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NATIONAL INTELLIGENCE ESTIMATE

APPENDICES

NIE-90: SOVIET BLOC CAPABILITIES THROUGH MID-1955

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APPENDIX A

NON-MILITARY FACTORS AFFECTING BLOC CAPABILITIES

INTERNAL POLITICAL FACTORS

USSR

1. It is inherently unlikely that the 25-year rule of Stalin could be ended, and his successors assume control, without at least temporary uncertainties and confusions within the USSR and the Bloc generally. Stalin's death removed from the Soviet power structure its chief arbiter and final authority — the leader who provided a stabilizing influence for the regime and a living symbol around which to rally the population. Despite the extensive bureaucratization of the Soviet Party and governmental structures, the cohesion of the system depended in part on personal relations which have probably been upset by shifts of position among the topmost leaders and by the uncertainty that accompanied these shifts. The turnover among Party chieftains, which on the top included Presidium members Beria, Melnikov, and Bagirov and Party Secretary Ignatiev, has been greater than for any comparable period since the purges of the 1930's. Extensive personnel changes throughout the apparatus of power may continue for some time, and it is possible that Soviet and Satellite leaders will be preoccupied by the prospects and the probable consequences of such changes. There may consequently be occasional uncertainties in tactics and hesitancies in deciding on policy, even though the basic economic and military strength of the USSR and of the Bloc is virtually unaffected.

2. The emphasis placed on the principle of "collective leadership," the strictures against one-man rule, and the condemnation of the cult of heroes suggest that no individual is yet ready to occupy the place of Stalin. Relationships among present Soviet leaders are not yet clear. The reversal of the doctors' plot, the removal of several high-ranking persons from the Presidium, the many personnel changes in the governments of the Soviet Republics, and above all the arrest of Beria establish that there has been sharp dissension within the Soviet hierarchy. It is not yet clear whether this dissension arose principally from a struggle for power or from differences over basic policy, nor is it clear whether Beria's fall has ended the dissension.

3. The considerations cited above must be taken into account in estimating the situation within the Bloc. On the other hand, there is no evidence that the authority of the Soviet regime has in any fundamental respect been weakened by Stalin's death or by the events since that death. There are no indications that Soviet Bloc military and economic capabilities will be reduced, during the period of this estimate, by reason of a weakening of the Soviet regime. Since March 1953, the Party and governmental structure at both central and regional levels has been reorganized and consolidated. Power has been placed in the hands of a group almost identical with the Stalinist Politburo. Malenkov appears to be increasing the firmness of his hold on the leading position of power, even if he has not yet assumed the peculiarly elevated position of Stalin. There is no evidence of a weakening of the Party's control over the security and military forces, or of a loosening of the regime's hold over the population. Furthermore, the bureaucratization of the Soviet system and the interlocking character of Soviet controls gives the system a certain inertia and stability which will probably prevent open conflicts from breaking out during the period of this estimate.

The Satellites

4. Soviet control over the European Satellites is essentially physical in character; i.e., it is

founded on military domination and is maintained by force. The force, however, is for the most part not exercised directly by organs of the USSR. Rather, it is exercised for the Kremlin by Satellite organs — principally the local Satellite Communist leadership — which are firmly under Moscow's control but which are made to appear distinct from Moscow and autonomous. These are intended to serve as a facade of ostensibly independent national government in each Satellite state, behind which Soviet policy can operate with minimum use of Soviet manpower and with minimum loss of efficiency through conflict with local usage and sensibilities. The depth and extent of the various Soviet controls vary somewhat from Satellite to Satellite.

5. Recent developments in Eastern Europe indicate that the Soviet leadership continues to be faced with problems in the Satellites. During June and July new programs, both political and economic in nature, which called for a modification of extreme Sovietization policies, were announced in East Germany and Hungary. More limited changes in existing programs were also announced for the other Satellites. In East Germany these changes were accompanied by a popular uprising (16–17 June) which has seriously undermined the prestige and authority of the East German Government, and compelled the USSR to use overt military force to keep the anti-Communist demonstrations under control.

6. However, we believe that Soviet ability to maintain effective control in the European Satellites has not been impaired by anything that has happened since the death of Stalin. Soviet suppression of the riots in East Germany demonstrated the thoroughness of that control, while at the same time indicating that the Satellite governments themselves may be unable, without Soviet armed force in reserve, to maintain their populations in subjection to the will of the Kremlin. The possibility that the Satellite populations will be encouraged to follow the example of popular resistance in East Germany may require the Soviet leaders to devote more attention and resources to the problem of control in the Satellites and thus somewhat reduce over-all Bloc capabilities.

Communist China

7. The Chinese Communist regime has firm control over the territory which it administers, and there is little likelihood of this control being threatened or shaken by domestic forces within the period of this estimate. The relations of Communist China to the USSR are more those of an ally than a Satellite. The alliance is based on a common ideology and at least a temporary community of interests which is not likely to be affected by changes in Kremlin leadership. Moscow and Peiping are apparently agreed upon the following aims:

a. To eliminate Western power and influence from Asia.

b. To increase Communist strength in Asia.

c. To prevent the resurgence of an armed and non-Communist Japan.

d. To advance the world Communist movement; in particular, to divide the non-Communist countries and to weaken their ability and determination to combat Communism.

8. The military dependence of Communist China upon the USSR will almost certainly continue. The Chinese Communists have launched an industrialization program, which will require large-scale imports of capital equipment. So long as Western trade controls continue, these requirements can be met only by imports from the Bloc. However, should there be a reduction of tension in Asia, the military and economic dependence of Communist China upon the USSR might be reduced.

9. Sino-Soviet relations may be strained by problems relating to levels of Soviet economic aid, by the extent of Soviet military commitments to Communist China, by disagreement over the control of border territories, and by the definition of Mao's role in the Asian Communist movement. We believe that the new Soviet leadership will deal cautiously with Mao and that a split between Peiping and Moscow is unlikely during the period of this estimate, unless the stability of the Soviet regime should be seriously weakened. Mao Tse-tung may become disposed to increase the scope of his

independent activity in Asia, especially if any uncertainty of leadership within the USSR is long continued. However, the continuing military and economic dependence of Communist China on the USSR will limit Communist China's capacity for independent action.

ECONOMIC FACTORS

Introductory Note

10. Estimates of Bloc economic developments must still be based largely upon an analysis of published Bloc economic plans and of recent general trends in the USSR, the Satellites, and Communist China. There are various indications that the Bloc may in the near future devote a somewhat greater proportion of resources to the production of consumers' goods, and a smaller proportion to the production of capital goods, than in the recent past. These indications are clearest with respect to East Germany and Hungary, but they are not lacking for the USSR itself. As yet they are insufficient to warrant an estimate that significant changes in over-all Bloc economic policy have occurred or are likely to occur. We believe it unlikely that any changes which may be made in Bloc economic policy will significantly alter either the basic emphasis placed upon development of heavy industry and military potential or the general trends of Bloc economic development which have been observed since 1945, and on which our present estimate of probable future Bloc economic developments is largely based. However, the rate of increase in the production of capital goods, and perhaps of military end-items, may be smaller than that set forth in the projections presented in this estimate.

General Trends

11. The Soviet Bloc is self-sufficient in food, has a strong modern heavy industry, and possesses adequate supplies of nearly all the natural resources required further to develop its industrial economy. The economies of the Satellites are being progressively integrated with that of the USSR in the interests of promoting Bloc self-sufficiency and the growth of Bloc military production capacity. During the period of this estimate, the Soviet Bloc economy will be capable of supporting a major war effort.

12. The gross national product (GNP) of the Bloc has been increasing rapidly during the postwar years. Calculation of its magnitude and comparisons with prewar years are necessarily subject to considerable error. We estimate, however, that by 1948 the over-all level of production in the Bloc as a whole was approximately equal to that of the same territories in 1938. We estimate further that by 1952, Bloc GNP was about one-third greater than in 1948, thus having increased on the average about 7–8 percent per annum.

13. We believe that Bloc GNP will continue to increase, although at a somewhat reduced rate, during the period of this estimate. Unless there is a drastic reorientation of Bloc economic programs, the rate of growth of the Soviet economy will almost certainly remain higher than the rate which the US or any major Western state will maintain, and the rate of growth of the Bloc GNP will be about one and one-half times that of the NATO states.

ESTIMATED GROWTH OF THE BLOC GROSS NATIONAL PRODUCT, JANUARY 1953–JUNE 1955
(in percent)

	Proportion of Bloc GNP in 1952	Average Annual Rate of Growth	Total Increase
USSR	55.8	6.5 — 8.0	17 — 21
European Satellites	23.0	3.5 — 5.4[1]	9 — 14[1]
Communist China	21.2	2.0 — 2.8	5 — 7
Bloc Total	100.0	5.0 — 6.2	13 — 16

14. Despite Soviet achievements during the postwar years, the output of the USSR during the period of this estimate will remain much lower than that of the US, and the output of the entire Bloc will remain much lower than that of the NATO states. We estimate that Soviet GNP was about one-quarter to one-third that of the US in 1952, and that the GNP of the entire Bloc was about one-third that of

[1] We believe that for the Satellites the average annual rate of growth and the total increase in GNP during the period of this estimate will tend to fall close to the upper limit of the estimated ranges.

the NATO states. These disparities in ratio terms will probably be reduced slightly during the period of this estimate, although the Western superiority in absolute volume of production will be somewhat increased. Bloc output in the basic industries — energy, minerals, metals, and chemicals — will remain substantially below that of the NATO states.

15. However, comparisons of total output of all types of goods and services are not necessarily indicative of relative capacity to produce military equipment in peacetime. Since the end of World War II, the USSR has diverted a much larger proportion of its GNP to military purposes than has any Western state. We estimate that about one-sixth of the Soviet GNP is now devoted to military outlays, and that the proportion will probably remain at about this level through the period of this estimate.

Probable Developments in Major Sectors of the Bloc Economy

16. During the period of this estimate, the Bloc, and especially the USSR, will probably continue to concentrate upon expanding its industrial base. The level of Soviet industrial production will probably be about one-quarter higher in mid-1955 than at the end of 1952. Output of producer goods and military end-items (measured in value terms) will continue to increase at faster rates than that of consumer goods, although, in line with Malenkov's recent announcement, output of consumer goods may be increased more rapidly than we have estimated.[2] Barring a drastic revision of economic programs, Satellite industrial production will probably increase 12 to 15 percent during this period. Although Communist China's industrial output will probably rise by 20 to 23 percent during this period, it will continue to be a small part of the Bloc total.

17. The growth of Bloc agricultural production will probably continue to lag behind the growth of industrial production. Barring heavy drought, Soviet agricultural output during the period of this estimate will probably increase by 5–8 percent. However, implementation of the agricultural tax, price, and procurement policies announced by Malenkov may result in somewhat larger agricultural output. Assuming the continuation of gradual collectivization of agriculture in the Satellites, we estimate that Satellite agricultural production in mid-1955 will increase by only 3–5 percent, and will remain below prewar levels. As a result of population increases, a slight decline in per capita food supply in the Satellites can be expected. Agricultural output in Communist China which was unusually high in 1952 will probably not increase over that level during the period of this estimate, although it is probable that the general postwar recovery trend in Chinese Communist agriculture will continue.

18. Trade between the countries now comprising the Bloc and the West[3] has declined markedly in the postwar period owing largely to the Bloc policy of economic self-sufficiency and to Western trade policy. In 1951, the last year for which full-year statistics are available, this trade amounted to roughly 2 percent of the total trade of the West, compared with 6 percent in 1938. Bloc trade with the non-Communist world consists primarily of an exchange of Western capital goods, textile fibers, and industrial raw materials for coal, agricultural, and forest products from the Bloc. In 1951, textile fibers and manufactures (21.8 percent), machinery and transport equipment (21.1 percent), crude rubber (12.8 percent), metals and manufactures (9.3 percent), and chemicals (8.6 percent) accounted for almost three-quarters of total Bloc imports from the West. Similarly, Bloc exports of food products (39.7 percent), coal (13.0 percent), forest products and manufactures (6.8 percent), and textile fibers and manufactures (8.0 percent) accounted for approximately two-thirds of total Bloc exports to the West.

19. The gradual eastward shift in the center of gravity of Soviet industry will probably continue during the period of this estimate.

[2] For detailed estimates of the growth of selected sectors of the Bloc economy during this period, see the table on page 6.

[3] As used here, the "West" includes the whole non-Communist world as presently constituted.

However, the older industrial regions (including the Urals) will still provide the bulk of Soviet industrial production. Although programs to disperse Soviet industry and to create self-contained regional complexes will continue, the production of many basic materials and of most equipment will remain geographically concentrated.

20. The USSR has a stockpiling program which is designed to maintain vital sectors of the economy under peacetime and wartime conditions and to facilitate the conversion of industry to a wartime footing. Stockpiles of food, raw materials, and capital equipment are maintained in regional base depots and in plants and warehouses. In peacetime, these stockpiles are used in emergencies, but only after normal plant stocks and inventories have been depleted. We are unable to estimate the magnitude and composition of the Soviet stockpiles, but increases in total production through mid-1955 will support an enlarged program. The Fifth Five-Year Plan (1951–1955) called for doubling of Soviet stockpiles. Soviet-type stockpiling programs are being adopted throughout most of the Bloc.

21. By mid-1955, the Bloc economy will have achieved a higher level of self-sufficiency than at present, although certain imported items will remain of substantial importance to current Bloc industrial and military production. These items include electronic tube components, certain chemicals, certain types of machinery and equipment with their spare parts, and probably also tin, natural rubber, copper, zinc, and cork. If these items of import ceased to be available, bottlenecks would appear in the Bloc productive system and during a limited period of time adverse repercussions would spread through the economy.[4]

22. We estimate that by mid-1955 the Bloc economy will be better prepared to support a major war than in any previous year. The increase in the aggregate mobilization potential will result primarily from the expansion of the Bloc economy, especially the industrial base, and the continued growth of stockpiles essential to maintaining production under war conditions. For example, in 1955 the USSR will probably produce 42 million tons of steel, in comparison with annual production during World War II of less than 10 million tons. However, the Bloc output in the basic industries (energy, minerals, metals, chemicals), and Bloc resources in technical manpower, machinery, and facilities will remain substantially below those of the NATO states during the period of this estimate.

SCIENTIFIC AND TECHNICAL FACTORS

23. Soviet scientific and technical capabilities have increased rapidly since World War II, and we believe that they will continue to increase throughout the period of this estimate. The USSR has given science and technology a high priority and has given great emphasis to increasing the contribution of science and technology to Bloc military capabilities, with results most evident in the development and production of nuclear[5] weapons, and to a lesser extent in air defense equipment.

24. The scientific assets of the US (the number and quality of trained personnel, facilities, equipment, and financial support) are greater than those of the USSR, and the assets of the West as a whole are far greater than those of the Bloc. However, the USSR is expending great effort to reduce this disparity, and in some fields the USSR may have equalled or excelled the US.

25. Soviet higher education in most scientific and technical fields is roughly comparable to that of the West, but a shortage of scientific and technical personnel will continue throughout the period of this estimate. We estimate that there are about 1,440,000 Soviet citizens who have received scientific or technical degrees from colleges and universities (about 80 percent the US total). About 185,000 people are engaged in scientific research and in teaching science in the USSR, compared to about 240,000 similarly engaged

[4] For more detailed discussion of this problem, see NIE–59, "Probable Economic Effects of a Severance of East-West Trade" (16 April 1953).

[5] The term nuclear weapons as used in this estimate means all weapons employing the principle of nuclear fission or fusion or both in combination to contribute energy either directly or indirectly to an explosion.

ESTIMATED GROWTH OF SELECTED SECTORS OF THE BLOC ECONOMY, JANUARY 1953 – JUNE 1955

Sector	USSR		Satellites		Communist China [1]		Total Bloc	
	% GNP 1952	Total Increase % (Jan. '53 to June '55)	% GNP 1952	Total Increase % (Jan. '53 to June '55)	% GNP 1952	Total Increase % (Jan. '53 to June '55)	% GNP 1952	Total Increase % (Jan. '53 to June '55)
GNP	100.0	17–21	100.0	9–14	100.0	5–7	100.0	13–16
INDUSTRY	41.8	22–25	40.2	12–15	14.4	20–23	35.0	19–22
Consumer Goods	10.8	13–16	*na* [2]	*na*	*na*	*na*	*na*	*na*
Producer Goods	21.0	22–25	*na*	*na*	*na*	*na*	*na*	*na*
Military End-Items	10.0	30–33	*na*	*na*	*na*	*na*	*na*	*na*
AGRICULTURE	20.1	5–8	20.8	3–5	51.1	0 [3]	26.3	3–5
TRANSPORTATION & COMMUN.	9.3	14–17	6.3	13–16	1.7	13–16	7.9	13–16
TRADE	4.1	12–15	14.1	5–9		*na*		*na*
SERVICES	18.2	14–17	14.2	1–4	32.8	*na*	30.8	*na*
CONSTRUCTION	6.5	13–16	4.4	10–14		*na*		*na*

[1] Because of the fragmentary nature of the data available, our estimates of Chinese Communist economic development are extremely fragile.
[2] Not available.
[3] This estimate represents initial thinking by agricultural specialists. It is subject to revision as a result of current research efforts.

in the US. We believe that during the period of this estimate the USSR will probably graduate about 1.4 times as many people in engineering and the physical sciences as will the US.

26. Soviet science and technology are subject to the same type of centralized planning and control as all other Soviet activities. Even though Soviet scientists are a privileged group, their research is subject to many of the usual totalitarian restrictions. Such restrictions will probably have a more deadening effect upon long-range theoretical research than upon practical applications within the period of this estimate. While numerous theories in chemistry, physics, and biology have been attacked, there is no evidence that ideological restraints hamper developments directly affecting military weapons.

27. East Germany and Czechoslovakia, and to a lesser extent Poland and Hungary, possess scientific and technical manpower and facilities which provide a significant increment to the total resources at the disposal of the Bloc. On the other hand, Communist China, because of the extreme shortage of scientific and technical manpower and facilities, is unlikely to contribute to Bloc science.

Scientific and Technical Capabilities in Particular Fields

28. The quality of Bloc research in the significant scientific fields varies greatly. In some fields, notably in mathematics, physics, and microbiology, much research is original and of high quality. On the other hand, published Soviet research in most biological sciences and in medicine indicates that capabilities in these fields are generally mediocre.

29. Since World War II, the USSR has made substantial achievements in atomic energy, aircraft design and production, and electronics. Soviet science will continue to contribute substantially to the increase of Bloc military strength and capabilities throughout the period of this estimate, particularly in the following fields:

a. Nuclear Weapons. The Soviet atomic energy program will continue to have one of the highest priorities in the allocation of Bloc resources. Soviet capabilities for atomic research will remain considerably less than those of the US in both personnel and equipment. We believe that the Soviet atomic energy program will continue to concentrate almost entirely upon the development and production of weapons.[6]

b. Aircraft. The aircraft industry is estimated to be technically capable of completing development and placing in production during the period of this estimate the following types of aircraft: a heavy bomber, a jet medium bomber, an improved jet day interceptor, and a jet all-weather interceptor. In addition, several Soviet projects in the turbojet field, including axial flow engines in the 10,000 pound thrust class and at least one turbo-prop engine, are known to be in advanced stages of development.

c. Electronics. The USSR has made substantial progress in expanding its electronics industry and in adapting Western equipment. The industry is now capable of independent research and development, and electronic equipment of modern design is being produced. We believe that during the period of this estimate the USSR will have the capability of developing new or improved versions of the following equipment: early warning radar, fire control radar, blind bombing/navigational radar, and airborne intercept equipment. Some of these improved equipments may be placed in production during the period.

d. Electromagnetic Warfare. The USSR now has the capability seriously to disrupt Western long-range radio communications and certain navigation systems.[7] Soviet capabilities in related electronics fields indicate that the USSR is now capable of developing

[6] See paragraphs 2 and 3 of Appendix B for estimated size of the Soviet nuclear weapons stockpile, and for a discussion of Soviet capabilities in this field.

[7] For information concerning Soviet jamming capabilities, see SE-38, "Probable Soviet Courses of Action in Electromagnetic Warfare" (24 April 1953), and Appendices to SE-38, "Soviet Bloc Capabilities and Probable Courses of Action in Electromagnetic Warfare" (12 June 1953).

equipment for jamming frequencies up through 30,000 megacycles. On the basis of known or reported Soviet capabilities in the development of magnetrons, we believe that the USSR is now technically capable of producing limited quantities of ground based and airborne jamming equipment to cover frequencies through 10,000 megacycles. It is considered unlikely, however, that the USSR will have significant jamming capabilities in the frequency ranges above 10,000 megacycles during the period of this estimate.

30. *Chemical Warfare.* The USSR has the capability to produce and disseminate standard CW agents. It also possesses scientific and technical capabilities for the production of nerve gases. Although there is much evidence of research closely related to chemical warfare, there is no evidence that any basically new chemical warfare end-item is likely to be developed by mid-1955.

31. *Biological Warfare.* Soviet microbiological research will probably continue to emphasize modification and stabilization of bacteria and viruses and, thereby, could lead to an increase of BW capabilities. On the basis of known and estimated Soviet capabilities, it is estimated that the USSR can produce and disseminate during the period of this estimate several highly virulent BW agents. The effectiveness of these agents against livestock would probably be severe, against certain crops possibly severe, and against humans questionable.

32. *Guided Missiles.* While no Soviet missiles are known to be operational now, the USSR could have several types operational within the period of this estimate. This estimate is based principally upon the fact that the USSR has exploited the missiles in the German World War II program; the nature of Soviet work and the rate of progress subsequent to full utilization of German knowledge is largely unknown.

a. Surface-to-Air Missiles, based on German designs (Wasserfall) with improved guidance, control, and homing, could be available now or in the immediate future. In addition, a surface-to-air missile of native design could be developed by 1955.

b. Surface-to-Surface Missiles. It is known that the USSR has built at least a limited number of German V–1 and V–2 type missiles. A single stage ballistic missile, powered by a 120-metric-ton thrust engine, could be near the prototype stage of production by 1955. The range of this missile with a one-ton warhead would be less than 900 nautical miles; we believe that an "intercontinental" missile will not be available within the period of this estimate.

c. Air-to-Surface Missiles. The USSR is capable of producing subsonic types, and some of these are probably available now. By 1955, a high subsonic speed rocket-powered glide bomb could probably become operational.

d. Air-to-Air Missiles. Although the USSR has knowledge of two German subsonic winged rockets, there is no information on any Soviet interest in air-to-air guided missiles.

APPENDIX B

ESTIMATED BLOC MILITARY STRENGTH

SUMMARY

1. We estimate the present and probable future strengths, as of mid-1955, of the Bloc armed forces as follows:

	Mid-1953	Mid-1955
a. Personnel Strength		
Soviet	4,100,000	4,100,000
Satellite	1,395,000	1,805,000
Com. China	2,500,000	2,500,000
North Korea	295,000	300,000 [1]
Viet Minh	123,000	125,000 [1]
Total	8,413,000	8,830,000
b. Security Troops		
Soviet	400,000	400,000
Satellite	290,000	305,000
Com. China	1,450,000	1,450,000
Viet Minh	62,000	62,000
Total	2,200,000	2,217,000
c. Air Forces (organizational strength)		
Total combat a/c strength	26,000	27,400
Major categories		
Jet Fighters	11,600	13,600
Piston Med. Bombers	1,200	1,100
Jet Light Bombers	2,400	3,800
Jet Medium Bombers	....	50 [2]
Heavy Bombers	....	200 [2]
d. Soviet Naval Forces		
Major combatant ships [3]	184	240
Submarines	348 (Incl. 112 long-range)	377 (Incl. 149 long-range)

[1] This estimate is based on a continuation of present conditions and is therefore highly tenuous.

[2] The estimate of heavy bombers and jet medium bombers is based on assumption of series production of these types beginning by mid-1953 and April 1954, respectively. There is presently no intelligence to indicate that either type is in series production or in use in operational units. If production actually begins before or after the dates indicated, the strength estimates shown will be affected accordingly.

[3] Major combatant-type surface vessels include battleships, heavy and light cruisers, and fleet and coastal destroyers. Some are obsolete or obsolescent. See attached Table for details.

[4] The number of weapons estimated is based on the assumption that the entire amount of fissionable material believed available to the Soviets is fabricated into fission weapons of 30–100 KT yield.

2. We believe that the USSR now has a stockpile of about 120 nuclear weapons of from 30 to 100 kiloton yield. By 1955 the total number may be about 300 weapons of the same range of energy yield.[4] In view of our uncertainty concerning the production of fissionable materials, particularly uranium–235, the actual number of nuclear weapons may be as low as two-thirds or as high as twice this estimate. In the event that the USSR should choose to stockpile weapons of smaller or larger yield, the estimated number of weapons in the stockpile would be altered accordingly.

3. On the basis of information now available on the Soviet explosion of 12 August 1953, it is concluded that the USSR is capable of producing air delivery type nuclear weapons with explosive powers in the range of a few thousand tons of TNT to approximately one million tons of TNT. Throughout this range thermonuclear reactions may be used to increase the energy yield from the fissionable materials present without directly contributing a substantial amount to the total energy yield. Having demonstrated the capability to utilize thermonuclear reactions to increase energy yields from fissionable materials, the Soviets may direct efforts toward the eventual modification of the estimated stockpile of 30 to 100 KT weapons in one or more of the following ways:

a. Increase the number of 30 to 100 KT weapons.

b. Increase the energy yield per weapon in the stockpile, the number being approximately the same.

c. Produce very high yield weapons (e.g., 500–1,000 KT) by accepting corresponding reductions in the total number of weapons in the stockpile.

The 12 August test may also indicate an advanced stage, but not the culmination, of a

thermonuclear program having as an objective the production of weapons yielding more than a million tons of TNT in which thermonuclear reactions directly contribute a substantial amount to the total energy yield.

BLOC GROUND STRENGTH

The Soviet Army

4. We estimate that the Soviet ground forces now total about 2,500,000 men, and that the internal security forces constitute an additional 400,000 troops. The Soviet Army is estimated to consist of 175 line divisions (of which 105 are rifle divisions, 40 mechanized, 25 tank, and 5 horse-cavalry) and 45 supporting divisions (25 antiaircraft and 20 artillery divisions). On the basis of present mobilization plans, estimated trained reserves, and estimated stocks of military equipment, we believe that the Soviet Army and internal security forces could expand to a total strength of 7,500,000 organized into 300 line divisions, by M+30 days. The estimated maximum mobilization potential by M+360 is 12,500,000 men. In the absence of general war, however, we believe that the Soviet ground forces will remain at approximately the present size through mid-1955. The armament, the mobility, and capability of these forces for sustained combat will continue to improve, but the various armies, corps, and divisions will continue to vary greatly in quality.

5. The Soviet ground forces are estimated to include approximately 100,000 trained parachutists and another 100,000 men in partially-trained, air-transportable units. Airlift capacity is believed sufficient to permit a maximum-effort, single lift of about 28,000 fully-equipped airborne troops, depending upon the availability of air facilities.

6. The Soviet Army is the most powerful land force in the world today. Its combat effectiveness is high; the senior command is dynamic and experienced; junior officers can be expected to execute orders faithfully; and the individual soldiers are courageous and have good physical stamina. Soviet equipment is plentiful and adequate in quality. In general, Soviet weapons compare favorably with Western types. Mobilization would lower individual unit efficiency but the rapid increase in numbers of units would tend to overcome the effects of this drop even in the short term.

7. The Soviet Army has been reorganized and modernized since the end of World War II. We believe that current Soviet line divisions probably possess good equipment, generally of World War II design, in adequate quantity. The Soviet ground forces in Eastern Europe, particularly in Germany, probably constitute the best-equipped and best-trained units of the Soviet Army. Soviet forces in the Far East may also be at a somewhat higher level of readiness than other units in the USSR. The thorough Soviet training program probably ensures a high degree of combat skill. Discipline is good, and morale is almost certainly high. The training system provides an input to the ground reserve of something under 500,000 men each year.

8. Soviet ground forces are concentrated primarily in East Germany, the Western USSR, the Caucasus, and the Far East. This disposition facilitates logistical support and also provides for the defense and security of the most important and vulnerable areas of the USSR.

9. The USSR is now manufacturing substantial quantities of all types of basic ground force weapons. The volume of production is ample to meet the current requirements of the Bloc armed forces. During the period of this estimate, production of ground force weapons, with the possible exception of armored vehicles, is not expected to increase.

10. Certain weaknesses of the Soviet Army will continue to limit its offensive capabilities during the period of this estimate. The great extent of Soviet territory and the limitations of the road and rail networks present difficult logistic problems. The Army lacks experience in large-scale combined amphibious operations, and it has never conducted successful large-scale airborne operations in wartime. The Army suffers from a shortage of technicians, a weakness that is being met

by intensive pre-military and military training and by the recall of some specialists from the reserve.

Soviet Ground Forces in Europe

11. Soviet ground forces in Eastern Europe are organized into 30 line divisions totalling 535,000 troops, of which 22 divisions comprising about 400,000 troops are in East Germany. While not at full war strength, the highly mechanized Soviet group of armies in East Germany are in a high state of combat readiness and represent the core of Bloc military power in Europe.

The Satellite Armies

12. Satellite ground forces constitute a substantial addition to Soviet military strength in Europe. We estimate that the Satellite armies including the East German Garrisoned Peoples' Police (KVP) now total 1,286,000 men organized into 75 line divisions (57 rifle, 1 cavalry, 11 mechanized, and 6 tank), 2 artillery divisions, 6 antiaircraft divisions, and various independent brigades and regiments. The Satellite Security Forces constitute an additional force of some 290,000 troops. We estimate that by mid-1955 Satellite ground forces will be stabilized at a strength of about 1,690,000 men, organized into about 100 line divisions. All Satellite forces will remain dependent upon Soviet logistical support. Trained reserves of the Satellite ground forces amount to approximately 5,000,000 men (of which only about 1,500,000 are considered fully-trained). By mid-1955 trained ground reserves will total 4,850,000 men, of which 2,500,000 will probably be fully-trained. There is little equipment available for reserves, except in Bulgaria and except for the equipment and stockpiles of Soviet forces now stationed in Eastern Europe.

13. The Satellite armies are equipped largely with Soviet World War II equipment of good quality. The Satellites are now manufacturing for their own use non-combat vehicles, light artillery, small arms, and ammunition. They are dependent upon the USSR for most of their tanks, self-propelled guns, and heavy artillery, and for some of their light artillery. The most obvious deficiency is in motor transport; few Satellite divisions are motorized or mechanized. However, a concentrated effort is being made to overcome this weakness by increasing deliveries of motor vehicles from the USSR and from Czechoslovakia and by some vehicle production in other countries. There will be major shortages of heavy armor and artillery at least until 1955. The Satellite ground forces are also weak in communications equipment, and their antiaircraft defenses have few gun-laying radars.

14. Although the Satellite ground forces are being reorganized to conform to the Soviet pattern, differences still exist in training, equipment, morale, and general capabilities. Satellite war readiness should improve, however, by mid-1955 as the combat units become better organized and better equipped. The Bulgarian Army is considered the best of the Satellite forces. The Hungarian and Polish Armies, however, are being pushed toward the Bulgarian level of achievement.

15. However, the relative unreliability of Satellite armed forces is a factor detrimental to Bloc military capabilities. The Kremlin could not now rely upon the majority of the Satellite armies in a general war except for employment in secondary roles. If political tension and popular resistance in the Satellites increase, the USSR may find the military usefulness of Satellite forces and Satellite territories greatly reduced.

Logistical Position

16. Bloc ground forces in Europe are in a good logistical position. We estimate that the Soviets have a stock of equipment and supplies in Germany sufficient for 22 divisions for 80–90 days, or 60 divisions for 60 days of combat. We believe that military stockpiles within the USSR, except for POL, are probably sufficient to maintain 175 divisions in combat for an extended period (i.e., up to one year, depending upon the intensity of combat).[5] The road, rail, and inland waterway

[5] We have no estimate of POL stockpiles for ground forces alone; for all Soviet armed forces POL stockpiles are estimated sufficient for from 4 to 6 months of combat.

nets in Eastern Europe are adequate to permit full utilization of those Bloc divisions now in Eastern Europe and, in addition, to move and to support a considerable number of additional divisions from the USSR.

Soviet Forces in the Far East

17. The USSR represents both the foundation and the arsenal of Bloc military power in the Far East. Soviet ground forces in the territory east of Lake Baikal operate within an autonomous command structure. These forces total an estimated 415,000 men, organized into 30 line divisions, of which 5 are mechanized and 1 tank. There are also 78,000 Soviet security troops in this area. We estimate that the USSR could mobilize an additional 15 divisions by M+30 days from three military districts which constitute the Soviet Far East.

18. Transportation facilities constitute the major limitation upon the support of large-scale military operations in the Far East over an extended period. The Trans-Siberian Railroad carries at least 90 percent of the military supplies shipped from the western USSR to the Far East. The USSR has attempted to reduce the danger deriving from this transport limitation by maintaining large reserves of military and other supplies in the Far East. However, the USSR has equipped and provisioned the North Korean Army and has furnished large amounts of equipment and POL to the Chinese Communists. While we do not know what proportion of these supplies were drawn from stocks in the Far East, we believe that Soviet forces in the Far East now have sufficient supplies and equipment (with the exception of POL) to support 30 divisions in combat from 6 to 8 months.

Chinese Communist Army

19. The over-all strength of the Chinese Communist Field Forces is estimated at 2,380,000 troops, organized into 65 armies and 221 line divisions (194 rifle, 7 cavalry, 5 armored, 12 artillery, and 3 parachute) and various independent units.

20. The Chinese Communist forces are basically infantry. Their weapons are a heterogeneous assortment of European, American, Japanese, and Soviet manufacture. Limited amounts of Soviet heavy equipment (tanks, artillery pieces, and trucks) have been reported in various parts of China, but the extent of Soviet equipping of Chinese Communist units other than those in Korea is not known. Most of the armored equipment was apparently shipped to the Chinese Communists during late 1950 and early 1951, but ammunition and other types of material for the Chinese Communist armies in Korea has since been furnished on a continuing basis. Communist China has become increasingly dependent upon the USSR for ammunition, spare parts, POL, and replacement equipment, although this dependence has become less urgent with the termination of hostilities in Korea. We estimate that despite the flow of Soviet material, the disparity between the equipment of the average Chinese Communist division and that of the average Soviet division will probably not be reduced significantly in this period.

21. The morale and combat effectiveness of the Chinese Communist troops in Korea and Manchuria are high. We estimate that the combat effectiveness of the Chinese Communist troops elsewhere will be lower because of the heterogeneity of the weapons and equipment, deficiencies in heavy weapons, equipment, training, and the lack of supporting services. The combat effectiveness of the Chinese Communist Army has also been limited by the absence of tactical air support. However, if Soviet aid in the form of advice and equipment continues, the over-all combat effectiveness of Chinese Communist forces will almost certainly continue to increase.

North Korean Army

22. We estimate that the North Korean Army now totals about 280,000 men, organized into 18 rifle divisions, 7 infantry brigades, 6–10 armored units up to regimental size, 2 mortar regiments, and 2 artillery regiments.

23. The North Korean soldier in 1950 was well trained, but severe casualties forced the induction of large numbers of untrained men into combat units. Recent evidence indicates

that the past 12 months have been utilized to raise the standards of training and equipment. Rigid discipline, experienced leadership, and Soviet staff advice will continue to give the North Koreans a general over-all combat efficiency rating of from fair to good.

Viet Minh Army

24. We estimate that the Viet Minh military forces consist of a regular army of 123,000 (organized into 6 infantry divisions, 1 artillery division, and numerous independent formations), 62,000 regional troops, and 115,000 poorly armed irregulars. The combat effectiveness of the regular Viet Minh forces is considered fair to good, considering the terrain, climatic conditions, and type of operations conducted. Three-fifths of the regulars are deployed in the strategic Tonkin area.

BLOC AIR STRENGTH

Soviet Air Forces[6]

25. We estimate that the Soviet Air Forces have an organizational strength of about 20,500 aircraft, including 10,200 fighters, (8,700 jets); 2,600 attack aircraft; 3,500 light bombers (2,250 jets); and 1,200 piston medium bombers. We also estimate that the Soviet stored reserve of military aircraft is approximately equal in number to the aircraft in units. There are insufficient data available to permit a sound estimate of the composition of the reserve; however, we believe that most reserve aircraft are World War II piston types.

26. Although the size of the total air establishment is not likely to change appreciably through mid-1955, we estimate that a significant increase in over-all operational effectiveness will result as conversion to jet fighters and bombers progresses. We estimate that by mid-1955 the Soviet Air Forces will have an organizational strength of about 20,500 including 10,000 jet fighters; 2,500 attack aircraft (1,000 jets); 3,700 light bombers (3,500 jets); and 1,050 piston medium bombers, 50 jet medium bombers, and 200 heavy bombers.[7]

27. The Soviet Air Forces have been undergoing steady modernization. We estimate that about 50 percent of the aircraft are jets, compared with about 33 percent in mid-1952 and about 40 percent in January 1953. We estimate that about 70–80 percent of organizational aircraft will be jets by mid-1955. MIG–15 types will probably be retained as a standard fighter aircraft through mid-1955. Improved fighter aircraft, probably an outgrowth of the MIG–15 type, are entering operational units but their characteristics are unknown. An all-weather jet interceptor may also have been developed, and may be in operational use by mid-1955. During this period, bombers will probably receive considerable emphasis. The Il–28 and Type 35 (jet light bombers) will constitute standard Soviet equipment during the period of this estimate. A new and improved jet light bomber may also enter service by mid-1955. Within the period of this estimate, the USSR may complete development and begin series production of a jet medium bomber. A heavy bomber may already be in production and, if it be assumed that series production began in mid-1953, about 200 may be available by mid-1955.[8]

28. The combat effectiveness of Soviet military aviation is, on the whole, not as good as that of the air forces of the US and the UK, and is expected to remain below US and UK standards throughout the period of this estimate. By mid-1955, air crew proficiency, quality of equipment, and standards of maintenance and

[6] Current estimated over-all actual strength is about 85 percent of the estimated organizational strength. Actual strength of piston fighter, attack, and piston light bomber regiments is estimated at 95–100 percent; transport and reconnaissance regiments are estimated at 90–95 percent of organizational strength; jet fighter units are estimated to average approximately 80–85 percent; medium bomber 75–80 percent; and jet light bomber, and jet reconnaissance, 60–65 percent of organizational strength.

[7] The estimate of heavy bombers and jet medium bombers is based on assumption of series production of these types beginning by mid-1953, and April 1954, respectively. There is presently no intelligence to indicate that either type is in series production or in use in operational units. If production actually begins before or after the dates indicated, the strength estimates shown will be affected accordingly.

[8] For more detailed information, see SE–36/1, "Soviet Capabilities for Attack on the US through Mid-1955" (3 August 1953).

training will have improved generally. However, units operating advanced and complex equipment (e.g., in all-weather fighters) probably will not have resolved all of the problems which accompany the introduction of such equipment.

29. The aircraft industry has been maintained in steady operation throughout the postwar period. Soviet aircraft and aero-engine industries are estimated to be currently operating at about one-third their maximum peak. We believe that two years would be required for the industry to reach capacity production. We estimate combat aircraft production in 1952 was:

TYPE	1952
Jet fighters	5,280
Piston light bombers	240
Jet light bombers	1,280
Piston medium bombers	410
Jet medium bombers	none
Piston heavy bombers	none
Jet heavy bombers	none
TOTAL	7,210

30. The present logistical position of Soviet military aviation is good, and will probably improve during the period of this estimate.

31. We believe that about 60 percent of the present total Soviet air strength, including nearly 65 percent of the jet fighter force and almost 85 percent of the medium bomber force, is now concentrated in Eastern Europe and the western and southwestern portions of the USSR. We believe that these dispositions will not change significantly by mid-1955 except that a greater proportion of the total medium bomber strength will be stationed in the Far East.

32. There are five major combat components of Soviet military aviation: The Air Force of the Soviet Army, Fighter Aviation of Air Defense, Long-Range Aviation, Naval Aviation, and Aviation of Airborne Troops.[9]

[9] The Civil Air Fleet, while not an operational component of Soviet military aviation, is under the War Ministry. Together with other civil air organizations, it operates about 1,650 transports on scheduled and non-scheduled operations. It could make an estimated 1,000 of these available for military purposes. However, this would produce a corresponding reduction in Soviet domestic air transport.

a. The Air Force of the Soviet Army

(1) The Air Force of the Soviet Army, consisting of units assigned to the 14 Tactical Air Armies and to the 4 Military District Air Forces, is the largest component of Soviet military aviation. The primary missions of the Air Force of the Soviet Army are to carry out tactical operations in support of ground forces and to defend areas against penetration by hostile aircraft. In areas where other fighter forces are available, the interception mission is shared with fighter units subordinate to Fighter Aviation of Air Defense, or to Naval Aviation.

(2) We estimate that the Air Force of the Soviet Army has an organizational strength of 11,100 aircraft including 4,020 jet fighters, 1,750 jet light bombers, and 2,440 attack aircraft. The estimated organizational strength by mid-1955 will also be 11,100 aircraft, of which 4,400 will be jet fighters, 2,600 jet light bombers, and 900 jet attack aircraft. The Soviets are continuing to employ the Il–10 (Stormovik) piston attack aircraft for close support operations. There are indications, however, that the MIG–15 and the Il–28 may assume ground support roles on an interim basis, until an aircraft specifically designed for this work appears in operational units.

b. Fighter Aviation of Air Defense

(1) Fighter Aviation of Air Defense has the mission of defending important target areas in the USSR. In many areas it shares this mission with fighter elements of the Air Force of the Soviet Army and Naval Aviation. The force has an organizational strength of 3,500 interceptor aircraft, of which 3,100 are jets. By mid-1955, the estimated organizational strength will be 3,500 jet interceptor aircraft.

c. Long-Range Aviation

(1) Long-Range Aviation, consisting of 3 Air Armies, 1 in the Far East and 2 in Western USSR, plus units of undetermined subordination, constitutes the strategic striking force of the Bloc. This force has an estimated actual strength of 1,000 piston medium bombers (TU–4's); and an organizational strength of 1,220 piston medium

bombers. By mid-1955, we estimate that the bomber force of Soviet Long-Range Aviation will maintain approximately its present organizational strength, but may include up to 50 jet medium bombers and 200 heavy bombers.[10] During the period of this estimate, the TU–4, the only known operational Soviet bomber capable of delivering the atomic bomb in the US, will remain the principal vehicle for Soviet intercontinental operations. The TU–4, under normal operating conditions, is estimated to have a combat radius of 1,700 nautical miles and a combat range of 3,100 nautical miles with a 10,000 pound bomb load.[11]

(2) We believe that the over-all combat effectiveness of Soviet Long-Range Aviation will continue to remain well below that of the US strategic air arm. The average Soviet medium bomber crew is considered less skilled than the average US medium bomber crew of World War II. Moreover, Soviet staff planners lack the extensive operational experiences obtained by the US. However, Soviet Long-Range Aviation is known to be undergoing a training program for strategic bombing missions, and selected crews probably could, within the limitations set by equipment, approach standards attained by present average US crews. Moreover, bombing capabilities are enhanced by the abundance of Western target and navigational data which is readily available to the Soviets.

(3) On the whole, the chief limiting factors in the operational effectiveness of Soviet Long-Range Aviation in the conduct of long-range strategic air missions are: (a) the absence of advanced bases; (b) the performance characteristics of the TU–4 aircraft and its associated equipment; (c) the current lack of a true intercontinental bomber; and (d) the lower proficiency of the average Soviet long-range bomber crew, compared to its US counterpart. By mid-1955, it is expected that the USSR will have made progress in overcoming some of the limitations cited above.

d. Naval Aviation is responsible for cooperation with naval surface and submarine units, furnishing close support for the seaward flanks of the Soviet ground forces, and for air defense of certain areas, a mission which it shares, in most cases, with fighter elements of Fighter Aviation of Air Defense and the Air Force of the Soviet Army. It is capable of providing fighter cover for naval units within a combat radius of 360 nautical miles from shore bases. Naval Aviation can perform antisubmarine patrol, aerial reconnaissance, and aerial-mining, and it is equipped to deliver torpedo, rocket, and bombing attacks against surface vessels. It is estimated that Naval Aviation has an organizational strength of 3,600 aircraft, including 1,960 fighters (1,560 jets); 940 light bombers (490 jets); and 390 reconnaissance aircraft (310 jets).

e. Aviation of Airborne Troops has the mission of conducting airborne training and providing airlift and equipment for airborne operations. Its organizational aircraft strength consists of approximately 550 transport aircraft and 250 gliders. Transport aircraft from other Soviet aviation components and the Civil Air Fleet would have to be utilized to supplement the aircraft of this component for large-scale airborne operations. (See paragraph 5, Appendix B, for Airborne troop strengths.)

Satellite Air Forces

33. It is estimated that the jet fighter re-equipment program of the Satellite air forces will have been completed by mid-1955. In addition, the Soviets have begun to re-equip at least one of the Satellites with jet light bombers (Il–28's). These developments portend increased operational capabilities. However, development of these capabilities will be

[10] The estimate of heavy bombers and jet medium bombers is based on assumption of series production of these types beginning by mid-1953, and April 1954, respectively. There is presently no intelligence to indicate that either type is in series production or in use in operational units. If production actually begins before or after the dates indicated, the strength estimates shown will be affected accordingly.

[11] For more detailed information, see SE–36/1, "Soviet Capabilities for Attack on the US through Mid-1955" (3 August 1953).

dependent on the Soviet assessment of the political reliability of the Satellite air forces. We estimate that these air forces have an organizational strength of about 3,200 aircraft, including 1,430 jet fighters, 310 piston fighters, 680 ground attack, 470 light bombers (80 jets), and 140 transports.[12] The organizational strength of the Satellite air forces, by mid-1955, will be approximately 3,300 aircraft, of which 1,500 will probably be jet fighters and 120 jet light bombers. The Satellite forces will remain almost completely dependent upon the USSR for logistic support, and virtually all aircraft will be Soviet types.

Communist Air Forces in China (CAFIC)

34. The strength and capabilities of the Communist Air Forces in China have been increasing steadily. The estimated organizational strength of the CAFIC is 2,400 operational aircraft, including 1,500 jet fighters, 200 piston fighters, 160 ground attack, 360 light bombers (100 jets), 10 piston medium bombers, and 170 transports.[13] Assuming that Soviet support continues in the future on the same scale as in the past, it is estimated that by mid-1955 the organizational strength of this force will be about 3,550 aircraft, including 2,100 jet fighters, 300 piston fighters, 300 ground attack, 510 light bombers (160 jets), 50 piston medium bombers, 240 transports, and 50 piston reconnaissance. We estimate that the CAFIC will remain dependent upon the USSR for aircraft and equipment, spare parts, technical supervision, and aviation fuel and lubricants.

35. CAFIC combat potential has been increased during the past few months by the conversion of two light bomber regiments in Manchuria to Il–28 light bombers. The CAFIC has not demonstrated any capability for carrying out either air-ground support operations or high-altitude bombing. The effectiveness of the CAFIC will probably continue to improve throughout the period of this estimate through increased proficiency of flying personnel. However, over-all effectiveness will be largely determined by Soviet willingness to continue to supply additional aircraft, especially jet fighters and jet light bombers, together with the necessary parts and equipment.

BLOC NAVAL STRENGTH

Soviet Naval Forces

36. The tasks assigned the Soviet Navy (including Naval Aviation) in the discharge of its mission are:

a. Offshore and inshore defense of the maritime frontiers;

b. Protection of the sea approaches and coastal lines of communications;

c. Conduct and support of amphibious operations;

d. Offensive action against hostile naval units and enemy sea lines of communications;

e. Protection of the seaward flank of a ground campaign.

37. The total surface strength of the Soviet Navy is about 184 major combatant-type surface vessels,[14] and some 2,000 escort, patrol, mine, amphibious, and auxiliary types. Major ship strength centers around 6 effective heavy cruisers, 15 effective light cruisers, and 116 effective destroyers. We further estimate that there are 348 submarines,[15] of which 112 are long-range (combat radius of 3,500–6,000 nautical miles), 88 medium-range (combat radius of 1,000–1,800 nautical miles),

[12] It is estimated that the over-all actual strength of Satellite air forces is about 65 percent of organizational strength. The actual jet fighter strength is estimated to be 40 percent of organizational fighter strength.

[13] It is estimated that the over-all actual strength of Chinese Communist air forces is about 85 percent of organizational strength. The actual jet fighter strength is estimated to be 75 percent of organizational fighter strength.

[14] Major combatant-type surface vessels include battleships, heavy and light cruisers, and fleet and coastal destroyers. Some are obsolete or obsolescent. See Table for details.

[15] Obsolete submarines have been omitted from this figure; included are 12 long-range, 32 medium-range, and 38 coastal submarines which are obsolescent (overage) by US standards.

and 148 coastal submarines.[16] Naval Aviation has an authorized strength of 3,600 aircraft of which 1,560 are jet fighters.

38. The Soviet Navy has an estimated personnel strength of about 895,000 men, including about 95,000 attached to Naval Air. This total includes 400,000 General Service, of whom 100,000 are in training, 275,000 in Coastal Defense and Naval Infantry, and 125,000 in coastal (border) security operations, such as beach patrols and lookouts, offshore patrol craft and small bases for patrol craft, and communications for coastal security. Current reserve strength of the Soviet Navy personnel is approximately 1,000,000. We estimate that reserve strength will be maintained at this level through mid-1955.

39. There is no force in the Soviet Navy comparable to the amphibious forces of the US Navy, although the naval infantry components have received training in amphibious warfare. The Soviet Navy does not possess sufficient modern amphibious vessels and craft to launch and sustain long-haul amphibious operations. It is capable, however, of mounting short-range lifts in considerable force.

40. We estimate that by mid-1955 the Soviet Navy will have a total of 240 major combatant-type surface vessels, centering around 6 effective heavy cruisers, 21 effective light cruisers, and 163 effective fleet destroyers.[17] The total of minor and auxiliary vessels probably will not increase substantially, but will comprise a greater percentage of new and modernized units. We also estimate that by mid-1955 there will be 377 submarines, of which 149 will be long-range, 72 medium-range, and 156 coastal types.[18] Newly constructed submarines will probably have increased combat radii. We believe that the organizational strength of Naval Aviation will be about 3,600 aircraft in 1955. However, almost all aircraft will be jet types.

41. The operational efficiency of the Soviet Navy is still below that of the navies of the major Western Powers. However, it will continue to improve during this period, and by mid-1955 it will probably equal that of Western navies in the employment of small craft. It may approach US standards in operations involving major combatant-type ships. Relatively little is known of the operating efficiency of the Soviet submarine force, but it must be assumed that it has profited by the lessons of World War II, and from German experience. Personnel of the submarine force are the pick of the Soviet Navy, and their morale is high. Like other elements of the fleet the submarine force is believed to be in a good state of operational readiness.

42. We estimate that adequate supplies of ammunition, stores, and POL are now available in all areas except the Far East to service the Soviet fleet for a period of one year at the present scale of operations. In the Far East, POL supplies are adequate only for six months.

43. The mine warfare capabilities of the Soviet Navy are extensive, and pose a serious potential threat to Allied naval operations in Europe and the Far East. Nearly all Soviet warships, including most of the lesser vessels, are equipped to lay mines, and the capabilities of submarines and aircraft in this respect extend the range of the threat to the Western approaches of the British Isles, the Far Eastern island chains, and the Mediterranean area. Large stocks of German World War II mines were captured by the Soviets, and developmental work has been given a high priority. The Soviet Navy is known to have large stocks of mines, probably including all types.

44. Naval construction in the Soviet Union is presently estimated at about 175,000 NSDT

[16] We have no evidence that Soviet submarines are fitted with snorkel, other than the 16 acquired from the Germans. We estimate that they could be so fitted at the rate of about 25 percent of the force per year. We believe new Soviet submarines are or will be so fitted, but feel it unlikely that those approaching the end of their fully effective life will be so equipped.

[17] See Table for details.

[18] Obsolete submarines have been omitted from the 1955 totals; a number of obsolescent but still usable submarines are included.

(Naval Standard Displacement Tons) per year, broken down as follows:

Cruisers	3.5	Ocean Patrol Submarines	20
Destroyers	20		
Smaller Types	110	Coastal Submarines	20

We believe this tonnage total could be raised to 485,000 NSDT per year by utilizing the entire Soviet ship-building capacity on a one-shift basis, and, by using Satellite facilities, to 773,000 NSDT. Currently 6 large vessels, of which 3 are known to be cruisers, are under construction. Probably 4 of these have reached the fitting-out stage. Construction of battleships and carriers is possible in all fleet areas except the Far East. There is no firm evidence of such construction, and we believe it unlikely that any ships of these types will become operational during the period of this estimate.

45. The operating forces of the Soviet Navy are divided among four major fleet areas, Baltic, Northern, Black Sea, and Pacific. The Baltic and Pacific Fleets are each sub-divided into two components covering the northern and southern sectors of their areas of responsibility. Each of the six fleets has a naval air component directly under the operational control of the naval commander. In addition to the fleets there are three flotillas which serve as local defense forces on the Amur and Danube Rivers, and the Caspian Sea. (See Table for detailed composition of these fleets.)

a. Baltic: This is the largest Soviet fleet concentration; it consists of the 4th and 8th Fleets, to which should be added the Polish and East German sea forces. Submarine forces assigned are estimated at 138, of which 88 are long and medium-range craft. With the use of merchant shipping normally in the area (approximately 450,000 GRT), amphibious lift and support for a force of 100,000 men could be provided, but the port capacity in the target area selected would be the controlling factor in determining the actual size of the force to be lifted. Naval Aviation assigned to the Baltic Fleets has an organizational strength of 1,020 aircraft including 340 jet fighters and 160 jet light bombers.

b. Northern: The Northern Fleet comprises 2 cruisers, 31 destroyer types, and approximately 192 escort, mine, amphibious, and auxiliary craft. Submarine strength is estimated at 33, all but 4 of which are long or medium-range types. With merchant shipping normally in the area, amphibious lift for about one division (14,000 men) is available. Naval Aviation assigned has an organizational strength of 370 aircraft, of which about 170 are jet types, largely fighters.

c. Black Sea: The Black Sea Fleet comprises 2 battleships, 8 cruisers, 26 destroyer types, and approximately 298 escort, mine, amphibious, and auxiliary vessels. The Black Sea Satellites (Rumania and Bulgaria) add 5 destroyers and some 90 other craft to this total. Naval Air has an organizational strength of 600 planes, including 300 jet fighters and 90 jet light bombers. About 70 submarines are assigned to this Fleet, of which 27 are long and medium-range types. Merchant shipping in the area generally averages about 188,000 GRT, and amphibious lift for 40,000–45,000 troops and their continuing resupply is possible. Port facilities in the target area would determine the actual size of the assault.

d. Far East: The 5th and 7th Fleets in the Far East total 2 cruisers, 47 destroyer types, and about 340 escort, mine, amphibious, and auxiliary vessels. The Chinese Communist Navy could provide another 130 minor vessels. An estimated 107 submarines are based in the area, of which more than half are long and medium-range types. Naval Air assigned to the Far Eastern Fleets has an organizational strength of 1,610 aircraft, of which 800 are jet fighters and 200 jet light bombers. With the use of merchant vessels, amphibious lift for about 120,000 troops against Japan is available. In addition the Chinese Communists have sufficient shipping to lift about 200,000 troops for a short distance. Early acquisition of port facilities and good weather conditions would be essential for any assault in force.

46. The principal weakness of the Soviet Navy will continue to derive from the division of its major surface forces, which, because of their widely separated bases, are not mutually sup-

porting. This seriously complicates administrative control, logistic support, and strategic mobility, although the development of the inland waterway system and the increased use of the Northern Sea Route now permit some interchange of vessels. A further weakness is the lack of adequate supply lines to the Northern and Far Eastern areas.

47. The tasks assigned Naval Aviation include: air cover and support for amphibious operations, antishipping strikes, aerial minelaying, air reconnaissance, and antisubmarine operations. It also has the function of providing air defense within its operating areas. In this regard it is closely integrated with the over-all air defense system. Each of the 6 fleet commanders in the 4 major sea areas has direct operational control of the naval air components assigned. During the postwar period training has been stepped-up, with the emphasis on night and all-weather flying, formation flying, gunnery, and bombing. Night and all-weather capabilities nevertheless remain relatively low. Exercises aimed at the improvement of coordination between air, surface, and sub-surface elements have been noted.

Satellite and Chinese Communist Navies

48. The strength of both the Satellite and Chinese Communist Navies during the period of this estimate will remain negligible. The naval forces of the Satellites will probably be capable of aiding the Soviet Navy in minesweeping, minelaying, escort, and coastal defense duties. The Chinese Communist Navy, although small and ill-equipped, is the largest indigenous naval force in the Far East. It is capable of short-haul amphibious operations, coastal mining, motor torpedo attacks, limited escort work, and minor gunfire support. The Soviet Far Eastern Naval Forces are providing training, advisors, and logistic support to this force.

Bloc Merchant Fleet

49. We estimate that the Soviet Bloc seagoing merchant fleet (including Communist Chinese vessels) totals 788 ships (1,000 gross tons upward) of 3,393,025 deadweight tons. More than 80 percent of these ships are slow and overage. Since the end of World War II the Bloc has continually sought to strengthen the merchant fleet, and still retains, despite repeated requests for their return, some 38 liberty ships from US Lend-Lease. We estimate that by mid-1955 the merchant marine of the Soviet Bloc will reach a total of 873 vessels of 3,641,740 deadweight tons.

BLOC AIR DEFENSES

Soviet Air Defense System[19]

50. The USSR maintains a large air defense system which includes the active air defense elements of all military services under the operational control of a single air defense organization (PVO–Strany). A passive defense organization, which includes the resources of the police and other civil organizations, is also under control of PVO–Strany. The European Satellite and Chinese Communist air defenses are integrated with those of the Soviet system. We estimate that the Bloc has the capability of providing vigorous opposition against air attacks on critical targets in the interior of the USSR, under conditions of good visibility. Under clear moonlit night conditions, Bloc defense capabilities are fair against piston bombers and negligible against jet bombers. Under conditions of poor visibility, day or night, Bloc interception capabilities are negligible. Deficiencies are related generally to equipment and to associated training which is directly conditioned by the availability and capabilities of equipment. The lack of operational interceptor units equipped and trained for all-weather operations is the most critical deficiency. A limited number of all-weather jet interceptors may be in operation by mid-1955. We believe that, during the period of this estimate, gradual improvements will be made in the following aspects of the air defense system:

a. Early Warning

(1) While areas along the northern and southern borders may have some radar gaps, it is believed that significant numbers of early warning and GCI radars will be found

[19] See paragraphs 32–*a* and 32–*b*, Appendix B.

on approaches to the most important areas in the USSR. Radar coverage during the period of this estimate is expected to develop further along lines indicated during the past two years, the most notable feature of which will be the introduction of more modern radars in the early warning system. Low altitude coverage will continue to be a problem and will be only partially offset by the use of ground observers.

(2) It is estimated that by the year 1955, the Soviets will have several types of early warning radars which when suitably employed together in an early warning system should afford reasonable coverage against medium bombers flying up to 60,000 feet altitude; such a system should provide reliable detection range from 120 to 170 nautical miles. Detection ranges against fighter aircraft at the same altitude should be no more than 75–80 nautical miles.

b. Ground Control of Interception

(1) The capacity of the air warning and control system will probably show a steady increase during the period of this estimate. The advancements in the technical equipment field will not be reflected immediately in increased system capacity. As new and improved equipment becomes available and training continues, the system capacity will improve as a result of increases in the number of targets one radar can hold under surveillance, increases in the over-all target reporting capacity before saturation point is reached, and an increased fighter aircraft control capacity.

(2) Improvements in radar, communications (particularly through use of UHF radio), and identification methods should result in more effective use of close control methods for fighter interceptions. Present use of fighter grid and zonal systems employed in controlling fighters is expected to be largely replaced by vectoring for close control.

(3) Within the period of this estimate, the USSR is expected to have GCI radar of several types, including the V–Beam sets presently in use, which should be capable of detecting medium bombers at a maximum range of 120–170 nautical miles. They also should provide reliable coverage for interceptor control, without the use of transponder beacons, to a maximum range of 70–85 nautical miles and an altitude coverage up to 40,000–42,000 feet. The use of transponder beacons in Soviet interceptor aircraft, a development of which the Soviet Union is capable, would increase range and altitude coverage for controlled interception.

c. Communications

(1) Control center operating procedures are expected to improve. The filtering phase of air raid reporting procedures will continue to be a major problem during the period of this estimate. The increasing numbers of V–Beam radars will probably reduce the amount of filtering required at the collection center level since much of the filtering will probably be completed at the radar site. However, filtering will still be required at the various control centers where overlapping coverage will result in a duplication of information.

(2) Wider use of newer radars will tend to increase warning time available and will tend to improve the handling capacity of the raid reporting system by reduction of filtering requirements. The increasing use of multi-channel microwave radio link systems will improve air defense capabilities as well as greatly increasing security and decreasing vulnerability to jamming. None of the equipment changes are expected to alter reporting procedures materially; however, some refinement of present procedures will undoubtedly take place in order to improve the passing of raid reports for timely appraisal and action.

d. Fighter Aircraft

Improved fighter aircraft, probably an outgrowth of the MIG–15 type, are entering operational units, but their characteristics are virtually unknown. An all-weather jet interceptor may also have been developed, and may be in operational use by mid-1955.

e. AI Radar

We know that the USSR has World War II airborne intercept equipment obtained from the Germans and through Lend-Lease. We

estimate that the USSR has the technical knowledge and production capability to produce an AI radar superior to World War II types as well as passive detection AI equipment of electronic, infrared, and possibly sonic types. The USSR almost certainly now has experimental quantities of some type of AI equipment. It may now have some type of AI equipment available for limited operational use, although the indications are not yet conclusive. We estimate that AI equipment will come into operational use within the period of this estimate. (See *d.* above.)

f. Antiaircraft Weapons

(1) *AAA.* It is estimated that during the period under consideration the Soviets will employ a family of antiaircraft artillery weapons capable of delivering continuously pointed fire against subsonic aerial targets at all altitudes up to 36,000–38,000 feet with barrage types of fire up to about 45,000 feet. Sufficient numbers of directors and gun-laying radar will be available for employment with the medium and heavy type guns.

(2) *Unguided AA Rockets.* Supersonic unguided AA rockets may be available, but it is believed that dispersion problems will limit their employment as a predicted fire weapon to about 40,000 feet with a barrage fire capability up to about 50,000 feet.

(3) *Surface-to-Air Missiles.* Surface-to-air missiles based on German designs (Wasserfall) with improved guidance, control, and homing could be available now or in the immediate future. In addition, a surface-to-air missile of native design could be developed by 1955.

(4) *Air-to-Air Missiles.* Although the USSR has knowledge of two German subsonic winged rockets, there is no information on any Soviet interest in air-to-air missiles. Air-to-air unguided rockets undoubtedly would be used; it is possible that air-to-air rockets might incorporate homing heads.

Satellite and Chinese Communist Air Defenses

51. The European Satellite and Communist Chinese air defense systems are integrated with the Soviet system. They deepen the Bloc early warning coverage net. Despite some increase in the air defenses of the Satellites and of Communist China (notably in the Korea-Manchuria area), we estimate that during the period of this estimate the air defenses of both the Satellites and Communist China will remain inferior to those of the USSR.

Soviet Civil Defense

52. The USSR has a large, complex, and well-organized civil defense system which is integrated into the over-all Soviet Air Defense Organization (PVO). The civil defense system includes a full-time civil defense staff organization. Comprehensive plans have been made for utilizing existing agencies and facilities, and for training large groups by various mass organizations, but there is no evidence of present mass participation in the civil defense program, or of a program of passive defense measures specifically designed for defense against atomic attack. In addition, civil defense needs are apparently considered in urban and regional planning, in stockpiling, and in decentralization programs.

53. The USSR probably has a greater civil defense capability than any other major country, except perhaps the UK. Its present civil defense system appears well-planned and organized, although we cannot estimate its effectiveness in dealing with wartime emergencies, especially atomic attack. The elaborate totalitarian control system, the highly regimented character of the population, and, to some extent, the dispersal of population and industry constitute strong points in the Soviet civil defense system. However, we believe that a serious shortage of transport facilities and of materials would handicap efforts to meet a wartime civil defense emergency.

Soviet Coastal Defense System

54. The Soviet Coastal Defense establishment, which includes radar nets, coast watchers, coast artillery, antiaircraft, and naval infantry, has an estimated strength of 275,000

men. Defenses have been established in important ports, harbors, and straits. Coastal security personnel total an estimated 125,000. While not part of the Coastal Defense establishment, these forces would in wartime help provide surveillance of the coast for detecting the arrival of raiding forces, agents, or saboteurs.

APPENDIX C

BLOC POLITICAL WARFARE STRENGTHS

DEFINITION OF BLOC POLITICAL WARFARE

1. Political warfare plays an extremely important role for Communists, who consider military warfare only an extension of political warfare in their persistent campaign to undermine the strength of the non-Communist world. Bloc political warfare techniques include: diplomatic action, both through normal intergovernmental channels and in such international organizations as the UN; propaganda and front activities; political and economic pressures and inducements; the action of Communist parties and of Communist-controlled trade unions outside the Bloc; infiltration of Communists or their sympathizers into key governmental posts; espionage and sabotage; the fomenting of civil unrest, civil war, and colonial revolt; and the exploitation of nationalist and revolutionary movements.

FACTORS AFFECTING BLOC POLITICAL WARFARE STRENGTH

2. The principal sources of strength upon which Bloc political warfare capabilities are based consist of the Bloc's military capabilities; the size, power, and centralized leadership of the Bloc; Communist doctrine; and the Communist international movement.

Size, Power, and Centralized Leadership

3. The USSR, which is the base of the Communist world revolutionary movement, covers 8,500,000 square miles and has a population of about 200,000,000 people. The Bloc now includes 10 states,[1] which control a territory of about 13,320,000 square miles (one-fourth of the world total) and a population of about 750,000,000 (one-third of the world total). The size of the Bloc and the rapidity with which the Bloc and the Communist movement have expanded, particularly since World War II, constitute important elements of Bloc political warfare strength.

4. In its conduct of political warfare, the Bloc benefits greatly from centralized leadership and from effective discipline and control, which make possible flexibility in the selection and use of particular courses of action. The Bloc's unique ability to conceal the realities of life within the Bloc from foreign observation enables Soviet propaganda to present a deceptive picture to the outside world. The freedoms and opportunities provided Bloc agents and supporters in the non-Communist world also constitute important advantages for the Bloc in the conduct of political warfare.

5. Bloc political warfare depends to a large degree upon the stability and power of the USSR, which is the nucleus of the complex of Bloc states, national Communist parties, and auxiliary organizations. Bloc political warfare strength would be seriously reduced if the authority of the Soviet regime were weakened by a prolonged and indecisive struggle for power within the USSR. However, we do not believe that any power struggle is likely to lead to a breakdown of the authority of the Soviet regime within the period of this estimate.

6. The USSR determines the fundamentals of Bloc political warfare. The Satellites and the national Communist parties outside the Bloc are under the control of the USSR. The national Communist parties outside the Bloc accept Soviet authority even at the expense of lessening their power and influence in their own national affairs, alienating significant elements of their membership, and intensifying the repressive measures directed against them by national governments.

[1] USSR, Communist China, Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, and North Korea. For the purposes of this general discussion, Communist China is included among the states forming the Bloc. However, it should be noted, as paragraph 7 indicates, that the Sino-Soviet relationship is significantly different from the other Soviet-Satellite relationships.

7. Communist China occupies a unique position within the Bloc. It remains dependent upon the USSR for military and economic support. However, it appears to be more an ally than a Satellite, and it almost certainly participates in the formulation of Communist policy in Asia. The prestige and military power of Communist China help to increase Bloc political warfare strengths in Asia, while at the same time they strengthen Chinese Communist national power. As a consequence, Communist China exercises some influence, the exact degree of which we are unable to estimate, on the national Communist parties and movements of Asian countries.

Communist Doctrine

8. Communist doctrine constitutes a powerful force for the international Communist movement. Much of this force, however, derives from the fact that Communism is the official ideology of one of the world's most powerful nations, which uses it in the pursuit of its foreign political aims. Aside from this consideration, the considerable attraction of Communism stems from its Utopian message. Many are attracted by its promise to end social, and particularly economic, injustices, and may, in addition, find in it a secular religion which provides them with a certainty of purpose. For the party member Communism provides a system of values and a guide to action. Furthermore, the doctrinal tenets of Communism involve acceptance of a rigid discipline which provides the leadership with a unique measure of control. These tenets are an important source of Communist resolution and of the Communist will and capability to fight.

9. The ideas and doctrines developed in the nineteenth century by Marx and Engels have had varying degrees of influence throughout most of the world. Marxist doctrine had exercised great influence in the West before the Russian Revolution, and Lenin and Stalin both profited from the fact that the philosophies of many non-Communists and even anti-Communists had been influenced by the philosophy upon which they began the erection of the Soviet state. Since 1917, Marxist doctrine, although not necessarily as interpreted by the Kremlin, has spread even further; for example, it exercises a strong influence in Japanese universities today, and it has helped to create groups of fellow-travelers in most non-Communist countries.

Communist International Organization

10. The international Communist movement is a vital element of Bloc political warfare strength, and its rise to international importance has been one of the major political phenomena of the twentieth century. The Bloc now has a network of more than sixty national Communist parties with an estimated 24 million members, as well as a variety of international mass organizations. Most party members live within the Bloc, but at least 3,250,000 are scattered throughout the non-Communist world. These figures do not include the membership of the front organizations, trade unions, etc., which the national Communist parties influence or control. While the power of the national Communist parties to influence national policy is relatively small in the Western Hemisphere and in West European countries, except for Italy and perhaps France, these parties have demonstrated the power to organize, maintain, and control armed rebellion on a significant scale in a number of the underdeveloped countries of the world, to create economic and political disruption in a number of other countries, and to maintain important espionage and propaganda efforts in nearly all countries.

11. The Bloc controls and operates the largest and most complex system of mass communication in the world. For example, the USSR leads the world in volume of international radio broadcasting, and the combined output of the Satellites and Communist China exceeds that of any other state. The Bloc system of mass communication, which includes radio, publications, posters, demonstrations, agitators, etc., enables the Bloc to disseminate a tremendous stream of propaganda and to attempt to mobilize public opinion among key groups throughout the world in support of Bloc policies. The themes which Bloc propaganda employs — "peace," "national independence," "anti-Americanism," "anti-im-

perialism," etc. — are designed to encourage neutralism, to exploit national rivalries, to bring nationalist movements under Communist leadership and control, and to cause diversions of strength from the centers of Western power.

12. The Bloc has frequently been able to take the initiative in the East-West struggle. This has been due in large part to the Bloc's organizational strength and its great experience in the techniques of political warfare, but it also derives from the fact that the Bloc has succeeded in identifying its revolutionary appeals with the social and national aspirations of many dissident forces throughout the world. Thus, the Communists have obtained control over some of the major labor confederations in France, Italy, Indonesia, Latin America, and many individual unions elsewhere, and they have gained influence or control over a number of nationalist movements in colonial areas.

13. There are some factors, however, which tend to place limitations of varying degree upon Bloc political warfare strength. These include the limitations of Communist philosophy and Communist world outlook, especially in evaluating political developments in the non-Communist world; the Communist insistence upon the maintenance of totalitarian controls, which has increased the awareness of Communist objectives and techniques in the non-Communist world; occasional conflicts between the policies of the Kremlin and the interests of national Communist parties outside the Bloc, which have reduced the strength of some of the national Communist parties; and increasing awareness in the non-Communist world since 1945, especially in the West, of the actual conditions prevailing within the Bloc and of the Kremlin's aggressive intentions.

PROBABLE DEVELOPMENT OF BLOC POLITICAL WARFARE STRENGTH

14. One of the bases of Bloc capabilities for political warfare has been a stable, centralized, and unified leadership in the Kremlin. It is probable that these capabilities were temporarily reduced by the transfer of power to new leadership and by the evidences of top-level dissension, provided especially by the fall of Beria, which have accompanied this transfer. We believe, however, that the temporary weakness and confusion which marked Bloc political warfare in recent months will not be serious or prolonged. Only a continuing struggle for power within the Soviet hierarchy, or a serious impairment of the authority of the Soviet regime, would significantly weaken Bloc political warfare capabilities. Such developments are unlikely. Moreover, the death of Stalin has given the Kremlin an opportunity to gain credence for its claim that Soviet policy is motivated by a sincere desire to lessen international tensions and to coexist peacefully with the West. In this sense Bloc political warfare capabilities may have been enhanced by the death of Stalin.

Western Europe

15. The strength of Communist parties in Western Europe varies from country to country, from the illegal party of an estimated 150 members in Ireland to the mass parties of France and Italy. Throughout Western Europe, the Communist parties since 1946 have suffered losses both in membership and prestige. However, the hard core of the party has been preserved everywhere, and in most countries the party continues to influence large numbers of non-Communists.

16. The popular strength of the Communists remains highest in France and Italy, where the Communists are a strong minority in the parliaments, control many municipal governments, and hold the leadership of the most important trade unions. We estimate that the Communist Party of France now has 450,000 members, compared with the peak of 850,000 in 1946. However, in each national election in France since 1945, the Communist Party has obtained more than 5,000,000 votes, about one-quarter of the total vote cast. The Communist Party of Italy is estimated to have 1,700,000 members, compared to only 5,000 in 1943 and to the peak of 2,300,000 in January 1948. In the 1948 elections in Italy, the Popular Front coalition, dominated by the Communist Party, polled 8,000,000 votes, about 30

percent of the total vote cast. In the June 1953 elections, the Communist Party polled 6,122,638 votes, about 22.5 percent of the total vote cast, and the left-wing Socialists polled 3,440,222 votes, about 12.2 percent of the total vote cast.

17. As a result of a decline in direct-action strength in recent years, marked by the failure of mass political strikes and demonstrations, the French and Italian Communist Parties have concentrated on increasing their popular following through the tactics of the "United National Front" and on attempting to attract individuals and groups from all political parties and sections of society to support the Communist goal of neutralizing Europe's role in the East-West conflict. The Communists have tried to make common cause with individuals of all social groups on the basis of a broad program of "peace, national independence, and democratic liberties." In directing their appeals against the Western coalition, and against the US in particular, the Communists have attempted to link international issues with pressing domestic problems, such as wages, taxes, and housing. Thus, the Communists' basic appeal in France and Italy is to the sense of international insecurity and to the deep dissatisfaction over domestic conditions which have long existed, and which would exist in the absence of the Communists.

18. We estimate that the French and Italian Communist Parties will retain their electoral and parliamentary strength throughout the period of this estimate, and that they will maintain their influence through numerous front organizations, their extensive party press, and Communist leadership of the largest trade union federations. In both France and Italy, the Communists, as the heirs of the strong tradition of the extreme left, will continue to lead the groups discontented because of social and economic conditions.

19. In the other countries of Western Europe, the Communists have little mass appeal. Communists do hold important positions in some trade unions and in some strategic industries in most countries, but they are much less numerous and influential than they are in France and Italy.

Middle East and Africa

20. The forces of nationalism, anti-Westernism, and social unrest, instead of the institutional strength of Communist parties, provide the main vehicles for Bloc political warfare in the Middle East and Africa. The strength of the Communist parties in this area will probably remain low during the period of this estimate. Most Communist parties have been forced underground, and only that in Iran and those in North Africa linked to the French Communist Party have thus far had any marked influence. However, despite the slight organizational gains of the Communists, the continued growth of nationalist and anti-Western extremism and of social unrest will continue to provide the Communists with opportunities for increasing their influence among students, workers, and peasants.

21. The Bloc agent in Iran, the Tudeh Party, had prior to Mossadeq's downfall an estimated hard-core strength of 1,000, a card-carrying membership estimated at from 20,000 to 45,000, and probably an additional 80,000 fellow-travelers. It has been the only sizable united and disciplined political party in Iran, demonstrating great cohesion and considerable organized strength. It has developed techniques for the controlled use of mass demonstrations, strikes, and riots for political purposes.

South Asia

22. Communism does not now pose a major immediate threat to India or Pakistan, although the Indian Communist Party and allied parties received 6,000,000 votes (of 106,000,000) in the 1952 elections. The Indian Communist Party still has only about 40,000 members, but it has small vocal groups in several state legislatures and the national legislature. The Communist Party members in the national legislature will be able to do little more than to embarrass the government and to use their positions to spread Communist propaganda. In those states where Communist strength is greatest, the party

may be able to obtain representation in local coalition governments and even seriously to disrupt parliamentary processes.

23. At the present time, the major task of the Indian Communist Party is to build up its organizational strength. In urban areas, the party uses trade unions and "peace" movements as vehicles of propaganda, and in rural areas, peasant organizations are used to stir up the agrarian population and to enlist support for subversive activities. To a considerable extent, party strength in respect to organization will depend on the policies of the Indian Government toward the party.

Far East and Southeast Asia

24. Although the Japanese Communist Party now has less than 100,000 members (about half of whom are underground), it is well organized and well disciplined and has a significant potential for espionage, sabotage, and propaganda, as well as for promoting at least limited and sporadic incidents of mass violence. However, the strength of the party will continue to be limited by the official restraints of the Japanese police and intelligence services and by the party's open identification with and virtual subordination to the interests and policies of the USSR. The existence of such issues as trade with the Bloc, especially China, fear of Japanese involvement in a general war in Asia, the presence of US forces in Japan, and a peace treaty with the USSR, should provide the Bloc with considerable opportunities for political pressure on the domestic and international levels.

25. Bloc political warfare strength varies throughout Southeast Asia. It is greatest in Indochina where the Viet Minh is a forceful instrument of control and terror. The Viet Minh retains considerable nationalist appeal and maintains heavy military pressure upon the French, with Chinese Communist assistance. The Viet Minh has received diplomatic recognition by the Bloc states, it has the support of numerous non-Communists not only within the zones of its control, but also in the Franco-Vietnamese areas. The continuation of the Viet Minh's popular hold on substantial proportions of the populations in its own zone, based partly on military prestige, partly on continued nationalist appeal, and partly on the mechanism of compulsion and terror, will depend upon the degree of military power and ideological appeal which the free world may be able to bring to bear against it.

26. The prospects for Bloc political warfare in Burma, Thailand, and Malaya will depend largely upon developments in Indochina. In Burma and Malaya, the Communists are capable of conducting guerrilla operations in small scattered areas. In Thailand, the Communist Party is small and relatively ineffectual. However, Communist political warfare strengths in Thailand would probably grow considerably if the Viet Minh or the Chinese Communists should consolidate a position along the Thailand borders.

27. The Communist movement in Indonesia has gained considerable political strength since the end of World War II. Communist strength derives from representation in parliament and support from some non-Communist members of parliament; from Communist control of SOBSI, the dominant Indonesian labor union; and from successful adoption of united front tactics, which have frequently resulted in participation by front parties in the government.[2]

28. In the Philippines, Communist strength has declined considerably since 1951, and, except for some influence in labor unions, tenant farmer groups, and women's and youths' leagues, is confined almost exclusively to the greatly weakened Huk movement.

Latin America

29. The Communist threat in Latin America is greater than the present party membership of about 200,000 in the area would suggest, because of the ease with which a relatively few Communists operating behind labor, intellectual, and other fronts can exploit the social unrest and Yankeephobia already existing in the non-Communist population. Guatemala is a prime example of how a small Com-

[2] The current critical situation in Indonesia has been examined in SE-51, "The Significance of the New Indonesian Government" (18 September 1953).

munist minority can, through its militant advocacy of social reforms and nationalistic policies and through its occupancy of key positions in labor and governmental agencies, convert a government into an effective, though indirectly controlled, instrument of the Communists.

30. The organizational strength of Communist parties in Latin America has declined in recent years, and in many countries the parties have been officially suppressed. Nevertheless, Communist influence is great in Guatemala, considerable in British Guiana and the French West Indies, and moderate in Brazil, Chile, Bolivia, Argentina, and Cuba. This influence will probably be maintained during the period of this estimate and may even increase in the event of a decline in economic activity. The Communists dominate completely one of the three Latin American international labor federations, the Confederation of Latin American Workers (CTAL), and, through their influence in labor, they have gained a considerable potential for instigating and prolonging strikes in strategic industries, such as in the Bolivian tin and Chilean copper mines. In Brazil, the Communists have been influential in preventing the development of Brazil's petroleum resources by US capital. In most Latin American countries, the Communists have worked closely with the ultranationalists, and they have attempted to form "national liberation" fronts based on labor unity and the exploitation of local nationalist issues, such as the bilateral military pacts between the individual republics and the US.

31. The Communists have also been successful in penetrating Latin American educational systems, intellectual circles, and those patriotic organizations formed to give expression to the spirit of ultranationalism. By employing front organizations and sponsoring "peace" congresses, the Communists have exploited the fear of war and have stressed that Latin America has nothing to gain and much to lose from embroilment in a world conflict. These local Communist propaganda activities have received support from Soviet radio broadcasts to Latin America, which have increased in volume since the outbreak of the Korean war.

Table 1

ESTIMATED BLOC ACTIVE MILITARY AND SECURITY PERSONNEL STRENGTH

July 1953 – July 1955

COUNTRY / SERVICES	Personnel Strength (in thousands)								Totals	
	July 1953				July 1955				July 1953	July 1955
	Army	Air Force	Navy	Security	Army	Air Force	Navy	Security		
USSR	2,500.	800.	800.[1]	400.	2,500.	800.	820.[1]	400.	4,500.	4,520.
SATELLITES (total)	1,286.	79.	30.6	290.5	1,690.	79.[2]	36.9	305.	1,686.1	2,110.9
Albania	40.	0.2	0.8	10.	40.	0.2	0.9	10.	51.	51.1
Bulgaria	220.	14.	4.8	40.	250.	14.	6.	40.	278.8	310.
Czechoslovakia	185.	14.	....	35.	250.	14.	....	50.	234.	314.
East Germany	100.	6.5	8.	25.	250.	6.5	10.	25.	139.5	291.5
Hungary	185.	12.	....	37.5	250.	12.	....	40.	234.5	302.
Poland	330.	20.3	9.	65.	350.	20.3	11.	65.	424.3	446.3
Rumania	226.	12.	8.	78.	300.	12.	9.	75.	324.	396.
COMMUNIST										
Asia (total)	2,873.	75.[2]	58.	1,512.	2,785.[3]	75.[4]	66.	1,512.	4,428.	4,438.
China	2,380.	60.	58.	1,450.	....	....	....	....	3,948.	.....
North Korea	280.	15.	....	....	....	....	....	....	295.	.....
Viet Minh	123.	....	....	62.	....	....	....	....	185.	.....
BLOC TOTALS	6,569.	954.	888.6	2,202.5	6,975.	954.	922.9	2,217.	10,614.1	11,068.9

[1] Excluding 95,000 Naval Air personnel, but including 125,000 Naval security personnel.
[2] Not including 5,000 of unknown subordination.
[3] This estimate is based on continuation of present conditions and is therefore highly tenuous.
[4] Air Force strengths are carried at 1953 levels in the absence of sufficient information on which to base an estimate for 1955.

Table 2

ESTIMATED STRENGTH AND GEOGRAPHIC DISTRIBUTION OF BLOC GROUND FORCES, JULY 1953

COUNTRY / FORCES	Divisions by Type, July 1953					Total Line Divisions		Distribution, July 1953							
	Line				Support-ing			Western		Caucasus		Central USSR		Far East	
	Cav.	Rifle	Mech.	Arm'd or Tank		July 1953	July 1955	Personnel	Line Div's	Person-nel	Line Div's	Person-nel	Line Div's	Person-nel	Div's Line
USSR (total)	5	105	40	25	45	175	175	1,385,000	95	220,000	17	455,000	33	415,000	30
Occupied Europe						30	30	535,000	30	.....	..	.....	..	.....	..
Caucasus MD's.						17	17	.....	...	220,000	17	.....	..	.....	..
NW. MD's.						14	14	190,000	14	.....	..	.....	..	.....	..
W. MD's.	——Not available by type ——					51	51	660,000	51	.....	..	.....	..	.....	..
W. Central MD's.						19	19	.....	...	.....	..	275,000	19	.....	..
E. Central MD's.						14	14	.....	...	.....	..	180,000	14	.....	..
Far East						30	30	.....	...	.....	..	.....	..	415,000	30
SATELLITES (total)	1	57	11	6	8	75	98	1,286,000	75	.....	..	.....	..	.....	..
Albania	..	3	..	..	..	3	3	40,000	...	.....	..	.....	..	.....	..
Bulgaria	1	11	..	2	..	14	16	220,000	...	.....	..	.....	..	.....	..
Czechoslovakia	..	8	4	2	..	14	15	185,000	...	.....	..	.....	..	.....	..
East Germany	..	2	1	..	..	3	12	100,000	...	.....	..	.....	..	.....	..
Hungary	..	9	1	1	4	11	15	185,000	...	.....	..	.....	..	.....	..
Poland	..	12	5	..	1	17	22	330,000	...	.....	..	.....	..	.....	..
Rumania	..	12	..	1	3	13	15	226,000	...	.....	..	.....	..	.....	..
COMMUNIST ASIA (total)	7	218	..	5	16	246	191	.....	...	.....	..	.....	..	2,783,000	..
China	7	194	..	5	15	221	Est. 184	.....	...	.....	..	.....	..	2,380,000	..
North Korea	..	18	..	..	..	18	...	.....	...	.....	..	.....	..	280,000	..
Viet Minh	..	6	..	..	1	7	7	.....	...	.....	..	.....	..	123,000	7
BLOC TOTALS	..	...	..	..	..	471	...	2,671,000	170	220,000	17	455,000	33	3,198,000	..

Table 3

PRESENT ESTIMATED TO/E STRENGTH AND GEOGRAPHIC DISTRIBUTION OF BLOC AIR FORCES (Aircraft Types)

		USSR							SATELLITES								CAFIC
Distribution / Type A/C		East Ger.	West USSR	S. W. USSR	South USSR	Cen. USSR	Far East	TOTALS	Alban.	Bulg.	Czech.	East Ger.	Hung.	Poland	Rum.	TOTALS	TOTALS
Fighter	Jet	1,400	2,570	1,170	1,130	300	2,130	8,700	...	290	220	110	110	550	150	1,430	1,500
	Piston	...	500	250	100	200	450	1,500	10	50	50	...	50	50	100	310	200
Attack	Jet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Piston	570	1,030	130	120	120	630	2,600	...	130	170	...	80	220	80	680	160
Light Bomber	Jet	340	1,030	90	120	120	540	2,240	...	...	...	...	...	80	...	80	100
	Piston	260	420	110	...	40	460	1,290	...	130	...	...	80	100	80	390	260
Medium Bomber	Jet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Piston	...	630	400	...	...	190	1,220	...	...	...	...	...	...	...	...	10
Trans-ports	Jet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Piston	170	830	160	60	60	590	1,870	...	30	30	...	30	20	30	140	170
Rec'n-n'ssance	Jet	30	200	60	30	...	200	520	...	...	...	...	...	...	...	...	...
	Piston	120	210	40	60	30	100	560	...	40	60	...	...	40	30	170	...
		...	...	...	...	...	...	20,500	...	...	...	...	...	...	...	3,200	2,400

Table 4

ESTIMATED BLOC NAVAL FORCES JULY 1953 – JULY 1955

FLEET	BALTIC				NORTHERN		BLACK SEA				PACIFIC				TOTALS				BLOC TOTALS	
	USSR		SATELLITES		USSR		USSR		SATELLITES		USSR		COMMUNIST CHINA		USSR		SATELLITE & COMMUNIST CHINA			
SHIPS AND PERSONNEL	JULY 1953	JULY 1955	1953	1955	JULY 1953	JULY 1955	JULY 1953	JULY 1955	1953	1955	JULY 1953	JULY 1955	1953	1955	JULY 1953	JULY 1955			JULY 1953	JULY 1955
Surface and Shore Personnel	348	357	15	19	98	100	162	165	13	17	192	198	58	66	800	820	86	100	886	920
Naval Air (000)	32	32	2	2	9	9	21	21	.3	.3	33	33	...	...	95	95	2	2	97	97
Surface Vessels (Total)	1,254	1,275	87	137	225	236	334	346	136	138	389	400	131	137	2,202	2,258	354	378	2,556	2,612
A. MAJOR COMBATANT (Total)	66	87	1	1	33	44	36	48	5	5	49	60	1	1	184	240	7	7	191[3]	247[3]
Battleships/Monitor	2	2	...	...	0	0	2	2	...	...	0	0	...	...	4	4	...	...	4	4
Cruisers	11	19	...	...	2	2	8	8	...	...	2	2	1[1]	1[1]	23	31	1	1	24	32
Destroyers[2]	40	54	1	1	29	40	19	31	5	5	36	47	...	...	124	172	6	6	130	178
Coastal Destroyers	13	13	...	...	2	2	7	7	...	...	11	11	...	...	33	33	...	...	33	33
B. MINOR COMBATANT (Total)	1,188	[4]	86	136	192	[4]	298	[4]	131	133	340	[4]	130	136	2,018	[4]	347	371	2,365	....
Submarines (Total)[5]	138	165	2	2	33	49	70	75	1	1	107	88	...	...	348	377	3	3	351	380
Ocean Patrol	49	65	...	...	26	40	18	19	...	...	19	25	...	...	112	149	...	...	112	149
Medium Range	39	34	2	2	3	3	9	9	1	1	37	26	...	...	88	72	3	3	91	75
Coastal	50	66	...	...	4	6	43	47	...	...	51	37	...	...	148	156	...	...	148	156

[1] On side in 1949 — Present status unknown.
[2] Based on continued construction at estimated present rate on building facilities presently utilized.
[3] These figures include some overage types useful primarily as amphibious support ships, i.e., the battleships/monitor, 2 cruisers, 8 destroyers, and 16 coastal destroyers. By mid-1955 the estimated number of overage cruisers will increase to 4.
[4] These will remain at about present strength.
[5] Based on estimated construction programs. Obsolete boats are deleted from USSR totals. All Satellite submarines are obsolete, and thus effectiveness is nil.

Table 5

ESTIMATED COMPOSITION OF BLOC MERCHANT FLEETS MID-1953 AND MID-1955

(Vessels 1,000 Gross Tons Upward)

COUNTRY / SHIPS	MID-1953						MID-1955					
	NON-TANKERS[1]		TANKERS		BLOC TOTAL		NON-TANKERS[1]		TANKERS		BLOC TOTAL	
	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.	No.	Dwt.
USSR	569	2,513,794	36	184,329	605	2,698,123	626	2,677,334	50	218,104	676	2,895,438
SATELLITES (Total)	85	405,583	2	21,490	87	427,073	99	456,983	2	21,490	101	478,473
COMMUNIST CHINA	85	249,739	11	18,090	96	267,829	85	249,739	11	18,090	96	267,829
BLOC TOTALS	739	3,169,116	49	223,909	788	3,393,025	810	3,384,056	63	257,684	873	3,641,740

[1] Includes passenger ships, freighters, and miscellaneous types such as crab canneries, whale factories, trawlers, and hydrographic ships.

NATURE OF THE EVIDENCE AVAILABLE FOR ESTIMATES OF BLOC ARMED STRENGTH

a. G–2 comment of the nature of the evidence available for estimates of Bloc ground force strength:

The reliability of Order of Battle intelligence on Communist countries varies directly with distances from friendly areas; accessibility or degree of contact being the major factor. For example, for CCF and North Korean units recently in contact, Order of Battle information is excellent and considered reliable. To a slightly lesser degree, Order of Battle information on Soviet units in Eastern Europe can be considered "reliable."

This degree of reliability decreases, however, as distance from contact increases. As a result, elements of Order of Battle intelligence in the interior of the Soviet Bloc, such as subordination of units, names of unit commanders, or even precise knowledge as to exact location of major units are often lacking in reliability. This condition applies equally to both the interior of USSR and to Communist China.

b. AFOIN comment on the nature of the evidence available for estimates of Bloc air force strength:

Estimates of Soviet air strength are derived from intelligence which is considered of acceptable reliability, but collection coverage is incomplete. Estimates of over-all size and composition of Soviet Air Forces are derived from identification of individual units and estimated Table of Organization and Equipment strengths authorized for the various types of air regiments. Current estimates of jet fighter and medium bomber strength are considered reasonably valid. While aircraft count data are limited, they support an estimate that the current average levels of actual strength for the various types of aircraft amount to the following percentages of authorized TO and E strength: for jet fighters, 80–85 percent; for piston medium bombers, 75–80 percent; for jet light bombers and jet reconnaissance, 60–65 percent; and for all other types of aircraft, 90–100 percent.

c. ONI comment on the nature of the evidence available for estimates of Bloc naval strength:

Evidence confirming the existence of the major surface combatant vessels is firm and accurate. Identification of individual ships as to name and/or pennant numbers has been supported by evidence from a number of sources. Reliable evidence confirms the existence of 80 percent of the submarines and supports the existence of 15 percent; there is doubt about 5 percent. Of the 95 percent (333 submarines) whose existence is confirmed or supported, 308 have been identified. Future strength estimates are based on current strength, observed building rates, identified new construction activity, and obsolescence factors.

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