

## EASTERN SIBERIA— UNDERPOPULATED TREASURE HOUSE

By KLAUS MEHNERT

*Two years ago, in December 1941, we published an article entitled "The Bolsheviks' Chances in Siberia," which presented the economic and military situation of Siberia on the basis of material available at that time. Meanwhile, a development of such importance and extent has taken place there that it would seem advisable to bring the picture up-to-date. However, we have so much material at our disposal that we cannot deal with the whole of Siberia in this article and are obliged to limit ourselves to Eastern Siberia, which is of special interest to readers in East Asia.*

*The following pages are the result of years of careful assembling of material and contain, we believe, much that has hitherto not been generally known. They include, for instance, numerous place names of which but few people have ever heard and which, nevertheless, are of the greatest economic and military importance. Our map on page 77, which was specially drawn for this article, is probably the first one to show the new face of Eastern Siberia. Additional detailed material will be found in the Appendices.*

*Eastern Siberia is that part of the Soviet Union which lies to the east of a line running from the western border of Tannu Tuva—slightly to the west of and almost parallel to 90° eastern longitude—to the Arctic Ocean. In our discussions we shall disregard the Mongol People's Republic (Outer Mongolia) and the Tannu Tuva People's Republic.*

**T**HE word Siberia, especially Eastern Siberia, is not in very good odor in the world. Those foreigners who have seen it themselves—usually from the window of the Trans-Siberian Railway—hardly ever contribute toward Siberia's reputation by what they have to tell. On their journey they see little that remains in their memory as having been beautiful. Perhaps the crossing of the Yenisei at Krasnoyarsk, or the bit along the southern end of Lake Baikal. On the whole, the journey is monotonous. Those in the train see untended forests, poor settlements, wretchedly clothed people.

Moreover, grim memories assail those who are historically minded. Since time immemorial, numerous native tribes of the most varied racial descent had lived here in primitive barbarism and poverty. They had adapted themselves to their environment and, moving around with their herds of reindeer and continually at war among themselves, they led a nomadic existence which was yet in

harmony with Nature, like that of the wolves and foxes of Siberia. Then came the great upheaval. According to a legend of the Yakuts (the largest of the Eastern Siberian tribes) told in the work of S.A. Tokarev, published in Moscow in 1940, it happened about as follows.

### THE STORY OF CHIEF TYNGYN

Many men worked for the Yakut chief Tyngyn, whose grazing lands were on the River Lena. One day Tyngyn noticed among them two men of unknown origin. They did not look like Yakuts. Their eyes were deep set and blue; their noses high and sharp; their faces covered with hair; their heads shaven. They did not know the language of the Yakuts. Tyngyn was friendly toward them. After two years the strangers asked the chief for two cow-hides. Tyngyn gave them to them. Then they laid the hides on the ground and explained that they wished to be given the ground covered by the hides. Tyngyn said: "Very well. Take it!"

Now the strangers cut up the hides into thongs as thin as threads. With these thongs they surrounded a large area and marked off the borders with posts. Then they disappeared, and the Yakuts soon forgot them. But in the following spring the strangers returned, not alone but with many others. On the ground that had been given to them they built many houses and a fortress. Now Tyngyn was seized with alarm. He assembled his warriors and decided to drive out the strangers. These, however, replied to the arrows of the Yakuts with loud thunder, and at every stroke of thunder one Yakut fell. Many Yakuts died. Even Tyngyn and his sons. Those who survived fled into the forests or surrendered to the strangers.

#### FURS AND DEATH

Popular legends are inclined to look at history through rose-colored glasses, just as in the course of time the memory of the individual eliminates what is painful. The actual conquest of Eastern Siberia was not nearly so romantic and represents a dark chapter in history. Seen through the eyes of the Russian conquerors, it bore many heroic traits; for the natives, however, it brought nothing but misery and death. Before me lie the works of the Tsarist historian G. F. Miller (1705-1783), the author of a many-volumed history of Siberia containing hundreds of documents. These documents reveal a staggering picture of brutal exploitation.

The first Russian conquerors came to the Yenisei in 1619. At that time, furs were among the most important items of export of the Russian Empire, which had little else to offer to the rest of the world. Thus it was Siberia's originally vast wealth in furs which lured the Russians to the conquest of that territory. The natives were employed as fur collectors. While unrestricted killing rapidly diminished the number of fur-bearing animals, increasing fur tributes were demanded from the natives, because the number of Russians who wished thus to enrich themselves grew steadily. The natives were forced to

neglect their herds and fields in order to hunt the dwindling prey and consequently sank into ever deepening misery. As the fur reserves were depleted, the conquerors moved further and further east to open up untapped regions and to subject new tribes. In their desperation, the Eastern Siberian tribes rose in countless revolts against their oppressors, only to be bloodily quelled every time.

#### GOLD AND EXILE

When the wealth in furs started to dwindle, a new object of exploitation was discovered: precious metals. In 1704 the first pound and a half of silver was smelted in Nerchinsk. Later, gold was found, and soon after that the high customs income from the lucrative trade with China was added. Much of the riches which now began to flow from Eastern Siberia to European Russia never got further than the pockets of the officials and merchants on the way. When Prince Gagarin was appointed the first governor of Siberia, his fortune began to grow astonishingly. At his own expense he built himself a palace with a private theater and orchestra. At his banquets the food was served on silver platters, while he himself ate off golden plates.

For the exploitation of the Siberian furs, the natives had sufficed; but for the labor in the silver mines and for the washing of gold, workers from European Russia were required. The quantity and quality of men who went voluntarily to Siberia were at that time low. Men who ventured out into almost trackless Eastern Siberia were adventurers, who wanted to get rich quick but had no desire for steady work. So the state made use of slave labor. The stream of exiles, the first of whom had already been sent out in the sixteenth century, a few years after the conquest of Siberia had begun, swelled from decade to decade. Among them were personal enemies of the Tsar; political opponents of the regime; members of such foreign populations, hostile toward the Russians, as the Poles, tens of thousands of whom

took the bitter road to Siberia in the nineteenth century; members of religious sects which did not agree in every detail with the Orthodox Church; and ordinary criminals. Two classical works, Dostoyevsky's *House of Death* and *Siberia and the Exile System*, written by the American George Kennan in 1891, draw a realistic picture of this system. Later, all that was described by these two men in the nineteenth century was completely overshadowed by the deeds of the Bolsheviks of the twentieth century. The Bolsheviks have, in the last twenty-five years, sent ten times as many people into Siberian exile as were sent by the Tsars in four hundred years.

#### CHEAP LABOR

In 1935, I visited a Siberian concentration camp whose inmates worked in a coal district that had just been opened up. A few years previously, at the time of the destruction of the free peasantry, called "de-kulakization," when the first eighty thousand people—men, women, and children—were unloaded from cattle trucks, nothing but a few buildings for the GPU guards stood here. Winter came long before the exiles had finished building their barracks, and many of them, especially children, fell victim to the cold. But other exiles followed. At the time when I visited the camp, 130,000 people were vegetating there, most of them exiles. And every day trainloads of coal were dispatched to the neighboring ore district.

In 1934 the Soviet Government, which until then had granted the population full license in matters of sex, unexpectedly promulgated a law against homosexuality which led immediately to a wave of arrests. Among the numerous people arrested in Moscow there was also a Russian married to an American woman. By dint of great energy and courage, she succeeded a year later in visiting her husband for a few days at his concentration camp in Eastern Siberia where he and the other prisoners were employed in building roads. She was able to convince herself that it was not anxiety for the

moral welfare of the people but solely the desire for an added instrument of terror and for more slaves for the development of Siberia which had caused the law to be promulgated. For she discovered all the men who had been exiled to Siberia for allegedly infringing this law herded together in one camp in a few overcrowded barracks.

#### THE GOOD SIDE

Yet Siberia has its good sides. In fact, its notorious characteristic, its climate, is much better than it is reputed to be. It is true that Eastern Siberia is the coldest part of the earth, much colder than the North Pole (Verkhoyansk has the lowest annual temperature measured anywhere in the world). But, with all their cold, the winters of Siberia are usually clear and windless, though sometimes broken by blizzards, and the cold is easier to endure because it is quite dry.

The summers are short but very intense, with all Nature's energy of growth concentrated into a short period. Then the country is covered by an intoxicating carpet of flowers. "In Siberia there are two seasons: July and winter," runs a not entirely unjustified saying. The most disagreeable consequence of the Siberian cold is that much of the ground is frozen deeply, so that, when in summer the topmost layer thaws, the water cannot flow off through the frozen underground layers. This is the reason for the many marshes which, in northern Siberia, permit only the tundra with its stunted trees instead of forests, and which are the breeding place for clouds of mosquitoes. It is preferable to travel in winter, when everything is frozen hard. Near the Arctic coast there are no trees whatever, and the only available fuel is driftwood.

The nature of the Russian fits him well for Eastern Siberia. He loves its vastness. It means freedom to him and satisfies the anarchistic trait which is to be found to a greater or lesser degree in many Russians. It is this vastness which has attracted Siberia's soundest elements, the peasants. Siberia offered them a

twofold freedom: while serfdom, from which the majority of the peasants had suffered for centuries, was not abolished in European Russia until 1861, Siberia had never known peasant serfdom (although the natives were until recently the slaves of their Russian conquerors, and the exiles are to this day the slaves of the state). This was the reason for many an independent-minded serf to flee to Siberia. Even after the abolishment of serfdom, Siberia lured many to emigrate there; for it offered wide spaces and freedom of action to the Russian peasant living in the agricultural overpopulation of European Russia and in the oppressive restriction of his village community. Especially after the completion of the Trans-Siberian Railway, the peasant emigration to Siberia increased considerably. It was, however, Western Siberia which benefited chiefly, as only few of the peasants moved further east.

During the first few generations after the conquest, those who came from Russia were almost exclusively men. The result was a frequent mixing of blood with the Siberian tribes. The more Siberia was opened up, the more women arrived. That the Siberian women of today are not without charm can be seen from the fact that, of 7,500 American soldiers who marched into Siberia after the Revolution, 500 married there.

The greatest advantage of Eastern Siberia, however, became known only recently: its vast wealth of valuable minerals. Under the last Tsars, and especially under the Bolsheviks, numerous expeditions have explored Eastern Siberia in its remotest corners. And, although its resources are, even today, by no means fully known and probably also partially kept secret by the Soviets, there can be no doubt that Eastern Siberia is one of the richest territories of the earth. What stage of its development has it reached by now?

#### AREA AND POPULATION

For a study of the eastern Soviet Union, a knowledge of its administrative

division, its size, and its population is essential. Table I has been compiled by us exclusively from Soviet material published in the years 1939 to 1942. Since the figures were taken from various Soviet publications, they do not always agree entirely. This fact will hardly diminish the skepticism generally felt toward Soviet figures. But there are no other figures available. The population figures are those of the last census carried out in the USSR in 1939. We shall have more to say later about the changes in population since then.

In the course of the twenty-six years since the Bolshevist regime came into power, the administrative division of the Soviet Union has undergone many changes. At one time the reason was the desire to include the largest possible areas in one administration; the next time it was, on the contrary, the desire to reduce the size of each unit; the third time it was the intention to strengthen the Russian influence over the national minorities; the fourth time it was the necessity of harmonizing the administrative division with the new economic development of the country.

The administrative borders of Eastern Siberia shown in our map are in force today and are based on the ukases of the Supreme Soviet of the USSR of October 20, 1938, and May 26, 1939. (By these ukases the Khabarovsk Oblast disappeared, its major part being included in the Khabarovsk Krai and the rest in the Primorsk Krai.)

#### COUNTLESS NATIONALITIES

Eastern Siberia represents an ethnographical mixture of the first water, as some forty to ninety nationalities—depending on the viewpoint of the statistician—live within its borders. These nationalities consist of three main groups:

- |   |   |                       |
|---|---|-----------------------|
| <ul style="list-style-type: none"> <li>(1) Members of native tribes</li> <li>(2) Immigrants from other parts of East Asia</li> <li>(3) Immigrants from European Russia</li> </ul> | } | and their descendants |
|---|---|-----------------------|

TABLE I  
The Administrative Division of Eastern Siberia

Area	Size in 1,000 sq.km.	Population			Capitals		Number of	
		Urban	Rural	Total	Name	Population	Rayons	Towns
Krasnoyarsk Krai .....	2,143.8	551,419	1,388,583	1,940,002	Krasnoyarsk	190,000	57	11
Incl. Khakass Aut. Oblast .....	58.6	—	—	270,655	Abakan	17,000	—	—
Taimyr Nat. Okrug .....	742.6	—	—	—	Dudinka	30,000	—	—
Evenks Nat. Okrug .....	564.3	—	—	—	Tura	—	—	—
Irkutsk Oblast .....	899.6	561,676	725,020	1,286,696	Irkutsk	243,400	30	10
Incl. Ust-Orda Buryat-Mongol Nat. Okrug .....	18.1	—	—	—	Ust-Orda	—	—	—
Buryat-Mongol ASSR .....	331.4	163,425	378,745	542,170	Ulan-Ude	129,417	18	2
Chita Oblast .....	720.0	510,900	648,578	1,159,478	Chita	102,600	31	7
Incl. Aghinsk Buryat-Mongol Nat. Okrug .....	27.8	—	—	—	Aghinsk	—	—	—
Yakut ASSR .....	3,030.9	78,667	321,877	400,544	Yakutsk	25,000	38	7
Incl. Aldan Okrug .....	338.2	—	—	—	Aldansk	50,000	—	—
Khabarovsk Krai .....	2,572.0	647,900	783,000	1,430,875	Khabarovsk	199,400	56	13
Incl. Jewish Aut. Oblast .....	36.8	—	—	108,419	Birobidjan	50,000	—	—
Amur Oblast .....	213.8	—	—	—	Blagoveshchensk	58,800	—	—
Kamchatka Oblast .....	1,153.3	—	—	100,000	Petropavlovsk	20,000	—	—
Incl. Koryak Nat. Okrug .....	310.8	—	—	—	Palana	—	—	—
Chukot Nat. Okrug .....	660.6	—	—	—	Anadyrsk	—	—	—
Lower Amur Oblast .....	549.6	—	—	—	Nikolayevsk	—	—	—
Sakhalin Oblast .....	40.7	—	—	100,000	Alexandrovsk	—	—	—
Primorsk Krai .....	206.6	464,000	443,000	907,220	Vladivostok	206,400	26	7
Incl. Ussuriisk Oblast .....	109.9	—	—	—	Voroshilov	100,000	—	—
Total .....	9,904.3	2,977,987	4,688,803	7,666,985			256	57

The USSR (Union of Soviet Socialist Republics) consists at present of one SFSR (Soviet Federated Socialist Republic) and fifteen SSR (Soviet Socialist Republics), part of which are now occupied by German troops. Unless these republics happen to be very small, like Estonia, Latvia, and Lithuania, they are divided into a number of provinces. The largest of the republics, the Russian SFSR, has 51 subdivisions which may be called provinces. The Russians call these provinces either *krai* or *oblast*. The word *krai* is applied to some of the provinces situated on the border of the Soviet Union. Those of the provinces in a republic which are inhabited by a national minority are called ASSR (Autonomous Soviet Socialist Republic). The Russian SFSR (RSFSR), for instance, has 6 *krais*, 30 *oblasts*, and 15 ASSR. In addition to this, many provinces contain special administrative units inhabited by national minorities. The largest of these are called autonomous *oblasts*, the smaller ones national *okrug* or only *okrug*. The smallest administrative division is the *rayon* (called *aimak* in Buryat-Mongolia), of which there are altogether 3,287. All of Eastern Siberia discussed in this article belongs to the RSFSR. The two easternmost provinces—Khabarovsk and Primorsk—are often referred to collectively as the "Soviet Far East."

As a consequence of the colonization policy of the Russian Empire, some native tribes, especially in the northern regions, have died out almost completely, some of them being represented now by only a few—so to speak—museum pieces. An exception is formed by the Yakuts. Other tribes, however, which had an opportunity of receiving new blood from across the borders of the Russian Empire, have maintained considerable numbers. Table II presents a list of those tribes for which we possess population figures. These figures are not reliable, but they serve to give an approximate idea of the native inhabitants of Siberia.

Table II  
Some Tribes of Eastern Siberia

Yakuts (Yakut ASSR) .....	300,000
Buryats (around Lake Baikal) .....	280,000
Khakasses (south of Krasnoyarsk) .....	150,000
Tunguses or Evenks (Evenks Nat. Okrug and Amur) .....	40,000
Chukchi (Chukot Nat. Okrug) .....	13,000
Koryaks (Koryak Nat. Okrug) .....	8,000
Lamuts (Okhotsk Sea coast) .....	6,800
Golds (Amur) .....	5,500
Kamchadals (Kamchatka) .....	4,500
Gilyaks (Amur) .....	4,400
Uds (east of Khabarovsk) .....	1,500
Aleuts (islands off Kamchatka) .....	350
Manegres (Amur) .....	59
Yukaghirs (Kolyma region) .....	45
Ainus (Sakhalin) .....	31
Total: .....	814,185



In all, there are somewhat less than a million natives living in Eastern Siberia.

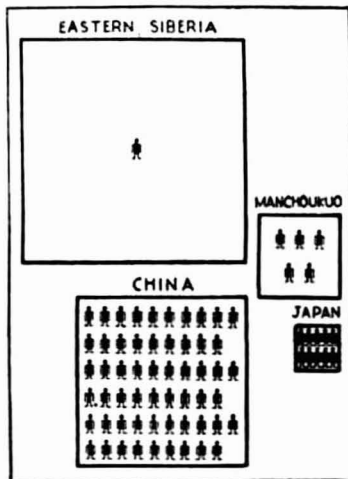
Immigrants from the rest of East Asia are headed by Koreans, whose number is stated to be 190,000. They are followed by Chinese, with about 50,000. The number of Japanese is negligible.

Thus in 1939 the Asiatic population of Eastern Siberia amounted to some 1.2 million people. The remaining 6½ millions were immigrants from European Russia.

#### MIGRATION

The history of Siberia during the last four hundred years is the history of its more or less voluntary settlement by people from European Russia, at first by Russians and Ukrainians, later also by Poles and Jews and, during Soviet times, by all other peoples living under the Red flag. Millions came as exiles. But, by means of numerous ukases, the Russian governments have also tried to encourage voluntary migration to Siberia.

What was the result? When we bear in mind that Eastern Siberia, with its almost 10 million square kilometers, is considerably larger than Australia with its barely 8 million square kilometers and 7 million inhabitants, we must arrive at the conclusion that the reproach raised against Great Britain of having insufficiently populated her colonial areas also applies to the Russian policy of settling Eastern Siberia.



Relative area and density of population in East Asia. Each figure represents 7½ million inhabitants

However, this reproach holds good chiefly for the government of the Tsars. The Bolsheviki were early to recognize the necessity of filling the rich treasure house of Eastern Siberia with people, especially as the presence there of troops of four great powers after the Revolution had shown them that they were not the only ones to be interested in Eastern Siberia. Above all they wished to populate the Khabarovsk and Primorsk Krai because of their strategical importance and devoted special attention to this task during the thirties.

#### HOW MANY PEOPLE TODAY?

The population of the Soviet Far East was doubled from 1926 to 1939, i.e., in thirteen years the increase in population was about as much as the total population had amounted to after almost three hundred years of Tsarist regime.

Table III

#### Increase in the Population of the Soviet Far East

(Khabarovsk and Primorsk Krai)			
1926	..	..	1,244,433
1928	..	..	1,354,200
1929	..	..	1,443,500
1930	..	..	1,478,900
1939	..	..	2,338,095

Since the census of 1939 almost five years have passed about which no statistics have become available. In the pre-war years of 1939 and 1940, immigration proceeded at probably the same rate as during the thirties. With the outbreak of war, however, abnormal conditions set in. It is to be assumed that, when the Soviets evacuated large areas of European Russia after July 22, 1941, parts of the pitiable crowds of evacuees reached the easternmost regions of the USSR. But in view of the tremendous demands made on the entire Soviet system of transportation and the necessity of carrying out a considerable part of the evacuations on foot, it seems a foregone conclusion that the major part of the evacuees got stuck before reaching Eastern Siberia, if they did not, indeed, perish on the way. At the same time a part of the male population of Eastern Siberia has been sent to the front against Germany.

As it is important for the evaluation of the present situation of the Soviet Union to have an idea of the total number of people in Eastern Siberia, we have attempted to calculate it approximately, by taking into consideration all available material on evacuation, immigration, mobilization, new construction, etc. We have come to the conclusion that today it must amount to about  $8\frac{1}{2}$  million people. From this figure we must deduct about one million natives whose use to the Government for labor and military purposes is limited. In the case of the remaining  $7\frac{1}{2}$  millions there is another problem that must be considered.

#### THE UKRAINIAN ISSUE

A large percentage of the Slavic population of Eastern Siberia, especially of the Far East, consists not of Great Russians but of Ukrainians. This is explained by the history of its settlement. After the peasant revolts in the overpopulated agricultural areas of European Russia of 1891/92, which were caused by famines and cholera, the Government decided to urge and promote migration to Siberia. Since in those days there was no Trans-Siberian Railway yet, part of the migration took place by ship from Odessa to Vladivostok. Odessa is in the Ukraine, and it was a natural consequence that the number of Ukrainians thus moved to the Russian Far East was comparatively high. Even after the building of the railway, the proportion of Ukrainians remained large.

It is a well-known fact, however, that statistics of nationalities are among the most disputed problems, since it is impossible to find an objective standard for them. According to Ukrainian sources, the Slavic population of Eastern Siberia consists of one third Ukrainians and two thirds Great Russians; and of the roughly  $2\frac{1}{2}$  million Ukrainians, about half are said to be living in the Soviet Far East, especially in Primorsk Krai; Great Russian authors, on the other hand, assume much lower figures of only a few hundred thousand Ukrainians. We mention this problem because, as has also been shown

by the course of the war so far, the attitude of the Ukrainian parts of the population toward the Bolshevist regime has been more negative than that of the Great Russians. Consequently, the Soviets can rely on the Ukrainians of Eastern Siberia to a lesser extent than on the Great Russians.

#### TOWNS AND MODES OF TRAVEL

There is no necessity for a detailed discussion of Siberia's geography here, since that has not changed and can therefore be looked up even in old geographical works or encyclopedias. But, as works about Siberia published only a few years ago are, in view of the rapid development of this country, already largely obsolete, we have assembled all available recent information on the towns of Eastern Siberia in Appendix I of this issue. A study of this Appendix will aid our readers in the understanding of the discussion of Eastern Siberian problems. At the same time we call the attention of our readers to our map (p. 77), drawn according to most recent advices, since some of the information contained in it—for example, about roads and air lines—is not mentioned specifically in the text.

When Siberia became Bolshevist, Eastern Siberia's network of communications was hardly developed at all. Its backbone was the Trans-Siberian Railway, whose easternmost part was paralleled by the Chinese Eastern Railway running through Russian-controlled northern Manchuria. Besides these there were a few short branch railways, a few roads, and a certain amount of shipping on the main rivers. From one Five Year Plan to the next, the Soviets have been moving the center of gravity of their economic development further and further to the east and have sacrificed billions of rubles and hundreds of thousands of concentration-camp inmates for the opening up of Eastern Siberia. As a result, economic life is no longer limited to a narrow strip along the Trans-Siberian Railway. Eastern Siberia is now covered by a network of railways, motor roads, shipping, and air lines which, although still wide-meshed, is becoming denser every year.

Apart from some widely scattered short railways as, for example, the one that carries the oil from Okha to the coast of Sakhalin, and in addition to several branch lines connecting the Amur with the Trans-Siberian Railway, the Soviets have developed two vast railway projects, the BAM and the Northeast Asia Railway.

#### WHY BUILD THE BAM?

With the outbreak of the Manchurian incident in 1931 and the eventual loss of the Chinese Eastern Railway, the Soviet Union had only one remaining railway in Eastern Siberia, the Amur Railway, running from Karymsk (near Chita) to Vladivostok by a large detour to the north and in dangerous proximity to the border formed by the Amur and Ussuri Rivers. When the Trans-Siberian Railway was being constructed, northern Manchuria seemed firmly in Russian hands. Hence the railway was built along the shortest route from Krasnoyarsk to Vladivostok, i.e., around the south end of Lake Baikal and on via Manchouli and Harbin (1891-1903). The Amur Railway was not constructed until 1907 to 1917 and was not built so much for through traffic to Vladivostok as for local requirements of the Russian Amur territory. Since the loss of northern Manchuria by the USSR, however, the direct route to the lower Amur no longer runs south but north of Lake Baikal. Moreover, it became desirable for the Soviets to possess a railway less close to the border. Out of all these considerations were born the plans for the Baikal/Amur Magistrale (BAM), which were announced by Molotov in February 1934 in the following words:

Among all new railway constructions, the grandioseness of the BAM, with its length of 1,400 kilometers, stands out. It will serve to include into economic life a vast territory which has hitherto been inaccessible to human beings.

The projected route of the BAM is shown on our map. But the Soviet Union's policy of secrecy has succeeded in hiding from the world the progress made in the construction of this railway. It can be stated with some certainty that the westernmost part, Taishet/Ust Kut, and half of the easternmost part, Kom-

somolsk/Soviet Harbor, have been completed. There are no reports, however, about the large intermediate section. Of the four railways planned to connect the BAM with the Trans-Siberian Railway, the westernmost, Cheremkhovo/Ilimsk, and the easternmost, Volochayevka (near Khabarovsk)/Komsomolsk/Onda, have also been completed, while no reports on the lines Tygda/Zeya/Dambuki and Katon/Ust Niman are available. In view of the fact that the Tsarist regime built the Chinese Eastern Railway in three years and the comparatively difficult Amur Railway in ten, there is no reason why the Soviet regime, working as it does with greater efficiency and especially with greater ruthlessness, should not have been able to complete the BAM in the nine and a half years that have elapsed since Molotov made his speech. The difficulties of terrain to be overcome in the construction of the BAM are no greater than those which the Tsarist engineers had to surmount along the Amur.

#### AMERASIAN PROJECT

The second huge project in the sphere of railway construction is the Northeast Asia Railway, which is to be linked up with the Alaska Railway planned by the USA. American capitalists already had ideas of an America-Asia railway through Alaska and Siberia in the last century. These plans foundered, not only on the resistance of the Tsarist Government, but also on the lack of a need for such a railway. Today the situation has changed. The Soviet Government is actively developing northeastern Asia and may possibly have the desire to create a railway connection with allied America which, moreover, Moscow hopes, is moving toward Bolshevism.

Early in 1940, Professor V. N. Obratsov, a member of the Supreme Soviet of the USSR, declared that the completion of a railway connecting the Trans-Siberian Railway with the Bering Strait could be counted on by 1950. This sounds rather optimistic, and it is not known here whether the preliminary work for the



construction of this railway has been begun yet. The planned route is marked on our map. The topographical difficulties inherent in the construction of such a railway should be less than those of the BAM. The valleys of the Lena and the Kolyma favor the construction of a railway, and it is only between these two river systems that a mountain range has to be crossed. It is well known that the construction of the Murmansk Railway, which is 1,450 kilometers long and part of which runs north of the Arctic Circle, did not offer great technical difficulties and could be completed within less than two years during the Great War.

#### ROADS AND RIVERS

The most important roads of Eastern Siberia are the motor roads Bolshoi Never/Yakutsk, which connects the valleys of the Amur and the Lena; Okhotsk/Yakutsk, which forms the shortest connection between the Sea of Okhotsk and the Lena River, which flows into the Arctic Ocean; and Magadan/Ambarchik (at the mouth of the Kolyma). A Soviet report that has become known recently speaks of a steady stream of hundreds of three- and five-ton trucks and passenger busses on this latter road and states that the approximately 750 kilometers between Magadan and Seimichan are covered in fifteen hours.

The early Russian conquerors of Siberia were quick to recognize the possibilities offered them by the huge river systems in this country of dense forests and swamps. By making use of those tributaries of the three giant rivers Ob, Yenisei, and Lena which flow parallel to the equator, they were able to go by boat from the Urals to the Pacific, a process in which they only had to carry their boats for a few kilometers when crossing from one river system to the next. This river network of Siberia, seemingly so ideal when looked at on a map, nevertheless suffers from three great drawbacks.

First of all, Eastern Siberia is the coldest part of the world, so that the

ivers are frozen over for a large part of the year, as can be seen from Table IV. Although large propeller-driven sleighs have been built for winter traffic on the rivers, they cannot replace the paralyzed shipping. The rivers flowing into the Pacific or its parts benefit from the milder climate of this ocean and are frozen over for a shorter period.

Table IV

#### Freezing Over of the Siberian Rivers

	From	To
Yenisei		
at Krasnoyarsk	End of Oct.	End of April
at Dudinka	Beg. of Oct.	Middle of June
Lena at its mouth	Middle of Sept.	Beg. of July
Kolyma		
at Ambarchik	Middle of Sept.	Middle of July
Anadyr	Beg. of Nov.	Beg. of June
Kamchatka	Middle of Nov.	Beg. of May
Amur	Middle of Nov.	Beg. of May

There are no figures whatever available on the number of river boats in Eastern Siberia. However, the long periods during which these rivers are frozen are enough to indicate that their role in the economic and military fields should not be overestimated.

Secondly, the Siberian rivers are comparatively shallow. The mighty Yenisei, for example, can be entered only by freighters up to 3,500 gross registered tons. As normal river ships waste too much time getting off sand banks, the Soviets have now taken to using *glissers*, flat-bottomed boats driven by air propellers.

The third difficulty in Siberia's river shipping is to be found in the fact that almost all the great rivers of Siberia flow into the Arctic Ocean, which in turn is also navigable only during a few short months in summer. Within these limits imposed by nature, the Soviets are trying to derive the greatest possible benefits from the Siberian system of rivers.

#### OCEAN AND AIR

The handicap of freezing also imposes restrictions on maritime transportation. Although the Bering Sea and the Sea of Okhotsk do not freeze quite as long as

the Arctic Ocean, they, too, have only limited periods of navigation. During winter a further handicap is added by the polar night. (Nevertheless, the Soviets seem to have succeeded in maintaining year-round shipping connections between Vladivostok and Petropavlovsk and between Vladivostok and Magadan.) For that reason the short period of navigation in midsummer with its midnight sun is made use of all the more intensively; and the scientific geographical and meteorological exploration of the Arctic, which has been vigorously carried on since the early thirties, has turned navigation of the Arctic Ocean from the extraordinary adventure it still represented fifteen years ago into an almost commonplace activity.

German sources have estimated that at present some 260,000 tons of goods can be shipped every year to Siberia from the USA via the Arctic Ocean, where the presence of the first German submarines was reported a few weeks ago.

Air lines, as far as they are known to us, are shown on our map. No figures on the quantity of freight and number of passengers carried by them have been published.

#### PARADOX EXPLAINED

The paradox between the miserable standard of living of the population and the vast industrial development brought about by the three Five Year Plans (1928-1942), a paradox which struck everyone who lived in the Soviet Union, is to be explained more than anything else by the fact that the emphasis of economic development is placed almost exclusively on heavy industry. Thus the growth of production did not benefit the individual Soviet citizen in the form of consumption goods or foodstuffs but only the heavy-industrial basis of the country and subsequently its war industry.

This also applies to Eastern Siberia, only that there the paradox is even more striking. For, in contrast to the rest of Russia, there had hardly been any industry at all in Eastern Siberia before

the first Five Year Plan, and only a very modest economic life with minor industries had developed in a narrow strip on both sides of the Trans-Siberian Railway. It is significant that 10 per cent of the total expenditure of the third Five Year Plan of the USSR went to the industrialization of the Soviet Far East, i.e., of Khabarovsk and Primorsk Krai alone, although not even 1½ per cent of the USSR's population live there. To Russians who knew only pre-Bolshevist Siberia it sounds almost like a fairy tale when they are told that automobiles, tractors, turbines, motors, submarines, locomotives, and machines of all kinds, are being manufactured today in Eastern Siberia.

The basis of this economic development (details of which will be found in Appendix III) is the vast wealth of Eastern Siberia in important minerals of all kinds, especially in iron and other metals. The power needed for their smelting is supplied chiefly by the rich coal deposits distributed throughout Eastern Siberia. In future, Eastern Siberia's water power is to be added to its coal as a producer of electricity.

Eastern Siberia's vulnerable spot is its comparative lack of oil. Although northern Sakhalin contains oil deposits, which have been exploited for decades, and a large oil industry, they have the disadvantage of being located on a distant, exposed island. Hence the Soviets are making every effort to discover oil on the mainland. The best deposits found so far are on Khatanga Bay and at Cape Nordvik (both on the Arctic coast) and suffer from poor communications. Others have been found along the tributaries of the Lena between Olekminsk and Yakutsk, at Palana (on the west coast of Kamchatka), and at Bogadiryovka (on the west coast). Oil is also produced from a kind of coal called *bogkhed* by the Russians and found in large quantities in the neighborhood of Irkutsk. Yet there still remains a considerable deficit. Besides Sakhalin, refineries are located at Irkutsk, Khabarovsk, and Vladivostok.

All of Eastern Siberia, with the exception of its northern part, is covered with forests. As a result of the marshy floor of most of the forests and because of the lack of proper care, the timber cannot be compared to that of countries with highly developed forestry such as Germany. But in quantity it represents one of the main riches of Siberia and is among the most important export products. Most of the timber consists of pine, larch, spruce, silver fir, and cedar. Irkutsk Oblast is the leading timber area of the USSR. 75 per cent of the Buryat-Mongol ASSR and 80 per cent of the Yakut ASSR are covered with forest. There are lumber mills to be found all over Eastern Siberia.

#### NONFERROUS METALS AND GOLD

Eastern Siberia is especially rich in nonferrous metals, which play an important role in the manufacture of armaments. As such metals as zinc and lead are usually found near silver and gold deposits, many of which have been known for centuries, it was comparatively easy to discover them. Yet new deposits are constantly being sought for. As recently as August 20, 1943, Tass reported from Moscow that in 1943 the People's Commissariat for Nonferrous Metals had sent out a hundred geological expeditions to Asiatic Russia, in particular to Krasnoyarsk Krai, Yakutia, and the Kolyma River.

Gold mining has developed into a large-scale industry during the last few decades. While new deposits are constantly being opened up, improved machinery and methods are being introduced at the old ones. Among the gold-producing areas of the Soviet Union, the Yakut ASSR takes first place, Chita Oblast second, and Krasnoyarsk Krai third.

#### MACHINERY AND CHEMICALS

Russia's industrialization started later than that of other European powers. And when it got under way in the second half of the nineteenth century it consisted essentially of a few heavy in-

dustries, such as coal and iron, and a rapidly growing light industry, which had to rely for its raw materials (e.g., cotton) and for its machines almost exclusively on imports from abroad. As late as during the thirties, I found on visiting Soviet industrial plants—including some that had just been completed—that, with few exceptions, they were equipped only with foreign machines, mostly of German origin.

All this has been changed. The Soviets have built up a giant machine industry which enables them today to conduct a technical war with quantities of war machines which even a few years ago would have been inconceivable. After the USA and Germany, the USSR now holds third place as regards the quantity although not the quality of its machine industry. As a result of the Soviet Government's tendency to move the center of gravity of Soviet economics eastward, Eastern Siberia has come in for a very large part of the newly created machine industry. Today, Eastern Siberia is already in a position to satisfy its most important economic and military requirements with machinery manufactured there.

The same holds good for the Russian chemical industry. It, too, was in its infancy before the Revolution; also dependent on supplies from abroad, 60 per cent was located in St. Petersburg and 16 per cent in Moscow. East of the Urals there was no chemical industry whatever. Even under the Bolsheviks, the chemical industry was slow in starting. But the third Five Year Plan (1938/42) was largely devoted to the development of this industry, and here again a considerable part of the newly built plants were erected in Eastern Siberia. The vitamin works in Yagodnoye on the Kolyma, so far the only ones in Eastern Siberia, represent one of the most modern branches of chemical industry. Their product, an extract made from the needles of the dwarf cedar, is a prophylactic and cure for scurvy, so prevalent in arctic regions with their lack of vitamins.

## MAN COMES LAST

During all the years in which they have been in power, the Bolsheviks have always reckoned first with coal, iron, tractors, and tanks and only secondarily with human beings. But even the Soviet Government could, of course, in the long run, not afford to let its population perish for want of goods of daily use; and so it was forced to provide for a minimum of existence. In order to relieve its groaning system of communications, the Soviet Government decided to decentralize light industry and agriculture, so as to produce consumer goods at the place where they were needed.

Up to the end of the twenties, Eastern Siberia was dependent on imports from other parts of Russia as regards consumer goods. There was practically no Eastern Siberian light industry, and agriculture in Russia was concentrated in the fertile "black earth" regions of southern European Russia, in comparison to which the rest of Russia offered far more difficult working conditions. This latter fact applied more than anywhere else to Eastern Siberia. Its terrain is largely mountainous, and its climate harsh. There are few places here which do not have at least 180 days in the year with an average temperature below freezing point. The ground is frozen, the rainfall scanty, and for the most part it is impossible to grow winter grain.

To make Eastern Siberia as independent as possible in goods of daily use, the development of light industries had to be forced. Moreover, the demand for their products had grown as a result of the urbanization of its inhabitants. Large numbers of people from rural districts, where they provide themselves with everything including food, clothes, and shoes, can only be transplanted into towns as industrial workers if they are supplied with industrially produced consumer goods. The artisan class, which had formerly produced a large part of the urban requirements, had also practically disappeared. Thus it would be wrong to assume an improvement in the population's standard of living from the

increase in the production of consumer goods. All that has taken place is a shifting, and the increased production is offset by a sharply increased demand and the absence of an influx of goods from other parts of the country. Hence the announcement of the Soviet President of Khabarovsk Krai on February 2, 1943, that the Soviet Far East had been able in 1942 to cover all its requirements in consumer goods should be accepted with great reserve.

## BREAD AND MACHINES

The transforming of the peasant population into a rural proletariat and its combining in large-scale agricultural enterprises, the *kolkhozes* and *sovkhozes*, have facilitated the opening up of new agricultural areas. Production was increased by the raising of cold-resistant varieties of grain and by the introduction of crops formerly unknown there, such as the sugar beet. The Soviets sought to overcome the shortage in man power by the extensive use of machines. It is also easier to replace men mobilized for military purposes by women in large enterprises than on small farms.

On the other hand, this development placed agriculture in a dangerous dependence on machines and fuel. Since the outbreak of war, with factories building tanks instead of tractors and with every drop of oil going to the army, this has led to grave reversals and to the return to primitive methods of agriculture. Nevertheless, the cultivated area and the total production had increased considerably up to the outbreak of the war, as can be seen in detail in our Appendix II. Since then, however, as indicated by the numerous complaints by the Eastern Siberian radio stations addressed to the rural population, a retrogressive development has set in as a result of the war.

The figures in Appendix II show among other things that the area of grain cultivation has increased three times. If we assume the grain harvest to have grown proportionately, it would have amounted to 1,280,000 tons of grain in

1941. However, in view of the fact that the output per hectare may have been increased through more intensified cultivation, we shall give the Soviets the benefit of the doubt and assume an output of  $1\frac{1}{2}$  million tons of grain per year.

How does this production of grain compare with the demand for it? To sow the acreage available in 1941, 550,000 tons of grain seed are necessary (1.2 tons of grain seed for 10 hectares is the average quantity used). This leaves roughly 1 million tons for human consumption. Bread being the main food of the Russian people, half a kilogram of bread per person per day has to be considered a barely satisfactory minimum. To bake 180 kilograms of bread, 150 kilograms of grain are required for one person per year, and 1.275 million tons for  $8\frac{1}{2}$  million people. This would leave a shortage of about a quarter of a million tons, making Eastern Siberia almost self-sufficient in its most important food item.

As regards domestic animals, the picture is far less favorable. During the years of forced collectivization (1928/30) many peasants killed off large numbers of horses, cattle, and other animals rather than give them to the collective farms. Even after all these years, the losses have not yet been recovered except in the case of goats and sheep. The number of horses is only two thirds of what it used to be before the Revolution, which is particularly bad at a time when many are required not only by the Army but also by the farms owing to the lack of tractors and gasoline brought about by the war.

Even today, agriculture is still limited essentially to the territories opened up by the Trans-Siberian Railway and its branch lines. In the other parts of the country it is still in its infancy. Model farms such as "Polyarny" on an island in the Yenisei near Igarka are more for show and have not yet achieved any

great practical importance, although they help to provide the scanty population of the polar regions with fresh food.

As regards fishing, Eastern Siberia produces more than it needs itself. It has numerous canning factories. From the rich fishing grounds of the Eastern Siberian rivers and the Sea of Okhotsk, part of the catch is sent to other regions of the USSR as well as to foreign countries. Game hunting also contributes toward feeding the population.

\* \* \*

Our survey of Eastern Siberia has shown us an amazing picture: a country as large as all of Europe up to the Urals, with immense resources and future possibilities, and at the same time with a population no larger than that of Greater London. We have described the rapid economic development of Eastern Siberia during the last fifteen years; yet it is nothing but a bare beginning when compared with the tremendous wealth of the country. The reason for this is its sparse population. Under the influence of the present war, the economic progress of Eastern Siberia is being greatly intensified, while the human shortage has simultaneously grown more acute as a result of the drawing off of part of the male population in its prime.

Human beings have never counted for much in the Soviet Union. But, under war conditions, even less regard is paid them. The divergence between industrial expansion in Eastern Siberia and the living conditions of its inhabitants, a divergence that has always existed, has grown to incredible proportions during the last two years. Consequently, we can expect as a result of this war a considerably increased opening up of Eastern Siberia and a corresponding deterioration in the standard of living of its population.