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CIA HISTORICAL REVIEW PROGRAM
 RELEASE IN FULL 1998

1974 Commission to NIE 11-10-70, "Uses of Soviet Military Power
 in Distant Areas" (Submitted to OS on 19 November 1970)

Merchant Marine Capabilities for Supporting Sustained Deployments of
 Substantially Increased Soviet Military Forces in Distant Areas

A. Size and Composition of the Soviet Merchant Fleet

The Soviet merchant fleet has more than tripled in tonnage since 1959 when it numbered fewer than 600 ships with a capacity of 3.3 million deadweight tons (DWT). At the end of 1969 it consisted of 1,315 ships with a capacity of 11.2 million DWT.* The ships included 1,065 dry cargo vessels (7.0 million DWT) and 250 tankers (4.2 million DWT).

One group of freighters in the Soviet merchant fleet is particularly well suited to the needs of a military supply lift. These ships numbered more than 350 and had a total capacity of almost 3.8 million DWT at the end of 1969 (see Table 1). All are vessels less than 20 years old in the 5,000 to 17,000 DWT range with speeds of 14 or more knots and heavylift booms with capacities from 40 to 80 tons. They include most of the more than 140 ships in the fleet with large hatches (over 50 feet in length), capable of carrying major items of military equipment in their holds (see Table 2).

With the exception of vessels confined to short range operations in areas like the Black and Baltic seas because of their small size or advanced age, most of the remaining 3.2 million DWT of dry cargo vessels could also be used for a military supply lift. Operations with these

* Preliminary data indicate that the USSR contemplates fleet growth to approximately 16 million DWT by the end of 1975 and 20 million DWT by the end of 1980. The planned allocation of these tonnages between dry cargo ships and tankers is not known.

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GROUP 1
 Excluded from automatic
 downgrading and
 declassification

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Table 1
Characteristics of Selected Classes of Soviet Dry Cargo Ships
31 December 1969

Class	Units	DWT/ Unit	Total DWT ^{1/}	Speed (knots)	Draft (feet)	Range (nautical miles)
AMGUEMA 2/	10	8,700	87,000	14.5	29	8,000
ARKHANGELSK	16	8,290	132,640	14.0	26	16,240
BELOMORSKLES	66	6,036	398,376	16.0	23	6,000
BELORETSK	6	14,150	84,900	17.5	32	22,000
BEZHITSA/POLTAVA	21	12,650	265,650	15.5	30	16,700
DNEPROGES	6	7,215	43,290	16.0	27	11,000
IRKUTSK 2/	10	12,500	125,000	17.7	29	12,000
KAPITAN KUSHNARENKO	3	15,800	47,400	18.0	32	12,000
KOMMUNIST	14	12,500	175,000	17.5	29	14,000
KRASNOGRAD	23	12,200	280,600	17.0	30	18,200
LENA	5	7,420	37,150	15.0	27	13,500
LENINGORSK	9	11,050	99,450	16.0	29	12,500
LENINSKIY KOMSOMOL	25	16,040	401,000	17.0	30	12,000
MURM	30	12,500	375,000	17.0	30	10,000
NOVGOROD 2/	8	12,500	100,000	18.0	30	12,000
OMSK	8	12,000	96,000	17.5	30	10,100
PAVLIN VINOGRADOV	6	5,400	32,400	14.0	23	6,000
PULA 2/	25	14,000	350,000	17.0	32	19,000
SIMFEROPOL	7	12,030	84,210	16.0	29	14,000
SLAVYANSK	15	12,680	190,200	17.5	30	12,000
STANISLAVSKIY	5	5,676	28,380	14.0	22	7,630
TIKSI	2	12,050	24,100	17.0	30	10,000
VOLGOLES	16	6,205	99,280	14.5	23	10,400
VYBORG	17	12,300	209,100	16.5	29	13,200
Total	252		3,766,126			

1/ For estimated cargo carrying capacity, reduce D.W.T by 16%. Capabilities of each class for loading specific types of military equipment have not been developed.

2/ Construction continuing

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Table 2

Soviet Large Hatch Ships^{1/} - 31 December 1969

<u>Class</u>	<u>Where Built</u>	<u>Number of Ships</u>	<u>Unit D.W.T.</u>	<u>Large Hatch Location Dimensions (in feet)</u>
POLTAVA	U.S.S.R.	21	12,650	No. 4 79 x 20 (Twin)
BEZHITSA	U.S.S.R.			
OMSK	Japan	8	12,000	No. 3 76 x 36
KRASNOGRAD	Finland	23	12,200	No. 3 74 x 35
PULA ^{2/}	Yugoslavia	25	14,000	No. 3 67 x 37
MUROM	Poland	30	12,500	No. 3 66 x 36
VYBORG	East Germany	17	12,300	No. 3 62 x 36
SIMFEROPOL	Poland	7	12,030	No. 3 55 x 29
STANISLAVSKIY	Belgium	5	5,676	No. 2 55 x 22
BELORETSK	Denmark	6	14,150	No. 4 53 x 36
	Total	<u>142</u>		

¹Merchant ships having at least one hatch of more than 50 feet in length are classified as large hatch ships.

²Construction continuing

The Soviet Union embarked on the construction of large hatch ships in 1956 with the building of the STANISLAVSKIY Class in Belgium. Since 1956, the Soviet have added eight additional large hatch classes of ships; the Yugoslav-built PULA Class is the only one presently under construction. As of 31 December 1969, large hatch ships of the Soviet merchant fleet aggregated over 1.1.8 million DWT.

No information on further construction of large hatch ships other than two PULA Class ships scheduled for delivery in 1970/1971 has been noted. It would appear that the construction of large hatch ships for the Soviet merchant fleet is rapidly coming to an end.

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ships would necessarily be much less efficient than with those in the preceding group.

The suitability of Soviet merchant fleet tankers for participation in military supply operations is largely a function of their size.

Because vessels 15 years old and younger make up more than 90% of the tonnage, age is not an important factor. The portion of the fleet best suited for long distance operations consists of 96 tankers (3.1 million

DWT) ranging in size from 15,000 DWT to 50,000 DWT, all of which have

(see Table 3).

speeds of 15 knots or greater. Most of the remaining tanker tonnage

consists of smaller tankers in two large blocks that would be best adapted for short-haul operations such as that from the Black Sea to the UAR.

The first of these is made up of 11,800 DWT Kazbek-class tankers with speeds of 13 knots. The 63 tankers in this class aggregate approximately 800,000 DWT. The second block consists of Finnish-built tankers of between 4,300 and 5,000 DWT with speeds of 13 and 14 knots. There were 41 of these in the fleet at the end of 1969 with a total capacity of 190,000 DWT.

B. Difficulties in Diverting Merchant Fleet Tonnage for a Military Sealift

The Soviet merchant fleet has sufficient appropriate tonnage to permit its simultaneous use in a number of major military sealifts on a global scale. However, any large-scale diversion of ships for this purpose would be costly to the USSR in terms of its effects on the conduct

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Table 3

Selected Characteristics of Soviet Tankers 15,000 DWT and Larger

Class	Units	DWT/Unit	Total DWT	Speed (knots)	Capacity (Bbls.)	Draft Loaded (Ft.)	Range (nautical miles)
ADLER	2	25,250	50,500	14.7	214,000	33	12,000
BAUSKA	11	18,189	200,079	15.5	154,000	30	17,000
DRUZHA	1	40,715	40,715	16.5	346,000	36	15,975
DZHUZEPE GARIBALDI	1	32,017	32,017	15.5	368,000	34	11,000
INTERNATSIONAL	51/	20,000	100,000	16.0	197,000	31	15,000
LEONARDO DA-VINCI	6	48,933	293,598	17.5	368,000	39	30,000
LISICHANSK	10	34,643	346,430	17.0	298,000	35	14,980
LUGANSK	8	34,985	279,880	16.7	298,000	35	15,000
MIR	1	39,719	39,719	16.0	340,000	36	20,400
PEKIN	7	30,900	216,300	17.5	183,000	35	10,500
SOFIYA	20	49,370	987,400	17.0	302,000	38	10,000
SPLIT	191/	20,493	389,367	17.0	188,000	30	16,500
TRUD	1	25,330	25,330	16.0	224,000	32	6,000
VELIKIY OKTYABR	4	15,200	60,800	16.7	134,000	28	15,000
	96		3,062,135				

1/ Construction continuing

2/ Data as of 31 December 1969

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of Soviet foreign trade and on the Soviet balance of payments -- particularly in hard currency. The USSR's tanker needs are so great throughout the year that the only circumstances under which its tankers are made available to non-communist charterers is for backhauls on a voyage charter basis while returning to the USSR from the delivery of exports. Except for small numbers of freighters under 10,000 DWT made available to non-communist charterers December through March on a time charter basis* and cargo liners operating on routes between Free World ports, most of the dry cargo fleet is similarly occupied in moving Communist cargoes on a full-time basis. Concurrently, foreign ships are still heavily used in carrying Soviet exports and imports. The share carried by them in 1969 is estimated to have been more than 40%.

The diversion of Soviet tonnage for ^a large scale military supply operation would thus be costly in terms both of foreign exchange earnings forgone* and increased payments for the charter of foreign ships. If the current tight situation on the charter market for tankers persists, the USSR might actually be unable to find substitute tankers with which to fulfill its export commitments.

* When the icing over of certain northern ports temporarily reduces the need for such vessels.

** Exports make up approximately 90% of Soviet seaborne foreign trade. Every additional ton of this cargo carried by Soviet ships means additional foreign exchange earned, much of it in hard currency.

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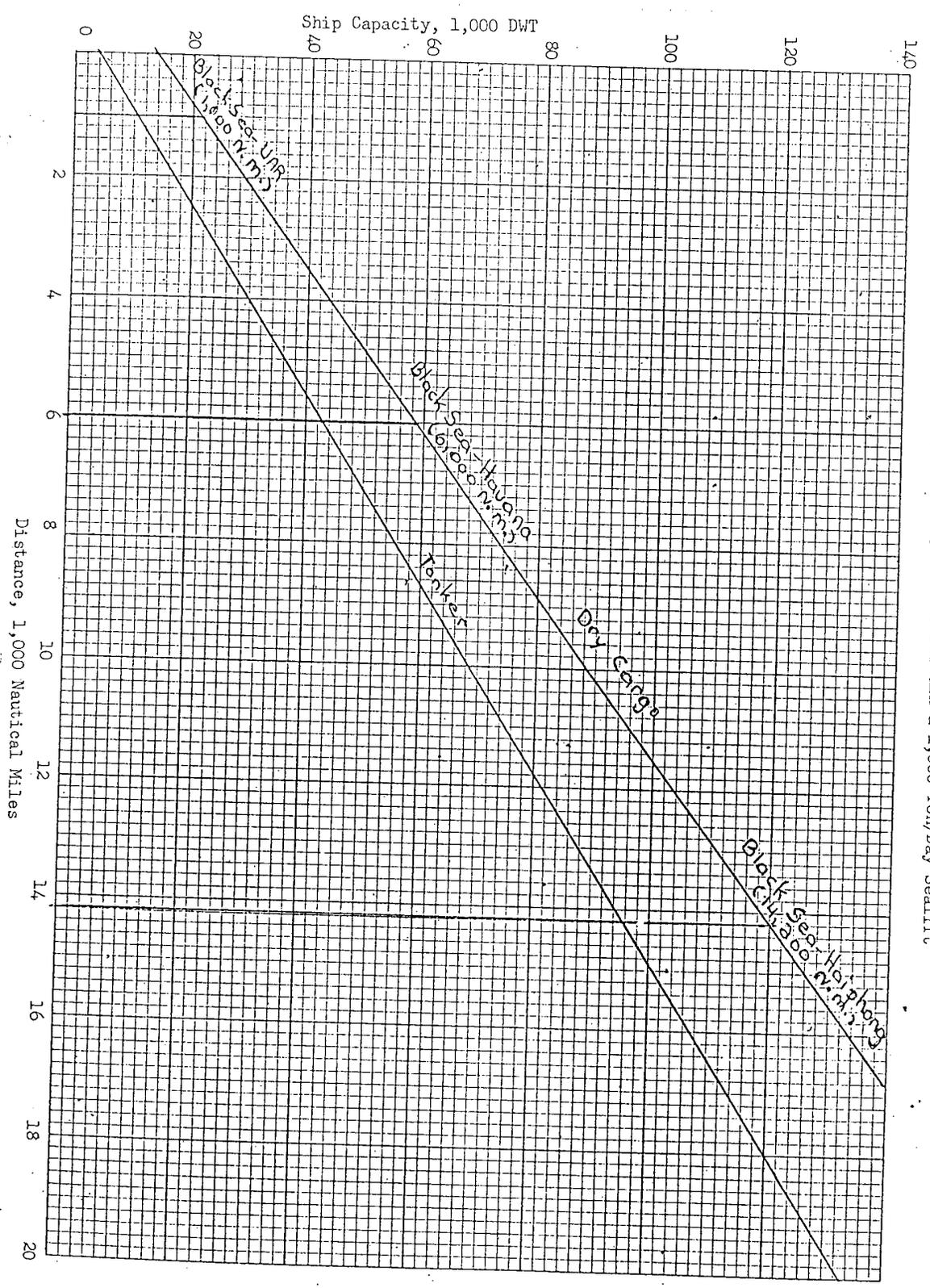
C. Ship Tonnages Required

The actual tonnages of tankers and dry cargo ships (in DWT) required for a given supply lift will depend on the circumstances of that lift. As shown in the chart below, distance is one of the two most important factors. On the short-haul 1,100 nautical mile route from Soviet Black Sea ports to the UAR, the equivalent of 1.6 modern 12,500 DWT freighters (20,000 DWT total) would be required to sustain a 1,000 ton/day lift of mixed dry cargo and the equivalent of .2 Sofiya-class tankers of 49,000 DWT (9,800 DWT total) would be required to sustain a 1,000 ton/day lift of petroleum. To sustain the same lifts on the 14,200 nautical mile route from Soviet Black Sea ports to Haiphong via the Cape of Good Hope would require 9.7 of the 12,500 DWT freighters (121,250 DWT total) and 1.9 of the 49,000 DWT tankers (93,100 DWT total) or a total tonnage more than seven times as great.

Just as important as the distance over which any lift has to be carried out is the rate in tons/day at which deliveries are required. This depends in turn on the number of military units being supplied, the nature of their activity (whether they are in combat or merely on training or standby duty), and on the feasibility and desirability of obtaining supplies locally. In a combat situation where all supplies had to be brought in from outside, estimated requirements for a Soviet mechanized rifle division (with air support) are 700 tons per/day of dry cargo and 315 tons/day of petroleum products. The table below shows the tonnages

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Ship Capacity Required to Sustain a 1,000 Ton/Day Sealift

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of dry cargo ships and tankers that would be required to sustain supply lifts for varying numbers of mechanized rifle divisions under combat conditions in circumstances where all supplies have to be brought in by sea over varying distances from Soviet Black Sea ports:

Number of Mechanized Rifle Divisions	Thousand Deadweight Tons					
	1,100 Nautical Miles (UAR)		6,000 Nautical Miles (Cuba)		14,200 Nautical Miles (North Vietnam)	
	Dry Cargo	Tanker	Dry Cargo	Tanker	Dry Cargo	Tanker
1	14	3	40	13	85	29
10	140	31	400	128	849	293
20	280	62	801	255	1,698	587
30	420	93	1,201	383	2,546	880
40	560	123	1,602	510	3,400	1,173
50	700	154	2,002	638	4,244	1,466

Under the most extreme situation depicted, a lift from the Black Sea to North Vietnam in which 50 mechanized rifle divisions (the equivalent of 500,000 men) are being supplied would require dry cargo tonnage of 4.2 million DWT, an amount greater than that of the entire block of tonnage best adapted for a supply lift. This same lift would require almost 1.5 million DWT of tanker tonnage, the equivalent of half of the 3.1 million DWT block of tankers best suited in terms of size and age for a long-haul lift of petroleum.

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