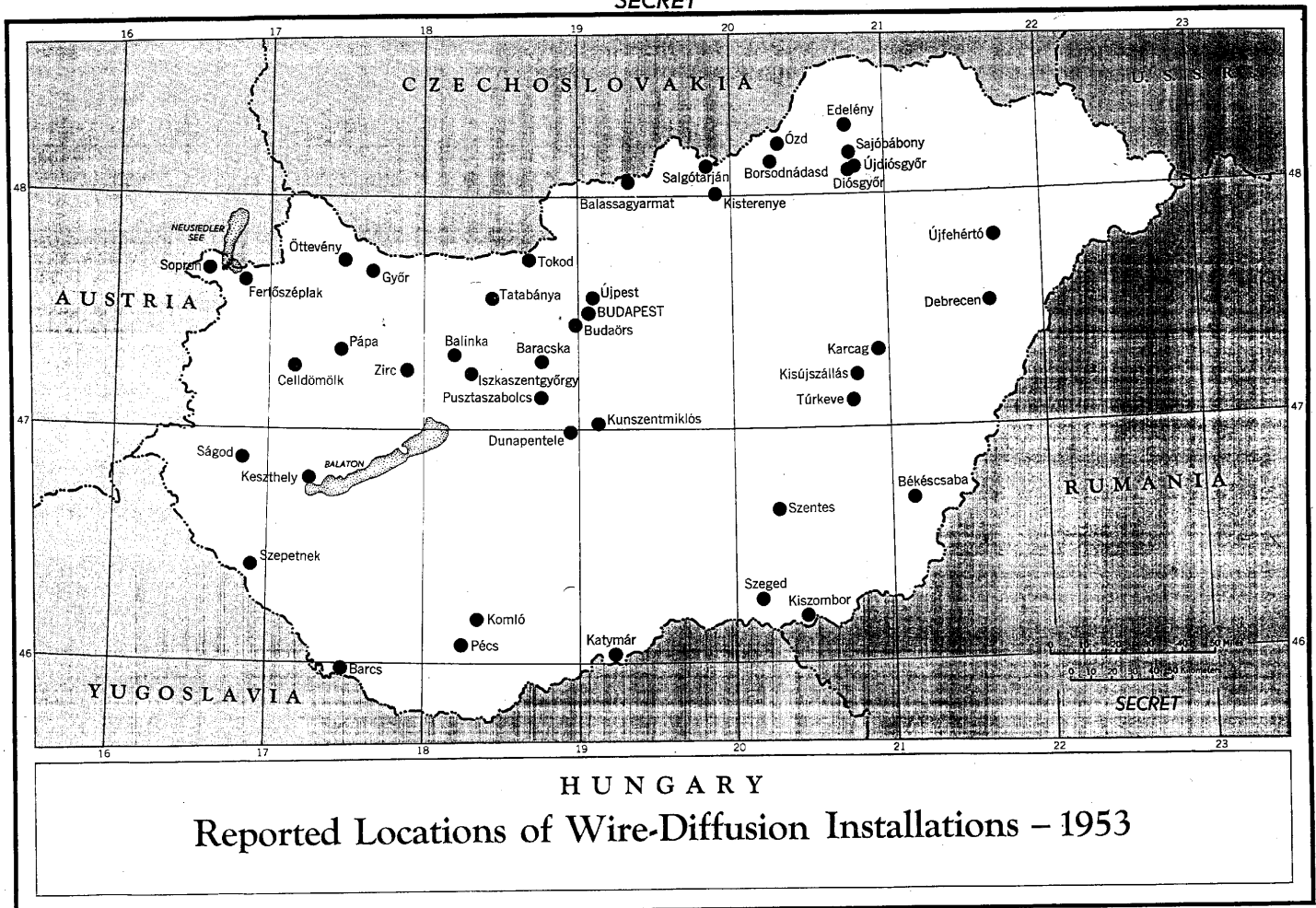
Many People's Radio receivers have been produced. These receivers are pre-tuned to receive the programs of only the two Budapest transmitting stations. ^{57/} Reports state that 67,131 such receivers were sold in 1950 and that nearly 100,000 were manufactured in 1952. ^{58/}

The production shown in Table 5 is primarily that of the Orion Radio Factory in Budapest. Several other manufacturers who reportedly produce radiobroadcast receivers are the Philips, Siemens, and Telefunken factories. Specific information on their production is not available. Reports indicate that these factories may either no longer produce receivers for domestic consumption or that their production is relatively small. This is mentioned to show that Hungary has the potential manufacturing capacity to produce such receivers. The United Incandescent Lamp Company (UILCO), Tunggram, is a producer of electronic tubes. This company is characterized as "one of the oldest and most important on the world market." ^{59/}

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2. Exports.

The Standard Radio Factory in Budapest produces radio sets for the Hungarian and Soviet armies and for military export. 60/ Reports indicate that Hungary exports a large portion of its production of receivers, tubes, and other radio parts both to the Soviet Bloc and to other countries. 61/ Military wireless sets produced have been divided equally between the Hungarian Army and the USSR, and since the spring of 1952, deliveries have been made to Albania. 62/

3. Imports.

Very little telecommunications equipment is imported because Hungarian factories produce this equipment and component parts, particularly radio tubes, for export. Reports indicate that factories lack the necessary raw materials. This seems to be borne out by the fact that Hungary has agreed to supply all Satellite countries with telecommunication equipment in exchange for raw materials. 63/ As stated in III, B, 1, above, the radio industry is well organized and self-supporting. Practically all radiobroadcast receivers registered in 1947 and component parts were of domestic manufacture.

A few reports show that from 1950 to January 1952 an indeterminate quantity of radio components, loudspeakers, and radiobroadcast receivers were imported from France, Austria, and Belgium. 64/ It is believed that, with the exception of the loudspeakers, these imports were for laboratory use and for duplicating purposes.

IV. Regulations and Conditions of Listening.

A. Regulations.

Hungary was the first of the Satellite countries to find it necessary to enact a law concerning "Restrictions on the Right of Ownership and the Use of Radio Installations." It is covered by "Ordinance No. 225,000 K.P.M. 1949 of the Minister of Communications and Posts -- in re the Issue of Radio By-laws." 65/ Two pertinent sections read as follows:

"1. For reasons of State Security or owing to some other important public interest, the Minister of Communications and Posts may at any time -- to the exclusion of all claims -- withdraw a license of any kind referred to in the regulations and may prohibit the use -- either wholly or in part -- of the radio installation in question, for a definite or indefinite period, without stating the

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grounds for his action; he may restrict or make impossible the use of the radio installation for any length of time by the removal of components or by placing a seal on it or may order the installation to be altered in a manner making it possible to use the same only to receive the programmes broadcast by certain radio stations.

"2. In cases resulting from extraordinary circumstances the Minister of Communications and Posts may temporarily requisition a radio installation for any purpose or may possibly commission employees of the Post-Office or any authority to handle the same."

The European practice of imposing license fees upon owners of radiobroadcast receivers also prevails in Hungary. Radiobroadcast receivers may be operated only by holders of licenses, which are issued by the Post Office. The penalty for not registering a receiver is a fine of 200 to 300 forints (about \$18 to \$27). ^{65/} A monthly fee of 10 forints is imposed for each radiobroadcast receiver. ^{67/} There have been no reports of penalties being imposed as a result of failure to pay the monthly fee. Deprivations under the above ordinance appear sufficient to assure the monthly payments.

A doctor of chemistry, who defected in February 1952, stated that in 1951 "an order was published in the Official Gazette relating that the Minister of the Interior was empowered to stop either individuals or groups from listening to foreign broadcasts." He also stated that "few people read the Official Gazette so that this order is not generally known." ^{68/}

It is reported that about 1949 the Government issued an order prohibiting listening to certain foreign stations. ^{69/} Also about 1949, all Satellite countries were forced to pass a so-called "Law for Defense of Peace." The crime covered by this law is perpetrated by everyone who "facilitates the spreading of propaganda carried on by war-mongering circles." The penalties "vary from one year in Czechoslovakia to life imprisonment in Bulgaria." ^{70/}

In a police state such as Hungary, the authorities are not necessarily limited in their power by existing laws, or by the lack of necessary laws, if they wish to carry out a certain line of action. In an unpublished article, a former Director General of the Hungarian Broadcasting Company stated that after the 1947 election and following the annihilation of political opposition, the Hungarian Moscovites took

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over the radio. With their customary ruthlessness, "adversaries were hunted down, exposed as Fascists, accused of corruption" and "the employees were cowed into submission." He also relates that about one-half million listeners "in the secrecy of their homes, defying persecution and jail" eavesdrop on the voice of the Free World. 71/

It is evident from the above that every legal means is available to the Hungarian authorities to restrict the listening to Western radiobroadcasts. It is assumed that, if and when it is thought necessary, the authorities would not hesitate to tighten their control over listening.

In addition to the legal aspects of regulation there are other methods used by the Hungarian authorities to restrict listening to Western radiobroadcasts. These other methods are discussed in IV, B and C, below.

B. Conditions of Listening.

The ideal situation for listening to Western radiobroadcasts would be for individuals to possess in their homes, without fear of intimidation or molestation, tunable receivers which include all radiobroadcast frequency bands. Factors which tend to reduce or eliminate this ideal situation reduce the potential audience for such broadcasts. Such things as reducing the availability of radiobroadcast receivers with high-frequency bands, modification of radio receivers to make them capable of receiving only certain programs, installation of wire-diffusion systems, establishment of group listening centers using either loudspeakers or independent radiobroadcast receivers, and jamming of frequencies have a tendency to minimize the potential number of listeners to Western radiobroadcasts.

In July 1943, assurance was given to the US Secretary of State, that there would be no persecutions or arrests of Hungarians for listening to VOA broadcasts. 72/ Since 1949, however, the Hungarian authorities have employed several means intended to minimize listening to foreign broadcasts. At about this time, in an order prohibiting listening to these broadcasts, the listeners were asked to have their receivers so adjusted that they could no longer be tuned to receive such broadcasts. 73/

* For a discussion of the possible reasons why listening to Western radiobroadcasts has not been curtailed further, see OPR Project 46.1.1 (WP) Foreign Radiobroadcasting Reception Potential in Czechoslovakia, 10 July 1953.
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On 10 June 1950 a news item stated that the government had ordered manufacturers to mass-produce People's radiobroadcast receivers capable of tuning in only Communist-controlled stations. 74/ In March 1951, another item states that under pressure from the Hungarian Information Minister, the Hungarian manufacturers of receivers were charged to reduce to a minimum the year's production of receivers capable of tuning in high and medium frequencies. 75/ Statistics published in Szabad Nep, show that 67,131 People's radiobroadcast receivers were sold in 1950. 76/ An item from Esti Budapest relates that in 1952 nearly 100,000 inexpensive People's radiobroadcast receivers are being manufactured. 77/

Reports since 1951 indicate that the Orion radiobroadcast receivers are seen in the radio shop windows almost exclusively. Before this time, receivers of other manufacturers could be seen in these shop windows by a casual observer. A recent observer from Budapest stated that the radio shops had various Orion model receivers for sale and that anyone who had the money could purchase them. He thought, however, that the price of the better models, 3,200 forints, was more than the Hungarians could afford to pay and that the People's radiobroadcast receiver at 300 forints was the only one reasonable enough for them to buy. 78/

The above indicates that the orders to produce inexpensive People's radiobroadcast receivers, which are designed to receive only domestic radiobroadcast programs, have been obeyed and that persons owning such receivers have their listening conditioned by the technical limitations of these sets for the reception of Western radiobroadcast programs and their ability to manipulate the knobs for Western program reception.

Prior to 1948, no governmental regulations or restrictions limited the manufacture of radiobroadcast receivers with all radiobroadcast frequency bands. High-frequency reception was a common thing in Europe, and it is not unlikely that most of the receivers manufactured before 1948 were equipped for high-frequency reception. In referring to 1943, 1944, 1946, and 1947 models, one report states that "the sets are made very solidly." 79/ The prevalence of radio repair shops in Hungary suggests that many of these older radiobroadcast receivers are still in use.

It is reported that in 1951 the Ministry for the Mails undertook the modification of all radiobroadcast receivers in order to make Western radiobroadcast reception impossible. The modification was supposed to be obligatory and performed at no charge to the owner. The extent to which this has been accomplished is unknown. New receivers were reported as being manufactured without high-frequency reception components. 80/

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The wire-diffusion system, discussed more fully in III, A, 4, above, has been expanded and has been given greater emphasis each year since 1949. The goal of 500,000 speakers, set forth in the current Five Year Plan, will probably fall short of accomplishment by some 20 percent. This technique will be utilized more and more by the Hungarian authorities as the economy permits the production and installation of the necessary equipment and materials. This technique of disseminating propaganda is not only the most economical, but it assures the Party officials control of the program. A few reports on wire-diffusion installations tend to show that the authorities intend to install loudspeakers whether the people want them or not. This may indicate that at some future date, when the urban communities are more completely equipped for wire-diffusion operation, privately owned radio-broadcast receivers may be confiscated. Because of the lack of wire distribution networks, it will probably be several years before Hungary can adapt this method as the sole means for the dissemination of propaganda.

Some reports indicate the establishment of collective or group listening centers in workers' districts, industrial plants, schools, public institutions, and public gathering places. 81/ Clandestine foreign listening is not likely to take place under these conditions. It was reported that much closer contact has been established between listening and the broadcast system through the organization of public broadcasts and listening circles. 82/

In December 1951, instructions were issued to radio shops to buy up all multiple-frequency radiobroadcast receivers and/or exchange them for receivers suitable only for reception of Hungarian stations. The instructions also stated that the multiple receivers thus purchased were to be lent to Party and other mass organizations. 83/

A recent article from Interreport-Ost, Vienna, relates that sales of the People's radio receivers are being encouraged by all possible means, that super radio receivers may be used only for reception at public gatherings, that the police have started a general check on all privately owned receivers, and that high-frequency tubes are being confiscated from all who are not high officials in the Communist Party. 84/

It is likely that this technique for the dissemination of propaganda and for the minimization of listening to foreign broadcasts in Hungary will be employed to an ever-increasing extent as facilities for its installation become available and the Communist authorities decide to use it.

It is believed that installations of wire-diffusion systems and loudspeakers will materially increase, should the Communist authorities conclude that the People's radios are not adequately curtailing reception of Western radiobroadcasts.

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S-E-C-R-E-TC. Jamming.*

Jamming of Western radiobroadcast programs to Satellite countries began about 1950. Reports indicate that these programs were jammed by stations located in the USSR. The most effective jamming was against the high-frequency bands employed by VOA and BBC. 85/ It is known that jamming of radiobroadcasts may be done by jammers located in the USSR, in the country of reception, or in a neighboring country. It may be inferred that a high degree of control and coordination prevails in Soviet Bloc jamming activities.

In 1950 and 1951 the USSR began the installation of jamming stations in Hungary. One report stated that 34 jamming stations were being built. As is usually the case the jammers are located near the heavily populated areas so that the jamming effort would operate against the greatest potential audience. In the summer of 1952, RFE and VOA programs were reportedly received with little jamming interference in rural areas, including Zola, Vas, and Dorsod, as well as in the Alfod (Lowlands), while there was jamming of these programs in Budapest. A peasant living in the vicinity of Kalocsa is said to have constructed a crystal detector** radio-broadcast receiver which receives RFE and Radio Budapest despite jamming. He keeps his fellow farmers informed of events in the West. 87/ It is reported that mobile jamming stations are used in Hungary against Western radiobroadcasts and that the number of jammers has been considerably increased. 88/

In some cases, jamming has been effected by the use of electrical machinery with loose connections or bad brushes. The type of electrical interference thus emitted cannot be directed against a specific program or station. It affects reception of programs of all stations, local stations as well as those against which the jamming is actually intended. This type of jamming is effective over a comparatively small area, often only in a section of a city. This type of jamming is found in industrial centers or cities where there are more electrical facilities and larger numbers of listeners to be affected by it. Reported jammer locations are given in Table 6,*** and shown graphically on an accompanying map.****

* This subsection prepared by OSI.

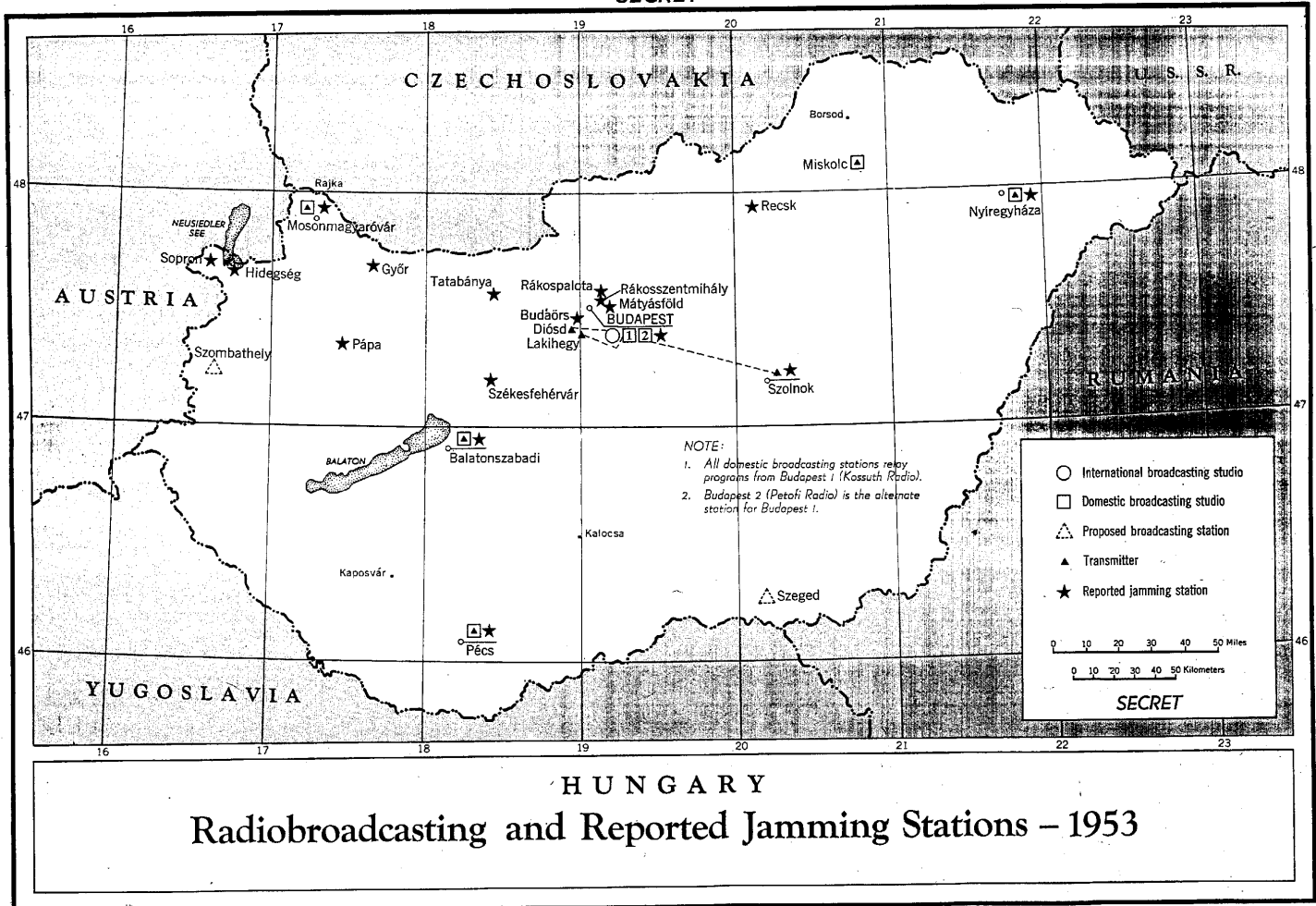
** Radiobroadcast receivers of the older crystal-detector type are generally relatively insensitive compared to modern vacuum-tube receivers, though distant signals may sometimes be heard, particularly at night.

***, Table 6 follows on p. 23.

**** Following p. 22.

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Table 6

Reported Radiobroadcast Jamming Transmitter Locations
in Hungary

Place	Coordinates	
	Latitude	Longitude
Dalatonszabadi a/	46° 53' N	18° 07' E 89/
Dudacsers	47° 27' N	18° 58' E 90/
Budapest b/	47° 30' N	19° 05' E 91/
Gyor	47° 41' N	17° 38' E 92/
Hidegszeg	47° 37' N	16° 45' E 93/
Mátyásfold	47° 31' N	19° 12' E 94/
Mosonmagyaróvár	47° 52' N	17° 17' E 95/
Nyíregyháza	47° 58' N	21° 43' E 96/
Papa	47° 20' N	17° 28' E 97/
Pécs	46° 05' N	18° 13' E 98/
Rakospalota	47° 33' N	19° 07' E 99/
Rakosszentmihály	47° 31' N	19° 10' E 100/
Reek	47° 56' N	20° 06' E 101/
Sopron	47° 41' N	16° 36' E 102/
Szkesfehérvár a/	47° 12' N	18° 25' E 103/
Szolnok	47° 10' N	20° 11' E 104/
Tatabánya	47° 33' N	18° 26' E 105/

a. Since these places are in the same region it is possible that reports identifying the same jammer used different towns as reference points.

b. Some reported locations of jammers are suburbs of Budapest.

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S-E-C-R-E-TV. Effectiveness of Western Propaganda Radiobroadcasts.A. Size of the Audience.

The size of the audience in Hungary which listens to Western radiobroadcasts cannot be estimated statistically from available information. It is possible, however, to gain an impression of the effectiveness of penetration by these broadcasts.

Results of reports of interviews with persons who have spent months or years in various Hungarian places indicate that most of the radiobroadcast receivers in Hungary are capable of receiving Western radiobroadcasts and that most of the persons having these radiobroadcast receivers listen to Western programs. In about 1950 a former Director General of the Hungarian Broadcasting Company stated that about half a million Hungarians listened to the voice of the Free World. 106/

The results of a study of interviews of 100 Hungarian refugees show that 80 had listened to Western radiobroadcasts and of the 80 refugees, 36 owned the radiobroadcast receivers over which they heard the programs. The majority of these persons listened to more than one station. Thirty-nine percent of the 80 persons listened daily and about 73 percent at least once each week. 107/ Of the hundreds of refugees who fled from Hungary in 1950-52, as many as 85 percent of the listeners passing through 1 reception center were able to prove that they had listened to BBC programs. 108/ An engineer, who defected in February 1952, said that he listened to VOA regularly from 2000 to 2400, Budapest time. He estimated that one-half of the families listen to Western propaganda. He said that Budapest, the gayest night-life city in Europe before the war, appears deserted at 8 o'clock at night. The people are at home, with windows closed listening to the radio. 109/ In October 1948, of the 455,021 subscribers in Hungary, 93 percent had tube radio-receivers. 110/ In Europe, before this time, it was a common practice to have a receiver with all radiobroadcast frequency bands. 111/ Out of a group of 40 refugees from Hungary, almost all had listened to at least 3 Western radiobroadcast stations and more than three-fourths of them to at least 4. 112/ There are other reports which estimate that as high as 90 percent of the radio receivers are capable of receiving Western broadcasts.

Penalties for breaking the Hungarian law which prohibits dissemination of the content of Western radiobroadcasts vary -- up to 15 years in prison and confiscation of property may result. Word-of-mouth dissemination, however, appears to go on constantly. 113/ This means of dissemination of Western broadcast information might well boost the size of the effective audience.

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Reports indicate that persons have listened to Western radiobroadcasts at Budapest, Szolnok, Győr, Szekesfehervar, Zala, Vas, Porsod, Alföld, Kaposvár, Sopron, Miskolc, Rajka, Újpest, Karcag, Kaposvár, Szombathely, and Ladpetri. These locations are shown graphically on an accompanying map.⁶

B. Nature of the Audience.

Hungary, before World War II, was predominantly agricultural. In 1939 the industrial aspects of its economy accounted for 40 percent of its exports. By 1949, approximately 49 percent of the population still depended on agriculture for its living. Budapest is the hub of all industrial expansions and activities in Hungary. More than 60 percent of the new industrial potential is located in or near Budapest. 114/ Much of this is probably the result of USSR influence.

Practically all of the reports which relate listening to Western radiobroadcasts are from former residents of cities and towns. A few reports refer to peasants and how they pass along the items of interest to their fellow laborers. The nature of the audience is indicated in a report of October 1948 which shows that 39 percent of all licensed subscribers in Hungary were in Budapest. It also shows that less than 5 percent of all licensed subscribers were agricultural employees and mine workers. 115/

Indications are that industrial or urban area folk of the intelligentsia constitute by far the largest group of listeners to Western radiobroadcasts in Hungary. The relative high prices of the multifrequency band receivers would seem to preclude extensive ownership among the peasant and laboring classes.

A recently completed study of interviews with 100 Hungarian refugees, representing nearly all the Hungarians who entered the US administered zone of Austria from July 1951 to March 1952, shows that 20 were peasants and 14 were unskilled workers. Most of the others were skilled workers, self-employed workers, Government employees, professionals, or students. 116/

Statements by refugees, emigres, and Party deserters confirm reports that listening to Western radiobroadcasts in Hungary is done by people of all social and national groups. Workers, peasants, civil servants, former middle-class people, and even Communist Party officials and leaders all listen to these Western radiobroadcasts. 117/

⁶ following p. 22, above.

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In addition to those persons who listen to Western programs by means of radiobroadcast receivers, there are those who listen by means of radio receiving facilities not intended for radiobroadcast reception. This portion of the population who have this opportunity is relatively small but is composed of active adults who would normally be interested in keeping abreast of world activities. These persons are operators of radio stations other than radiobroadcast stations: namely, those of the maritime, aviation, meteorological, railroad, point to point, police, and military units. It is known that most of these stations use high-frequency radio equipment. Radiobroadcast receivers of this type are considered better than those used by the general public and are capable of more accurate tuning to avoid jamming. These operators probably have greater skill in avoiding jammers. 118/ There are also those in Hungary who are fluent in German, Slovak, English, and other languages. These persons fare better in their listening because programs in languages other than Hungarian are not jammed to any great extent. 119/

C. Popular Stations, Times, and Frequencies for Listening.

Digests of interviews and numerous other reports indicate that more Hungarians listen to VOA than to any other Western radiobroadcast. The stations most frequently referred to in the order of their popularity are VOA, RFE, and BBC. The programs of the other Western radiobroadcasts are occasionally referred to, but not to any great extent -- Radio Paris being the fourth in popularity. These other Western radiobroadcasts seem to be listened to when jamming is particularly effective on the programs of the more popular stations.

Hungarians probably listen to VOA more than to other Western broadcasts because they believe it to be the official voice of the US and that it represents the thinking and policies of the world outside of the Soviet Bloc, they look upon RFE as relating itself more to conditions within Hungary and behind the Iron Curtain, and they look upon BBC as representing a second-rate power. Remarks which follow are indicative of popularity. VOA's "news and short commentaries are more authoritative and reliable." RFE runs VOA a close second in popularity. It leaves an "excellent impression on Hungarian listeners," it is "dynamic," it is "especially good naming Communist spies and informers on the 'black list'" and it is "very popular." BBC is thought to be more popular among the older people. Its "accuracy of the news," and "sober commentary" appear to be well received. Listening to BBC programs in Hungary is somewhat habitual, as it dates back to the German occupation.

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Many persons interviewed have suggestions as to program content. These suggestions, however, appear to stem from personal likes rather than from any desire to better the program. Although interests and tastes lead Hungarians to listen to Western radiobroadcasts, their primary hope in listening appears to be to glean something suggesting liberation.

The hours from 2000 to 2400, Hungarian time, are the preferred times of listening, and more listeners can be reached during these hours. Several reports indicate that at 0600, 95 percent of the Hungarian workers could listen undisturbed if the programs could get through to them at this hour. The problem of listening is greatest in cities because of the concentration of jamming facilities. The later evening hours appear to be less jammed. Programs in the Hungarian language are the most heavily jammed.

High frequencies are the most generally used in Hungary, although medium frequencies also are used by a number of listeners. Because the People's radiobroadcast receiver, Nepradio, has only the medium-frequency band, those Hungarians who listen to Western broadcasts over these receivers must listen over this band or use an adaptor. The use of this band will probably increase as the number of Nepradio receivers in Hungary increases.

The kinds of programs preferred are (1) "news," to get the "truth," "Objective news"; (2) those which give hope of liberation, the feeling that liberation is coming soon; and (3) those which discredit the regime, expose domestic conditions, denounce Communist informers and leaders, and name those on the "black list." 120/

D. Some Economic Effects of Western Radiobroadcasts.

The economic effects of Western broadcasts on Hungary are about the same as on the other Satellite countries and may be divided into two categories -- (1) the effort expended to minimize or prevent listening to Western broadcasts and (2) the effects of the broadcasts on the people.

In the first category fall the man-hours and material expended in building, operating, and maintaining the jamming stations used against Western broadcasts. The amount of materials used in jamming stations cannot be estimated, because the number of jamming stations reported varies from 17 to several times that number. 121/ The urban or industrial cities are reported as being heavily jammed. Reports indicate that several relay radiobroadcast stations, broadcast programs for only 2 or 3 hours a day, and at other times are used as jamming stations. 122/

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In contrast to the 7 domestic radiobroadcast stations in operation and the 2 projected stations, it would appear that rather large amounts of materials are going into facilities intended to prevent reception of radio programs other than those under the Communist Party control. One report in January 1952 shows that 180 jamming stations had been delivered to the USSR as reparation. 123/ While the cost of the materials that go into jamming stations is important, the consumption of Hungarian raw materials is of even greater importance. As an indication of the shortage of these materials, Hungary has agreed to supply telecommunications facilities to all the Satellite countries in exchange for raw materials. 124/

The economy of Hungary will, no doubt, benefit in the long run from the use of wired loudspeakers instead of individual radios, but for the next few years such installations will be another drain on the economy. This will tend to result in further delay in producing other needed telecommunications facilities.

The man-hours devoted to the jamming of Western propaganda must certainly be large. There are technical and trained personnel who construct and operate these jamming stations and the young workers who receive 7 months' training under the Hungarian Post learning how to install and maintain the loudspeaker facilities. 125/ To their man-hours must be added those spent by the state and police personnel in surveillance in suppressing listening to Western broadcasts. In addition there are those man-hours that go into the preparation of newspaper articles, broadcast programs, and speeches by Communist Party officials in an effort to refute the claims made in Western broadcasts.

In the second category the effects of the Western broadcasts on the actions of the people are to some extent definitive and in other cases perhaps only conjectural. In December 1951 the Magyar Nemzet stated that from the time of the sovereignty restoration of Hungary in 1947, barely 5 years, "every ten days there were acts of sabotage, slandering declarations, or other interventions in the internal affairs of our country on the part of the USA. Even so the list is not complete, for who could keep score, for instance, of the number of libelous vituperations emitted by the 'VOA or RFE', urging the overthrow of the legal order of the country." There were also reports of "incidents" where buying sprees or food hoarding were caused by information that a currency reform, food shortage or reintroduction of rationing was pending. There were reports that some Hungarians responded positively to a RFE exhortation to go on a "silent strike" for a week. 126/ A single radio message beamed at Hungary on liberation in 1951 is said to have brought a tremendous reaction.

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It is reported that following the message, fires broke out in factories, munitions plants exploded, the police and AVH* were mobilized, and members of the Party and even Council Presidents were put under special surveillance to see if they had taken part in it. 127/

E. Hungarian Press and Radio Reaction to Western Radiobroadcasts.

The apparent concern at the impact of VOA and RFE broadcasts on the Hungarian people has been voiced on numerous occasions since about 1950 in the press, over the radio, and by Communist Party officials. Typical phrases used are "mass murderers and Nazi militia men," "liars bereft of reason," and there have been complaints that their factual news broadcasts, "disturbed the workers' peace of mind and their struggle for peace." 128/ In December 1951 the Hungarian Government published a White Book entitled Documents of the Hostile Activities of the United States Government Against the Hungarian People's Republic. This book consists of approximately 250 pages. The last chapter includes reference to RFE and states that the broadcasts throw "forth slander and incitement against the Hungarian People's Republic for twelve hours a day" in addition to those hours of radiobroadcasts directed by VOA. 129/ The various attempts to refute Western broadcasts and the vile attacks made on them seem to show that those in authority in the Hungarian Communist Party are definitely concerned about Western broadcasts.

VI. Trends and Conclusions.

The Hungarian radiobroadcast transmission facilities at present follow very closely the physical locations of transmitters that existed prior to World War II. Since the war, with perhaps some slight changes in antenna locations, these facilities have been rebuilt with marked increase in power output. They have now almost quadrupled the total kilowattage of the prewar transmitters. Plans appear to be under way to extend these facilities to include Szombathely and Szeged. These additional stations should certainly provide ample dispersion of facilities and adequate coverage for the entire country. Some newspapers, however, claim that station installations are proposed for still other locations.

All of the domestic transmitters in Hungary operate in the medium-frequency band, and there are no indications that other frequency bands will be utilized in this service. A few reports mention stations equipped with microwave antennas in the northern part of Hungary. These appear to be a part of a Czechoslovak chain and not a part of Hungary's communications.

* Allen Vedelmi Hatosag (Defense of the State), the Hungarian security organization.

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Television has been planned and discussed in Hungary for years, but it probably will not be in operation before 1954 or possibly 1955. No present or planned use of frequencies above 30 megacycles for aural broadcasting, either amplitude modulation (AM) or frequency modulation (FM) have been reported.

Hungary apparently has all the technical knowledge and manufacturing facilities required to produce radiobroadcast receivers to meet domestic needs. Reports show that it has exported receivers and radio parts, especially tubes, since long before World War II. Official orders to manufacturers have no doubt, decreased considerably the production of the better typed receivers intended for broadcast reception -- those with all three radiobroadcast frequency bands -- and have increased the production of People's radiobroadcast receivers and loudspeakers. The most deterring factor, however, in the widespread use of the better receivers is their cost, which is approximately 3,000 forints (about \$270).

To prevent listening to Western radiobroadcast "propaganda," but, at the same time, to increase its home service reception base and to conserve raw materials, which appear inadequate to supply other urgent needs and considerations, Hungary has employed two courses of action since about 1950. The first was mass production of People's radiobroadcast receivers designed to receive the programs of only 2 Budapest transmitting stations or 1 of the Hungarian relay stations. The cost of these receivers, 380 forints, apparently makes them popular among those Hungarians who otherwise could not afford to own a radiobroadcast receiver. Reports indicate that the Communist Party has undoubtedly met with some success in getting the people to buy these radiobroadcast receivers. The extent of success in preventing listening to Western radiobroadcasts, however, is questionable in that reports show that with careful manipulation or easy alteration these receivers are capable of receiving some Western radiobroadcast programs.

The other course employed has been the installation of wire-diffusion loudspeakers. This method of preventing listening to Western radiobroadcasts is most effective, since the programs broadcast are Party prepared and controlled. Information relating to the number of loudspeakers in service indicates that the goal of 500,000 set for 1954, the end of the Five Year Plan, may not be met by approximately 20 percent. If the Communist party believes that the Nepradio is effective in curbing Western radiobroadcast listening, the wire-diffusion goal may not be met by from 30 to 40 percent. There are some slight indications that this may happen.

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The Hungarian authorities appear to possess every legal means to prevent listening to Western radiobroadcasts. Hungary was the first satellite country to enact a law which restricted the right of ownership and use of radio installations. This law authorizes the Hungarian authorities to requisition or confiscate radiobroadcast receivers, withdraw licenses issued to operate them, remove component parts from them, or to place a seal on them. They have a law which prohibits listening to Western radiobroadcasts and one prohibiting dissemination of information heard over such radiobroadcasts. Prison terms limited to 15 years, fines of several hundred forints, confiscations of property, and evacuations to unproductive areas appear to be of concern to the people and are talked about; but the number of such instances that can be directly attributed to listening to Western radiobroadcasts are few. These laws have undoubtedly curbed listening to some extent, but they have not been too successful, because they have not been enforced. Although the Communist Party has imposed some severe measures against certain groups, such as evacuation to sub-marginal localities, they have been against small minorities and the Party may feel that their control of Hungary is not sufficient to attempt at this time such measures as enforcement of the laws pertaining to radiobroadcast listening, which would affect so large a number of the population.

The removal of parts, the alteration of receivers so they can receive only local programs, the reduction in the availability of the better receivers and their prohibitive costs, the establishment of group listening centers, and the installation of wire-diffusion loudspeakers are being employed on an ever-increasing basis, and affect listening in Hungary.

The number of jamming stations has increased considerably since 1950. The number of new stations reported in 1952 was three times those reported in 1951. The number of such stations reported in 1953 was about the same number reported for 1952. Jamming of Western broadcasts has been quite effective in urban and industrial centers, especially in the vicinity of Budapest where the jamming stations are most heavily concentrated. It is expected that the number of jamming stations in Hungary will continue to increase.

The effectiveness of Western radiobroadcasts on the Hungarian economy is measurable in part by the materials and man-hours of effort directly consumed in the construction and operation of jamming stations and wire-diffusion systems. The diversion of these needed materials and man-hours, primarily from the telecommunications industry, bear adversely on accomplishments in this section of the country's economy.

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Many man-hours have been expended in the establishment and execution of laws directed to prevent listening to Western broadcasts and in attempts by the radio, press, and Communist Party to refute claims made in these broadcasts. This also strains the economy and adversely affects the morale of the people.

Defectors, both professional and skilled persons, indicated that Western broadcasts influenced their decisions to escape.

Incidents of sabotage, slowdowns, unsatisfactory work, and destruction of property appear to have been inspired by Western broadcasts. These are but indications of the effectiveness of such broadcasts on the Hungarian economy and cannot be specifically evaluated.

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APPENDIX A

Schedule of VOA Broadcasts to Hungary 130/
February 1953Original Broadcasts

<u>Time (GMT)</u>	<u>Program Content</u>	<u>Transmitting Locations</u>	<u>Frequencies (Kilocycles)</u>
1900 to 1930	<u>Daily</u> Complete World News	US Salonika (Relay) Tangier (Relay)	15300, 15200, 11900, 9650 790 7170, 6140
	<u>Monday through Friday</u> News and features of special Hungarian interest. Comment on latest develop- ments in Hungary to counteract Com- munist influences.		
	<u>Thursday</u> Public activities of Hungarians on free soil.		
	<u>Saturday and Sunday</u> Cultural series, interviews with Hungarians in US -- represents life in the US.		

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Schedule of VOA Broadcasts to Hungary 130/
February 1953
(Continued)

Time (GMT)	Program Content	Transmitting Locations	Frequencies (Kilocycles)
2045 to 2115	<u>Daily</u> Complete World News	OS Salonika (Relay) Tangier (Relay)	15330, 11900, 11870, 11830, 9550, 9520 790 9500, 6140
	<u>Monday through Friday</u>		
	Same as for 1900 to 1930 program.		
	<u>Saturday and Sunday</u>		
	Same as for 1900 to 1930 program.		
2130 to 2145	<u>Daily</u> (Munich origination) International news and comments inside Hungary and other Iron Curtain areas, interviews with escapees.	Munich Tangier	1195 7270, 6040
2315 to 2345	Repeat of 2045 to 2115 Program	Tangier	9635, 9545, 7270, 6145, 6080
0015 to 0045	Repeat of 2045 to 2115 Program	Salonika "Courier"	790 7200, 6015, 1395

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Schedule of VOA Broadcasts to Hungary 130/
February 1953
(Continued)

<u>Time (GMT)</u>	<u>Program Content</u>	<u>Transmitting Locations</u>	<u>Frequencies (Kilocycles)</u>
0245 to 0315	Repeat of 2045 to 2115 Program	Munich Salonika Armed Forces Net- work: Munich	1195 790 548 (Saturday through Tues- day)
		Stuttgart	1100 (Wednesday through Friday)
0430 to 0445	Repeat of 2130 to 2145 Program	Munich	1195
1015 to 1030	Repeat of 2130 to 2145 Program	Munich	7250, 6140
1145 to 1200	Repeat of 3130 to 2145 Program	Munich	9540, 7250, 6140

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APPENDIX B

Radiobroadcast Transmitting Stations Operating in Hungary
Prior to World War II and in 1948

<u>Station Location</u>	<u>1928-40 131/</u>		<u>1948 132/</u>	
	<u>Frequency (Kilocycles)</u>	<u>Power (Kilowatts)</u>	<u>Frequency (Kilocycles)</u>	<u>Power (Kilowatts)</u>
Budapest I	546	120.00	546	135.00
Budapest II	359.5	18.00	1,040	8.00
Nyiregyhaza	1,122	6.25	1,121	0.40
Pecs	1,465	1.25	1,465	1.25
Magyaróvár	1,321	1.25	1,321	0.40
Miskolc	1,438	1.25	1,438	1.25
Kassa 133/	1,158	1.50	N.A.	N.A.
Total Power (Kilo- watts)		<u>149.50</u>		<u>146.30</u>

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APPENDIX C

METHODOLOGY

This report contains qualitative rather than quantitative information. Few precise figures have been included.

The number of radiobroadcast hours broadcast to the Hungarian people, both foreign and domestic, was obtained from overtly published materials of the radiobroadcast agencies and from reports based on monitoring.

The estimated number of radiobroadcast receivers was taken from CIA finished intelligence reports through 1951. The 1952-53 estimates were based on Hungarian radio and press reports.

The 1950-53 estimates of wire-diffusion exchanges and loudspeakers were also determined from Hungarian press and radio reports. The increase in number of exchanges for 1952 and 1953 is estimated on the announced total installations of loudspeakers.

The estimated number of radiobroadcast receivers produced in Hungary for the years 1946-52 were taken from finished intelligence reports and recent [REDACTED] information. The 1953 estimates are straight-line increases in production, justified to some extent by mass production of inexpensive People's radiobroadcast receivers.

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APPENDIX D

GAPS IN INTELLIGENCE

1. General.

Although there is considerable raw information available, there is a lack of sufficient confirmation of this information in reports. Statistical information after 1949 is inadequate and lacks confirmation. Most finished intelligence materials date back to 1951 and before and are, therefore, inadequate in scope.

2. Specific.

Information is needed as to the reasons for the lack of effort on the part of the authorities to enforce the laws which exist relating to all phases of radiobroadcast listening.

Current information is needed to break down the number of licensed receiver subscribers into loudspeakers and radiobroadcast receivers. Their distribution, area-wise and by nature of the audience, would be helpful. The radiobroadcasting receiver information should show the number of People's radiobroadcast receivers licensed, as well as the total radio receivers licensed.

Little information such as, personnel, materials, and other costs is available concerning the economic aspects of radiobroadcast program and station operations and jamming station operations.

Production information is very inadequate, and statistics cannot be related to specific producers. Information is needed as to the availability of the various types of radiobroadcast receivers, their manufacturers, and prices. Newspaper articles and other reports and statements need confirmation.

It would be helpful to know the extent of the confidence of Party authorities in the People's radiobroadcast receiver to minimize listening to Western radiobroadcasts; the extent to which radio receivers are being altered to render them incapable of receiving Western radiobroadcasts; and the progress being made in the installation of wire-diffusion loudspeakers, both by number and names of the cities and towns where they are installed.

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3. Filling Gaps.

Efforts to fill gaps are twofold. The broad, long-range, continuing efforts are (1) those employed by the Telecommunications Working Group of the EIC Subcommittee on Requirements and Facilities for Collection in undertaking to develop a complete new set of requirements manuals based on specific capabilities of the collection agencies, together with the establishment of priorities by subject matter and country and (2) complementing this program, working groups of the EIC Subcommittee on Electronics and Telecommunications are preparing a set of survey sheets on the Satellite countries which will measure the state of our intelligence in the field, the deficiencies, and causes of the deficiencies. This should improve both the quantity and quality of raw materials and fill at least some of the wider gaps.

As for the specific efforts, advantage is taken of knowledgeable sources discovered in the daily reading process by the initiation of specific requirements geared to our known gaps and to the source's competence. Many of these requirements concerned the subject matter of this report. Numerous requests for requirements are being responded to in this field.

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APPENDIX E

SOURCES AND EVALUATION OF SOURCES

1. Evaluation of Sources.

A. Hungarian Broadcasting System.

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25X1X7 (1) The information used came from FBIS, an unpublished NIS, [REDACTED] and from overtly published articles appearing in publications and covert reports.

(2) These reports for the most part confirm each other and were taken as having good reliability.

B. Receiving Equipment in Hungary.

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(1) The information used came from CIA, NIE, [REDACTED] NIS, and from covert and overt documents and reports.

(2) These sources are considered to contain reliable information.

(3) The information relating to wire-diffusion installations and those pertaining to the Peoples' radio receivers are from fragmentary intelligence reports, and the same credence of reliability cannot be given the information on the other receiving equipment.

C. Regulations and Conditions of Listening.

(1) The information on regulations for the most part came from overtly published articles appearing in publications and other reports. This information is believed to have good reliability.

(2) The information relating to conditions of listening are from fragmentary intelligence reports and are quite disconnected. The same credence of reliability cannot be given it as is given the information on regulations.

(3) The information pertaining to jamming is also from fragmentary intelligence reports. Information as to the effectiveness of jamming in the industrial centers of Hungary, however, the confirmations of location give the information fair reliability.

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D. Effectiveness of Western Radiobroadcasts.

(1) Information relating to the size of the audience was fragmentary in nature and for the most part came from unevaluated reports. There are indications, however, which offer a sound basis on which to arrive at conclusions. Therefore, it is estimated that the information rates a fair reliability.

(2) The information on the nature of the audience is in the same category as that relating to its size and warrants the same degree of reliability.

2. Sources.

Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
A - Completely reliable	1 - Confirmed by other sources
B - Usually reliable	2 - Probably true
C - Fairly reliable	3 - Possibly true
D - Not usually reliable	4 - Doubtful,
E - Not reliable	5 - Probably false
F - Cannot be judged	6 - Cannot be judged

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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