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ECONOMIC INTELLIGENCE MEMORANDUM

ANNUAL REVIEW OF MERCHANT SHIPPING  
IN THE SINO-SOVIET BLOC  
1959



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FOREWORD

This memorandum is one in a series of annual publications that are designed to present in summary form the significant developments in transportation in the Sino-Soviet Bloc during each preceding calendar year. In addition to the memorandum on merchant shipping, the series will include two other annual publications, one on developments in inland transportation in the Bloc and another on civil aviation in the Bloc.

This memorandum has been coordinated within this Office but not with other USIB agencies.

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ANNUAL REVIEW OF MERCHANT SHIPPING IN THE SINO-SOVIET BLOC\*  
1959

I. Introduction

The combined merchant fleet of the Sino-Soviet Bloc expanded rapidly during 1955-59, and long-range plans to 1965 and 1970 are even more ambitious. Expansion of the fleet capacity of the Bloc during the preceding period, 1950-55, was about proportionate to expansion of the capacity of the world fleet, Bloc capacity increasing by 32 percent compared with 28 percent for the world fleet.\*\* During 1955-59, however, while the world fleet grew by 32 percent, the combined Bloc fleets grew by 52 percent.

The fleet of the USSR during 1955-59 grew at only about the same rate as the world fleet, but at the same time the fleets of the European Satellites and Communist China made startling advances and are becoming sizable enough to merit serious attention. The fleets of the Satellites increased 73 percent between 1950 and 1955 and 113 percent between 1955 and 1959. The oceangoing fleet of Communist China increased 63 percent between 1950 and 1955 and 165 percent between 1955 and 1959. From comprising only 16 percent of the total Bloc fleet in 1950 -- 436,000 deadweight tons (DWT)\*\*\* of the total fleet capacity of 2.8 million DWT -- the fleets of the Satellites and China grew so that they made up 30 percent of the total in 1959 -- 1.7 million DWT of a total of 5.6 million DWT.

Original plans of the European Satellites (and trends for those Satellites not announcing plans) called for an increase in fleet capacity by 1960 of about 60 percent above the level in 1955. As more and more attention was paid to maritime transportation, however,

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\* The estimates and conclusions in this memorandum represent the best judgment of this Office as of 15 June 1960.

\*\* The discussion of ships and fleets in this memorandum refers only to ships of 1,000 gross register tons (GRT) and above and does not include ships in the Caspian Sea, the Great Lakes, or the US reserve fleet. Figures for the Soviet fleet include refrigerator ships in the fishing fleet. (Gross register tonnage is a measure of the cubic capacity of the cargo space of a ship expressed in tons at the rate of 1 gross register ton per 100 cubic feet.)

\*\*\* Deadweight tonnage is a measure of the carrying capacity of a ship in metric tons -- that is, the difference between the ship's displacement light and its displacement loaded.

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revised plans (including revisions made as recently as early 1960) were put into effect to provide an increase of about 153 percent at the end of 1960 above the level in 1955 and in turn about 100 percent in 1965 above the level in 1960. Similarly, the fleet of Communist China made its first large expansion in 1958 and by 1959 had already exceeded estimates previously made for 1960 on the basis of earlier growth. The first announcement of Chinese plans for the fleet was made in December 1959 and called for a fleet capacity of more than 3 million DWT in 1965 instead of about 1 million DWT as previously indicated by trends during 1955-58.

The impetus for this sudden expansion of merchant fleet capacity apparently was a basic planning decision to take care of the rapid growth in the volume of seaborne foreign trade of the Sino-Soviet Bloc and the consequent drain on Bloc foreign exchange expended for foreign maritime transport services.

The merchant fleets of the countries of the Sino-Soviet Bloc in 1959 continued to make progress in their programs for expansion of fleet inventories, facilities, and maritime operations. Expansion of the combined fleet of the Bloc during 1959 was generally at the same rate as in 1958, when its deadweight tonnage increased 13 percent. In both the European Satellites and Communist China, net additions to fleet tonnage were at a rate of about 27 percent. In the USSR, net additions of new ships increased fleet tonnage by only 8 percent, but deliveries in 1959 approached the high of 342,000 DWT added in 1957. There was a noticeable trend in acquisitions toward larger and faster ships -- particularly dry cargo ships -- which compare favorably in performance characteristics with the latest ships from Free World shipyards.

In terms of numbers of ships, the combined fleet of the Sino-Soviet Bloc in 1959 increased by 14 tankers and 70 dry cargo ships, bringing the total to 1,046 ships and 5.6 million deadweight tons (see Table 5\*). Most of the tanker deliveries were made to the USSR, whereas the delivery of new dry cargo ships was divided fairly equally among the USSR, the European Satellites, and Communist China. In terms of deadweight tonnage, the USSR received more than 45 percent of the deliveries made in 1959. Poland and East Germany received at least two-thirds of the deliveries made to the European Satellite fleets, in terms of both tonnage and number of ships.

The origin of additions to the major fleets of the Sino-Soviet Bloc in 1959 varied greatly. Bloc shipyards accounted for 79 percent of the deliveries to the East German fleet, 82 percent of those to

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\* P. 22, below.

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the Soviet fleet, and 60 percent of those to the Chinese Communist fleet. In Poland and Czechoslovakia, however, about three-fourths of the tonnage delivered in 1959 was built in Free World shipyards.

The performance of the fleets of the Sino-Soviet Bloc, grouped by major area, is shown in Table 1. Both the European Satellites and the Communist Far East show significant increases in performance in 1959 above the level in 1958, but the USSR shows a smaller increase.

Table 1  
Performance of the Merchant Fleets of the Sino-Soviet Bloc  
1955-59

<u>Country</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
	<u>Billion Ton-Miles a/</u>				
USSR	37.2	44.5	50.0	57.4	62.2
European Satellites	10.9	11.9	13.7	17.1	22.2
Communist Far East <u>b/</u>	5.5	6.2	7.8	10.3	14.7
Total	<u>53.6</u>	<u>62.6</u>	<u>71.5</u>	<u>84.8</u>	<u>99.1</u>
	<u>Million Metric Tons</u>				
USSR	53.7	57.7	65.7	70.8	73.4
European Satellites	4.2	4.3	5.0	5.8	7.5
Communist Far East <u>c/</u>	9.8	12.0	14.4	21.7	32.7
Total	<u>67.7</u>	<u>74.0</u>	<u>85.1</u>	<u>98.3</u>	<u>113.6</u>

a. Metric ton - nautical miles.

b. Figures for the Communist Far East include those on performance of chartered Free World ships.

c. Excluding North Vietnam.

The pattern of employment of merchant ships of the Sino-Soviet Bloc did not differ greatly in 1959 from that in 1958, although new shipping services were established between Poland and (1) the Black Sea area and Israel, (2) the Red Sea and Persian Gulf area, (3) West Africa, and (4) Iceland. In 1959, Soviet ships resumed calls at

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Australian ports and also began deliveries of petroleum cargoes to Brazil, Japan, and Lebanon. The USSR in 1959 also announced plans to call on West African ports in Ghana and Guinea. Soviet tankers in 1960 are scheduled to begin delivering some petroleum to northern Europe from Soviet Baltic rather than Black Sea ports.

Although the merchant fleets of the Sino-Soviet Bloc in 1959 continued to increase their volume of seaborne international trade, they have not been successful in reducing their requirements for foreign shipping to move substantial parts of this volume. The Chinese Communists remained completely dependent on foreign flag shipping to move their international seaborne trade, which amounted to about 11 million metric tons\* in 1959. In addition, the Chinese relied on foreign shipping to move more than 5 million tons of coastal shipping. Although the other countries of the Bloc carried a greater volume of their seaborne foreign trade in their own ships, the growth in trade was such that foreign ships also carried a greater tonnage in 1959 than in 1958. The USSR and the European Satellites in 1959 had to move 57 million tons by sea in foreign trade, of which 36 million tons were carried by foreign shipping (see Table 2\*\*). In relative terms, this amount represented 63 percent of the total seaborne foreign trade of these countries compared with 64 percent in 1958.

In 1959, foreign shipping took about 85 percent of the seaborne foreign trade cargo of the European Satellites, about the same share as that carried in 1958. About 23 million tons of this cargo were carried by Free World ships rather than Bloc ships. Foreign shipping moved more than 47 percent of the approximately 31 million tons carried in Soviet foreign trade in 1959 compared with 44 percent in 1958. The increased participation by the Free World was due largely to a 50-percent increase in Soviet exports of petroleum by sea.

## II. USSR

### A. Growth of the Fleet

The total deadweight tonnage of new ships added to the Soviet merchant fleet in 1959 was close to the high of 342,000 DWT added in 1957. Fifty-six ships, representing 329,994 DWT, were delivered, and

\* Unless otherwise indicated, cargo tonnages are given in metric tons throughout this memorandum.

\*\* Table 2 follows on p. 5.

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Table 2

Seaborne Foreign Trade of the USSR and the European Satellites a/  
1955-59

	Million Metric Tons				
<u>Country</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
European Satellites	27.3	27.6	26.8	29.7	32.6
USSR	15.2	18.3	22.1	24.5	30.8
Total	<u>42.5</u>	<u>45.9</u>	<u>48.9</u>	<u>54.2</u>	<u>63.4</u>
Less duplication because of intra-Bloc trade	4.2	4.6	4.5	5.6	6.2
Balance	<u>38.3</u>	<u>41.3</u>	<u>44.4</u>	<u>48.6</u>	<u>57.2</u>
Domestic ships	10.9	11.6	15.5	17.5	21.2
Foreign ships	27.3	29.7	28.9	31.1	36.0

a. Data are derived from unrounded figures in Table 7, p. 24,  
below.

their estimated value, based on world market prices, was between \$90 million and \$100 million.\* The new additions included 42 dry cargo ships and 11 tankers for the Ministry of the Maritime Fleet and 3 refrigerator ships for the Ministry of the Fish Industry. As shown in the tabulation that follows, these ships were built predominantly by the Soviet Bloc.

<u>Origin</u>	<u>Units</u>	<u>Deadweight Tons</u>
USSR	9	92,900
European Satellites	34	171,639
Free World	13	65,455
Total	<u>56</u>	<u>329,994</u>

\* About 25 percent of this figure is the amount paid by the USSR for new and used ships built in Free World shipyards. The remaining 75 percent is production in Bloc shipyards and represents the value at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards. Dollar values are given in terms of US dollars throughout this memorandum.

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The largest deliveries to the Soviet fleet in terms of tonnage consisted of tankers of the slow, outmoded Kazbek class and of modern, medium-size (5,000 to 7,000 DWT) dry cargo ships of the Andizhan and Ugleural'sk classes, built in East Germany. The most significant delivery was the lead ship of a new series, the Leninskiy Komsomol class of dry cargo ships (16,000 DWT, 18 knots), which compare favorably in terms of speed, size, and equipment with the latest large dry cargo ships from Free World shipyards. Deliveries of ships of this type should lead to significant increases in the efficiency of the Soviet maritime fleet and to corresponding improvements in the competitive position of the USSR in world shipping.

After allowing for deletions from the fleet due to sinkings, retirements, and other causes, the net effect of the above additions was an increase in the size of the fleet from 721 ships totaling 3.6 million DWT on 31 December 1958 to 764 ships totaling about 3.9 million DWT on 31 December 1959.\* The average age of the ships in the fleet remained at about 15 years, and the average speed remained at about 11.0 knots.

#### B. Adequacy of the Fleet

Although the Soviet merchant fleet carried more than one-half of the total volume of Soviet seaborne foreign trade in 1959, both the absolute quantity and the percentage share carried by foreign ships increased (see Table 7\*\*). This growth is largely the result of a 50-percent increase in Soviet exports of petroleum by sea in 1959. The increased tonnage required for this export was met by foreign tankers, mostly from the Free World. In 1958, Soviet tankers carried 5.6 million tons, and foreign tankers carried 4.1 million tons. In 1959, Soviet tankers carried 5.5 million tons, and foreign tankers carried 9.1 million tons. For timber exports, where a considerably smaller volume of cargo was involved, the participation of Soviet ships in the movement increased significantly. At Igarka, the most important single port in the USSR for the export of timber, the volume exported in Soviet ships increased from 38,000 tons in 1958 to 67,000 tons in 1959.

The improvement in the performance of the Soviet merchant fleet from 1958 to 1959, measured in ton-miles\*\*\* of cargo turnover, was significant, but it was less than in former years.† From 1958

\* Details are shown in the Statistical Appendix, Table 5, p. 22, below.

\*\* P. 24, below.

\*\*\* The term ton-miles refers to metric ton - nautical miles throughout this memorandum.

† See Table 1, p. 3, above.

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to 1959 the productivity of the dry cargo fleet increased by 4.8 percent, slightly greater than the 4.4-percent average annual increase for this index during 1951-58. The productivity of the tanker fleet, however, increased by only 1.4 percent, considerably less than the 6.0-percent average rate of increase for this index during 1951-58. The modest increase in the productivity of the tanker fleet reflects an inability to develop return cargoes for Soviet tankers moving exports of petroleum from the Black Sea.

C. Patterns of Employment

The Soviet merchant fleet during 1959 carried cargoes in coastal navigation in the five major sea basins of the USSR -- the Black Sea, the Baltic Sea, the Northern (Barents and White Seas), the Far Eastern, and the Caspian. Soviet vessels engaging in foreign trade during 1959 appeared on all the major world trade routes except those to Oceania, South and East Africa, and the west coast of South America. Some of the most important routes were the following:

<u>Basin of Origin</u>	<u>Destination</u>
Baltic Sea	North Sea and Atlantic Europe North Africa South and Southeast Asia Gulf of Mexico and Canada
Northern Black Sea	Baltic Sea, Atlantic Europe, and Mediterranean Mediterranean Continental Europe South and Southeast Asia Far East West Africa Gulf of Mexico
Far Eastern	Far East Canada Atlantic Europe

Changes in the pattern of employment of the fleet that occurred in 1959 included the resumption of calls at Australian ports; the beginning of deliveries of petroleum cargoes to Brazil, Japan, and Lebanon; and increased participation by Soviet ships in the movement of export timber from the Northern Basin and the Northern Sea Route.

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D. Prospects for 1960

In terms of quantity, deliveries of new ships to the Soviet merchant fleet in 1960 should be comparable to those in 1959. The quality of the deliveries should be better than in 1959, however, because a greater number of large, fast, modern tankers and dry cargo ships, particularly of the Pekin and Leninskiy Komsomol classes, will be involved.

Changes in the employment of the fleet contemplated for 1960 include the beginning of petroleum exports from Soviet Baltic ports to European Satellite ports on the Baltic and to Free World ports in the Baltic, North Sea, and English Channel areas and the beginning of calls by Soviet ships at West African ports in Ghana and Guinea. The initiation of petroleum exports from Soviet Baltic ports will mean the eventual elimination of shipments of petroleum from Soviet Black Sea ports to Northern Europe and thus a net reduction in Soviet requirements for tanker tonnage.

III. European Satellites

A. Combined Fleet

1. Growth of the Fleet

The aggregate deadweight tonnage of the combined merchant fleet of the European Satellites increased from about 850,000 DWT in 1958 to more than 1 million DWT in 1959, a rate of growth slightly less than that achieved in 1958. The tonnage of the combined fleet of the Satellites in 1959 amounted to 19 percent of the combined fleet of the Sino-Soviet Bloc. Although the Polish fleet is the largest of the Satellite fleets, the East German and Czechoslovak fleets attained a higher rate of expansion than the Polish fleet in 1959, 44 percent and 88 percent, respectively (see Table 6\*).

The average size of each of the European Satellite fleets increased during 1959, with the exception of the fleets of Hungary, Bulgaria, and Rumania. Average speeds increased for all fleets except the Bulgarian and Rumanian, which remained constant. Average ages of ships decreased for the fleets of Poland, Czechoslovakia, and Bulgaria but increased for those of East Germany, Hungary, and Rumania. The Rumanian fleet is exceptionally old, with an average age of ships of 39.4 years. All other fleets are below the average age of ships of the world fleet, which in July 1959 was about 15 years.

\* P. 23, below.

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## 2. Seaborne Foreign Trade

Although the merchant fleets of the European Satellites have been growing and have been able to carry more of their own seaborne foreign trade, the volume of trade also has grown rapidly enough to require more foreign shipping. It is estimated that, of a total of 32.6 million tons of foreign trade cargo moved in 1959, 26.9 million tons were left to be moved by foreign ships (see Table 7\*). Of this amount, 4 million tons at most are estimated to have been carried by Soviet and Satellite vessels for the Soviet Bloc. Thus at least 22.9 million tons of Satellite cargo were left to be carried in Free World ships.

Poland, East Germany, and Bulgaria\*\* paid a minimum of \$65 million for the use of foreign ships in 1959. It is estimated that the other European Satellites spent about \$25 million to \$35 million, making a total of about \$100 million paid to foreign shipping services from the European Satellites. As much as \$75 million to \$80 million of this amount went to Free World shipowners.

### B. Poland

#### 1. Growth of the Fleet

During 1959 there was a net increase in the Polish merchant fleet of 10 ships and 117,300 DWT, the latter representing an increase of 20 percent at an estimated value of \$28 million to \$35 million.\*\*\* In all, 16 oceangoing ships were added, 2 were sold to Communist China and 1 to Czechoslovakia, and 3 were scrapped. The size of the fleet at the close of 1959 was 705,000 DWT.

About 27 percent of the gross tonnage added was newly built in Polish shipyards, 34 percent was newly built in foreign shipyards (mostly Yugoslav), and 39 percent was secondhand tonnage bought outside the Sino-Soviet Bloc.

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\* P. 24, below.

\*\* The Polish and Bulgarian figures were published. The East German expenditure is computed from an oblique reference that was also in the press.

\*\*\* Approximately 27 percent of this amount is production in Bloc shipyards, valued at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards, and 73 percent is the amount paid by Poland for ships built in Free World countries.

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## 2. Adequacy of the Fleet

The seaborne foreign trade of Poland amounted to 14 million tons in 1959. Polish ships carried only 3.2 million tons of this trade, and foreign ships carried almost 11 million tons (see Table 7\*). Of that 11 million tons, however, Poland was responsible for the transportation of only about 3.8 million tons, for which Poland chartered foreign ships or booked space on foreign ships at a cost of about \$29 million.

## 3. Fleet Earnings and Expenditures

In addition to the \$29 million expended for foreign shipping, Poland expended \$31 million for other foreign services to its fleet, such as bunkers and port fees. These expenditures were balanced by Polish fleet earnings of only about \$27 million and earnings of other maritime services of about \$30 million. The resulting adverse balance of \$3 million may be compared with adverse balances of \$3.75 million in 1958 and \$10.8 million in 1957. This improvement is expected to continue, and in 1960 the earnings of foreign exchange by the Polish fleet may exceed expenditures for foreign ships. Earnings of foreign exchange and expenditures for other maritime services may at least break even.

## 4. New Liner Services

Three new routes were opened by the Polish merchant fleet in 1959, and sailings on old routes increased as the fleet expanded. Polish Ocean Lines (PLO) inaugurated service between Gdansk, the Black Sea, and Israel. This line was opened to supplement the service by the Polish Steamship Company (PZM) between the Black Sea and Arab ports on the Mediterranean. "The regulations in force in Arab ports" were openly stated to be the reason for a second line in this general area. A second new route was provided by PLO between European ports and the Red Sea and the Persian Gulf. Service was initiated in January 1960. Finally, PZM opened a line to West Africa and by the end of 1959 was maintaining two sailings per month. It was stated that the USSR "will take considerable advantage of" this new West African line, as will Czechoslovakia and Hungary.

## 5. Prospects for 1960

Poland plans to add a minimum of 12 ships, totaling 85,700 DWT, in 1960, bringing the total under the Polish flag in

\* P. 24, below

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1960 to about 800,000 DWT. This additional tonnage is planned to cost \$38.8 million.\*

About 3.7 million tons of Polish seaborne trade will be carried by Polish ships in 1960, and this tonnage will amount to about one-fourth of the total seaborne trade of Poland. About 10.8 million tons probably will be left to be carried by foreign ships, the same level as in 1959. Earnings of foreign exchange by the fleet are expected to be \$33 million compared with \$27 million in 1959 and may equal the amount paid out to foreign ships for cargo under Polish control.

### C. East Germany

#### 1. Growth of the Fleet

The East German fleet grew to 173,100 DWT in 1959, a 44-percent increase above the level in 1958. Most of the ships added to the fleet in 1959 were newly built in East German shipyards. The additions to the fleet are valued at between \$10 million and \$15 million.\*\* Free World shipowners received \$1.3 million for secondhand ships, which made up about 20 percent of the additions in 1959.

#### 2. Adequacy of the Fleet

The growth in performance of the East German fleet has approximately paralleled its growth in size, rising from 593,000 tons carried in 1958 to an estimated maximum of 1 million tons in 1959 (see Table 3\*\*\*). It is estimated, however, that the fleet may be able in 1960 to move between 1.3 million and 1.5 million tons, depending on the delivery dates of vessels in 1960.

It is probable that in 1959 East German ships carried only 13 percent of the seaborne foreign trade of East Germany, a slight improvement in comparison with 1958. East Germany is estimated to have paid out about \$62 million for foreign shipping in 1959 compared with the announced \$51.4 million paid out in 1958.

\* The planned amount of 931 million zlotys, converted at 24 zlotys to \$1, the official maritime exchange rate for domestic zlotys. This conversion factor used on a 1959 figure quoted by the same source gave a reasonable dollar value.

\*\* Approximately 79 percent of this amount is production in Bloc shipyards, valued at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards.

\*\*\* Table 3 follows on p. 12.

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About 75 percent of this amount may have been for Free World ships. By 1965, 8 million to 9 million tons may be moving in foreign bottoms, however, compared with 5.1 million tons in 1959.

Table 3  
Performance of the Merchant Fleets of the European Satellites <sup>a/</sup>  
1955-59

<u>Country</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959 <sup>b/</sup></u>
<u>Thousand Metric Tons</u>					
Poland	3,023	2,930	3,397	3,879	4,700
East Germany	133	172	370	593	1,000
Bulgaria	597	698	718	762	950
Czechoslovakia	125	183	122	159	200
Rumania	197	192	224	217	220
Hungary	31	50	50	60	70
Albania	138	119	133	160	350
Total	<u>4,244</u>	<u>4,344</u>	<u>5,014</u>	<u>5,830</u>	<u>7,490</u>
<u>Million Ton-Miles <sup>c/</sup></u>					
Poland	8,529	9,384	10,611	12,052	15,400
East Germany	259	222	449	2,017	3,400
Bulgaria	495	590	840	1,133	1,100
Czechoslovakia	1,186	1,282	1,198	1,255	1,500
Rumania	384	339	493	514	515
Hungary	44	58	70	81	95
Albania	9	9	18	19	162
Total	<u>10,906</u>	<u>11,884</u>	<u>13,679</u>	<u>17,071</u>	<u>22,172</u>

a. Including performance of vessels of less than 1,000 GRT.  
b. Estimated.  
c. Metric ton - nautical miles.

D. Czechoslovakia

1. Growth of the Fleet

The addition of two large freighters and one large tanker during 1959 nearly doubled the capacity of the Czechoslovak fleet. The tanker was newly built by Yugoslav shipyards, one of the freighters was newly built by Japanese shipyards, and the second freighter was purchased secondhand from Poland. The latter ship was believed to be under the control of the Chinese-Polish Shipbrokers Corporation (Chipolbrok). These additional ships are valued at between \$8 million and \$10 million. There are a number of indications that at least three of the four dry cargo freighters added since 1957 and also the tanker are under some kind of control by Communist China, possibly an arrangement such as Chipolbrok. Furthermore, a new company, the Czechoslovak Maritime Navigation Company (Ceskoslovenska Namorni Plavba), was formed on 1 April 1959 to operate the seagoing fleet. It was reported to be an "international stock company," but the identity of stockholders is not known and there is a possibility that the government of China is a stockholder.

The absence of any known long-range plans for a Czechoslovak merchant marine lends credence to a reported East German proposal that Czechoslovakia should give up ownership of its merchant marine as soon as the East German and Polish fleets reach the required level of development. In view of the difficulties that East Germany is having in carrying its own foreign trade, it is unlikely that the East German fleet soon will be able to substitute for the Czechoslovak fleet. The Polish fleet, however, has been carrying increasing quantities of Czechoslovak cargo. About 450,000 tons were carried in 1958, and 650,000 tons were to be carried in 1959 according to the 1959 plan.

2. Adequacy of the Fleet

Czechoslovakia is almost wholly dependent on foreign ships to carry its seaborne foreign trade. More than 95 percent (3.9 million tons) of this trade in 1959 moved on foreign ships, of which about 2.8 million tons, or 70 percent, moved on Free World ships. It is estimated that the use of foreign ships in 1959 cost Czechoslovakia between \$10 million and \$15 million.

3. Other Developments

Czechoslovakia in 1959 made agreements with the USSR, Rumania, and Bulgaria to increase transit shipments through ports on the Black Sea and the lower Danube. Incomplete returns indicate

corresponding decreases in transit through Hamburg (down 155,000 tons) and Rijeka (down 218,000 tons).

E. Bulgaria

1. Growth of the Fleet

The oceangoing fleet of Bulgaria in 1959 increased by only 2 small ships -- 1 dry cargo and 1 tanker -- bringing the fleet to a total of 11 ships and 53,800 DWT at the end of the year. The freighter was produced in a Bulgarian shipyard, and the tanker was purchased secondhand from Sweden. The estimated value of these two ships is about \$1.3 million.\*

2. Adequacy of the Fleet

The Bulgarian fleet in 1959 carried about one-third of the seaborne foreign trade of Bulgaria, leaving about 1 million tons to be carried on foreign ships. It is probable that a high proportion of the total of about 1 million tons was carried by Soviet ships, mostly in the Black Sea, but no definite information is available. Bulgaria in 1957 paid out \$4.5 million for foreign shipping (including insurance), and it is estimated that almost \$6 million was paid out in 1959.

F. Rumania

1. Growth of the Fleet

No change in the oceangoing fleet of Rumania has occurred since 1951, and by the end of 1959 the average age of the ships in the fleet was 39.4 years. Various ships have spent protracted periods under repair during the years since World War II, and fleet performance has suffered accordingly. Rumanian thinking on the subject of ship obsolescence is highlighted by the statement that seagoing vessels are being amortized at an average annual rate of 2.4 percent. Inasmuch as approximately 50 percent of this amortization is actually earmarked for capital repairs, the effective amortization rate is 1.2 percent. The Rumanians therefore calculate the "useful life" of their ships to be 83.3 years. The rest of the maritime world considers a ship to be obsolete or overage, in a competitive sense, at 25 to 30 years.

\* The Bulgarian freighter is valued at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards.

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Nevertheless, Rumania does have on order in Yugoslav yards two freighters of 13,000 DWT. The first keel was to be laid in February 1960. Plans, announced in July 1959, call for doubling the fleet capacity by 1962. It is worth noting, however, that the 1955 plan for 1955-60 called for increasing the fleet capacity 3.5 times above the level in 1955, including five or six "big" ships and at least eight medium and small ships. Not one of those planned ships was added.

## 2. Adequacy of the Fleet

Rumania had a minimum seaborne trade of 5.3 million tons in 1959, of which 4 million to 4.5 million tons were petroleum and petroleum products, but Rumanian ships carried none of the petroleum and only about 3 percent of the total. This record will not be bettered to any appreciable extent in the near future.

Soviet ships probably carried between 2 million and 2.5 million tons of Rumanian cargo. About 1.5 million tons of this amount is estimated to be petroleum moving to the USSR and another 400,000 tons to be petroleum moving to countries outside the Black Sea area. Other European Satellite ships, mainly Polish owned and Polish chartered, moved perhaps another 250,000 tons of petroleum. Thus less than one-half of the seaborne foreign trade of Rumania moved on Free World ships.

It is estimated that in 1959 Rumania paid out between \$10 million and \$15 million in foreign exchange for the use of foreign ships, about one-half of which probably was paid to the USSR.

## G. Hungary

Hungary is not a maritime nation and has confined its fleet to small ships plying the Danube to Budapest. In 1959, one Hungarian-built ship, with an estimated value of \$800,000, was added to this fleet,\* and one ship sank, maintaining the fleet at six ships and 7,600 DWT. These ships carried only about 6 percent of Hungarian seaborne trade in 1959, and most of the rest, 1.0 million tons, was apparently carried in Free World ships. The cost to Hungary for the use of foreign shipping in 1959 is estimated to have been between \$3 million and \$5 million. The cost in 1954 was \$4.4 million.

\* This figure represents the value at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards.

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No official or formal plans for the Hungarian fleet have been announced beyond the hope that two 1,500-DWT ships per year would be added in 1959-60 (not fulfilled in 1959) and that possibly two 10,000-DWT freighters would be purchased abroad. By these means, Hungary hopes to triple its share in the carriage of Hungarian sea-borne trade.

#### H. Albania

Although Albania is a small country with comparatively little foreign trade, it has nevertheless begun to plan a fleet. The first three oceangoing ships were acquired in 1959 and totaled 9,600 DWT. Plans have been announced for 20,000 DWT by 1965. The three ships are valued at between \$2.5 million and \$3.0 million.\*

As a result of the enlarged fleet, Albanian participation in the carriage of Albanian seaborne trade is estimated to have increased to one-fourth of the total. Most of the rest probably was carried by other Soviet Bloc ships. Use of foreign ships probably cost Albania about \$1 million.

#### IV. Communist Far East

##### A. General

Merchant shipping in the Communist Far East is dominated by the shipping requirements of Communist China. Neither North Korea nor North Vietnam has a ship as large as 1,000 GRT. These two countries have placed their main emphasis in merchant shipping on restoration and improvement of existing ports. The performance of the North Korean and North Vietnamese fleets combined is only slightly above 1 percent of the performance of the Chinese Communist fleet (see Table 4\*\*).

##### B. Communist China

###### 1. Growth of the Fleet

At the end of 1959 the merchant fleet of Communist China included 125 ships totaling 622,325 DWT, an increase of 27 percent above the level in 1958. All of the growth was accounted for by general cargo ships, and no tankers or bulk carriers were added to the fleet in the year under review.

\* This figure represents the value at prices prevailing at those Free World shipyards whose costs are believed to be most comparable to those at Bloc shipyards.

\*\* Table 4 follows on p. 17.

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Table 4

Estimated Performance of the Merchant Fleets  
of the Communist Far East a/  
1955-59

<u>Country</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
<u>Million Ton-Miles <u>b/</u></u>					
Communist China <u>c/</u>	5,500	6,100	7,700	10,200	14,500
North Korea	12.5	16.5	20.2	37.0	55.8
North Vietnam	34.5	73.9	78.2	93.9	143.5
Total <u>c/</u>	<u>5,500</u>	<u>6,200</u>	<u>7,800</u>	<u>10,300</u>	<u>14,700</u>
<u>Million Metric Tons</u>					
Communist China	9.0	11.0	13.3	19.7	29.9
North Korea	0.8	1.0	1.1	2.0	2.8
Total	<u>9.8</u>	<u>12.0</u>	<u>14.4</u>	<u>21.7</u>	<u>32.7</u>

a. These figures include performance of chartered Free World ships. Figures for North Korea and North Vietnam include inland water traffic. Data are not available for North Vietnam on metric tons of cargo carried.

b. Metric ton - nautical miles.

c. Data are rounded to the nearest 100 million metric ton - nautical mile.

The Chinese Communist fleet has tended toward larger and faster ships in the past several years. The size of the average ship at the end of 1957 was 2,569 GRT and had increased to 3,308 GRT by the end of 1959. The speed of the Chinese ships ranges from 8 knots to 13 knots, with the average probably lying somewhere between 10 and 12 knots. Although China has constructed ships with reported speeds of 18 knots, no ship of this speed is yet in service. The average Chinese ship is above 17 years in age.

The Chinese Communists during 1959 acquired five second-hand ships totaling 52,609 DWT (34,570 GRT) from Free World countries. On the basis of prices reported in Lloyd's and the current market, it

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is estimated that the Chinese paid an average of \$20 per deadweight ton for these ships. It has been reported that the Chinese have set a goal of 3.1 million DWT by 1965. About one-half of the ships must be purchased from the Free World if this goal is to be achieved. Thus, if present market conditions prevail, the Chinese probably will invest about \$6 million annually for the next 6 years in the purchase of ships from the Free World.

Of the more than 130,000 DWT added to the Chinese Communist fleet in 1959, nearly 40 percent came from Free World shipyards; about 15 percent from shipyards of the Soviet Bloc in Europe; and 45 percent, including salvage, came from Chinese shipyards. At an estimated cost of about \$1 million per 1,000 GRT, the Chinese investment in domestic shipbuilding alone will be on the order of \$220 million annually, based on present plans. Investment in port improvement and construction also will consume a considerable amount of capital.

## 2. Adequacy of the Fleet

The Chinese Communist merchant fleet is at the present time employed almost entirely in the coastal trade. Some cargo is moved between Chinese ports and both North Vietnam and Hong Kong, but it is believed that the Chinese count this movement to be coastal. The interdiction of the Formosa Strait by the Chinese Nationalists forces the Communists to utilize a considerable number of chartered ships to link their north and south coasts. It is estimated that chartered ships moved at least 5.1 million tons of cargo in the coastal trade in 1959. In addition, all of the international seaborne trade of Communist China, which totaled at least 11 million tons in 1959, moved in foreign flag ships. Thus China depended on foreign flag ships in 1959 to move more than 16.1 million tons. If the Communists could eliminate the Nationalist blockade of the coast, the present fleet of Communist China probably would be adequate for domestic requirements. In the field of international trade, however, the Chinese Communists will continue to be dependent on foreign flag ships, although this dependence will decrease as they approach their goal of 2.1 million GRT under the Chinese flag.

## 3. Prospects for 1960

Prospects for the Chinese Communist merchant fleet in 1960 are for continued expansion of inventory, facilities, and operations. The Chinese fleet probably will approach 700,000 GRT by the end of 1960. Ships of 10,000 GRT and larger are under construction in Chinese yards, and comparable ships are being built for China in other shipyards of the Sino-Soviet Bloc. Chinese purchases from the Free World may be

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expected to continue and perhaps even to increase if the shipping market drops further.

The next major development that may be expected in Chinese Communist shipping operations is the initiation of international shipping service with Chinese flag ships. It is estimated that the Chinese already have the capability of initiating such a service, and they may be expected to do so whenever they judge it expedient for either economic or political reasons.

The Chinese Communist fleet probably will prove to be adequate in terms of coastal shipping requirements, although chartered ships will continue to be used for movements between the north and south coasts. It is estimated that charter utilization in the coastal trade will continue at about the level in 1958-59. Virtually all of the seaborne international trade of China will move in chartered ships for the next few years.

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STATISTICAL APPENDIX

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Table 5

Merchant Fleets of the Sino-Soviet Bloc, by Type, Number, and Tonnage a/  
1955-59

Type of Ship and Area	1955			1956			1957			1958			1959		
	Number	Thousand Deadweight Tons	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Thousand Deadweight Tons
Tanker															
USSR	70	501.2	629.5	85	629.5	742.2	95	742.2	102	793.1	884.1	113	884.1		
European Satellites	2	18.4	9.6	1	9.6	34.9	4	34.9	6	75.3	117.6	9	117.6		
Communist China	8	13.9	13.9	8	13.9	18.4	9	18.4	11	28.4	28.4	11	28.4		
Total	80	533.5	653.0	94	653.0	795.5	108	795.5	119	896.8	966.8	133	966.8		
Dry cargo															
USSR	535	2,446.9	2,535.6	562	2,535.6	2,632.0	581	2,632.0	619	2,826.1	3,015.2	651	3,015.2		
European Satellites	89	487.0	503.8	91	503.8	610.3	104	610.3	127	772.2	957.2	148	957.2		
Communist China	54	220.5	239.8	60	239.8	306.3	73	306.3	97	463.5	593.9	114	593.9		
Total	678	3,154.4	3,279.2	713	3,279.2	3,548.6	758	3,548.6	843	4,061.8	4,566.3	913	4,566.3		
Total fleet	758	3,687.9	3,932.2	807	3,932.2	4,344.1	866	4,344.1	962	4,958.6	5,596.4	1,046	5,596.4		

a. Including ships of 1,000 GRT and above.

Table 6

Merchant Fleets of the European Satellites, by Type, Number, and Tonnage a/  
1955-59

Country and Type of Ship	1955		1956		1957		1958		1959 b/	
	Number	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Number	Thousand Deadweight Tons	Number	Thousand Deadweight Tons
Poland c/	70	408.4	62	405.2	80	500.0	91	587.7	101	705.0
Tanker	2	18.4	1	9.6	4	34.9	4	52.3	5	72.6
Dry cargo	68	390.0	68	395.9	76	465.1	87	535.4	96	632.4
East Germany	3	10.5	3	10.5	3	33.1	15	120.4	21	173.1
Tanker	0	0	0	0	0	0	2	23.0	2	23.0
Dry cargo	3	10.5	3	10.5	5	33.1	13	97.4	19	150.1
Bulgaria	5	22.0	6	22.4	8	45.6	9	48.8	11	53.8
Tanker	0	0	0	0	0	0	0	0	1	1.8
Dry cargo	5	22.0	6	32.4	8	45.6	9	48.8	10	52.0
Czechoslovakia	3	25.8	3	25.8	3	25.8	3	48.3	8	21.0
Tanker	0	0	0	0	0	0	0	0	1	30.2
Dry cargo	3	25.8	3	25.8	3	25.8	3	48.3	7	70.8
Rumania	1	34.7	1	34.7	1	34.7	1	34.7	1	34.7
Dry cargo	1	34.7	1	34.7	1	34.7	1	34.7	1	34.7
Hungary	3	4.0	4	4.5	2	6.0	6	7.6	6	7.6
Dry cargo	3	4.0	4	4.5	2	6.0	6	7.6	6	7.6
Albania	0	0	0	0	0	0	0	0	3	2.6
Dry cargo	0	0	0	0	0	0	0	0	3	2.6
Total	21	505.4	22	513.4	108	645.2	133	847.5	157	1,074.8
Tanker	2	18.4	1	9.6	4	34.9	6	75.3	9	117.6
Dry cargo	89	487.0	91	503.8	104	610.3	127	772.2	148	957.2

a. Including supply ships for the fishing fleet.

b. Estimated.

c. Including all merchant ships under the Polish flag. Published Polish figures giving totals for the fleet are generally lower, even though they include ships of less than 1,000 GRT, and they are labeled either "state-owned" (for 1958, 483,000 DWT for PLO and PZM -- see III, B, 4, p. 10, above) or "at the disposal of PLO and PZM" (for 1958, 394,000 DWT).

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Table 7

Seaborne Foreign Trade of the USSR and the European Satellites  
by Country  
1955-59

	Thousand Metric Tons				
<u>Country</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
Poland total	<u>13,028</u>	<u>12,197</u>	<u>10,714</u>	<u>13,676</u>	<u>14,000</u>
Polish ships	2,291	2,310	2,646	2,729	3,200
Foreign ships	10,737	9,887	8,068	10,947	10,800
East Germany total	<u>4,084</u>	<u>4,900</u>	<u>5,262</u>	<u>4,788</u>	<u>5,885</u>
East German ships	115	140	300	490	750
Foreign ships	3,969	4,760	4,962	4,298	5,135
Czechoslovakia total	<u>3,430</u>	<u>3,840</u>	<u>3,650</u>	<u>3,960</u>	<u>4,065</u>
Czechoslovak ships	110	165	110	143	180
Foreign ships	3,320	3,675	3,540	3,817	3,885
Bulgaria total	<u>584</u>	<u>761</u>	<u>992</u>	<u>709</u>	<u>1,450</u>
Bulgarian ships	180	271	293	300	450
Foreign ships	404	490	699	409	1,000
Rumania total	<u>4,700</u>	<u>4,500</u>	<u>4,700</u>	<u>5,000</u>	<u>5,300</u>
Rumanian ships	150	145	165	160	165
Foreign ships	4,550	4,355	4,535	4,840	5,135
Hungary total	<u>1,000</u>	<u>850</u>	<u>980</u>	<u>850</u>	<u>1,090</u>
Hungarian ships	25	45	45	55	65
Foreign ships	975	805	935	795	1,025
Albania total	<u>475</u>	<u>505</u>	<u>540</u>	<u>700</u>	<u>850</u>
Albanian ships	40	35	40	45	220
Foreign ships	435	470	500	655	630

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Table 7

Seaborne Foreign Trade of the USSR and the European Satellites  
by Country  
1955-59  
(Continued)

	Thousand Metric Tons				
Country	1955	1956	1957	1958	1959
Total, European Satellites	<u>27,301</u>	<u>27,553</u>	<u>26,838</u>	<u>29,683</u>	<u>32,640</u>
Less duplication among Satellites	550	550	540	600	700
Balance	<u>26,751</u>	<u>27,003</u>	<u>26,298</u>	<u>29,083</u>	<u>31,940</u>
Domestic ships	2,911	3,111	3,599	3,922	5,030
Foreign ships	23,840	23,892	22,699	25,161	26,910
Total for the USSR	<u>15,200</u>	<u>18,300</u>	<u>22,100</u>	<u>24,500</u>	<u>30,800</u>
Domestic ships	8,000	8,500	11,900	13,600	16,200
Foreign ships	7,200	9,800	10,200	10,900	14,600
Grand*total	<u>41,951</u>	<u>45,303</u>	<u>48,398</u>	<u>53,583</u>	<u>62,740</u>
Less duplication among the USSR and the Satellites	3,700	4,000	4,000	5,000	5,500
Balance	<u>38,251</u>	<u>41,303</u>	<u>44,398</u>	<u>48,583</u>	<u>57,240</u>
Domestic ships	10,911	11,611	15,499	17,522	21,230
Foreign ships	27,340	29,692	28,899	31,061	36,010

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