

PROVISIONAL INTELLIGENCE REPORT

SOVIET BLOC EXPORTS OF PETROLEUM TO THE WEST 1950 - 54



CIA/RR PR-119

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PROVISIONAL INTELLIGENCE REPORT

SOVIET BLOC EXPORTS OF PETROLEUM TO THE WEST
1950-54

CIA/RR PR-119

(ORR Project 25.653)

NOTICE

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FOREWORD

This report presents a complete 5-year pattern of Soviet Bloc petroleum exports to the West during the 5-year period from 1950 through 1954. The report covers the origin, quantity, and types of exports; assesses the significance of these exports; gives an estimate of the dollar value of exports; and evaluates the potential of the Bloc to export petroleum in 1955. It therefore serves as a supplement to CIA/RR PR-107, Soviet Bloc Trade in Petroleum and Petroleum Products: Intra-Bloc and East-West, 1947-53, 6 April 1955, S/NOFORN.

In accordance with the primary responsibility of ORR for economic intelligence on the Soviet Bloc, this report is concerned only with the quantities of petroleum which left the Bloc during the period covered. Such data are necessary in estimating the Bloc's petroleum supply-demand balances.

The report has been coordinated within CIA but not with all of the IAC agencies.

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SOVIET BLOC EXPORTS OF PETROLEUM TO THE WEST*
1950-54

Summary

Soviet Bloc** exports of petroleum to the West in the postwar period have been steadily increasing. These exports became particularly significant in 1954, when almost 6 million metric tons,*** valued at approximately US \$130 million, were exported. The 1954 exports were more than double those of 1953 and were eight times larger than those of 1950. Almost half of the 1954 total originated in the USSR. For the first time since 1932, Soviet exports substantially exceeded those of Rumania.****

The magnitude of the 1954 Soviet Bloc petroleum exports to the West indicates that petroleum has become a major Bloc export item and an important means of fulfilling the Bloc trade program. In 1954, exports of petroleum represented about 10 percent of the total dollar value of Bloc trade with the West. Petroleum will continue to be an important segment of total Bloc exports in the foreseeable future because of expected further decreases in exports of commodities such as agricultural products, a traditional major export item, and the growing potential of the Bloc to export petroleum.

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 June 1955.

** In this report the term Soviet Bloc includes the USSR, Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and the Soviet Zone of Austria. During the period covered by the report the production and refining of petroleum in Austria was concentrated in the Soviet Zone and was controlled by a Soviet organization, the Soviet Mineral Oil Administration (Sowjetische Mineraloel Verwaltung -- SMV). Austrian production, therefore, is considered to be part of the total Bloc supply. Requirements for petroleum and petroleum products in Austria were submitted to the SMV by the central government, and the SMV made allocations to the Austrian economy. These allocations are considered as exports to the West.

*** Throughout this report, tonnages are given in metric tons.
**** All export figures in this report refer to the country of origin of shipment. The fact that one Soviet Bloc country may export petroleum to the West on the account of another has not been taken into consideration.

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On the basis of anticipated production of crude oil in 1955 and probable increased allocations to the domestic demand sectors, the 1955 export potential of the Soviet Bloc is estimated at 7.5 million tons. If allocations to domestic demand sectors were restricted, exports could reach almost 13 million tons.

During the 1950-54 period the Soviet Bloc exported crude oil and all major types of petroleum products. The principal product exported has been residual fuel oil, followed by gas oil,* gasoline (only minor quantities of which have been aviation gasoline), crude oil, kerosine, and lubricants in that order. These shipments have gone to 22 Western countries. Except for Austria, Finland has been the largest market for Bloc petroleum.

Although Soviet Bloc exports of petroleum have considerable economic influence in the few Western markets that have become almost wholly dependent on Bloc supplies, they amounted to less than 3 percent of the total 1954 world trade in petroleum. Even if Bloc petroleum exports reach their estimated maximum in 1955, they will account for less than 5 percent of the estimated total world trade in petroleum.

The petroleum export potential of the Soviet Bloc is limited by production capacity and, to some extent, by consumer demand. The volume actually exported is limited by the East-West trade policies of the Bloc, by Western demand, and by the availability of tankers to carry Bloc oil to Western destinations -- almost all of the Bloc petroleum shipped through the Bosphorus is moved in the tankers of Western countries.

Although the primary motive behind the sharply increased Soviet Bloc exports of petroleum to the West appears to be economic, the relative ease with which these exports could be channeled to meet increased military demands is significant. The present magnitude of petroleum exports suggests that such channeling would provide a cushion against the deep cuts in allocations to the civil demand sectors which would otherwise be necessitated in time of war.

* The term gas oil is used in the USSR to designate various grades of diesel fuel oil.

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I. Introduction.

The USSR and Rumania began exporting crude oil and petroleum products to the West more than 30 years ago. It was not until the 1930's, however, that these exports became particularly significant.

During the initial stages of the industrialization of the USSR, petroleum exports to the West served as one means of acquiring needed imports of machinery. Soviet petroleum exports reached their highest point in 1932, when 6 million tons were exported. Shortly thereafter, however, the petroleum industry of the USSR found it difficult to keep pace with growing domestic demands and to maintain simultaneously the 1932 export level. Petroleum exports to the West declined steadily thereafter, and during World War II the USSR became a net importer of petroleum. 1/*

Rumanian exports of petroleum to the West began to exceed those of the USSR in 1933, in 1936 reaching a peak of 6.7 million tons. Rumanian exports also declined in the late 1930's and were stopped entirely by World War II. 2

Early in the postwar period the Soviet Bloc resumed exporting petroleum to the West. By 1951, Bloc petroleum exports had become more than 1 million tons annually. Petroleum exports since 1951 have risen sharply. This sharp increase and its significance are the major concern of this report.

II. Exports and Export Trends.

A. Exports in 1954.

Exports of petroleum from the Soviet Bloc to the West reached their highest postwar peak in 1954, when approximately 6 million tons were exported. One of the most important aspects of the 1954 exports is that for the first time since 1932, exports originating in the USSR significantly exceeded those from Rumania. Soviet petroleum exports, more than 2.6 million tons, were one-third higher than those of Rumania and constituted about 44 percent of the total Bloc exports.

* For serially numbered source references, see Appendix C.

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Rumanian exports were 33 percent of the total, and exports from the Soviet Zone of Austria to the Austrian economy constituted about 19 percent. East German and Polish exports accounted for the remainder.

Soviet Bloc petroleum is exported to the West by tanker, barge, and rail. Approximately three-fourths of the total 1954 Bloc petroleum exports were shipped from Black Sea ports by tanker through the Bosphorus. The major portion of the 1954 increase was accounted for by this type of tanker shipment from the USSR. Almost all of the Bloc petroleum going through the Bosphorus moves in Western tankers. Only occasionally in 1954 did Soviet tankers carry Western shipments, and these were on the particularly long hauls to Argentina or Iceland.

Gas oil and fuel oil comprised about 70 percent of the petroleum exports, and gasoline, crude oil, kerosine, and lubricants followed in that order. Although some of the gasoline was designated as "aviation gasoline," this was only a small percentage of the total gasoline exports. There were only 2 shipments of aviation gasoline reported -- one of about 7,000 tons to Argentina and one of 11,000 tons to France. The shipment to Argentina was evidently of higher quality, grade 100/130, but the shipment to France was of much lower quality, 79 octane. Although the petroleum shipped by the Soviet Bloc to the West in 1954 varied in quality, it was, on the whole, acceptable to Western consumers. Bloc exports of petroleum to the West in 1954, by country of origin and by type of product, are shown in Table 1.*

The 1954 petroleum trade agreements between the Soviet Bloc and the West were in the form of bilateral barter agreements. It is difficult, therefore, to place an exact value on Bloc petroleum exports. Considered on a f.o.b. basis, the price of Bloc petroleum has probably been more or less competitive with that of Western petroleum in world trade. World prices, therefore, have been used to place a dollar value on Bloc exports. The value of Bloc exports of petroleum to the West in 1954, by country of origin and by type of product, is shown in Table 2.**

* Table 1 follows on p. 5.

** Table 2 follows on p. 6.

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Table 1

Soviet Bloc Exports of Petroleum to the West
by Country of Origin and by Type of Product a/
1954

Type of Product	Thousand Metric Tons				
	USSR b/	Rumania c/	Soviet Zone of Austria d/	Other Bloc Countries	Total e/
Crude oil	418	0	0	0	418
Gasoline	197	395	158	113	863
Kerosine	169	180	26	0	376
Gas oil	744	241	190	161	1,336
Residual fuel oil	1,094	1,133	680	0	2,907
Lubricants	25	0	55	0	80
Total e/	<u>2,647</u>	<u>1,951</u>	<u>1,109</u>	<u>274</u>	<u>5,980</u>

a. For methodology, see Appendix A.

b. Except for 64,000 tons (see Appendix A), the figures are aggregates of data contained in source 3/.

c. Except for 35,000 tons (see Appendix A), the figures are aggregates of reported shipping data. (See source reference in footnote b, above.)

d. 4/

e. Totals are derived from unrounded figures and do not always agree with the sum of rounded components.

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Table 2

Value of Soviet Bloc Exports of Petroleum to the West
by Country of Origin and by Type of Product a/
1954

Type of Product	Million US \$					Total b/
	USSR	Rumania	Soviet Zone of Austria	Bloc Countries	Other	
Crude oil	7.5	0.0	0.0	0.0	0.0	7.5
Gasoline	7.1	14.3	5.7	4.1	4.1	31.1
Kerosine	5.1	5.5	0.8	0.0	0.0	11.4
Gas oil	20.3	6.6	5.2	4.4	4.4	36.5
Residual fuel oil	14.9	15.5	9.3	0.0	0.0	39.7
Lubricants	0.9	0.0	1.9	0.0	0.0	2.8
Total b/	<u>55.8</u>	<u>41.8</u>	<u>22.9</u>	<u>8.5</u>	<u>8.5</u>	<u>129.0</u>

a. For methodology, see Appendix A.

b. Totals are derived from unrounded figures and do not always agree with the sum of rounded components shown.

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B. Export Trends, 1950-54.

The first significant postwar rise in the volume of Soviet Bloc exports occurred in 1951, when they were almost double those of the previous year. By 1954, exports were eight times greater than those in 1950. From 1950 through 1952 the interzonal transfers of petroleum from the Soviet-controlled organization (SMV) in the Soviet Zone of Austria to the Austrian economy accounted for over 50 percent of the total petroleum exports of the Bloc. In 1953, Austrian transfers became less significant in terms of the total -- Rumanian exports took the lead only to be exceeded by those of the USSR in the following year. Exports of petroleum from other Bloc countries have remained a small percentage of the total.

From 1950 to 1953, petroleum exports were a relatively small percentage of Soviet Bloc production of crude petroleum. They rose from 1.5 percent of production in 1950 to 4 percent in 1953. In 1954, however, exports increased to approximately 8 percent of Bloc production of crude oil.

Compared with the dollar value of total Soviet Bloc trade with the West during this period, petroleum exports, until recently, have been relatively unimportant. In 1953, petroleum exports reached 5 percent of the value of total trade, and in 1954 they doubled to total approximately 10 percent. ^{5/} As a single commodity category, petroleum has become a major Bloc export item.

Soviet Bloc exports of petroleum to the West from 1950-54, by country of origin, are shown in Table 3.* The value of Bloc exports of petroleum to the West from 1950 to 1954, by country of origin, is shown in Table 4.* Quantity indexes of Bloc exports of petroleum to the West from 1950 to 1954, by country of origin, are shown in Table 5.**

* Tables 3 and 4 follow on p. 8.

** Table 5 follows on p. 9.

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Table 3

Soviet Bloc Exports of Petroleum to the West
by Country of Origin a/
1950-54

<u>Country of Origin</u>	Thousand Metric Tons				
	<u>1950</u> <u>b/</u>	<u>1951</u> <u>b/</u>	<u>1952</u> <u>b/</u>	<u>1953</u> <u>b/</u>	<u>1954</u> <u>c/</u>
USSR	69	128	269	518	2,647
Rumania	81	386	614	1,229	1,951
Soviet Zone of Austria	509	823	927	1,032	1,109
Others	87	8	38	119	274
Total <u>d/</u>	<u>746</u>	<u>1,345</u>	<u>1,848</u>	<u>2,898</u>	<u>5,980</u>

a. For a graphical presentation of the data in the table, see Figure 1, following p. 8.

b. 6/

c. Data taken from Table 1, p. 5, above.

d. Totals are derived from unrounded figures and do not always agree with the sum of rounded components shown.

Table 4

Value of Soviet Bloc Exports of Petroleum to the West
by Country of Origin a/
1950-54

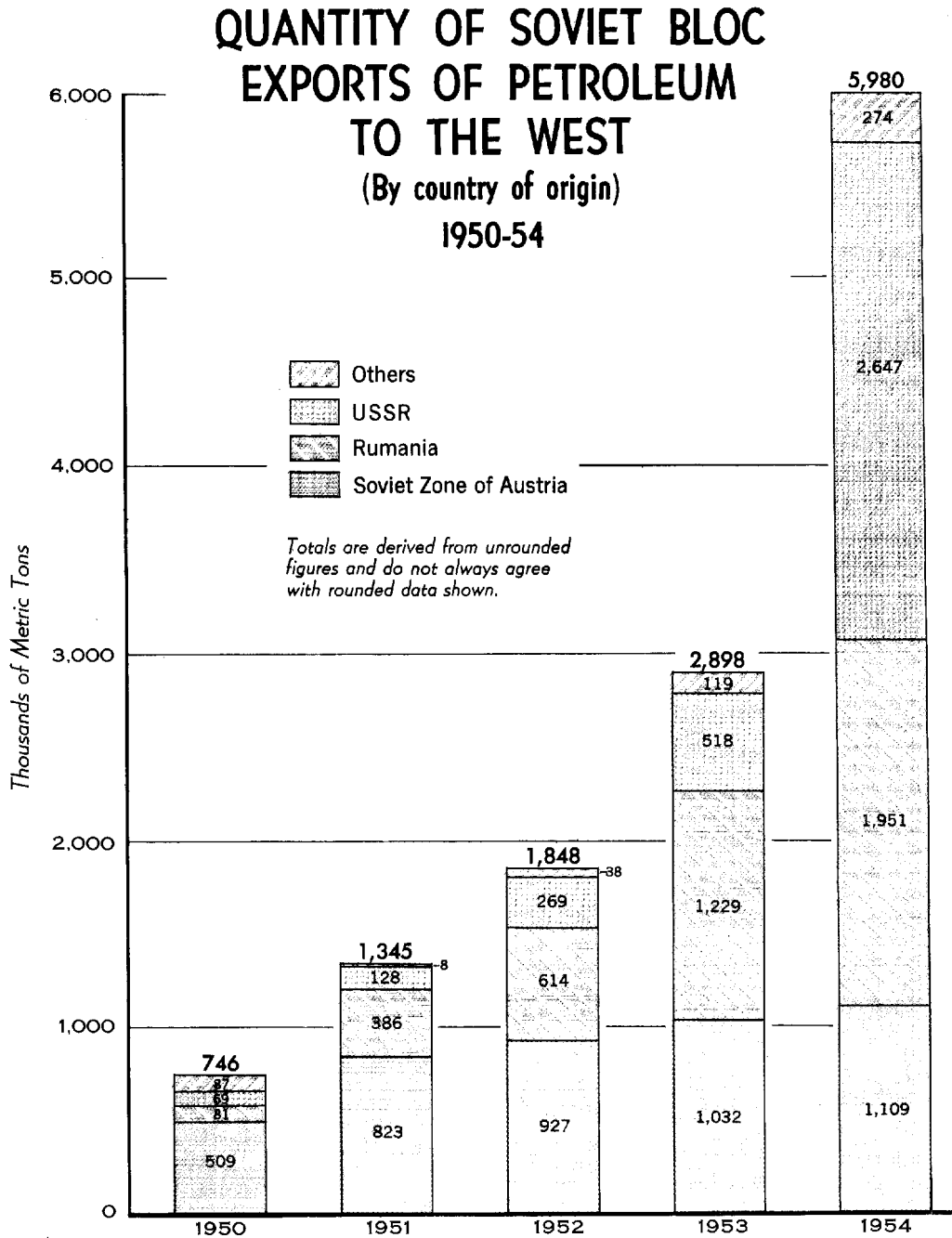
<u>Country of Origin</u>	Million US \$				
	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>
USSR	2.5	2.3	5.2	12.0	55.8
Rumania	2.6	7.5	13.1	22.4	41.8
Soviet Zone of Austria	11.4	18.5	19.5	22.1	22.9
Others	2.3	0.3	1.3	3.7	8.5
Total <u>b/</u>	<u>18.7</u>	<u>28.5</u>	<u>39.1</u>	<u>60.2</u>	<u>129.0</u>
Average per ton (US \$) <u>b/</u>	25.09	21.21	21.14	20.77	21.56

a. For methodology, see Appendix A.

b. Totals and averages are derived from unrounded figures and do not always agree with the sum of rounded components shown.

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Figure 1



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Table 5

Quantity Indexes of Soviet Bloc Exports of Petroleum to the West
by Country of Origin a/
1950-54

	1950 = 100				
Country of Origin	1950	1951	1952	1953	1954
USSR	100	186	390	751	3,836
Rumania	100	477	758	1,517	2,409
Soviet Zone of Austria	100	162	182	203	218
Others	100	9	44	137	315
Total Soviet Bloc	100	180	248	388	802

a. Data computed from Table 3.

During the 5-year period covered in this report the Soviet Bloc has exported all the major types of petroleum products to the West. Except for 1950, crude oil has also been exported, most of it originating in the USSR. Bloc exports of petroleum to the West from 1950 to 1954, by type of product, are shown in Table 6.* The percentage composition of the Bloc exports of petroleum to the West from 1950 to 1954, by type of product, is shown in Table 7.*

The USSR played a relatively minor part in Soviet Bloc post-war petroleum exports until 1954, when its exports rose to over 2.6 million tons compared with 69,000 tons in 1950. When analyzed by type of product, these exports show no consistency over the period. In 1950, gasoline was more than three-fourths of the total exports, but in 1951 fuel oil took the lead, comprising more than half of the exports. In 1952, crude oil replaced fuel oil as the leading product, accounting for over 68 percent of the total, and in 1953 gas oil became the single most important item, accounting for 41 percent of the exports. In 1954, fuel oil regained its place as the leading petroleum export item, making up 41 percent of the total. Petroleum exports from the USSR to the West from 1950 to 1954, by type of product, are shown in Table 8.**

* Tables 6 and 7 follow on p. 10.

** Table 8 follows on p. 11.

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Table 6

Soviet Bloc Exports of Petroleum to the West
by Type of Product a/
1950-54

<u>Type of Product</u>	<u>Thousand Metric Tons</u>				
	<u>1950 <u>b/</u></u>	<u>1951 <u>b/</u></u>	<u>1952 <u>b/</u></u>	<u>1953 <u>b/</u></u>	<u>1954 <u>c/</u></u>
Crude oil	0	29	184	152	418
Gasoline	225	279	406	449	863
Kerosine	41	54	49	100	376
Gas oil	217	195	245	639	1,336
Residual fuel oil	206	738	913	1,501	2,907
Lubricants	57	50	51	57	80
Total	<u>746</u>	<u>1,345</u>	<u>1,848</u>	<u>2,898</u>	<u>5,980</u>

a. For a graphical presentation of the data in this table, see Figure 2, following p. 10.

b. 7/

c. Data taken from Table 1, p. 5, above.

Table 7

Percentage Composition of Soviet Bloc Exports of Petroleum
to the West, by Type of Product a/
1950-54

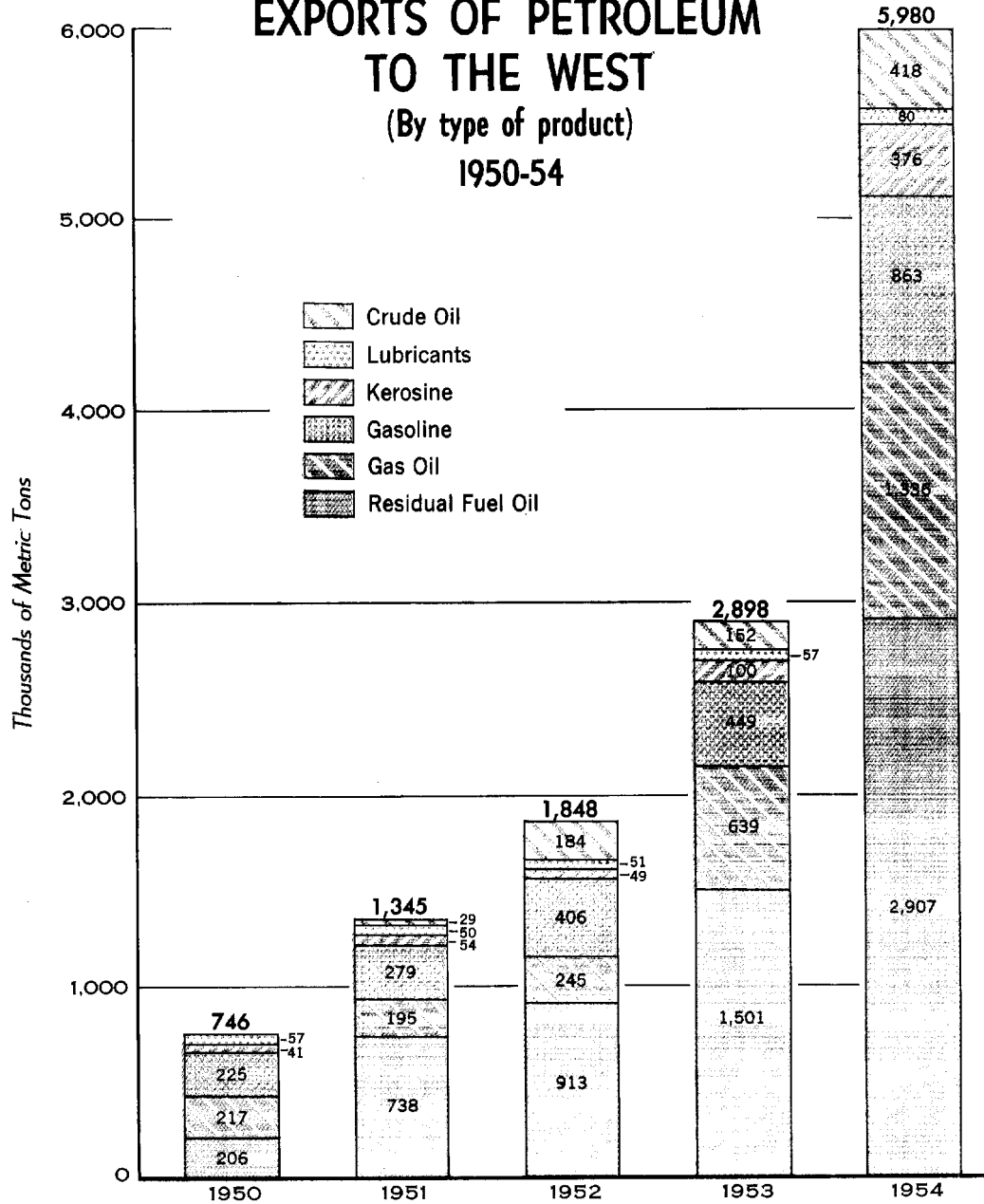
<u>Type of Product</u>	<u>Percent of Total</u>				
	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>
Crude oil	0	2	10	5	7
Gasoline	30	21	22	16	15
Kerosine	5	4	3	3	6
Gas oil	29	14	13	22	22
Residual fuel oil	28	55	49	52	49
Lubricants	8	4	3	2	1
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

a. Data taken from Table 6.

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Figure 2

QUANTITY OF SOVIET BLOC EXPORTS OF PETROLEUM TO THE WEST (By type of product) 1950-54



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Table 8

Petroleum Exports from the USSR to the West
by Type of Product
1950-54

Type of Product	Thousand Metric Tons				
	1950 ^{a/}	1951 ^{a/}	1952 ^{a/}	1953 ^{a/}	1954 ^{b/}
Crude oil	0	29	184	142	418
Gasoline	53	13	8	65	197
Kerosine	7	7	9	3	169
Gas oil	4	0	35	212	744
Residual fuel oil	0	74	31	92	1,094
Lubricants	5	5	2	3	25
Total	<u>69</u>	<u>128</u>	<u>269</u>	<u>518</u>	<u>2,647</u>

a. ^{8/}

b. Data taken from Table 1, p. 5, above.

In Rumania, however, the types of petroleum products exported have followed a pattern. Fuel oil became the most important petroleum export in 1951 and did not relinquish its primary position through 1954. Except for small shipments in 1951 and 1953, Rumania has exported neither lubricants nor crude oil. Petroleum exports from Rumania to the West from 1950 to 1954, by type of product, are shown in Table 9.*

Of all the major Soviet Bloc exporters, Austria, in its inter-zonal transfers, has maintained the most constant export pattern, with fuel oil the most important product, followed by gas oil, gasoline, lubricants, and kerosine in that order. From 1950 to 1954 there have been no exports of crude oil from the SMV organization in the Soviet Zone of Austria to the Austrian economy. Petroleum exports from the Soviet Zone of Austria to the Austrian economy from 1950 to 1954, by type of product, are shown in Table 10.*

* Tables 9 and 10 follow on p. 12.

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Table 9

Petroleum Exports from Rumania to the West
by Type of Product
1950-54

Type of Product	Thousand Metric Tons				
	1950 <u>a/</u>	1951 <u>a/</u>	1952 <u>a/</u>	1953 <u>a/</u>	1954 <u>b/</u>
Crude oil	0	0	0	10	0
Gasoline	42	95	207	151	395
Kerosine	7	8	4	73	180
Gas oil	32	6	23	143	241
Residual fuel oil	Negligible	274	380	851	1,133
Lubricants	Negligible	2	0	0	0
Total	<u>81</u>	<u>386</u>	<u>614</u>	<u>1,229</u>	<u>1,951</u>

a. 9/

b. Data taken from Table 1, p. 5, above.

Table 10

Petroleum Exports from the Soviet Zone of Austria
to the Austrian Economy, by Type of Product
1950-54

Type of Product	Thousand Metric Tons				
	1950 <u>a/</u>	1951 <u>a/</u>	1952 <u>a/</u>	1953 <u>a/</u>	1954 <u>b/</u>
Crude oil	0	0	0	0	0
Gasoline	91	164	168	188	158
Kerosine	27	40	37	24	26
Gas oil	147	187	172	209	190
Residual fuel oil	200	390	502	558	680
Lubricants	44	43	48	54	55
Total	<u>509</u>	<u>823</u>	<u>927</u>	<u>1,032</u>	<u>1,109</u>

a. 10/

b. Data taken from Table 1, p. 5, above.

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For the last 4 years, other Soviet Bloc countries have exported only gasoline and gas oil to the West. Petroleum exports from other Bloc countries to the West from 1950 to 1954, by type of product, are shown in Table 11.

Table 11

Petroleum Exports from Other Soviet Bloc Countries
to the West, by Type of Product
1950-54

<u>Type of Product</u>	<u>Thousand Metric Tons</u>				
	<u>1950 a/</u>	<u>1951 a/</u>	<u>1952 a/</u>	<u>1953 a/</u>	<u>1954 b/</u>
Crude oil	0	0	0	0	0
Gasoline	39	6	23	45	113
Kerosine	0	0	0	0	0
Gas oil	34	2	15	74	161
Residual fuel oil	6	0	0	0	0
Lubricants	8	0	0	0	0
Total	<u>87</u>	<u>8</u>	<u>38</u>	<u>119</u>	<u>274</u>

a. 11/

b. Data taken from Table 1, p. 5, above.

III. Destination of Soviet Bloc Exports.

From 1950 to 1952 the Soviet Bloc exported petroleum to the following Western countries: Finland, Italy, Sweden, Belgium, Norway, Egypt, the Netherlands, Afghanistan, Austria, West Germany, and the UK. In 1953, France, Greece, Turkey, Denmark, Iceland, and Switzerland were added to the list; and in 1954, Algeria, Argentina, India, Israel, and Yugoslavia were importers of Bloc petroleum.

The major Western markets for petroleum from East Germany and the Soviet Zone of Austria are, of course, West Germany and the Austrian economy. Almost all of the petroleum shipped to other Western countries originates in the USSR and Rumania. In 1950, nearly

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APPENDIX A

METHODOLOGY

I. Table 1.

Most of the figures for Soviet and Rumanian exports are contained in reports and cables from Ankara which list tanker shipments through the Bosphorus. Except for 64,000 tons of the Soviet total and 35,000 tons of the Rumanian total, which are estimated from fragmentary data, the figures are summations of individual shipment figures contained in these reports. The methodology for the estimates is as follows:

1. Soviet Exports.

a. To Afghanistan.

The 1954 trade agreement between the USSR and Afghanistan includes petroleum products, but no specific data have been found on actual 1954 exports. It is probable that exports were in the same order of magnitude in 1954 as in 1953. The 1953 estimates of 8,000 tons of gasoline and 2,000 tons of kerosine contained in source 14/ are therefore used for 1954.

b. To Finland.

Most of the shipments of petroleum to Finland in 1954 were made by tanker through the Bosphorus. Some lubricants and kerosine, however, went by rail. This type of shipment is established in source 15/. Exports to Finland by all Soviet means of transportation (tanker and rail) from 1 January 1954 to 31 October 1954 are listed in source 16/. This source reports that 445,890 barrels of kerosine and 78,730 barrels of lubricants were received during the first 10 months of 1954. Converted to tons, these exports amount to 57,534 tons of kerosine and 11,247 tons of lubricants. When the amount of kerosine passing through the Bosphorus from December 1953 through September 1954 (to match receipts in Finland from January through October 1954) is subtracted from the total of 57,534 tons, a remainder of approximately 12,000 tons is obtained. This represents a 10-month figure which, projected to 12 months, amounts to approximately 14,000 tons of kerosine shipped by rail. There were no reported exports of

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lubricants by tanker through the Bosphorus to Finland, and the figure of approximately 11,000 tons obtained from source 17/ is therefore projected from 10 to 12 months. A total of 13,000 tons of lubricants results from this calculation and represents Soviet rail shipments of lubricants to Finland in 1954.

c. To Turkey.

Trade between the USSR and Turkey is covered in a series of reports from Ankara containing information for 8 months of 1954 and reporting shipments of 7,800 tons of gasoline in February, 7,738 tons of gasoline in April, and 2,669 tons of kerosine in July. 18/ These figures were projected to obtain a 12-month estimate as follows:

<u>Gasoline Exports</u>	<u>Metric Tons</u>
Total reported	15,538
Monthly average (15,538 ÷ 8)	1,942
12-month total (1,942 x 12)	23,304 (rounded to 23,000)

<u>Kerosine Exports</u>	<u>Metric Tons</u>
Total reported	2,669
Monthly average (2,669 ÷ 8)	334
12-month total (334 x 12)	4,008 (rounded to 4,000)

d. Recapitulation of Estimated 1954 Soviet Exports.

<u>Destination</u>	<u>Metric Tons</u>			
	<u>Gasoline</u>	<u>Kerosine</u>	<u>Lubricants</u>	<u>Total</u>
Afghanistan	8,000	2,000	0	10,000
Finland	0	14,000	13,000	27,000
Turkey	23,000	4,000	0	27,000
 Total	 <u>31,000</u>	 <u>20,000</u>	 <u>13,000</u>	 <u>64,000</u>

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2. Rumanian Exports.

a. To Austria.

Source 19/ reports the receipt by the Allied Zones of Austria of 6,000 tons of fuel oil in November 1954 and the scheduling of an additional 14,000 tons before the end of the year.

b. To Turkey.

Trade between Rumania and Turkey is covered in a series of reports from Ankara containing information for 8 months of 1954 and reporting shipments of 6,500 tons of kerosine in February, 1,000 tons of kerosine in May, and 2,384 tons of kerosine in June. 20/ These figures were projected to obtain a 12-month estimate as follows:

<u>Kerosine Exports</u>	<u>Metric Tons</u>
Total reported	9,884
Monthly average (9,884 ÷ 8)	1,236
12-month total (1,236 x 12)	14,832 (rounded to 15,000)

c. Recapitulation of Estimated 1954 Rumanian Exports.

	<u>Metric Tons</u>		
<u>Destination</u>	<u>Fuel Oil</u>	<u>Kerosine</u>	<u>Total</u>
Austria	20,000	0	20,000
Turkey	0	15,000	15,000
Total	<u>20,000</u>	<u>15,000</u>	<u>35,000</u>

3. Other Soviet Bloc Countries.

a. East German Exports.

(1) To Sweden.

Exports of diesel fuel from East Germany to Sweden for 6 months of 1954 are reported in source 21/, in terms of Swedish crowns, c.i.f. Sweden. This figure was converted to tons on the basis of the relationship to given 1953 tonnage and c.i.f. crown

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value of diesel fuel imports from East Germany. The estimate was calculated as follows:

<u>Diesel Fuel Exports -- Value</u>	<u>Swedish Crowns, C.I.F.</u>
January through June 1954	700,000
January through December 1953	1,858,000
<u>Diesel Fuel Exports -- Quantity</u>	<u>Metric Tons</u>
January through June 1954	4,414 (calculated below)
January through December 1953	11,715

1,858,000 Swedish crowns + 11,715 = 158.6 Swedish crowns, c.i.f. per ton in 1953

700,000 Swedish crowns + 158.6 = 4,414 tons, January through June 1954

4,414 tons x 2 (expansion to 12 months) = 8,828 tons, or 9,000 tons estimated for 1954.

(2) To Switzerland.

Exports to Switzerland for 5 months of 1954 are reported in source 22/. A monthly average was determined and multiplied by 12 to obtain a yearly estimate of 50,000 tons of gasoline and 38,000 tons of diesel fuel.

(3) To the Netherlands.

Exports to the Netherlands for 5 months of 1954 are reported in source 23/. A monthly average was determined and multiplied by 12 to obtain a yearly estimate of 13,000 tons of gasoline and 15,000 tons of diesel fuel.

(4) To West Germany.

Exports are estimated to equal the amounts included in the interzonal trade agreement -- 90,000 tons of diesel fuel and 50,000 tons of gasoline, as given in source 24/.

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b. Polish Exports to Sweden.

Exports of diesel fuel from Poland to Sweden for 6 months of 1954 are reported in source 25/. These exports are reported in terms of Swedish crowns, c.i.f. Sweden. The methodology used to arrive at the tonnages is as follows:

<u>Diesel Fuel Exports -- Value</u>	<u>Swedish Crowns, C.I.F.</u>
January through June 1954	400,000
January through December 1953	1,373,000
<u>Diesel Fuel Exports -- Quantity</u>	<u>Metric Tons</u>
January through June 1954	4,306 (calculated below)
January through December 1953	14,776 (reported in source <u>26/</u>)

1,373,000 Swedish crowns + 14,776 = 92.9 Swedish crowns c.i.f. per ton in 1953.

400,000 Swedish crowns + 92.9 = 4,306 tons, January through June 1954.

4,306 x 2 (expansion to 12 months) = 8,612 tons, or 9,000 tons estimated for 1954.

c. Recapitulation of Estimated 1954 Exports from Other Soviet Bloc Countries.

<u>Destination</u>	<u>Metric Tons</u>			
	<u>East Germany</u>		<u>Poland</u>	
	<u>Diesel Fuel</u>	<u>Gasoline</u>	<u>Diesel Fuel</u>	<u>Total</u>
Sweden	9,000	0	9,000	18,000
Switzerland	38,000	50,000	0	88,000
The Netherlands	15,000	13,000	0	28,000
West Germany	90,000	50,000	0	140,000
Total	<u>152,000</u>	<u>113,000</u>	<u>9,000</u>	<u>274,000</u>

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II. Tables 2 and 4.

The value of Soviet Bloc exports to the West is expressed in terms of world prices. Although some individual shipments reportedly have been offered at below the world price, it is probable that Bloc petroleum on the whole has been sold on the market at prices generally competitive with Western petroleum. Source 27/ was utilized for value data from 1950 through 1953. The price used for all products except lubricants was Gulf Coast cargoes, f.o.b., minimum shipment 20,000 barrels.* The price used for lubricants was South Texas, f.o.b. refineries, domestic and/or export shipment.* The prices for the following products were selected:

<u>Product</u>	<u>Description</u>
Motor gasoline	79 octane
Kerosine	41-43 gravity, water white
Gas oil	Average of 43-47, 48-52, and 53-57 diesel index
Fuel oil	Bunker "C" fuel
Lubricating oil	100 viscosity at 100° F, No. 1-1/2 to 2-1/2 color

The price used for crude oil was the eastern Mediterranean price for 36-36.9 gravity crude. All prices given in this source are in cents per gallon or dollars per barrel; these were converted to dollars per metric ton on the basis of the following conversion factors:

	<u>Gallons per Metric Ton</u>	<u>Barrels per Metric Ton</u>
Motor Gasoline	357	8.5
Kerosine	326	7.75
Gas oil	313	7.46
Fuel oil	280	6.66
Lubricants	294	7.0
Crude oil	315	7.5

Source 28/, used as the basis for the 1954 values, also gives 1953 prices. The percentage increase or decrease, 1954 over 1953, was calculated for the various products listed. This percentage increase or decrease was then applied to the 1953 price data in source 29/ to obtain the 1954 value figures.

* These US prices quoted in the source are equivalent to the prices of petroleum products in world trade.

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all exports were destined for Finland; in 1951, 1952, and 1953, slightly more than one-third of the exports was destined for Finland; and in 1954 only about one-fifth of the exports was destined for Finland, Sweden receiving about the same percentage. Perhaps the most significant countries appearing for the first time in 1954 as Western importers of Soviet petroleum were Argentina and Yugoslavia -- Argentina because it ranked a high third among the importers and Yugoslavia because of its re-emergence as a trading partner of the Soviet Bloc.

Although total Soviet Bloc petroleum exports in 1954 amounted to less than 3 percent* of the petroleum in world trade, this amount had considerable local economic influence. Such influence was particularly significant in countries like Finland, Iceland, and Afghanistan, which were largely dependent on the Bloc for their petroleum supplies.

IV. Petroleum Export Potential in 1955.

To estimate the petroleum export potential of the Soviet Bloc in 1955, it is necessary to establish the probable magnitude of Bloc production of crude oil, natural gas liquids, and synthetic oils. On the basis of preliminary information and extrapolation of general trends, production of these components for 1955 is forecasted at about 82 million tons, about 7 million tons greater than the 1954 level of output. It will be noted that in 1954 the Bloc exported about 6 million tons of petroleum to the West (see Table 1**), which left about 69 million tons for Bloc domestic demands and stock changes. By applying the estimated annual rate of growth of domestic demands in the USSR of 8 percent in 1954 and 1955 12/ to the 1954 Bloc domestic demands and stock change estimate of 69 million tons, a 1955 estimate of Bloc domestic petroleum demands of about 74.5 million tons is calculated. On the basis of this calculation, it is estimated that the Bloc may have available for export to the West about 7.5 million tons of petroleum in 1955 (82 million tons production less 74.5 million tons domestic demand).

This estimate is consistent with the trend in petroleum exports during the past few years. Since 1951, petroleum exports have been increasing each year. In 1954 there was a particularly sharp increase

* Estimated.

** P. 5, above.

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which coincided with diminished Soviet Bloc exports of agricultural products resulting from inadequate production. In short, petroleum exports increased while agricultural exports declined.

In view of the likelihood that exports of such items as agricultural commodities may continue to decline, the Soviet Bloc may intensify its efforts to export petroleum in 1955. Exports over and above the 7.5-million-ton estimate could be made only by restricting the growth of domestic demand -- it is considered improbable that Bloc production will exceed the 82-million-ton estimate for 1955. It may be possible to hold allocations of petroleum to domestic demand sectors at their 1954 levels. If this could be done, the Bloc demands would be about 69 million tons, leaving some 13 million tons for export to the West.

A minimum of 7.5 million tons and a maximum of 13 million tons are the most probable limits within which the Soviet Bloc exports of petroleum to the West in 1955 are likely to fall. Of course, basic changes in Bloc trade policies toward the West could affect greatly the quantity of petroleum exported. It is of interest to note, however, that agreements with Western buyers, as of January 1955, indicated a total Bloc export of about 7.5 million tons of petroleum for the year, 13/ which corresponds with what has been estimated as the probable export potential of the Bloc. Although the Bloc has not always fulfilled trade agreements in the past, additional agreements later in the year may well compensate for any failures in fulfilling those signed earlier.

In forecasting actual 1955 Soviet Bloc exports to the West, the Bloc petroleum export potential is not the sole determining factor. Western demand for Bloc petroleum must also be considered. The major factors which affect this demand are (1) the quality of Bloc crude oil and the quality and types of petroleum products offered for sale; (2) the relationship between Bloc prices and those of traditional suppliers; and (3) the availability of Western markets of exchange suitable for the purchase of Western petroleum, as opposed to the availability of commodities suitable for bartering to the Bloc for petroleum. The analysis of these factors does not fall within the scope of this report.

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V. Conclusions.

The movement of Soviet Bloc petroleum into world markets in increasing quantities has great significance to the Bloc, but it has only local significance to the West. Petroleum exports have become a valuable means of implementing the Bloc trade program, which is hampered by the decline in the availability for export of items such as agricultural products. Petroleum, one of the few commodities that the Bloc can export in relatively large quantities and can market in the West, has become one of the leading items of export. In terms of world prices, petroleum exports to the West in 1954 earned for the Bloc the equivalent of nearly US \$130 million. In 1955 the potential petroleum exports of the Bloc are estimated to have a value ranging from US \$162 million to US \$280 million. Most of the petroleum has been exported on a barter basis to the West, and these estimates are intended only as indicators of the money value of the 1955 export potential.

Even though 1955 Soviet Bloc exports of petroleum to the West should reach the estimated maximum of nearly 13 million tons, they would probably account for less than 5 percent of total world petroleum trade. Because petroleum demands in the Eastern Hemisphere, which contains most of the petroleum export markets of the Bloc, are increasing by about 17 million tons annually, future Bloc exports can be expected to have only minor significance in world petroleum trade.

Conceivably, Soviet Bloc petroleum exports to the West could have a more subtle and far-reaching significance. By restricting the growth of domestic demand while increasing production, the Bloc has succeeded since 1950 in increasing rapidly the quantity of petroleum exports. On short notice the Bloc could stop exporting petroleum to the West, and in the event of hostilities this petroleum could be channeled directly to meet military demands. This, in turn, would reduce the relative magnitude of reductions in allocations to civil demand sectors. Without such a cushion the outbreak of war could result in such deep reductions in allocations to civil demand sectors that the economy would be seriously affected. At present, however, Bloc petroleum export policy appears to be based primarily on economic motives and has resulted in no apparent economic disadvantage to the Bloc.

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VI. Capabilities, Vulnerabilities, and Intentions.

A. Capabilities.

The 1955 petroleum export potential of the Soviet Bloc is judged to be 7.5 million tons and could reach a maximum of 13 million tons. This export potential is limited by the production capabilities of the Bloc and by the extent to which domestic consumption can be curtailed.

B. Vulnerabilities.

The volume of Soviet Bloc exports of petroleum to the West is vulnerable to the extent that it is limited by Western demand and by the availability of tankers to carry Bloc petroleum to Western destinations.

C. Intentions.

Although present Soviet Bloc exports of petroleum appear to be based primarily on economic motives, these exports could be easily channeled to meet increased military demands in case of war.

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APPENDIX B

GAPS IN INTELLIGENCE

Soviet Bloc petroleum exports shipped to the West by tanker through the Bosphorus from the USSR and Rumania are reported in considerable detail on a current basis. Allocations to the Austrian economy from the Soviet Zone of Austria and to West Germany from East Germany are readily available. The gaps in information are on relatively minor exports from the USSR and Rumania which do not go through the Bosphorus, and current detail on exports from other Bloc countries to destinations in the West. There is not sufficient information on specific f.o.b. prices of total Bloc petroleum exports. It is believed, however, that they are sufficiently competitive with Western petroleum prices to warrant valuation on that basis.

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APPENDIX C

SOURCE REFERENCES

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

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

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

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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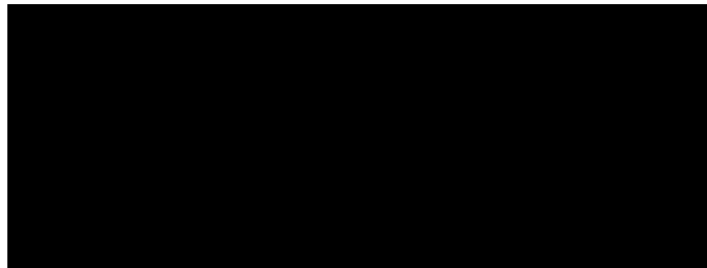
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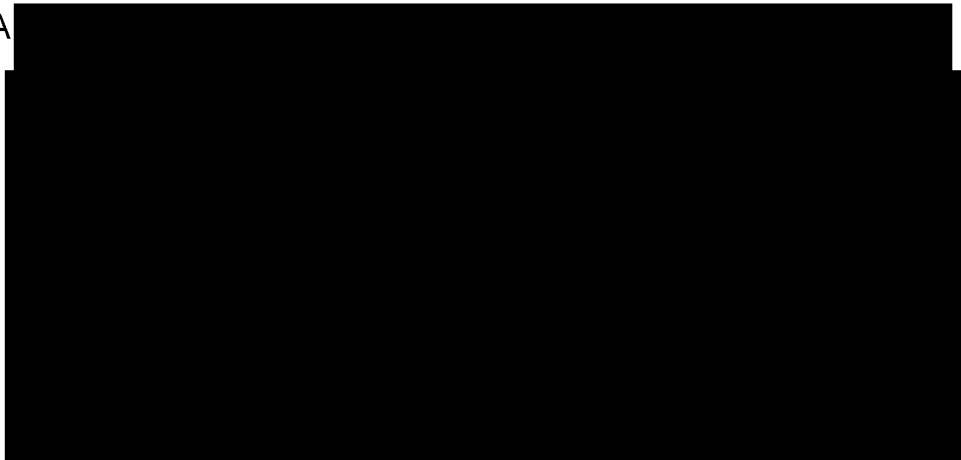
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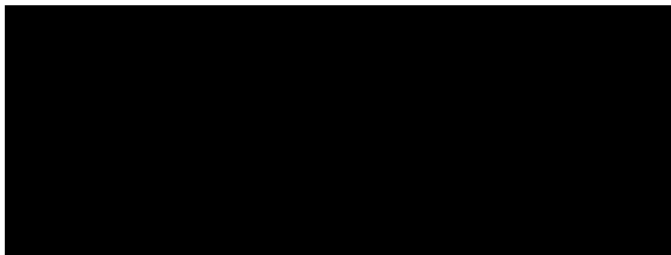
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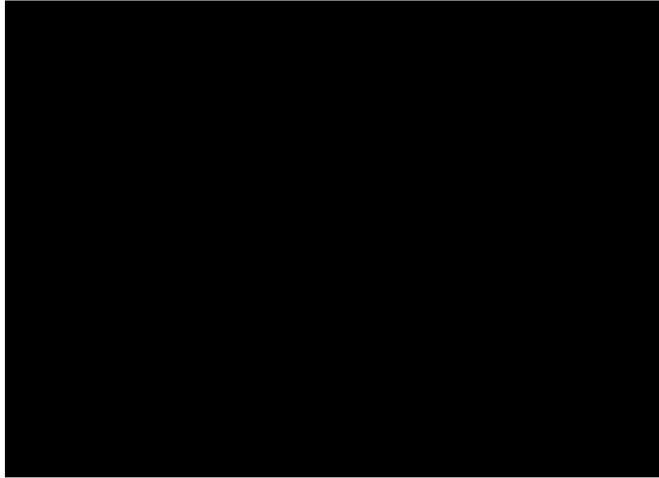
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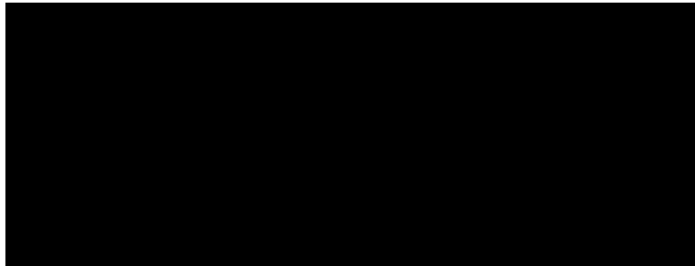
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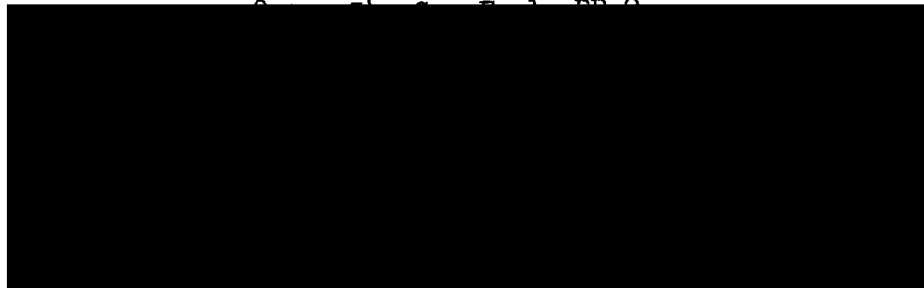
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(Cargo of one tanker included in this report changed from 20,000 tons to 2,000 tons on basis of known GRT of tanker.)

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