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USSR: A MERCHANT MARINE IN THE SERVICE OF THE NAVY,(U)
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AUTHOR(S) AND/OR EDITOR(S): Lucien Poirier

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U S S R: A Merchant Marine in The Service of The Navy

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The naval power of a modern major power cannot be measured alone by the numbers, types, ages and characteristics (technical and military) of its naval ships; the naval power is also based upon the merchant marines - both coastal and high-seas - which are capable of playing an active role in the event of hostilities, either when they are armed as naval ships, or - more generally - when they are used as auxiliaries of the navy.

A Curious Hierarchy of Merchant Marines

When the naval power of the USSR is considered, we should not ignore the fact that the merchant and fishing fleets of this country are on the one hand under the total control of the state as the sole proprietor, and on the other hand are apparently used - at least in part - in peactime as auxiliaries of the navy, both in the strict sense of the word and as permament information collectors on the positions, movements, maneuvers and sea trials of the particular naval forces, which are targeted as potential adversaries. In this regard, the priority of importance which the USSR appears to have assigned to the constitution and development - both prodigious and economically illogical - to its "merchant" fleets is practically the opposite of the priority assigned by the other countries of the world. For these other countries the importance of such fleets is measured in exclusively economic terms - the first priority is generally assigned to the large energy carriers (oil, gas, etc) and to large carriers of raw materials, while a very secondary priority is assigned (since the advance of passenger aircraft) to large passenger liners, and the third priority is always assigned to ships of small displacement (less than 6,000 tons gross, or of 12,000 tons displacement loaded), as in the case of small tankers and almost all fishing vessels or mother ships (with or without processing facilities on board).

The Third Priority of Fleets Which Are Actually of A National Character

First let us say that the international statistics* pertaining to the

*The follow data pertaining to the merchant fleets of the USSR (commercial and fishing) are derived from the Statistical Tables of the Lloyd's Register of Shipping, which are published annually , at the end of December - beginning of January.

to the commercial and fishing fleets are expressed here (as they are traditionally expressed) in gross tonnage (the ton is *a volume*: 100 cubic feet, i.e., 2.83 cubic meters). /88

The following tables indicated within a five-year periods the developments in the USSR as compared to the USA, the UK, the Federal Republic of Germany, and France, first the total tonnages of the national commercial fleets, then the tonnage of tankers (and petroleum products) and the bulk carriers of raw materials (with the exception of general cargo carriers).

Merchant marines including all ship types (in millions of gross tons)

Country	1961	1966	1971	1976	1981
USSR	4.1	9.5	16.2	20.7	23.5
USA	24.2	20.8	16.3	14.9	18.9
UK	21.5	21.5	27.3	32.9	25.4
FRG	4.8	5.8	8.7	9.3	7.7
France	5.1	5.3	7	11.3	11.5

It can be noted from the Table above that within 20 years the total gross tonnage of the merchant fleet of the USSR has been multiplied by a factor of 5.7, whereas the tonnage of France has been multiplied by 2,3, that of the FRG by 1.6, that of the UK by 1.2, while the total gross tonnage of the USA is not quite 80% of what it previously was*:

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*It should however be noted that the American merchant marine consisted to a large extent after 1945 of ships of WWI construction (VICTORY and LIBERTY ships, T2 Tankers), which today have almost all been eliminated from the reserve fleet and scrapped.

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this addresses the growth.

In regard to the size, the Soviet commercial fleet currently has 23.5 million tons, or double the French, and 5 million tons more than the American commercial fleet. Actually, if the three merchant marines of the "flags of convenience", which occupy the international positions No. 1 (Liberia), No. 3 (Greece) and No. 5 (Panama), are considered, the commercial fleet of the USSR surpassed by only two really national merchant marines: that of Japan (41 million tons at the end of 1981) and that of the UK; however, the foreign commerce of the USSR (import and export by sea) is incomparably inferior to that of the USA, France and the FRG; we will see very shortly in regard to their design with what military intent a very large part of these ships were designed and built.

Tanker (T) and Bulk Cargo Carrier (B) Fleets in Millions of Gross Tons /89

Country	T or B	1961	1966	1971	1976	1981
USSR	T	1	2.5	3.6	4.2	4.6
	B	-	0.1	0.2	0.8	2
USA	T	4.6	4.3	4.6	5.6	8.1
	B	-	0.7	2	1.8	1.9
UK	T	7.3	8	13.4	16.1	12.3
	B	-	2	4.3	8.2	6.3
FRG	T	0.7	1.1	1.8	3.3	2.6
	B	-	0.8	1.8	2.3	1.5
France	T	2.1	2.4	3.9	7.4	7.4
	B	-	0.4	0.8	1.3	1.5

Therefore it can be noted that the UK and the FRG experienced a noticeable (read very large) reduction of their tonnages in large carriers (liquid and solid) with the last five years and that the corresponding American and French tonnages have only just been able to sustain themselves*,

*For the USA the tanker fleet has grown considerably in recent years, but the fact should not be ignored that it is very inadequate - scarcely more than the French increase, which only covers moreover two thirds of our import requirements, while the American imports are almost three times as great as ours.

whereas the Soviet growth rate has continued to increase. These absolute figures are, nevertheless, very inadequate, for the reason that the USSR does not depend upon foreign imports to cover its needs in oil, coal, iron ore, phosphates and other industrial raw materials. However, this situation should illustrate the fact that in regard to given total tonnage the percentage of "sophisticated" Soviet ships - which are of considerable value in time of hostilities - is considerably greater than in the commercial fleets of potential enemies. We will shortly address a disturbing characteristic of the Soviet tanker fleet - the issue of small replenishment tankers.

Fishing: An Unlikely Hegemony /90

The international statistics - still from the same source from Lloyd's Register of Shipping - allows the improbable international hegemony which the USSR enjoys in two categories of shipping addressed here, i.e., in ships which catch fish and in ships which process the catches at sea and deliver them to home ports*.

*This practice, which is generalized by the Soviets, allows a rationalized degree of productivity, because it avoids having to send the fishing ships back to home port; this technique is also practised by Japanese and Korean fishing fleets; however it is a technique used only rarely (however French tuna boats do use this technique off former French West Africa)) in Western countries which have more restrictive laws.

So called fishing ships

Because of force of circumstances (lack of statistics more than 10 years old) and because of the extreme weakness of the West in this area, we will restrict our comments as follows:

- for the last 10 years the Soviet percentage of the total international tonnage has remained at a level of 40% (exactly 3.7 million tons of an international tonnage of 9.3 in 1980);
- in the category of "giant ships", the Soviet percentage is actually 6)% (exactly 161,000 tons of a total international tonnage of 242,00 in 1980) for ships of more than 4,000 tons, and as well 72% (exactly 2,256,000 tons of an international tonnage of 3,127,000) for ships displacing between 2,000 and 4,000 tons. These numerical statistics allow it to be measured to what degree the Soviets have the means - with the personnel and materiel already in place - to prosecute an effective surveillance in all the seas of the world where the USSR has a need to be informed continuously and precisely.

Factory ships and refrigerator or catch storage ships

- for the last 10 years the Soviet percentage of international tonnage has consistently been very high, but here at an amazing level of 80% of the international tonnage (exactly 2,820,000 of an international tonnage of 3,474,000 in 1980).
- in the category of the "giants", the Soviet percentage has actually increased to 88% (exactly 1,500 of an international tonnage of 1,777 million in 1980). With such ships, which are floating bases capable of accommodating considerable personnel and repair and maintenance materiels, the Soviet naval forces have such facilities available in practically all of the seas of the world.

Availability of Foreign Shipyards

The creation of "civilian" fleets, which have grown so rapidly and which have conspicuously gained tonnages which are sufficiently large to insure a permament presence in all of the seas of the world would not have been possible with the capacity and capability of Soviet industry alone; The Soviet industry, which assigns absolute priority to military research and /91 construction (at times indirectly, as is the case in the space industry) has remained very poorly endowed with personnel and equipment to be able to prodice (in quantity and quality) all of the civilian ships, whose amazing existence can be documented. It has therefore been necessary for foreign countries to assume the task of providing so many ships. As Lenin appreciated very well, the enemies of the Soviet Union (with perhaps the exception of the USA and UK) compete vigorously to obtain a piece of this appetizing "cake". It should however be noted that the new Soviet constructions thus produced in foreign shipyards have only constituted a secondary percentage (read marginal) of the production of each country involved. However with more than

250 ships built within the last 20 years, which represent more than 3.5 million tons of construction and displacement, the total is certainly impressive. Yugoslavia is clearly in the lead (with a good third of the total tonnage), then Japan with almost a fourth), then France, FRG and Italy (each with ca. 10%), then Sweden, Denmark, The Netherlands, and several other countries. /91

However, three countries* with a large naval industry have always

*In order, Bulgaria, Rumania, Czechoslovakia make a non-neglible contribution.

dedicated the majority and generally the better part of their production to the plethora of requirements of the USSR: then there are the DDR and Poland, which are officially "satellites", and Finland, which is "finalandized". It should be noted that, if we do not speak of ship construction specifically for the Soviet fleet, it is merely for the reason - because of the exceptions caused by Poland* with all the construction of 4,400 ton (full load) ROPUCHA Class LST and of all the 1,150 ton (full load) POLNOCHNIY Class LSM -

*Cf. the para. below in regard to Poland.

the USSR has never entrusted construction of its naval ships abroad*.

*In order to be complete and exact, it should be noted thatthe large nuclear icebreakers (LENIN, ARKTIKA, SIBIR, ROSSIA) were apparently constructed in the USSR itself.

The German Democratic Republic: in the first rank of the suppliers

The naval shipyards of the GDR at the least dedicate the major part of their export activity to satisfy the needs of the commercial and fishing fleets of the USSR.

Perhaps because they were embarrassed to publish statistics on that aspect of their "vassalization", these shipyards ceased publishing their annual production figures since 1973 - and otherwise imitate the Soviet shipyards in this regard; it does not prevent from knowing at least the essential facts of what is happening (however, with a lesser degree of precision than in the preceding period - 1961 - 1972).

We will restrict our comments to the following facts, which are most significant:

- in regard to the regularity and the quantity of new construction, one shipyard in the GDR and one production attract particular attention: since 1963 the Stralsund Werft has delivered (fishery) factory ships of from 2,400 to 2,900 gross tons to the USSR each year (for example, this is a number which is greater than all such ships which are under French flag*) and /92

*These Soviet factory ships are certainly of an impressive tonnage, but they are also very slow (11 knots), because they are primarily designed for fishing (fish and information)

and this at a rate which often exceeds 20 ships per year!
- Other much larger factory ships have been built for the USSR at the Mathia Thesen Werft in Wismar - particularly several of 12,000 tons gross (this is larger than the largest French cargo ships prior to the advent of container ships);
- a large series of 6 cruise liners of the IVAN FRANKO Class was built by this shipyard Mathias Thesen, Wismar, for the USSR: approximately 20,000 tons gross (the equivalent of our FLANDRES and ANTILLES)and it is apparent that these liners can be rapidly converted into troop transports;
- other passenger ships of good size (5,000 tons) have also been built as well as school ships (4,000 tons), "dispatch" ships, "research" ships (these are also on the order of 4,000 to 5,000 tons).

Actually, as noted, it is difficult to determine what is being built in the GDR for the USSR, , but it should be mentioned that a serious recession appears to have occurred since the advent of the international economic crisis, and little construction is being done other than large cargo ships, which are multi-purpose types but of simple design (for solid freight and containers).

Poland - collaboration interrupted?

The Polish naval shipyards have been utilized less by the USSR than those of the GDR, but their contribution has indeed been considerable; the important points to be noted are as follow:

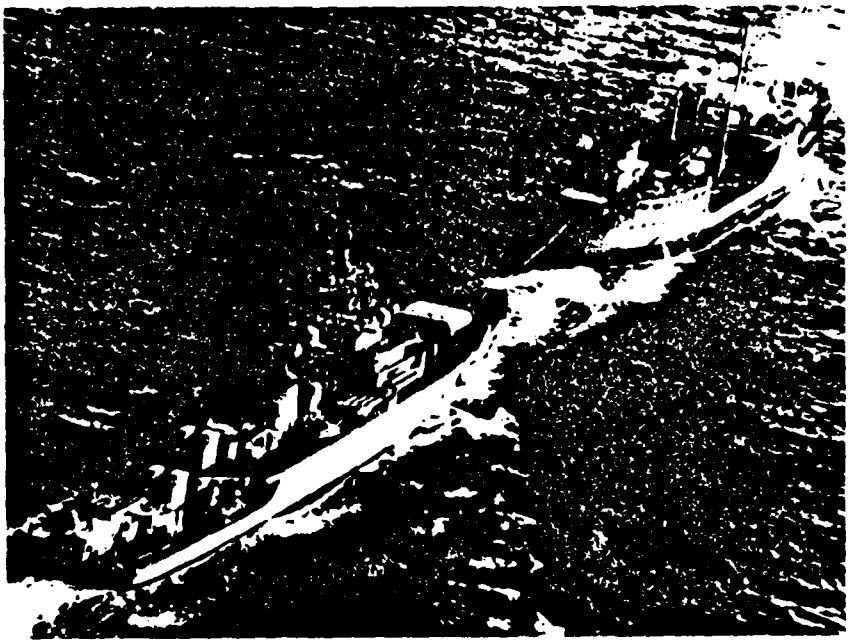
- in regard to cargo ships, an initial major effort was made from 1961 to 1971 with delivery of forty very handsome ships of 10,000 to 12,500 tons carrying capacity. In the course of the 1970 decade in the category of cargo ships, the trend was towards numerous fast refrigerator container ships (19 and 21 knots) and for several large container ships (with 2 diesels of a combined 10,000 HP;
- In regard to factory ships (fishery) the Polish production for the USSR in the course of 20 years is summarized here: some 50 units of 13,500 tons and ca. 30 ships of 10,000 tons; /93
- further, 12 tankers of 20,000 tons capacity (of apparent value as military replenishment ships), 6 research ships of 3,000 tons, 6 school ships of 6,000 tons, also five large mixed cargo ships of 110,000 tons capacity, constitute the contributions which Polish shipyards have made.

All Polish shipyards participated in this effort, particularly at Gdynia for fishing ships and very large units of 110,100 tons capacity, but particularly at Gdansk, where it is confirmed that all ships built there since 1964 have been destined for the USSR. It is however appropriate to note that for some years - certainly because of the dramatic situation of the foreign debts of the country - the Polish shipyards have not accepted foreign orders unless they are paid in hard currency (which is not the case with the USSR). The order book of Polish contracts has not included any orders from the USSR since October 1981.

Finland: A Major Source

If Finland has contributed practically nothing to the USSR in the area of naval forces, it has contributed ships to its "big neighbour", which attribute considerably to the maritime power of the USSR. We will note specifically the following facts:

- As in the case of the factory ships provided by the GDR, the number and the regularity of the production of Soviet "tanker replenishment" ships in the Finnish Rauma Repola shipyard is amazing: from 1961 to 1981 without any interruption, this shipyard has built such ships whose tonnage varies only between 4,500 and 6,000 tons capacity and a propulsion system of from 3,000 to 4,000 HP (on one diesel). More than 80 of these ships have been built in the last 20 years - with an average of 5 per year- except during the years 1974 to 1977, during which period 15 "polar tankers" of 17,000 and 11,500 HP (on one diesel) were built by this shipyard. The role of auxiliaries for the combat fleet is apparent. A Soviet guided missile frigate of the KRIVAK Class (3,800 tons) has been observed refueling at sea from a "civilian" tanker of 5,000 tons, 3,500 HP, of Finnish construction. /94



A civilian tanker of Finnish construction refueling a Soviet guided missile frigate of the KRIVAK Class at sea.

- Another type of production which is indispensable for the freedom of movement of combat ships in "obsructed" seas consists of icebreakers. In the period 1974-75-76 the Wärtsilä Shipyard at Helsinki built 3 icebreakers of a displacement of 20,000 tons with ca. 40,000 HP (diesels); In 1977-78-79 the same shipyard built 4 icebreakers of 15,000 tons (following 5 other icebreakers of the same tonnage of lesser performance, which had been built 15 years earlier);
- Three other ship types of similarly great military value: 6 passenger ships of 16,500 tons gross (large than the effective French gross), of the BYELORUSSIA Class, built in 1974-75-76 at the Wärtsilä Shipyard at Turku; 2 barge carriers of 38,000 ton capacity (36,000 HP) of the YULIUS FUSHIK Class, which carry 26 1,300 ton barges, built at Valmet in 1978; 4 RoRo ships of 22,500 tons capacity of the MAGNITIGORSK Class, built from 1976
- to 1981 also at the Valnet Shipyard.

Actually, the Finnish naval shipyards are working more than ever for the /94
USSR: on 1. October 1981, of 75 ships put on order, 56 were for the USSR - included in this number are "Rauma Repola" tankers of 6,000 tons capacity (9 units), 9 ice-breaking cargo ships of 25,000 tons (each associated with a hovercraft), and a dozen other ships of lesser tonnage.

Is there a change in orientation?

In conclusion we will make only three observations:
- The maritime power of the USSR in the civilian sector consists of an increase and extent which are comparable to those which are better known in the military sector; this could be accomplished despite the modest means available to the USSR for its civilian naval constructions*, in part thanks /95

*According to the statistics in Llyod's Register, 4.5% of the international production (in gross tons) for the five-year period 1976-80.

the shipyards of the non-communist world, and essentially (actually exclusively) thanks to the contributions of the Warsaw Pact satellite countries and of Finland;
- The international economic crisis, the intensification of the specifically military programs (and their cost, particularly in the area of ships and their equipment), and finally the realization, perhaps already achieved, of the normal merchant fleet and the fishing fleet, has resulted in recent years to brake considerably the growth of civilian naval construction in the USSR. It is however certain that the numbers of such ships will remain large in the near future; however, their character will doubtless evolve in the direction of a priority accorded to exploiting the immense natural resources of Siberia, particularly with reference to ships capable of operating in the frozen seas (White Sea, Kara Sea and the Bering Straits). The naval power of the USSR will certainly increase with such units;
- Finally, the merchant marine of the USSR* - and especially the fishing fleet -

*To respond to a possible question in regard to the utilization of such a huge merchant fleet (since the fishing fleet is apparently not under-subscribed in relation to the population of the USSR), we anticipate that a fair number of Soviet ships will act as a "flag of convenience" on the routes between the Third-World countries, on all the seas of the world. It will perhaps be surprising to learn , for example, that a greater percentage of American exports to Far East travels on board Soviet ships than on American flag ships...

will be regarded (more and more) as an auxiliary of the Soviet Navy as the "great" standards (Jane's Fighting Ships, in the UK, Flottes de Combat in France and in the USA) include more and more large "civilian" Soviet ships in their annual or semi-annual editions. These non-military fleets will be included in the reference works and will be noted to present the entirety of the means which the various nations of the world have available at sea ■.