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	THIS IS UNEVALUATED INFORMATION	50X1-HUM
COMMUNICATIONS FACILITY	IES SERVING KHINKI	. •
Major Communications Co	enters	
 I have no knowled in the USSR. 	ge of any major or alternate commu	nication centers

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Wire Lines

In the city of Khimki there is a local telephone system and I remember seeing overhead wires, but my impression is that there were very few. They probably connected only such places as Plant 456, the police station, the polyclinic, the railroad station, the firehouse, the offices of city officials, etc. for a detailed description of the city of See Report Khimki. There was also a telephone system at Plant 456 consisting of dial equipment which had been removed from some plant in Germany. The telephone system in plant 456 was quite adequate, but when judged on German standards the system in the city of Khimki would be far from adequate. To the best of my knowledge, telephone service is not available to the general public in Khimki because I do not remember seeing any public telephones in the entire city. There were no telephones in the large apartment house where the male members of our group stayed during the early months of 1947 while awaiting completion of our permanent homes. I have no knowledge of the long distance telephone and telegraph services in the USSR because I never found it necessary to make use of these facilities. I did not notice any significant changes in the wire line plant in Khimki during my four years there, although the German telephone system at Plant 456 had been installed very

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Radio

3. The only radio station I observed in the USSR was in Moscow. However, since I was in that section of the city only once and observed the radio antenna from a distance of about 200 meters for only a few minutes while passing by in a bus, I am unable to state in which part of the city it is located. For the same reasons I am also unable to estimate the height and diameter of this antenna. The only reason I remember it is because we Germans who saw it were amused at its ancient appearance. I can only describe it by saying that it looked like a squat, circular, smaller version of the Eiffel Tower of Paris. The Soviet officer accompanying us in the bus (we were on our way to a crematorium to cremate one of the men in our group who had died) mentioned that this was the Moscow radio station. I do not know the types of personnel employed at this station or the security measures in effect here.

shortly before we commenced work there in January 1947.

Jamming 1 -

4. Soviet jamming, as experienced in Khimki, was completely effective in eliminating a given signal, but it was often possible to find the desired broadcast on a different band. In general, musical programs were undisturbed, but the Soviets concentrated heavy jamming on news and political programs. Programs from the BBC, VOA, Radio Paris, and Radio Ankara were all jammed with equal thoroughness. I do not know the location of any jamming stations in the USSR.

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Manpower

 I have no knowledge of academic or industrial training programs for telecommunications personnel nor of any shortages of such personnel.

Voice of America Reception

6. During my four years in Khimki I did not notice any change or increased emphasis in the wired loudspeaker program or any change in the general picture of radio reception as a whole, such as restrictions on the use of short wave receivers, increased production and distribution of crystal and fixed-tuned receivers, or increased activity in the television or FM field.

TRANSPORTATION FACILITIES SERVING KHINKI

7h The city of Khimki is located about 20 kilometers northwest of the heart of Moscow. It lies just west of the Moscow-Volga Canal, and the Moscow-Leningrad highway and railroad pass directly through this city.

Railroads

- 8. Both when entering and leaving the USSR I traveled on the rail line between Brest and Moscow, and while employed in Khimki I traveled many times by rail between that city and Moscow. As I remember, the entire line between Brest and Moscow is double tracked; but the line was in poor condition when we traveled over it, and in many places the nails were coming out of the ties. Our trains were pulled by steam locomotives only, and nowhere was a grade steep enough to warrant more than one. I do not know the weight or origin of most of the rails which we saw in the USSR, but some of them had been taken from Germany.
- 9. We entered the USSR at night and were not able to observe any details of the Brest station where the rail gage changes. However, when leaving the USSR our train stopped in Brest for several hours. I estimate that there are at least 10 transloading platforms at this station, each with a wide-gage Soviet track on one side and a normal-gage track on the other. I believe that all freight is unloaded from one gage to the platform and from there to the other gage, both operations being done by hand. However, there are probably also some cranes used here for heavy freight. While in the USSR I did not observe the construction of new lines, yards, bridges, or tunnels with the exception of a new express line to run only between Khimki and Moscow, probably for commuters.
- 10. I do not remember hearing of any shortages or surpluses of rolling stock. Railroad cars which I observed while in the USSR appeared clean and well kept and were of both preand post-war manufacture. I know of no wrecks or breakdowns of rolling stock, but even if they should occur, I doubt that any newspaper would be permitted to print news of

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them. This is because we noticed that the Soviets deliberately do not publish reports which indicate the existence of any but the most minor forms of lawlessness, disorders, mismanagement, or general trouble in the USSR. For example, robberies which we knew had occurred were never mentioned in the newspapers. One night in 1949 a three- or four-member Soviet family near Khimki was murdered by an intruder. We learned of this from Soviets at Plant 456, but no mention of it ever appeared in a newspaper.

- 11. The only railroad car observed by me that I would consider unusual was one I noticed in a train going toward Moscow. It appeared to be a postal car. I saw it only as it passed through Khimki and cannot describe it in detail, but it had compartments inside which could be seen through the windows. It was definitely not a passenger car nor any freight or service car of a type familiar to me. We also noticed refrigerator cars; tank cars of 50-ton capacity (the rating of a car is given on the side); freight cars of 30-, 40-, 50-, and 60-tons capacity but mostly of 40 and 50 tons; flatcars; and heating cars. A heating car (Heizwagen) is about 7.5 meters long and one or two are coupled in a train depending on the length of the train. In each heating car is a supply of coal and a coal-fired boiler, 2.5 meters high by 2 meters in diameter, tended by one stoker. I do not know how the heat is transmitted throughout the train. I noticed two methods for keeping railroad switches from freezing: either rock salt or burning oil was placed in, around, or under them.
- 12. I never saw any methods of changing railroad car axles in the USSR. However, PUTZE, one of the members of our group, who had been in charge of a railroad car manufacturing plant before the war, See Report for a detailed discussion of the members of the German group at Khimki. said that before the war the Germans had methods of changing axles and that he presumed the Soviets had stolen the details of such methods along with the rolling stock. PUTZE also said that even the electric locomotives used in the USSR could be put on different axles, but I do not know how. I know that during the war Germany manufactured locomotives and rolling stock for use by German forces in the USSR, which incorporated some method of adapting to the wider Soviet gage, but again I do not know details of the method.
- I have no knowledge of the significance of railroad car numbers.
- 14. On the subject of freights carried on Soviet railroads I.can speak only of those received by Plant 456. This plant required daily shipments of coal, wood, rocks for the stone crushing installation just outside the plant, and whatever machinery or equipment the plant required. These cargos were handled by hand except that especially heavy freight was transported by tractor from the railroad spur line to the plant. I do not know whether any shipments were ever accompanied by guards. I do not have any information on the length of time needed for a car to make a round trip between

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any two points. I do not know of any sections of line in the USSR over which trains travel unusually slow.

15. The Moscow-Leningrad Railroad, which passes directly through Khimki, crosses the Moscow-Volga Canal just east of the city. This immovable bridge is 40 to 50 meters long and is about 10 meters above the normal level of the water. It was destroyed during the war and was rebuilt of steel-reinforced concrete in 1945 or 1946. The area around this bridge was very heavily fortified with barbed wire, and at least one guard patrolled this bridge 24 hours every day. At both ends of the bridge were emplacements, probably for heavy machine guns, but I could not see if the guns were in place because the entire area was camouflaged and concealed by trees and bushes. Approach to this bridge by either land or water was prohibited after 8:00 p.m.

Water Transport

- 16. The only water transport facility in the USSR with which I am familiar is the Moscow-Volga Canal which runs generally in a northeast-southwest direction just east of the city of Khimki. In Khimki this canal is from 20 to 25 meters wide and at least eight meters deep in the middle. I know this to be true because once a small paddle boat belonging to our German group sank near the middle, and the man who dove in search of it reported that he had descended to that depth before touching bottom. The sides of the canal are lined with large paving stones.
- 17. There are no restrictions against approaching the canal at any point except at the highway and railroad bridges and at the lock just north of where the Khimkakh River empties into the canal. / The correct name of this river is probably the Khimka./ Until.1949 it was possible to paddle boats down the canal to the railroad bridge, but in that year all boating in the canal between the mouth of the Khimkakh and the railroad bridge was prohibited. This was because Soviets in small boats took great pleasure in recklessly waiting in the middle of the canal in the path of large steamers in order to be bounced in the steamers' wakes. The authorities feared that if this practice were allowed to continue, accidents would occur. Once in 1950 I nevertheless did take a canoe down the canal to the railroad bridge. Luckily I was not detected because a Soviet later told me that if I had been caught I would have been fined 150 rubles. After 1949 all small boats were to be kept within the mouth of the Khimkakh.
- 18. The canal lock referred to in the preceding paragraph was not used for raising and lowering the water level in the canal, but was an emergency lock to be used to prevent the escape of water from that section of the canal if one of the other locks were damaged or under repair. This lock consisted of a barrier which was normally sunken into the bed of the canal and which would be raised vertically

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into the body of the canal to shut off the flow of water in an emergency. This we learned only from conversations with Soviets because, as mentioned above, approach to the lock itself was prohibited. Once, when a group of us had approached the lock in small boats, a guard fired a shot over our heads to warn us away. I estimate that we were in about the middle of the canal and about 50 meters from the lock at that time. I do not remember if there were any physical fortifications such as barbed wire or gun emplacements around the lock.

- 19. In the summer of 1949 I made a trip on the Moscow-Volga Canal to the Moscow Sea and back, a round trip of 24 hours, on a canal steamer which carried about 100 passengers. I do not know any details of the operation of the ship, such as the number of crew members, their morale, their wages or their political education. The only details which I can furnish concerning the steamer are that I estimate that it was about 20 meters long by five meters wide and had two decks. Between Khimki and the Moscow Sea there are several locks, but I cannot estimate the number because part of the trip was made at night while we were sleeping. It took about 15 minutes to pass through a lock. I cannot estimate the difference in water level at any lock we passed through during the day because I was inside the steamer each time. It may have been prohibited to be on deck when passing through a lock because I remember that signs on board specifically forbade the taking of photographs at such times. I did not notice any obstacles to navigation or stretches where our ship was forced to hug one side. For the entire trip the canal is wide enough for two ships to pass without decreasing speed. I estimate our ship traveled at about 20 kilometers per hour.
- 20. The Moscow-Volga Canal is the principal water link between Moscow and the open sea, and the canal is in constant use by tankers, barges (both self-driven and towed by tugs) and passenger steamers. I cannot estimate the amount of traffic on the canal because of its great volume, and I am unable to generalize on freight carried because of the great diversity of cargos: coal, timber, sand, stones, oil, gasoline, grains, crates, etc. There is a signal system along the canal consisting of red, white, and green lights, but I do not know their significance. I do not know how communication is carried on between ships and the shore, but believe it to be radio because the ship on which I traveled carried an antenna between the two masts. There was no radar on this ship that I could identify.

Highways and Roads

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21. The Moscow-Leningrad Highway passes directly through the city of Khimki. Through the city it is surfaced with asphalt and consists of a single strip about 10 meters wide. I do not have any knowledge about the bed of the highway because all the time that I was in Khimki the highway remained in good condition and I did not observe

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any repairs on it. Between Khimki and Moscow there are no ferries or tunnels. I know of no weight restrictions in the use of this highway. I did not observe any seasonal variations in the traffic on this highway. As far as I know, the highway was never closed because of snow because as soon as snow started to fall plows were put into operation. I never saw these plows and am consequently unable to say whether they are general-purpose trucks with plow blades attached or whether they are special equipment.

- 22. The Moscow-Leningrad Highway crosses the Moscow-Volga Canal at the southeast corner of the city. Approaches to the bridge on both sides of the canal are about 500 meters long, and the asphalt surface of the highway continues up to the bridge. However, across the bridge itself, where the highway narrows to about five meters (plus about one meter on each side for pedestrians), the surface is composed of wooden planks. I do not know the reason for this. Except for this wooden surface the highway bridge is constructed of steel, is about 100 meters long, and is from 10 to 12 meters above the normal water level. I do not believe there are any weight restrictions imposed in the use of this bridge. At both ends of the bridge are barbed wire fortifications and machine gun emplacements, and at least one Soviet soldier guards the bridge 24 hours every day. The bridge is not movable.
- 23. Roads in the city of Khimki itself varied in width from three to five meters and almost without exception were surfaced with either dirt or crushed stone. The only road construction I observed in Khimki was when the square in front of the railroad station was enlarged. This square was approximately doubled in area to about 60 by 30 meters. The entire operation was done by hand and consisted of pouring a layer of asphalt on top of a layer of crushed stone. The only piece of machinery involved was a wood-fueled boiler to melt the asphalt. I cannot estimate the number of men who were engaged in this work, but the expansion took about 14 days.
- 24. I am unable to furnish any technical details of Soviet motor vehicles. In general, I estimate that from 60 to 70 per cent of traffic in both Moscow and on the Moscow-Leningrad highway was made up of trucks, with the remainder consisting of passenger cars and motorcycles. It is impossible to generalize on the nature of truck cargos because they were usually covered with canvas as protection from the weather. Each motor vehicle carried two metal license plates, one in front and one at the rear of the vehicle, but I do not know any details of the system or significance of the numbers, nor how long license plates are valid. On the Moscow-Leningrad highway I recall one gas station between Khimki and Moscow, but I do not remember any details of this station. I do not know whether one gas station in a stretch of road about 10 kilometers in length is typical for the entire highway. The trip from Khimki to Moscow

by bus via the Moscow-Leningrad highway took about 25 minutes, including the time needed to pass through Khimki and approach the highway.

Air Transport

25. I can furnish no information on civil air transport in the USSR because I did not make any flights while there and no civil air installation was in the vicinity of Khimki. The Khimki airfield was used during the time I was in the USSR for training flights utilizing old two-wing craft, but I do not know whether this was military or civil air training. The field was also used for experimental flights involving the use of rockets produced at Plant 456. The rockets would be fired either at takeoff to give the aircraft additional power to leave the ground or while in flight to give the craft a spurt of acceleration. I do not know for certain what type of aircraft was employed in these rocket experiments, but they were two-engine craft and may have been a Douglas type because I heard this name mentioned once in reference to these operations.