V. SINO-SOVIET BLOC MILITARY STRENGTH

SIZE OF FORCES, SCALE OF EFFORT, TRENDS

73. The USSR is both the foundation and arsenal of Communist Bloc military strength, and thus the primary source of Bloc military capabilities. The main contribution of the other Bloc states is manpower, although industries in the Eastern European Satellites supply some military equipment. Sino-Soviet Bloc forces-in-being now total about 8,000,000 men (of which about 4,000,000 are Soviet and 2,400,000 Chinese) not including security forces. The forces of the East European states, for all practical purposes, are under direct control of the Kremlin. The Communist Chinese forces, while heavily dependent upon Soviet aid, are outside direct Soviet control.

74. In the postwar period the USSR has produced armaments at a relatively high rate, which has made possible an extensive re-equipment program. Since 1950, Soviet production of armaments has been at an average rate of roughly 25 percent of capacity. The levelling off of military expenditures/ as indicated in the 1953-1954/ budgets apparently resulted in a reduction in output of some . . weapons, many of which were already stockpiled in quantity. The announced increase in the military budget for 1955,

however, suggests that the cutback in production was temporary and may have reflected transition to the production of newer models, especially aircraft.

75. Assuming no significant changes in the international situation, we have estimated above (section III, Table 1) that Soviet military defense expenditure after 1955 will probably show a relatively small annual increase -- of the order of three or four percent per year on the average. In view of the continuing rise in the unit cost of most major weapons, and the probable introduction of increased quantities of new weapons, this rate of increase will not permit simultaneous production of all major weapons at the high levels reached during the period 1950-1952 when defense expenditures rose sharply, about 15 percent annually. Moreover, the already sizeable stockpiles of some major weapons, and the introduction of new weapons, including guided missiles, probably make it unnecessary to produce certain major conventional weapons at the previous high rates.

76. During the period of this estimate the personnel strength of Bloc forces-in-being will probably remain substantially unchanged. However, the over-all effectiveness of these forces will almost certainly

increase, primarily due to the improved weapons available to Soviet forces, and to changes in organization, doctrine, and tactics designed to adapt these forces to nuclear warfare. The major weapons changes will be the increases in the numbers and types of nuclear weapons, in aircraft, especially jet bombers and all-weather fighters, and in long-range submarines. There will also be progressive modernization of weapons and equipment, particularly those incorporating electronic guidance and control. Limitations on Bloc armed forces during the period of this estimate will derive from: deficiencies in experience and training for long-range air operations, and in certain equipment for air defense, together with lack of capability for long-range amphibious and surface naval operations.

77. Logistical problems will continue to place a considerable limitation upon the Sino-Soviet Bloc's capability to wage intensive warfare over an extended period. These problems are due to the vast size of the USSR, the great distances from main interior sources of supply to several main operational areas, and the relatively inadequate road and rail network and the acute shortage of Bloc registered shipping merchant fleet.[10/] In order to offset these disadvantages the USSR has maintained large forces and military stockpiles in forward areas. Stockpiles of POL, ammunition, and other types of supplies consumed at a relatively constant rate, are probably

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10/ For a breakdown of the Sino-Soviet Bloc merchant fleet, see Appendix Table

sufficient to maintain a force of 300 line divisions together with air and naval forces in Europe and Asia for an extended period (i.e., up to six months depending upon the scale of conflict). During the period of this estimate the Soviet logistical situation will probably improve as a result of continued stockpiling and the development of a more flexible and mobile transport system. However, logistical problems will probably continue to be a considerable limitation upon capabilities for extended offensive operations, especially in the Far East. If the USSR were subjected to intensive nuclear attack, its capability to support extensive military operations , especially outside Soviet borders, would be markedly curtailed both in magnitude and duration.

SOVIET MILITARY FORCES

Ground Forces 11/

78. The Soviet Army has been reorganized and modernized since the end of World War II, and now totals about 2,500,000 men. There are sufficient trained reserves and stockpile equipment to expand the army to

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11/ For detailed estimates of strengths and disposition of these forces, see Appendix , Tables 1 and 2.

about 300 line divisions plus supporting troops with a total strength of 7,500,000 by M +30. The estimated maximum mobilization potential is about 12,500,000 men. In the absence of general war, we believe that the Soviet ground forces will remain at approximately their present size and disposition through 1960. The concentration of Soviet ground forces in East Germany, the Western USSR, the Caucasus, and the Far East provides for the defense and security of the most important and vulnerable areas of the USSR, while facilitating administrative support.

79. The Soviet Army is well-trained, discipline is good, and morale is almost certainly high. The 30 Soviet divisions located in East Germany and the European Satellites are known to be well equipped. This force is well-trained and combat ready, although its readiness is somewhat lowered in the late fall of each year when new recruits have replaced trained men. Intelligence concerning the remaining divisions, particularly those in the interior of the USSR, is considerably less extensive. However, it is probable that the latter are maintained at a stage of war readiness sufficient to permit their early deployment to a combat theater.

80. During the last year the Soviet Army has placed considerable emphasis upon training exercises to improve ground force defense against

nuclear attack. There is also evidence that army offensive and defensive tactics envisage the use of tactical atomic weapons by Soviet forces. Emphasis is placed on mobility and maneuverability, greater initiative, dispersion, deeper objectives, reconnaissance, and individual protective measures. Soviet offensive doctrine emphasizes allocation of a substantial number of nuclear weapons for use against enemy defensive positions, air facilities, reserves, atomic capabilities, and encircled enemy units. The assault following a nuclear attack would employ tanks and armored infantry in order to develop maximum speed of exploitation. Doctrine for the defense emphasizes deep revetted trenches and other protective construction, dispersion in width and depth, and larger and more mobile reserves.

81. The Soviet Army is currently embarked on an extensive program of improvement of its ground weapons systems which will greatly increase its mobility, flexibility, and firepower.* Armored cars and armored personnel carriers have been introduced. It is estimated that in East Germany alone there are now about 2,000 armored personnel carriers, each capab of transporting 15 men. General issue of new weapons has included a medium tank

* For a comparison of USSR and US production of major ground force weapons for 1953 - 1954, see Appendix, Table 8.

(T-54) mounting a 100-mm gun, mortars of 160-mm, and of 200 to 240-mm calibers, a truck-mounted rocket launcher, and a new family of antiaircraft guns, and possibly a new heavy tank (JS-4). During this period the Soviet Army will probably have new and improved heavy artillery of large enough caliber to utilize nuclear projectiles, an infantry antitank guided missile, and infrared night driving and firing aids. By mid-1960 it is estimated that a new medium tank and a heavy tank, substantially superior to the current T-54 and JS-3 (or JS-4), will be in operation.

82. During the period of this estimate, the combat readiness of the Soviet Army will almost certainly continue to increase. The addition of improved equipment and weapons, more flexibility in logistical operations, a considerable increase in mobility and changes designed to meet requirements for nuclear warfare will improve the effectiveness of the Soviet Army for a nuclear war and also increase its capabilities to engage in highly mobile, conventional type actions.

83. Security Forces. Soviet internal security forces are controlled by the Ministry of Internal Affairs and number about 400,000. These troops are a select group, well-trained and equipped, and provide a significant increment to Soviet military strength in being. However, their primary

responsibility for maintaining internal control would probably prevent their becoming available for operations outside the USSR. About 150,000 are in the border troops, disposed along all accessible land and sea frontiers. The remaining 250,000 include troops responsible for suppressing any organized resistance in the country, for guarding shipments of prisoners, strategic cargoes, and labor camps, and for maintaining the security of high-level government and military communications.

Air Forces[3/]

84. During the postwar period the USSR has continually improved its air force both in size and quality. Although in World War II the USSR gave primary emphasis to the ground support role of air forces, in the postwar period increasing attention has been given to the development of the interceptor and strategic bombing arms. We estimate that the current over-all authorized (TO&E) air strength is about ~~(21,000)~~ 20,300 including about ~~10,700~~ 10,400 jet fighters, ~~3,400~~ 3,200 jet light bombers, 1,200 piston medium bombers, 200 jet medium bombers/ and 20 jet heavy bombers. Over-all actual strength is probably

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3/ For strengths of the Soviet Air Forces in aircraft, personnel, and by major combat components and geographic distribution, see Appendix Tables 1, 3, 4 & 5.

about 85 percent of authorized strength. We believe that replacement of TU-4 aircraft by jet bomber types and growing numbers of all-weather jet fighters will almost certainly be the most important developments in the Soviet air forces during the period of this estimate. We estimate that by 1960 the over-all authorized strength (TO&E) will have increased to ~~about 22,000~~ about 21,400 aircraft, which will include about ~~11,200~~ 10,900 jet fighters (about 40 percent all-weather), ~~3,400~~ 3,100 jet light bombers, 900 jet medium bombers, and 500 jet heavy bombers.

85. The Soviet aircraft industry has accounted for about 95 percent of total Bloc aircraft production in the postwar period. Estimated Bloc production of fighter and bomber aircraft during the period 1946-1954 has been roughly equal to that of the NATO countries in numbers of aircraft, although substantially below that of NATO in terms of total airframe weight.[4/] During the latter part of this period (1952-1954) Soviet Bloc production of fighters and bombers, both in numbers and weight, was considerably below that of NATO. During 1954 the Soviet aircraft industry was operating at about 25 percent of capacity, and produced about 8,500 to 9,000 aircraft, including about 5,300 fighters and bombers. We believe

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4/ For detail, see Appendix, Table 9

that during the period of this estimate it will operate at about 25-30 percent of capacity, with annual production at about 9,000-10,000 aircraft, including about 5,000 to 6,000 fighters and bombers. Aero-engine industries will probably continue to operate at about 35 percent of capacity, with a total output of about 30,000 to 35,000 engines. In view of the requirements of the operating forces, these rates of production are insufficient to permit any significant stockpiling of the latest aircraft types, aircraft engines, and electronic devices. Conversion of the aircraft industry to full capacity production would probably require 18-24 months.

86. Airfield development in the USSR and the European Satellites during the postwar period has generally kept pace with demands created by the introduction of new aircraft into operational units. The principal exception is in Northeastern Siberia opposite Alaska and along the Northern Arctic coast. In these areas air operations would at present be limited by relatively undeveloped base facilities and by logistical difficulties even though airfield construction and development has been in progress there for some time. Under its airfield development program the USSR has created an interlocking network of airfields along perimeter areas in Europe and internal approach lines within the USSR. We believe that during the period of this estimate the Soviet airfield construction program will be continued, and will receive especial emphasis in the Far East and possibly in Soviet Arctic areas.

87. Combat effectiveness of Soviet military aviation is, on the whole, below that of the US. The chief limiting factors have been lower average aircrew proficiency, lower standards of maintenance and training, and lack of certain aircraft types. During this period the introduction into operational units of new jet types, including a supersonic interceptor, an all-weather fighter, and medium and heavy bombers, plus a four-engine turbo-prop aircraft, together with the training appropriate to these types, will lead to a significant increase of combat effectiveness. However, assuming that the US maintains its present standards, over-all Soviet air combat effectiveness will almost certainly remain below that of the US during this period, especially in night and all-weather operations and in long-range operations.

88. The MIG-15 (Falcon) and MIG-17 (Fresco) are now standard equipment of Soviet Fighter Aviation of Air Defense as of other components of the Soviet Air Force. The MIG-17, which began to replace the MIG-15 in 1953 and now constitutes nearly half of fighter aircraft, is estimated to have a maximum speed of 635 knots at sea level, and a combat ceiling of 58,000 feet. We believe the USSR will have a supersonic interceptor in operational use early in the period. Limited numbers of aircraft with AI radar have been introduced into operational units, and by 1960 all-weather fighters will probably make up about 40 percent of the whole fighter force.

89. The TU-4 (BULL) medium bomber is now obsolescent, but remains for the present the principal aircraft of the Soviet long-range aviation. However, series production of a twin-jet medium bomber, the Type 39 (BADGER) is now under way: and a four-engine jet heavy bomber, the Type 37 (BISON), has probably entered series production. We estimate that these new jet types will rapidly replace the TU-4 medium bomber and that the authorized bomber strength of Soviet long-range aviation throughout the period will be as follows:

Aircraft Type	Mid 1955	Mid 1956	Mid 1957	Mid 1958	Mid 1959	Mid 1960
TU-4	1,180	920	550	250	0	0
Type 39	200	400	650	800	900	900
Type 37	20	80	200	350	500	500

These estimates do not include consideration of the new four-engine turbo-prop aircraft, nine and possibly twelve of which have been sighted. The estimates of the number of jet medium and jet heavy bombers are tentative, pending detailed analyses of recent sightings of these aircraft. Since there is no firm intelligence on Soviet production plans or on the planned ratio of medium to heavy bombers which the USSR might adopt, estimates for future years are provided as the most likely way in which Soviet Long Range Aviation might be proportioned.

For estimates of the performance of Soviet Long Range Aircraft see Appendix, Table 6.

Naval Forces[14]

90. During recent years the Soviet Navy has been greatly strengthened by an intense and rapid building program; this program has not included aircraft carriers, battleships, or heavy cruisers, but has concentrated on light cruisers, destroyers, and submarines. The Soviet submarine fleet is now the largest in the world and is still growing; about half its strength consists of long-range craft of which a significant and increasing proportion are modern types. Most of the major surface vessels and all of the modern submarines will probably be kept active, but the present rate of new construction is such that the Soviets might elect to create ~~will permit the creation of~~ a substantial reserve fleet of submarines. It is believed that all such reserve or inactive units could be activated by M + 180.

14/ For strength in ships and personnel as well as dispositions, see Appendix ~~III~~, Table 7. For strength of the Soviet Naval Air Force by aircraft type, see Appendix Table 5.

91. Soviet Naval Aviation, comprising nearly 20 percent of the total strength of Soviet military aviation, has converted completely to jet aircraft in the fighter and light bomber categories. The number of jet reconnaissance aircraft in service has also increased, but attack and transport aircraft continue to be piston engine types. During the period of this estimate, Soviet Naval Aviation is expected to remain approximately constant in strength, while continuing its program of modernization of equipment. Improved all-weather jet fighters will probably be introduced, and possibly jet medium bombers for attack, reconnaissance, and airsubmarine operations.

92. We estimate that in mid-1955 the main strength of the Soviet Navy will consist of 31 cruisers, 142 destroyers, and 374 submarines, including 13 light cruisers, 85 fleet destroyers, and about 150 long range submarines of postwar design. Naval construction in the USSR is presently estimated at about 175,000 NSDT which represents about one-third Soviet capacity, and one-fifth total Bloc capacity. Battleships and carriers could be build in all fleet areas except the Far East. Presently one "capital ship" of unknown type is believed to be under construction in the Baltic area and possibly one in the Black Sea area, and these vessels may become operational during the period of this

estimate. It appears, however, that the USSR will continue to place primary emphasis upon the construction of long-range submarines, while continuing the construction of cruiser and destroyer types.15/

93. The Soviet Navy is now concentrating on the construction of two long-range submarine types developed since World War II. These are equipped with snorkel. The "W" type has an operating radius under combat conditions of about 4,700 nautical miles; the "Z" type, 6,700 nautical miles/ By early 1955, 107 (including 20 "Z" type) of these had jointed the fleet; the present building rate is estimated as 75 (including 15-20 "Z" type) per year. The USSR is known to have continued development of the Walther closed-cycle engine for submarine propulsion, and an experimental submarine powered by such an engine could be operational now. It is also possible that, during the period of this estimate, nuclear propulsion for Soviet submarines will have been developed. However, there is no evidence that the USSR is construction submarines equipped with either of these types of propulsion.

The Soviets have the technical capability for modifying either of these types for launching guided missiles.

94. Soviet naval capabilities can be expected to improve throughout the period due to the building program, technological development, and

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15/ For Detail see Appendix, Table 10.

intensive training. While the operational efficiency of the Soviet Navy is still below that of the navies of the major Western Powers, it will continue to improve during this period. Little is known of the operating efficiency of the submarine force. It is probably still inferior to that of US and German forces of World War II, but performance standards will probably rise steadily during this period. Personnel of the submarine force are the pick of the Soviet Navy, and their morale is high.

The principal weakness of the Soviet Navy derives from the wide separation of the sea frontiers of the USSR, and from its inability to control the sea routes between these areas. The USSR is thus deprived of the strategic mobility traditionally enjoyed by naval powers, and is compelled to maintain four separate fleets together with their supporting facilities. The inland waterway system connecting the White and Baltic now permits the interchange of vessels up to the size of small destroyers and including all current submarine types. During this period, possibly by 1957, improvements in the ~~Black Sea canal~~ system will extend this interchange capability to include the Black Sea. However, parts of the waterway system are open only an average of five months a year, because of weather conditions. Increased use of the Northern Sea Route, which is open for a six to eight

week period in the summer, may also improve the situation. The lack of adequate supply lines to the Norther and Far Eastern areas is an additional handicap. Limitations on sustained offensive operations derive from the land-locked position of the fleets in the Baltic and Black Sea (containing roughly 60 percent of Soviet naval strength), the exits from which are controlled by the NATO Powers, and from the lack of advanced bases. The long-range capabilities of the Soviet Navy are further reduced by lack of aircraft carriers, long-range reconnaissance aircraft, auxiliary vessels suitable for underway logistic support, forward bases, and by the lack of experience in long-range operations.

96. There is no force in the Soviet Navy comparable to the amphibious forces of the US Navy, although the naval infantry components have received some training in amphibious warfare. While capable of mounting short range lifts in considerable force in the Baltic and Black Seas and in the Sea of Japan, the Soviet Navy does not possess sufficient amphibious craft to launch and sustain long-haul amphibious operations.

EASTERN EUROPEAN SATELLITE FORCES 16/

97. Soviet control of the Satellites has in effect moved the Soviet military frontier into Central Europe, and the USSR has given a

16/ For detailed strength figures by country, see Appendix [illegible], Tables [illegible]. See also NIE 12-54, "Probable Developments in the European Satellites through Mid-1956," dated 24 August 1954.

high priority to the development of this area for military operations. The Satellite ground and air forces now constitute a substantial element in the balance of military power in Europe. However, their over-all effectiveness is only fair, and the political reliability of some national units is questionable. During the period of this estimate the over-all capabilities and usefulness to the USSR of the Satellite forces will probably increase. However, many of the current deficiencies will continue to limit the military usefulness of these forces to the Soviets, especially for offensive operations.

98. Ground Forces. The Satellite ground forces' present strength is about 1,085,000 men, organized into 81 line divisions. In general, the Satellite ground forces (not including those of East Germany) have probably reached the desired peacetime strength level. By 1957, primarily through an increase of East German Forces, Satellite ground personnel will probably increase to about 1,200,000, a figure that probably will not change significantly through 1960. The Satellite armies, which are presently equipped largely with Soviet World War II material of good quality, will continue to be largely dependent upon the USSR for major items of equipment, particularly tanks, self-propelled guns, and medium to heavy artillery.

99. Air Forces. The Satellite air forces now have an estimated TO&E strength of 3,850 aircraft (approximately ~~2,500~~ 2,700 actual), and during this period their TO&E will probably increase to about ~~5,000~~ 4800 aircraft. During this period emphasis will probably be placed on the strengthening of the Satellite fighter and light bomber establishments, and the further integration of the Satellite air forces into the Soviet air defense system. The Satellites will continue to be greatly dependent upon the USSR for logistic support, and virtually all aircraft will be Soviet types. Satellite production, almost exclusively Polish and Czechoslovak, while growing, will probably not exceed 15 percent of the Bloc total.

100. Naval Forces. Owing to their small size, their meager equipment, and the unreliability of personnel, the Satellite navies provide only a minor contribution to Soviet naval strength. However, ports and bases in some of the Satellites provide the USSR with a considerable extension of naval logistic and operational facilities.

COMMUNIST CHINESE MILITARY FORCES[17/]

101. The military forces of Communist China constitute the most formidable Asiatic fighting force. The Kremlin exercises no direct

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17/ For strengths and dispositions, see Appendix ~~44~~ 44, Table ~~1~~ 1,37. For strengths of additional Bloc forces in Asia, see figures for North Korean and Viet Minh forces given in the same ~~T~~tables 1 and 2.

control over these forces. However, the nature of Sino-Soviet relations, especially the dependence of Communist China upon the USSR military support in weapons and supplies, provides the Kremlin with considerable leverage for influencing Chinese military developments and policy. As a consequence the military frontiers of the USSR, in a practical sense, have been extended deep into the Asian land mass, a factor which greatly increases the Soviet power base and potential.

102. Ground Forces. The Chinese Communist Army is well adapted by tradition, training, and the characteristics of its individual soldiers to the type of warfare likely to be encountered in the extremes of weather and terrain of the Asian region. These forces now number about 2,300,000 men organized into 37 armies and 123 line divisions plus supporting troops. Any expansion during this period would be dependent upon the acquisition of weapons and equipment from sources outside China. The Chinese Communist forces have been primarily infantry, equipped with a heterogeneous assortment of foreign-made weapons. A recent extensive reorganization and re-equipment program has reduced the number of divisions, increased the number of combat and service units, and is standardizing equipment to that of Soviet and Chinese manufacture. Communist China now produces its own requirements of food, clothing, small-arms, rocket launchers, recoilless rifles and

certain types of ammunition, and progress is being made toward self-sufficiency in submachine guns, light machine guns, and mortars. It will continue to be dependent upon the Soviet Union for heavy equipment, motor vehicles, artillery above 70-mm, and POL. The combat readiness of the Chinese Communist ground forces will continue to increase during this period, primarily due to the re-equipment program to standardization of equipment, and to improved combat and service support.

103. Air Forces. The Communist Chinese Air Force now has an IOC Estrength of about ~~2,300~~ 2,400 aircraft (about 1,700 actual). It is equipped primarily for defensive operations, but the acquisition of some piston medium and jet light bombers has given it a limited capability for offensive operations. The combat effectiveness of the CCAF is only fair, but it will probably improve somewhat throughout the period of this estimate, mainly through increased proficiency of flying personnel, improved quality of aircraft, and more numerous and improved air facilities. However, since Communist China will probably not produce combat aircraft during the period of this estimate, over-all effectiveness will be largely determined by Soviet willingness to continue to supply additional aircraft, especially jet fighters, jet light bombers, and medium bombers, together with the necessary parts and equipment.

104. Naval Forces. Communist major vessel strength probably now consists of two destroyers and 5-7 submarines (2-4 long-range and three coastal types). ~~The destroyers and most of the submarines~~ These were obtained from the USSR, most of them probably during the last year. There are also at least 55 torpedo boats, 56 landing craft (LST, LSM, LSIL)[18], 17 frigates and several hundred small patrol craft. The Soviet Far Eastern naval forces are providing training, advisors, and logistic support to the Chinese Communist naval forces. The USSR will probably add modestly to Chinese Communist naval strength during the period of this estimate.

18/ In addition there are 25 landing craft of these types operating in the Chinese Communist merchant marine.

VI. MILITARY CAPABILITIES OF THE USSR

WORLD BALANCE OF MILITARY FORCES

105. During the postwar period a rough balance of military power has existed between the Communist Bloc and the Western coalition. During most of this period the USSR's main military assets have been a marked superiority in organized military manpower and in conventional weapons, and the ability, because of the strategic advantage of its "heartland" position, to concentrate these forces against such strategically vital areas as Western Europe and the Middle East. At the same time the principal offsetting strengths of the West have been its greater economic potential and its nuclear capabilities. The effectiveness of the latter has been greatly contributed to by the development of bases around the periphery of the Sino-Soviet Bloc. Since 1951 the margin of Bloc numerical superiority in forces-in-being and conventional ground and air armaments has been narrowed markedly; in fact Western strength in modern aircraft is now greater than that of the Soviet Bloc. On the other hand, although the West has greatly increased its nuclear weapons production and delivery capabilities, the growing Soviet capabilities in these respects are progressively reducing the significance of the superiority.

106. During the period of this estimate the West will probably continue to maintain its lead in the development and introduction of new weapons. The West will also retain its sizable lead in trained air and naval personnel, and to the extent that West German and possibly Japanese rearmament take place, the Soviet superiority in ground forces-in-being may be reduced. On the other hand improving air strengths will give the USSR a greatly increased capability to conduct long-range air operations against the West, probably including two-way refueled missions to the US. Their modern long-range submarine fleet will pose an increasing threat to Allied naval forces and to shipping carrying supplies and reinforcements to Allied forces. Trained reserves, plus stockpiled equipment permit a rapid mobilization of additional units to augment their already strong ground forces. These developments, along with other increasing Soviet strengths such as a significant increase in nuclear weapons would reduce the significance of the Western nuclear and logistics superiority, and possibly reduce the military value of the superior western economic potential.

107. The development of nuclear weapons and of the ability to deliver such weapons on target will probably be the most decisive single factor that could alter the relative military power of the

Communist Bloc and the US-NATO coalition. At present, the USSR's principal capability for delivering nuclear weapons lies in attack by aircraft; the improved new bombers becoming operational during the period will greatly increase this capability. In addition, although specific evidence is lacking on the types of guided missiles under priority development in the USSR, Soviet capabilities for nuclear attack by means of guided missiles will probably become significant, especially in the period 1958-1960. Nevertheless, provided there are no significant alterations in present political alignments or US-NATO military programs, the USSR almost certainly will not achieve by 1960 any such gains in relative military power as would permit it to launch general war with assurance of success. While trends in weapons developments will increasingly give an advantage to a power capable of launching a massive surprise attack, the USSR will almost certainly not be able, during the period of this estimate, to launch such an attack with assurance of escaping an even more devastating retaliatory attack.

SINO-SOVIET BLOC AIR DEFENSE CAPABILITIES 19/

108. The air forces of the Sino-Soviet Bloc are capable of attacking the US and Allied bases, especially those on the periphery of the Bloc, or the carrier task forces from which Western air operations could be launched against the Bloc. In a strictly defensive sense, the air defense system of the USSR provides for the potential employment of virtually all Soviet and Satellite fighters – about 14,000 aircraft, including 3,700 fighters in the Soviet Aviation of Air Defense --(PVO). In addition, the Chinese and North Korean Communists have about "400" jet fighters which contribute to the defenses of the Soviet Far East. The assignment of an air defense role to the fighter forces does not cancel their other missions and responsibilities, but results in a "multiple mission" for most fighter forces.

109. The capabilities estimated below are substantially limited to the areas of dense air defense concentration (European USSR, Eastern Europe, and the Maritime-South Manchuria area of the Far East). Air defense capabilities in other areas would probably

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19/ NIE 11-5-55, "Bloc Air Defense Capabilities, 1955-1960," scheduled for publication in July, will provide a detailed treatment of this subject.

be considerably less than indicated below and virtually nonexistent in the North Siberian area, the greater part of China, Indochina, and Albania.

a. Against daylight bomber formations between 10,000 and 30,000 feet in clear weather the Soviet Bloc air defense system is believed capable of inflicting severe losses against piston bombers and moderate losses against high-speed jet bombers. Above 30,000 feet altitude this capability would begin to diminish, and above 40,000 feet would fall off markedly, due to problems of target detection and tracking, loss of AAA effectiveness and reduced GCI capabilities. Under certain circumstances, such as persistent visible contrails, these capabilities would, of course, be markedly increased. Primary limitations would then be the numbers and individual capabilities of fighter interceptor aircraft available.

b. Against multiple-pronged penetrations utilizing altitude stacking, diversionary tactics, and electronics countermeasures, the Soviet Bloc air

defense system is subject to serious breakdowns which would tend to degrade its effectiveness progressively.

c. Against air attacks conducted under poor visibility conditions the Soviet Bloc air defense system is capable of offering only limited resistance, owing to inadequacy of equipment and training for all-weather operations.

110. During the period of this estimate the Bloc air defense system will probably be substantially strengthened by greater operational experience and by the introduction into operational units of new fighter types, new antiaircraft weapons, improved early warning and GCI equipment, and ~~surface-to-air~~ guided missiles. However, in view of the increasing capabilities of offensive weapons and improved techniques in counter measures, Soviet air defense capabilities will probably remain inadequate to prevent attacking forces from reaching critical target areas of the USSR ~~in effective numbers~~.

OFFENSIVE CAPABILITIES[20]

111. The ~~core of~~ main Soviet offensive strength at present ~~is an~~ lies in the ability to mount attacks against Western Europe and the UK. Air attacks of great weight involving nuclear weapons could be launched with little or no warning. Submarines could be employed in an extensive effort to disrupt reinforcements and supplies from North America. With its ground forces the USSR could launch a surprise attack against Western Europe using 25 to 30 Soviet ground divisions now in Eastern Europe. By prior concentration of greater forces west of the Oder-Neisse line, involving almost certain loss of surprise, the USSR could attack with 50 to 60 divisions. A build-up to 75 to 140 divisions could be accomplished by D-plus 90. Satellite units could be used to reinforce the above attacks, but it is unlikely that European Satellite armies would be used independently, except as security forces or to protect Soviet lines of communication, or in isolated cases against traditional enemies (e.g., Bulgaria vs. Yugoslavia).

20/ No estimate of the success of the offensive operations described in this action can be made without considering the effects of the actions of opposing forces.

112. Air support of land campaigns in Western Europe could come from approximately 2,200 aircraft presently stationed in East Germany and the Satellites, with reinforcements available from the nearly 5,000 aircraft stationed in the Western USSR. However, a large proportion of these aircraft are fighter interceptor types in units which currently have an air defense responsibility as well as a tactical support role. This responsibility would to some degree limit commitment of fighter aircraft to participate in land campaigns. The probable increase in satellite air defense capabilities during this period may reduce this limitation.

113. Utilizing only those aircraft belonging to the Aviation of Airborne Troops, the USSR could lift about 9,000 well-equipped and well-trained troops with one drop on D-Day or about 14,000 with two drops. These troops could be assembled in ten days, and could be delivered to Rhine River crossing sites and nearby military installations by aircraft using bases in Poland and Czechoslovakia. For a five-day operation the Aviation of Airborne Troops could lift approximately 23,000 - 25,000 troops depending on whether one or two drops were executed on D-Day. This lift capacity could be increased by an average of 1800 troops for every 100 transports borrowed from the 3,500 transports of the military air forces and civil air fleet. However, at least during the early period of the estimate nearly all of these forces would have to be carried in the low performance transport Li-2 (approximately C-47 characteristics), and this would place a significant limitation upon the effectiveness of such an operation. Soviet airlift capabilities will probably increase through 1960, but the lack of a large force of modern transport aircraft will probably continue to be a limitation.

five-day maximum effort, we believe that the USSR could deliver approximately 55,000 troops. This lift capacity could be increased by about 2,000 troops for every 100 transports borrowed from the 3,500 transports of the military air forces and civil air fleet. However, at least during the early period of the estimate, nearly all of these forces would have to be carried in the low performance transport Li-2 (approximately C-47 characteristics), and this would place a significant limitation upon the effectiveness of such an operation. Soviet airlift capabilities will probably increase through 1960, but the lack of a large force of modern transport aircraft will probably continue to be a limitation.

114. In the Far East, Soviet capabilities for long-continued full-scale war are considerably limited by the capacity of the Trans-Siberian railway, the only route by which supplies in large amounts could be brought from other parts of the USSR. However, the USSR has about 30 divisions in the Far East, together with more than 5,000 aircraft and a sizable naval force. There are stockpiles of supplies sufficient for a considerable period of combat. These Soviet forces could, in conjunction with Chinese Communist forces, renew hostilities in Korea. They could probably launch an invasion of Japan with an initial assault strength of one airborne and

two or three waterborne divisions, with about six divisions supporting. These attacks could be launched concurrently with campaigns in the Middle East and in Western Europe.

115. The USSR is now capable of undertaking concurrent air bombardment operations against strengths located in the US, the UK, continental Europe, the Middle East, Japan, and the island chain of Asia. This capability will improve considerably during the period of this estimate with the introduction of new jet medium and heavy bombers. Present Soviet capabilities for air attack on the continental US are limited by the relatively small numbers of operational heavy bombers and by the relatively undeveloped base facilities in forward areas. They are also probably limited by the lack of a developed inflight refueling capability. The forward base capacity and the performance characteristics of aircraft estimated to be available to the Soviets will continue to impose limits upon the number of strike aircraft which can be launched at one time in an intercontinental attack upon the United States. However, the increase in numbers of the BISON heavy jet bomber, and continued Long-Range Aviation training programs, together with the probable development of an inflight refueling capability and extensive improvement of the forward staging areas would result in a substantial increase in Soviet capabilities for attack on the United States, during the period of this estimate. 21/

21/ For a full discussion see NIE 11-7-55, "Soviet Gross Capabilities for Attacks on the US and Key Overseas Installations and Forces through 1 July 1958" dated May 17, 1955

116. At the present time, it would be technically feasible for the USSR to attack targets within the US with missiles launched from long-range aircraft and from submarines. The USSR could at present have V-1 type missiles with nuclear warheads for launching from submarines, and by late 1955 could have for this purpose a subsonic guided missile with a maximum range of 500 nautical miles We believe that it will not be within Soviet capability within the period of this estimate to attack continental United States with guided missiles launched from Soviet Bloc territory.

117. If the USSR in fact develops the guided missiles which we have estimated to be within its capabilities, the following possibilities for attack would exist during the period of this estimate:

a. At present, from advanced bases in Eastern Europe, targets could be reached in Western Europe as far west as London, Paris, and Rome, and in the southern half of the Scandinavian peninsula. In the Far East, if launched from Soviet or North Korean territory, these weapons could reach targets in western Japan and Alaska; if launched from Chinese territory, they could reach targets in the Ryukyu Islands and Formosa

b. In 1957,[22/] Soviet guided missiles could reach all of the UK, France, Italy, Scandinavia, and Turkey. In the Far East, if launched from Soviet or North Korean territory, these weapons could reach all of the Japanese islands, and if launched from China they could reach all of Luzon.

c. In 1958-1960,[22/] Soviet missiles could reach US North African bases in Tunisia, in addition to the targets listed above.

22/ These have been estimated to be the earliest probable dates of the availability of the missiles described; it is possible that the date might be still earlier. See NIE 11-6-54 "Probable Warning of Soviet Attack on the US Through Mid-1958", for a fuller discussion of this point.

118. During the period of this estimate Soviet offensive naval capabilities will still be limited to undersea warfare, surface operations involving vessels no larger than cruisers, and air operations utilizing shore-based naval aircraft. The Soviet submarine force will greatly increase its capability to undertake offensive patrols and mining operations along most of the world's strategically situated sea lanes, and possibly to launch guided missiles attacks against targets on both the Atlantic and Pacific seaboards of the US. Major Soviet surface units and supporting shore-based naval aircraft will probably continue to increase their capability to undertake offensive operations in Bloc coastal areas, especially in the Baltic and Black Seas, and to protect the seaward flank of ground campaigns. The Soviet Navy will almost certainly have no long-range amphibious capability within the period of this estimate, but it will remain capable of mounting short-range amphibious lifts in considerable force.

119. We estimate that the USSR now has a stock of over 500,000 mines and has the capability to employ mine warfare to interfere seriously with allied sea communications. In the European area, this effort could include all the ports and approaches of the UK and Western Europe. In the Far East, most of the vital allied port areas and sea lanes around the perimeter of the Bloc could be similarly attacked.