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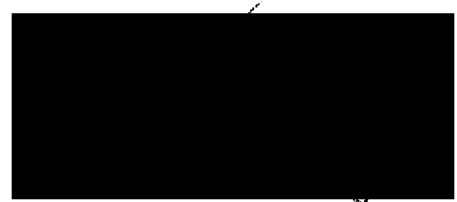
MEMORANDUM FOR: Economic Defense Intelligence Committee

FROM : Chairman, EDIC

SUBJECT : Current Trends in Sino-Soviet Bloc Construction
and Procurement of Merchant and Fishing Vessels.

REFERENCE : EDIC/M-20, 1 February 1957

1. In response to a request from ICA/MDAC dated 18 January 1957, the attached study has been prepared by an ad hoc Working Group comprised of CIA, State/OIR, and Navy/ONI representatives.
2. This study is circulated to EDIC members for review. If any member has a question which would warrant discussion of the study by the Committee, it is requested that the Executive Secretary be contacted prior to noon, Friday, 5 April 1957, so that a meeting can be scheduled for this purpose. If no question is raised, the study will be disseminated without further revision.



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Attachment:
 Current Trends in Sino-Soviet Bloc Construction and Procurement
 of Merchant and Fishing Vessels.

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CURRENT TRENDS IN SINO-SOVIET BLOC
CONSTRUCTION AND PROCUREMENT OF
MERCHANT AND FISHING VESSELS

EDIC/ID-30
1 April 1957

An Intelligence Summary
Prepared by an Ad Hoc Sub-Committee
of the Economic Defense Intelligence Committee
at the Request of the Executive Committee of the
Economic Defense Advisory Committee

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INTRODUCTION

The U.S. intelligence community has been requested by the EDAC structure to assemble the necessary background information for evaluating current controls imposed by free world countries on shipbuilding and shipping services for the Sino-Soviet Bloc. The following paper is the response to that request.

Certain qualifications must be made at the outset of the study, reflecting the peculiarities of free world controls on strategic trade with the Bloc and the adequacy of informational resources for this undertaking in the time allowed.

The controls which are referred to in this paper are standards commonly agreed upon by the Participating Countries (PC's) of COCOM/CHINCOM but enforced in their several jurisdictions in line with their own respective national laws and regulations. In other words, detailed enforcement of a COCOM control standard may mean the actual subjection of a particular contract to more scrutiny by the licensing authorities of one PC than of another. Vicariously, the standard of these COCOM/CHINCOM controls can also be applied to most other non-PC free world countries in the shipping field since they tend to follow the lead of the major shipbuilding and shipping nations of the world, all of which are PC's (see, e.g., the alignment of the regulations of Panama, Costa Rica, and Liberia as regards ship sales and shipping services with strict U. S. controls).

To Communist China, CHINCOM controls deny virtually all shipping (see Section II "Recapitulation of COCOM/CHINCOM Shipping Negotiations and Controls Currently in Effect"). This fact should be kept in mind in the perusal of this paper because it provides an indication of the limitations for Communist China as regards acquisition of shipping from other Bloc sources and also the extent to which Communist China is compelled to resort to the services of free world shipping for the carriage of commodities in her trade which are not subject to free-world embargoes.

One purpose of this paper then will be the analysis of the present size and composition of the Sino-Soviet Bloc merchant fleets and to establish a comparison with the merchant fleets of the free world. Another aim of this study is to forecast for the near future likely

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trends in the growth and composition of the Sino-Soviet Bloc merchant fleets, both from intra-Bloc construction and by projected acquisitions from the free world. Some attention will also be given to the relatively small amount of shipping which the Bloc has constructed or will be constructing for export to the free world.

Admittedly, it would be useful for officials concerned with the formulation of shipping controls to have readily available, along with these data, forecast of actual Sino-Soviet Bloc shipping requirements for the carriage of goods and persons. ECE and ECAFE reports, NATO estimates and U.S. intelligence studies have, from time to time, provided guidance for the estimation of Soviet Bloc shipping requirements. A comprehensive analysis of shipping requirements for the Sino-Soviet Bloc ocean-borne trade, undertaken in conjunction with the present paper, has not advanced sufficiently to be included here.

In U.S. policy, consideration of Bloc shipping capabilities is important from the viewpoint of security. The Free World has denied to the Bloc in recent years only warships and the most strategic types of merchant and fishing vessels. Nevertheless, through elaborate negotiations and continued surveillance of Bloc shipping capabilities, the Bloc has often been compelled either to pattern its planning around Free-World controls or to attempt a breaching of these controls by major propaganda and diplomatic efforts. Current efforts to revise COCOM/CHINCOM controls appear to have reached a stage now in which the shipping field may also be subjected to a new look. This study, with the qualifications mentioned above, is intended to provide the intelligence background for such an effort.

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RECAPITULATION OF COCOM/CHINCOM SHIPPING NEGOTIATIONS AND
CONTROLS CURRENTLY IN EFFECT

A. COCOM Negotiations and Controls Currently in Effect

The United States has sought since the inception of COCOM controls on shipping to obtain a degree of control over the construction, sale and chartering of ships to the European Soviet Bloc which would satisfy U.S. concepts of the strategic importance of ships and shipping services to the Soviet Bloc's potential to wage war on the West. In COCOM the United States has taken the position that all ships are potential weapons of war and should not be supplied to the Bloc. Other COCOM countries are of the opinion that the strategic importance of ships is a matter of degree and that the less strategic types of ships should not be controlled to the Bloc except on a quantitative basis, or should be free of COCOM controls. As a consequence of the difference in assessments of strategic importance between the United States and other COCOM member countries, the division of various categories of ships between Lists I, II and III represents a series of compromises among the COCOM countries. In the negotiation of the control lists the United States has had to accept some security risk in respect to overall control on vessels in order to reach agreement with the other Participating Countries. For example, the U.S. was forced to accept the principle of quantitative control on merchant vessels when other COCOM members insisted that they must be permitted to sell merchant ships to the European Soviet Bloc countries in order to maintain their shipbuilding industries or to trade for needed materials from the USSR and the Satellites.

Despite the conflicts in COCOM on the strategic importance of various other categories of ships, the shipping items on the present List I (Embargo) were carefully defined in various bilateral, trilateral, and COCOM plenary discussions in the Winter of 1953 and Spring of 1954. These vessels are considered directly useful in support of a war effort. In addition to warships, other ships of a type which could most readily support military operations i.e. tankers, passenger ships, and ships suitable for naval auxiliaries are not to be constructed for or sold to European Bloc countries. Although the coverage of the most strategic types of ships under List I is good, the U.S. would have also embargoed certain types of dredges and merchant vessels of more than 7,000 GRT independent of speed, or having an operating speed loaded of more than 12 knots. In the most recent negotiations (1955) the U.S. sought embargo listing of merchant ships having a speed of 15.5 knots under the most favorable conditions. However, each time the question of an embargo speed cutoff for merchant ships has been discussed the commercial interests of one or more COCOM members has prevented agreement.

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As a consequence of the U.S. having been forced to accept List II (Quantitative) control for merchant ships, the principal area of difficulty at the present time is in respect to List II shipping controls, particularly in reaching agreement on an effective limitation on the quantity of vessels to be supplied the European Bloc. List II items may be supplied the Bloc either in accordance with an agreed quota for the item or in accordance with the "3(d)" principle of COCOM Document No. 470 which in effect leaves the decision to the particular country concerned.

COCOM Participating Countries have not been able to reach agreement on annual or biennial tonnage quotas for List II merchant vessels (including provisions for the thorny problem of quota-carry-overs) nor on a speed limitation on merchant ships constructed or sold to the Bloc. At the present time the only obligation on member countries is to consult COCOM before supplying the Bloc with merchant vessels of more than 7,000 GRT, or having an operating speed loaded of more than 12 knots. However, the requirement to pre-consult is not a restraint on member countries because the power of decision whether or not to supply remains with the particular country even if other members of COCOM are opposed to the transaction. With respect to other merchant vessels, the obligation of the PC's is nothing more than to report the construction and sale of ships to the Bloc.

List III controls on ships pertain exclusively to small vessels and no particular action is required of exporting countries so long as shipments do not reach unusual quantities.

B. Unresolved Issues in COCOM Shipping Controls

1. Speed limitation on merchant vessels. The U.S. has favored embargo listing for vessels above an agreed speed, but in the most recent discussion on this problem the U.S. has indicated a willingness to accept List II coverage of ships capable of a speed of 15.5 knots or more provided that PC's would undertake to abide by COCOM decisions on proposed sales.

2. Quota for List II merchant ships. Despite the submission of various quota proposals by different COCOM countries, some of which specified a tonnage figure in excess of the amount likely to be supplied the Bloc, the opposition of one or more PC's has each time prevented an agreement.

3. No definitive understanding has been arrived at in respect to permissible repairs on List I vessels belonging to European Soviet Bloc countries.

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C. Transportation Controls

COCOM PC's in 1951 agreed that there was no bareboat chartering of List I vessels to the Soviet Bloc at the time. Since then they have maintained an understanding that also in the future they would not undertake any bareboat chartering which would be in contravention of controls on sales.

The U.S. at one time sought to prevent long-term or voyage chartering of all types of vessels to the European Soviet Bloc on the ground that shipping services contributed directly or indirectly to the Bloc's war potential. Other COCOM members, however, were of the opinion that controls on maritime transportation other than bareboat chartering, which could frustrate the controls on sales of ships, were inappropriate activities for COCOM. They believe that such limitations on transportation services would in effect be an economic warfare measure and not a strategic control. In spite of this unwillingness of the other COCOM members to forbid long-term or voyage chartering of vessels to European Soviet Bloc countries, the chartering of List I ships has not in fact occurred. Long-term or voyage chartering of List II vessels to the USSR or the European Satellites is common. The other PC's have also been unwilling to prevent the carriage of strategic goods on their ships in traffic between countries not members of COCOM and the European Soviet Bloc, or between one Bloc country and another.

D. Controls on Ships and Shipping Services to Communist China

The PC's of COCOM/CHINCOM have imposed more stringent controls on the supplying of ships and transportation services to Communist China in consequence of the UN embargo resolution against that country. All types of new and used ships covered in any manner by the specifications of the International and China Special Lists are embargoed to Communist China. There is also an understanding that PC's will not permit Communist China to charter merchant ships under their flags or from their nationals. Finally, the principal maritime PC's have unilaterally instituted controls which prohibit ships registered under their respective flags from carrying embargoed commodities to Communist China from any country of origin. Greek regulations prohibit Greek flag vessels from calling at Communist Chinese and North Korean ports, and U.S. Transportation Orders T-1 and T-2 prohibit U.S. flag vessels from carrying commodities identified on the U.S. Positive List to any part of the Sino-Soviet Bloc without prior authorization, and further prohibit U.S. flag vessels from calling at any port in Communist China and North Korea.

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III

PRESENT COMPOSITION
OF THE SINO-SOVIET BLOC MERCHANT FLEETS

According to the latest ONI tabulation, the Sino-Soviet Bloc merchant fleets consist of some 1,075 ships (over 1,000 GRT) totalling 3,583,833 GRT. This represents slightly less than 4% of total world merchant ship tonnage. The USSR merchant fleets account for 848 ships totalling 2,877,183 GRT, Poland for 83 ships totalling 330,400 GRT, and Communist China for 117 ships totalling 285,088 GRT. Bulgaria, Czechoslovakia, East Germany, and Hungary, account for the residual 27 ships of 91,162 GRT. The USSR is the only Soviet Bloc country with a sizeable tanker fleet, although its 88 tankers totalling 450,294 GRT represent less than 2% of the world tanker tonnage. Table 1 provides a breakdown of the Sino-Soviet Bloc merchant fleet by type of ship, size, speed, and age. Tables 2 - 4 provide comparisons of this fleet with the total world merchant fleet by number and GRT of ship types, and by percentage distributions on the basis of age and speed. In order to round out the picture of Sino-Soviet Bloc merchant shipping availabilities, Table 5 provides a breakdown of Bloc naval auxiliaries of 500 SDT and over which can be used in the carriage of passengers and cargo.

It will be noted from Table 1 that much of the Sino-Soviet Bloc merchant fleets tonnage consist of small ships, many of which are slow, and, by western standards, considered over-age. Current shipbuilding programs within the Bloc and procurement efforts from the Free-World seek to redress this situation.

The comparison of the Sino-Soviet Bloc and total world merchant fleets (Table 2) provides further indication of the marginal extent of the Bloc fleets and the relatively minor part it plays in the total world shipping picture. The comparative age and speed profiles of the Sino-Soviet Bloc and total world merchant fleets (Tables 3 and 4) show that the Bloc fleets also are less efficient than those of the Free World.

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IV

SOVIET BLOC CAPABILITIES
FOR THE CONSTRUCTION OF MERCHANT SHIPS

Analysis of the Sixth Five-Year Plan and other data indicates that the USSR, Poland, East Germany, and Hungary plan to add approximately 2,078,000 deadweight tons (DWT) ^{1/}(1,588,000 GRT) of cargo vessels and tankers to their maritime fleets during the period 1956-1960. ^{2/} Information is not available on which to base an estimate for the remainder of the Bloc countries including Communist China. The requirements for the remaining European Satellites is negligible. During China's First Five-Year Plan, which ends in 1957, it added few vessels to its ocean-going fleet. Although it is expected that a greater tonnage will be added to its maritime fleet during the next five-year plan, no estimate of additions based on possible construction plans can be made at this time. China has also the capability to construct tonnage for its own use, possibly offsetting its demand.

Analysis of Plan and other data indicates that the USSR, Poland, East Germany, and Hungary plan to construct approximately 2,225,000 DWT (1,725,000 GRT) of cargo ships and tankers during the period 1956-1960. Planned production exceeds planned fleet increments by 148,000 DWT (114,000 GRT). ^{3/} Moreover, the Bloc will acquire about 339,000 DWT (270,000 GRT) of cargo ships and tankers from non-bloc countries. If all production plans are met, the excess production together with imports will make available bloc-constructed ships of 487,000 DWT (373,000 GRT) for distribution within the Bloc to China, other European Satellites, and for sale on world markets. For example, Poland is reportedly under contract to build 35,600 DWT of cargo ships for Brazil. Because of Soviet efforts at economic penetration in small underdeveloped countries, it can be expected that ships of small tonnage, built in the Satellites, will be offered for sale to these countries.

^{1/} The term deadweight tons (metric tons) used in this report is cargo carrying capacity, as opposed to the difference in weight between light ship and full load.

^{2/} The increments to the maritime fleet are confined, in this report, to cargo and tanker types. Harbor vessels, dumb barges, passenger ships, refrigerator ships, and auxiliary types are not included for the reason that a negligible amount of freight is moved therein. The exclusion of refrigerator ships is based on the past use of this class of ship almost exclusively in the fishing industry rather than for transportation of other perishable cargoes.

^{3/} It is not entirely clear from the wording of the Plans whether the planned increment to the fleets refers to net or gross additions. If it refers to net additions, at least part of the planned excess

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Although refrigerated vessels are not included in this estimate, see footnote 2 on page 1, the USSR and East Germany plan to produce about 40,000 DWT and the USSR plans to import about 31,000 DWT from non-bloc countries.

The planned production of maritime vessels in the USSR indicates yearly increases of slightly over 5 percent over the 1955 output. This yearly increase can be accomplished without curtailing the 1955 rate of output of naval vessels of approximately 200,000 standard displacement tons. It is believed at this time that the USSR will fulfill its maritime production plan.

Between 1949 and 1955 Poland, the principal producer of maritime vessels in the Sino-Soviet Bloc with exception of the USSR, produced 297,000 DWT of maritime vessels. In 1955 alone it produced over 102,000 DWT. The planned production for the current Five-Year Plan is almost 700,000 DWT. Because the new plan includes larger and faster vessels of a type not heretofore built in Poland and while the reported 1956 output shows some increase over the 1955 output, it is doubtful that the overall plan will be fulfilled. Further complications may arise because of the lack of indigenous production of large diesel propulsion engines. The Soviet Bloc has not satisfactorily built diesels larger than about 2,500 HP. Negotiations have been underway for some time to obtain engines from non-bloc countries. Poland procured during the past Polish six-year plan seven 8,000 HP diesel engines from Italy, for installation in the 10,000 DWT-Class now building in Poland. Poland, in 1956, obtained license from Switzerland to build Sulzer diesels of unspecified horsepower, and has also placed contracts with the Sulzer firm for diesel engines. In 1956, Poland purchased five six-cylinder diesels of 4,800 HP each from West Germany for installation in the 6,000 DWT-Class cargo vessels now building in Poland.

The production capability and possible plan fulfillment in East Germany is less clear. East Germany during the period 1951-55 produced possibly less than 100,000 DWT of maritime cargo and tanker types. Like Poland, the current five-year program includes larger vessels not heretofore built by East Germany. The current program is being delayed because of lack of satisfactory diesel propulsion engines. At present there are three or four 10,000 DWT cargo vessels that have been launched but cannot be completed because of lack of diesel engines. Again, like Poland, East Germany has negotiated with Western countries for the procurement of diesel engines. Overall plan fulfillment by East Germany is highly unlikely.

It is estimated, however, that the overall planned increment to the maritime fleet will be met with only two-thirds plan fulfillment by the three satellite countries.

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FREE WORLD SHIP CONSTRUCTION FOR THE SINO-SOVIET BLOC

A. Tonnage Currently Constructed or Repaired

New Construction 1955-1956

The construction of merchant and fishing vessels for the Sino-Soviet Bloc has never occupied more than a marginal share of total free-world shipping construction, although to certain countries and to particular shipyards such construction has been of great importance. Tables 7 and 8 provide a comparison of total free-world deliveries of ocean-going ships with free-world deliveries to the Sino-Soviet Bloc for the years 1955 and 1956 respectively. It will be noted from these tables that shipbuilding for the Bloc was of national economic significance only in Finland, where the USSR takes virtually all of the ship construction, and to a much lesser degree in Belgium and Denmark, where building for the Bloc amounted to 11% and 5% respectively in 1955, and 9% and 6% in 1956. On an over-all basis, shipbuilding for the Soviet Bloc amounted to less than 3% of the 1955 free-world shipbuilding total of over 4.5 million GRT, and 1956 total of almost 6 million GRT.

While Soviet-Bloc orders were on the whole not of major importance to the contracting free-world countries, the ships received under these contracts represented a considerable portion of the annual tonnage increment to the Soviet Bloc merchant fleet. Tables 9 to 12 provide a comparison of free-world and Soviet Bloc deliveries of new ships to the Soviet Bloc merchant fleets for 1955 and 1956 respectively. Of the total gross tonnage supplied, free-world deliveries accounted for 26% and 28% in 1955 and 1956 respectively, these portions being supplied equally by COCOM and non-COCOM countries. Free world deliveries consisted primarily of dry cargo ships, refrigerator ships, and fishing vessels, since passenger ships and tankers are embargoed under COCOM regulations. Of particular importance to the Soviet Bloc, over and above the actual tonnages of free-world construction delivered, is the fact that free-world shipyard facilities and labor have wide technical and technological experience and know-how and can generally be depended upon to deliver their ships within the stipulated contract time. This has been especially significant in view of the often lengthy delivery delays encountered particularly in satellite shipyards.

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Tables 13 and 14 detail 1955 and 1956 free-world deliveries of new merchant ships and fishing vessels to the Sino-Soviet Bloc. Total tonnages delivered increased from 50,000 GRT in 1951 to 170,000 GRT in 1956. Of these, COCOM countries delivered 17,000 in 1951 and 107,000 GRT in 1956. (For the sake of comparison, Tables 15 and 16 summarize Bloc deliveries of new merchant ships to the Sino-Soviet Bloc fleets for 1955 and 1956 respectively) Despite repeated Soviet Bloc efforts to place orders for embargo-type ships in COCOM countries (tankers in Denmark and whaling factories in the Netherlands), no firm contracts for such ships were signed during 1955-1956. Finland was the only free-world country to construct tankers for the Bloc during this period. Free-world shipbuilding for the Bloc during 1955 consisted largely of refrigerator ships and fishing vessels, which together accounted for 55% of the total construction of 115,000 GRT. Dry cargo ships and tankers accounted for 25% and 11% of total construction, respectively, the remainder consisting of dredges, tugs, and other miscellaneous vessels. The emphasis on refrigerator ships and fishing vessels, which continued through 1956, reflects the Post-Stalin Bloc expansion of consumer goods industries. Of interest in 1956 free-world deliveries to the Sino-Soviet Bloc is the appearance of larger type dry cargo ships which comprised 30% of total deliveries. The first orders for this type of vessel had been placed in 1953 (3 combination icebreaker dry cargo ships in the Netherlands) and additional orders during 1955 and 1956 are indicative of the Bloc's previously noted (Section IV) interest in expanding its dry cargo fleet in line with increased needs to service the rapidly developing Far Eastern areas, trade expansion in general, and economic penetration efforts in particular.

Tables 15 and 16 provide a breakdown of merchant ship and fishing vessels currently under construction and on order respectively, in free-world countries. These tables clearly indicate the Bloc's continued and increasing interest in procuring the larger types of dry cargo ships which account for over 60% of the total tonnage.

Sales of Second-Hand Ships

While free-world deliveries of new construction tonnage to the Sino-Soviet Bloc has increased considerably during 1955 and 1956 over the preceding years, in part due to the completion of orders previously placed, sales to the Bloc of second-hand tonnage have shown a marked decline from a high of almost 110,000 GRT in 1951 to 19,000 GRT and 17,500 GRT in 1955 and 1956 respectively. Bloc efforts to obtain second-hand tonnage at this time appear to be restricted to spot purchases as particular needs arise, and there is no indication of any sustained effort to obtain second-hand ships.

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Repairs

Free-World repairs of Sino-Soviet Bloc ships, which previously had been considerable, fell off rather sharply during the past two years. The one outstanding exception to this is the Rumanian TRANSYLVANIA, which is still undergoing "extensive repairs" in Yugoslavia, after such repairs had been turned down in various COCOM countries.

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B. Estimate of Future Trends in Free-World Ship Construction for the Sino-Soviet Bloc

Sino-Soviet Bloc Plans for Merchant Fleet Expansion

Soviet Bloc Plans for 1956-1960, as shown in Section IV above, call for a total construction of 1,351,760 GRT of cargo ships and 366,600 GRT of tankers. The following statistics are based on Table No. 6. In addition, orders placed by the European Soviet Bloc in non-Bloc countries which are either now in the process of fulfillment or on which some deliveries have already been received, total 221,400 GRT of dry cargo ships and 12,400 GRT of tankers.

The foregoing figures as such do not provide a complete picture, however, of the projected increment in the Soviet Bloc merchant fleets. Of the total of 1,351,760 GRT cargo ships, slightly more than a half are to be built for the producing countries and the remainder is available for exports to other Bloc countries, and to the free-world. According to present information, only 27,640 GRT of Polish cargo ships are scheduled as construction for export to non-Bloc countries.

The planned increment figure for cargo ships in the Soviet Bloc maritime fleets for 1956-1960 appears to be lower (1,209,400 GRT) than the planned indigenous Bloc production figure. If construction plans are nearly fulfilled, this would point to an exportable surplus of cargo ship tonnage to be constructed in the next few years. ^{1/} The paradoxical element in this picture is, however, the scheduled import from non-Bloc countries of 221,400 GRT of cargo ships which has been projected for the period 1956-1960 as mentioned above. The paradox can be explained by the fact that procurement of ships from the free world reflects in all instances Bloc preference for special technical developments available only in ships built in free-world yards, or contracts dictated by foreign policy or propaganda requirements, or both. The type of ships of which the Bloc might have an exportable surplus presumably would not incorporate advanced technical features.

All of the tanker tonnage projected for construction for the period 1956-1960 is to be added to the merchant fleets of the producing countries. The gap between indigenous Bloc tanker construction and the projected Bloc tanker fleet increment is to be closed exactly by the planned procurement of 12,400 GRT from non-Bloc sources (Finland).

Production Problems and Plan Fulfillment

From the foregoing it can be seen that particularly in the dry cargo ship field the Bloc is likely to be able to meet fleet increment goals for 1956-1960 even if plan fulfillment in the Satellites should come up to only 75% of projected construction goals. As indicated in

^{1/} To the extent that planned tonnage increments refer to net additions to the respective maritime fleets, at least a part of this exportable surplus may be required to replace broken-down tonnage.

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greater detail in Section IV above, Satellite ship construction, in the past few years, has fallen considerably short of plan goals although shipyard facilities as such are fairly adequate. It may reasonably be expected that Satellite construction during the current plans will again fall short of goals, due in part to the lack of indigenous production of adequate propulsion machinery and the general delays and disruptions in industry resulting from continued political unrest.

A case in point is East Germany. According to numerous reports, East Germany continues to be unable to meet construction goals for 10,000 ton DWT freighters due to her inability to iron out the difficulties encountered in producing the 2,400 h.p. Diesel propulsion machinery. It is exactly this larger type of ship which figures prominently in future Bloc production plans so that the procurement problems for propulsion machinery may also be assumed to persist.

The political upheavels in the European Satellites of last year and particularly the economic readjustments which Poland has been undertaking, are likely to affect the implementation of Polish merchant shipbuilding plans. In many instances it will only be necessary to import propulsion machinery* and other special equipment to assure fulfillment of planned merchant fleet increases, but the placement of some orders for larger ocean going dry-cargo ships may be attempted in free-world yards if Poland's foreign exchange position is adequate for the task.

On the basis of past performance as regards facilities and required imports there is no reason to anticipate any inability of the USSR in meeting its planned merchant ship production goals.

Bloc Building Orders for Free-World Ship Yards

Information to date is incomplete as to the exact volume of the building orders which the European Bloc will place pursuant to 1956 procurement plans for the period 1956-1960. Even for trade agreements which received some publicity, such as the Russo-French trade agreement of 1954 which provided for the eventual delivery of 16 merchant ships, 6 of which were delivered in 1956, no further information is available on exact details of additional implementing contracts. Similarly, under the Russo-Finnish trade agreement of 1956, a larger number of ships appears to be scheduled for delivery but verifiable details are not available.

* While Poland recently obtained patent rights to produce the Swiss Sulzer diesel engine (see Section IV above), it takes a considerable length of time to develop the necessary production facilities so that actual Polish production of these engines is not expected for several years.

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Many of the orders placed by the European Soviet Bloc in Free-World yards have been dictated, as regards timing or extent, by political as well as economic motives. A prominent case of this type have been the repeated attempts of the USSR to include additional tankers in the list of goods to be supplied by Denmark pursuant to trade agreements. Free-world shipyards in the principal producing countries now have order backlogs reaching to 1962, a situation which might persist even longer if shipyard strikes of longer durations should occur in the future. This might further increase the premiums for placing construction orders which in the past the Bloc has usually been able to place. Greatest pressure from the European Bloc for acceptance in the free-world of additional construction is likely to be concentrated on highly specialized craft such as the ice-breaker cargo ships now under construction or on order in the Netherlands.

Orders for refrigerator tonnage now constitute a large share of Bloc shipbuilding orders in free-world yards. There may be repeat orders on some of these contracts for subsequent years from free-world sources.

It is not to be anticipated that tanker tonnage will be procured from COCOM countries as long as the COCOM embargo continues.

Fishing Vessels

The USSR fishing fleet, which is the largest component of the Sino-Soviet Bloc fishing fleet, consisted of approximately 1,100,000 GRT in 1956. The size of the fleet and particularly the rate of its projected increases usually are made contingent on Soviet Bloc fish catch goals. The most significant developments in this respect are continued increases for the fishing fleets in European waters for fishery operations and as stand-by units for war service (mine sweepers, radar pickets); the greatly expanded fishery activities of the Soviets in the waters north of the Japanese isles in the Far East, including pelagic sealing toward the Bering Strait; and more numerous whaling expeditions to the Antarctic (which is governed in turn by the number of fish factories and tanker tonnage available).

In the post World War II period there has been a steady increase in the indigenous Bloc construction of fishing vessels but even this increase has not satisfied the full demand of ships required to meet fishery production goals. Particularly after the post-Stalin shift in Bloc policies from emphasis of capital goods production to consumer goods, the Bloc began to place large orders for all types of fishing

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vessels in free-world countries to boost the rate of fishing fleet additions. The largest number of orders for fishing vessels in the free-world appears now to have been placed but it is likely that at least some additional new orders will continue to be placed in free-world ship yards, particularly for fishing vessels specializing either in catching or in processing devices.

Procurement of Second Hand Ships

No estimates can be made of likely future purchases, by the Sino-Soviet Bloc, of second-hand ships in free-world countries. As stated earlier, used merchant ship procurement in recent years (1955-1956) has been infrequent, and was limited to a few units purchased by Satellite countries (Bulgaria and Poland). It may be expected that the USSR will continue to concentrate chiefly on the acquisition of new ships, but occasional purchases of second-hand tonnage, particularly by the Satellites, cannot be ruled out.

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SUMMARY

It is difficult to assess the current impact of free-world controls over shipbuilding and shipping services on Soviet Bloc planning in the shipping field. There is reason to believe that these controls were in the past at least partially responsible for the timing and phasing of the Russian Kazbek-class tanker building program. To the extent that the Bloc has been able to adjust to the control system, or has been able to circumvent it by placing orders for embargo-type ships in non-COCOM countries, e.g., Finland, the effectiveness of this system has been mitigated. On the other hand, however, the very pressure which the Bloc continues to bring to bear on countries adhering to the COCOM embargo on ship sales and other shipping controls, seems to be an indication that these controls may still represent fairly significant harassment.

The Soviet Bloc has sufficient shipyard facilities for currently planned construction of merchant and fishing vessels. However, there are weaknesses in the Bloc shipbuilding picture. Particularly the satellite countries are deficient in some technological know-how, and as yet neither the Satellites nor the USSR have been able to produce the larger diesel propulsion machinery required for larger and faster ships. As of this time, the lack of such machinery appears to present the major obstacle facing Satellite fulfillment of planned shipbuilding goals. On the basis of current estimates, however, the Soviet Bloc as a whole will be able to meet the planned increment to its maritime fleet.

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