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# USSR Report

TRANSPORTATION

(FOUO 2/81)



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OCEAN AND RIVER

ORGANIZATION, PLANNING AND TECHNOLOGY OF CARGO HANDLING AT SEAPORTS

Moscow ORGANIZATSIYA, PLANIROVANIYE I TEKHNOLOGIYA PEREGRUZOCHNYKH RABOT V MORSKIY PORTAKH in Russian 1979, title page pp 404-408

[Table of contents of book "Organizatsiya, Planirovaniye i Tekhnologiya Peregruzochnykh Rabot v Morskikh Portakh" (Organization, Planning and Technology of Cargo-Handling at Seaports) by A. S. Frolov, P. V. Kuz'min, and A. V. Stepanets, Moscow, Izdatel'stvo Transport, 1979]

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EFFICIENT USE OF FIXED CAPITAL OF MARITIME TRANSPORTATION DISCUSSED

Moscow EFPEKTIVNOST' ISPOL'ZOVANIYA OSNOVNYKH FONDOV MORSKOGO TRANSPORTA in Russian 1980, pp 3-4, 173

[Foreword and table of contents of book "Effektivnost' Ispol'zovaniya Osnovnykh Fondov Morskogo Transporta" (The Efficiency of Use of the Fixed Capital of Maritime Transportation) by O. A. Novikov, Moscow, Izdatel'stvo Transport, 1980]

[Text] "The only way to resolve the many economic and social problems facing the country," Comrade L. I. Brezhnev said at the 25th CPSU Congress, "is rapid growth in labor productivity and a sharp increase in the efficiency of all public production. The stress on efficiency is a crucial part of all our economic strategy."\* Solving this problem depends largely on skillful, economical use of fixed productive capital. The indicators of use of fixed capital provide a mirror reflection of all the multifaceted work done by enterprise collectives to raise the efficiency and quality of production. Steadily increasing the economic efficiency of fixed productive capital and the return on capital is an important way to further intensification of production, especially in such capital-intensive sectors as transportation.

Maritime transportation is doing a great deal of purposeful work to improve the use of fixed capital and raise its economic efficiency. At the same time, further intensification of the use of fixed productive capital, increasing its efficiency, and optimal control of the complex processes of reproduction of fixed capital demand a thorough understanding of the economics of fixed capital. It is becoming very important to work out the questions of a correct classification of the structure, initial balance cost and replacement cost of fixed capital, and methods of identifying the economic consequences of obsolescence and physical wear, methods of establishing and analyzing the level and efficiency of their use, and factors that determine these indicators.

In the present book the author has attempted to show how the economic indicators of enterprises of maritime transportation are greatly influenced by

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\* "Materialy XXV S'yezda KPSS" [Materials of the 25th CPSU Congress], Moscow, Politizdat, 1976, p 43.

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the state of fixed capital, methods of planning and setting wholesale prices for new technical means, the correctness of the balance appraisal and depreciation of existing equipment, the degree of its physical wear and obsolescence, and its service life. He has also attempted to formulate the most significant way to raise the level of use and efficiency of fixed productive capital. These matters are dealt with chiefly as applicable to fixed capital that is specific in maritime transportation (ships, docks, protective structures, and the like) in such a way that readers will be able to apply the proposed methods of calculation and solutions directly in practice.

Sections 6.1 and 6.2 of the book were written jointly with N. I. Starovoytov.

The author expresses his gratitude to I. G. Levin, who offered valuable comments during his review of the manuscript of the book and also to A. A. Pantin, T. A. Andreyeva, I. B. Verbova, G. M. Demina, Ye. M. Yefimova, S. R. Kovaleva, Zh. G. Koroleva, T. A. Maksimova, T. A. Mamontova, L. A. Smirnova, and A. P. Filatova, who helped in writing the book.

The author will welcome critical remarks and comments by readers.

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OCEAN AND RIVER

NEW BOOK REVIEWS TECHNICAL ADVANCES, PROSPECTS IN MARITIME TRANSPORTATION

Moscow NAUCHNO-TEKHNIЧЕСКИЙ PROGRESS NA MORSKOM TRANSPORTE in Russian 1980, pp 9-13, 160

[Excerpt and table of contents of book "Nauchno-Tekhnicheskiy Progress na Morskoye Transporte" (Scientific-Technical Progress in Maritime Transportation) by M. A. Gnatkov and V. Kh. Dubchan, Moscow, Izdatel'stvo Transport, 1980]

[Excerpt] The document "Basic Directions of Development of the USSR National Economy for 1976-1980," which was ratified by the 25th CPSU Congress, envisions further development of maritime transportation. The challenge is posed of more fully meeting the growing needs of the national economy for foreign trade and coastwise shipping, improving the delivery of cargo to the regions of the Far North and Far East, and increasing the volume and efficiency of shipment of export cargoes.

To meet this challenge the following steps are envisioned:

1. Continued replacement of the fleet with highly productive dry-cargo, tanker, and combined ships with a total deadweight of roughly 5 million tons;
2. A slight increase in the proportion of the specialized dry-cargo fleet (timber, container, lighter, and trailer carriers, bulk cargo ships, and the like);
3. Adding powerful icebreakers to the fleet.

The shore facilities of maritime transportation will be developed chiefly by construction of specialized cargo-handling complexes. Plans call for continuation of construction of the new port in Grigor'yevsk estuary on the Black Sea and for the development of ship repair facilities.

Soviet specialists in all periods of development of the material-technical base and technical equipment for maritime transportation have concentrated attention on technical improvements and observing all the requirements of productive labor and safe working conditions for service personnel. Observance of these conditions has enabled maritime transportation to develop

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a material base that is on the level of the best achievements of world science and technology.

According to the figures of the USSR Register, on 1 July 1979 the Soviet maritime fleet had 7,546 ships of various classes with a total gross tonnage of 21,785,000 registered tons. This figure includes self-propelled ships with a tonnage of 100 registered tons or more (see Table 2 below).\*

Table 2

Ships	Number of Ships	Gross Tonnage, registered tons
Passenger and Cargo-Passenger	227	667,200
Dry-Cargo	2,307	10,203,600
Tankers	467	4,861,800
Service-Auxiliary	814	470,000
Fishing	2,959	4,700,700
Technical	406	353,400
Other	366	528,800

1.3 Maritime Transportation in the Unified Transportation System of the USSR

The high rate of development of all sectors of the country's economy demands that transportation meet the needs for conveying cargo and passengers with minimum expenditures. Transportation costs today constitute about one-fifth of all expenditures in the national economy.

Transportation accounts for one-fifth of the fixed productive capital of the country, about 14 percent of the total number of persons employed in the national economy, and more than 10 percent of the energy resources used in the country.

The USSR transportation system consists of different types of transportation: rail, maritime, river, motor vehicle, air, and pipeline. The sphere of application, scale of development, and role of each type of transportation are determined by state plans. This creates favorable condition for developing them within a unified national transportation system.

In all stages of development of the USSR economy the Communist Party and Soviet Government have given proper attention to the development of all types of transportation at a level that insures that the needs of the national economy for conveyance of cargo and passengers will be met.

Within the country maritime transportation meets national needs for shipping in all regions and sectors where it is the only or the most efficient form of transportation. On the international level maritime transportation ships foreign trade cargo and promotes the further development of Soviet foreign trade.

\* SUDOSTROYENIYE L979, No 12, p 50

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In addition, the USSR maritime fleet affords a savings of foreign currency that would be needed to charter foreign tonnage, increases the efficiency of Soviet export and import, and increases foreign currency receipts through export of transportation services by the Soviet maritime fleet.

The seaports of our country are a connecting link among rail, river, motor vehicle, and pipeline transportation and sea routes. Foreign trade cargoes are moved along these routes, maintaining communication with those regions of the country where practically any other type of transportation is inefficient. In certain regions of the country (the Far East and Far North) maritime transportation is in fact the primary, and sometimes the only, means of large-scale shipping.

The work of maritime transportation is closely interrelated to success in the development of the timber, mining, coal, gold, diamond, fish, and other sectors of industry and construction and agricultural production in Primorskiy Kray, Sakhalin and the Kuril islands, the coast of the Sea of Okhotsk, Kamchatka, Chukotka and other polar regions of Magadanskaya Oblast, the Yakut ASSR, Krasnoyarskiy Kray, and Arkhangelskaya and Murmanskaya oblasts.

Maritime transportation has a significant role in Caspian Sea shipments of petroleum and petroleum products, salt, timber, chemicals, building materials, cotton, and a broad assortment of equipment and general cargo in the trade exchange between the Central Asian and Transcaucasian republics, as well as the southern rayons of the RSFSR and the Ukraine bordering on them.

The fact that maritime transportation has modern, highly productive technical equipment and highly qualified specialists, together with steps toward efficient use of the material-technical base, has made it possible to solve the following problems.

1. Insure the independence of USSR foreign trade from the capitalist chartering market. Soviet maritime transportation today meets the needs of foreign trade for maritime shipping in full.

The steadily growing shipping traffic between the USSR and Cuba, Vietnam, Bulgaria, East Germany, and other countries is fully supported by our fleet. Shipping between ports of the USSR and the ports of the developed capitalist and developing countries is growing.

2. Maritime transportation meets the needs of the country's economy for maritime shipping of cargo between Soviet ports. Shipping plans for coastwise navigation are being successfully fulfilled. About 160 million tons of national economic cargo was shipped by this form of navigation in the first two years of the 10th Five-Year Plan.

Maritime transportation has met the shipping needs of the Far North and Far East. The scientific-practical trip of the atomic icebreaker Arktika to the North Pole and the experimental trip of the atomic icebreaker Sibir' with the transport ship Kapitan Myshevskiy demonstrated the practical possibility of sailing in the Arctic year-round. Soviet seamen demonstrated in practice

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that with skillful handling of contemporary equipment it is possible to solve complex maritime shipping problems, in particular to maintain year-round shipping in the swiftly developing regions of the Yamal peninsula and to the port of Dudinka.

3. Maritime transportation meets the country's needs for maritime passenger conveyance. The fleet has received modern passenger ships of several classes such as Pushkin, Mariya Yermolova, Belorussiya, and Gruziya. These ships afford passengers comfortable conditions. Hydrofoil vessels built by Soviet specialists are working successfully in coastal sectors. In 1976 and 1977 the passenger fleet carried a total of more than 400 million passengers.

Soviet passenger ships have given a good account of themselves on both domestic and international lines. Cruises for Soviet and foreign tourists are developing broadly.

4. Maritime transportation carries the cargo of foreign charterers (cross-trade). Ships built by Soviet specialists have proved to be competitive in the world chartering market. The Soviet Union is developing its merchant fleet primarily to meet the needs of Soviet foreign trade and domestic coastwise shipping.

Soviet maritime organizations, participating in international navigation, are guided by an aspiration toward equal and mutually advantageous cooperation with all who have an interest in such cooperation.

Table 3 below gives general figures that characterize the work of maritime transportation by sectors.\*

Table 3

Type of Shipping	Shipping Indicators, millions of tons		
	1976	1977	1978
Total Volume of Shipping by the Soviet Fleet	214.5	219.3(+2.2%)	226.9(+3.5%)
Included in above:			
USSR Foreign Trade Cargo	104.1	111.4(+7.2%)	117.3(+5.3%)
Coastwise	80.0	74.7(-2.8%)	79.6(+2.4%)
Crosstrade	30.4	30.2(-0.7%)	30.0(-0.7%)

The volume of world maritime shipping in 1976 increased 1.9 percent over 1973, reaching a figure of 3,277,000,000 tons. In the same time the cargo capacity of the world merchant fleet increased 34.3 percent to 608 million tons of deadweight. The cargo capacity of the Soviet transportation fleet increased 17.6 percent during this time.

\* MORSKOY SBORNIK 1978, pp 10-11



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These figures show that the surplus capacity of the world transportation fleet was a result of accelerated growth during an economic decline in the capitalist countries. This is the true reason for the heightened competition in world shipping.

Soviet maritime transportation is developing with due regard for satisfying the needs of the national economy for maritime shipping.

The main direction of scientific-technical progress in maritime transportation is intensive development on the basis of new machinery, progressive technology and organization of production to sharply increase efficiency of the shipping process, productivity, and labor sophistication, and an improvement in everyday conditions for employees.

This will be accomplished by the following steps: devising transportation-technological systems that are coordinated with other types of transportation; building a complex of technical means for maritime transportation; establishing consolidated cargo points that specialize in shipping and processing; building highly productive cargo-handling complexes to transship large-scale bulk and liquid cargoes; formulating highly efficient systems for control of maritime transportation; improving working conditions; broad introduction of means of mechanization and automation of production processes; and, improving the qualifications of employees in all elements of maritime transportation.

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