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Capabilities of Soviet General Purpose
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CAPABILITIES OF SOVIET GENERAL PURPOSE FORCES, 1964-1970

THE PROBLEM

To estimate the role and capabilities of Soviet general purpose forces over the next six years, especially against the NATO area in Europe.

FOREWORD

As considered in this estimate, Soviet general purpose forces include: (a) theater forces, i.e., ground combat and tactical air forces plus their associated command, support, and service elements, up through the level of military districts and groups of forces; (b) naval general purpose forces, i.e., naval forces subordinate to fleets and separate flotillas, including naval air forces, but excluding ballistic missile submarine forces; and (c) military airlift and sealift elements. In addition, Soviet command and service elements providing general support to all components of the Soviet military establishment are considered where appropriate. Those Soviet forces which perform other military missions, namely strategic attack and strategic defense forces, are the subject of other National Intelligence Estimates and are discussed herein only insofar as they might be used in support of theater operations.

SUMMARY AND CONCLUSIONS

A. Despite the rapid and costly development of Soviet strategic attack and defense forces, the general purpose forces remain the largest and most expensive element of the Soviet military establishment. The present structure of the theater forces reflects operational concepts adopted some years ago, which envisaged large numbers of divisions advancing at high speed across NATO territory in the aftermath of a nuclear exchange. The Soviets have retained a large number of line divisions, though their size has been reduced, and have reconstituted

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virtually all of them into heavily-armored tank and motorized rifle divisions. They have sharply reduced conventional artillery firepower in favor of tactical missiles with nuclear and chemical warheads, and have emphasized speed and shock effect at the expense of staying power. The Soviets have made considerable progress in modernizing their forces, but the costs involved in keeping pace with their own technological advances and with developments in opposing forces have resulted in some equipment deficiencies.

B. During the past year we have learned of important developments not reflected in previous estimates. The manpower in the Soviet general purpose forces has evidently declined since 1961 and we believe it is now considerably less than previously estimated. Economic and demographic factors were contributory, but much of the pressure for manpower reductions came from Khrushchev. Some military men shared Khrushchev's strategic views and called into question the traditional Soviet preoccupation with large-scale land campaigns in general war, but most of the marshals disagreed with him. Although there is evidence that Soviet military authorities continued in 1964 to debate basic strategic questions, including the role and utility of theater forces, the dismissal of Khrushchev has removed the leading advocate of reductions in general purpose forces.

C. Soviet general purpose ground forces now include 120-140 line divisions, 60-75 of which are combat-ready; the rest are at reduced or cadre strength. All Soviet divisions are small by Western standards, and combat and service support at all echelons of command is very light. Soviet general purpose forces also include about 3,250 tactical aircraft, 350 torpedo-attack and cruise missile submarines, 180 major surface ships, and over 400 naval jet medium bombers. The total personnel strength of these forces is estimated to be some 1.8-1.9 million men.¹

¹ The total manpower in the Soviet military establishment is estimated to be approximately as follows:

General Purpose Forces	1,800,000-1,900,000
Ground	(1,250,000-1,350,000)
Air	(150,000)
Naval	(400,000)
Strategic Defense Forces	400,000
Strategic Attack Forces	300,000
Command and General Support	300,000
TOTAL	<u>2,800,000-2,900,000</u>

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D. Since the publication of NIE 11-14-63, the Soviets have acted to improve the capabilities of their tactical aviation through the introduction of newer models and by increasing capabilities for ground attack.

E. Tactical nuclear delivery capabilities of Soviet theater forces continue to improve through the increased availability of missiles, free rockets and more suitable aircraft. Nuclear and toxic chemical warheads are kept under strict political control. Nuclear weapons storage sites have been identified only within the USSR, but we think there is a good chance that tactical nuclear weapons are in East Germany.

F. During 1964 we have observed increased emphasis on improvement of Soviet naval capabilities. The Soviet Navy has been markedly more active in the Atlantic and the Mediterranean Sea. The Soviets continue to strengthen their capabilities against carrier task forces with cruise missile submarines and ASM-carrying jet medium bombers. Bombers of Long Range Aviation regularly support Soviet naval operations. Although Soviet amphibious capabilities are unimpressive, efforts are now underway to improve them. Soviet ASW capabilities beyond their own coastal waters remain negligible.

G. We believe that significant changes have also been occurring in the military forces of the East European countries during the past several years. East European capabilities to conduct military operations without the large numbers of Soviet supporting units previously required are growing. These developments probably point to a growing awareness on the part of the Soviets that a war with NATO might have to be fought with the forces already in Eastern Europe. While the Soviets are evidently disposed to give East European forces greater responsibilities within the Warsaw Pact structure, the growing political autonomy of these countries probably tends to reduce the USSR's confidence in its ability to marshal them for an offensive against NATO.

H. The Soviets could launch a limited objective attack against NATO with Warsaw Pact ground and air forces already in Eastern Europe. We believe, however, that if they intended to launch a campaign against Western Europe, they would seek to assemble a considerably larger force. Under non-combat conditions a 50-60 division striking force could probably be assembled and organized for combat against the Central Region of NATO within three or four weeks of a decision to do so. Such a force would contain about one million men

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(up to one-third of them Satellite troops), 14,000-17,000 tanks, 250-350 tactical missiles and rockets, and 1,700-2,000 Soviet tactical aircraft. In addition, the Satellite air forces would be available for support, and a theater reserve of Soviet and Satellite divisions would be assembled in Poland and Czechoslovakia. The Soviets would expect the movement and assembly of forces on this scale to be quickly detected. Any attempt to reinforce secretly in Eastern Europe would be much slower and on a much reduced scale.

I. In the early 1960's the Soviets dismissed the possibility of limited wars between major powers, holding that limited non-nuclear wars would almost certainly escalate and limited nuclear wars certainly would.² Since 1961, Soviet statements on this subject have suggested a growing acceptance of the possibility of limited non-nuclear conflict. The latest of these, which may also have reflected concerns arising out of the Sino-Soviet dispute, stated that the USSR should be prepared for protracted non-nuclear war between major powers. Some characteristics of Soviet theater forces as now constituted could prove serious handicaps in non-nuclear operations, particularly if such operations were at all prolonged. Certain recent trends, including measures to improve tactical air capabilities, point to Soviet efforts to improve the non-nuclear capabilities of their theater forces. Further, improvements in airlift and sealift, the recent revival of Naval Infantry, and a greater emphasis on airborne operations may constitute initial steps to acquire better capabilities for distant limited military actions.

J. Considering that the new regime may be less disposed or less able to counter the views of the military leaders, we believe that there will probably not be any substantial further reductions in general purpose forces in the near term. However, the economic and strategic situations which motivated Khrushchev have not changed, and there are basic issues in the military debate which remain unresolved. The difficulties of implementing the concept of extensive mobilization, large scale reinforcement, and a general onslaught to overrun Western Europe in the aftermath of a nuclear exchange have been dealt with extensively in Soviet military writings. If the Soviets should conclude that this concept is unrealistic and that the East European armies could be given greater responsibilities, then the USSR might consider both a reduction in its mobilization base and a withdrawal of some So-

² For the view of the Assistant Chief of Staff for Intelligence, Department of the Army, see his footnote to paragraph 151.

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viet divisions from Germany. Similarly, if the Soviets now take seriously the need to prepare for non-nuclear war, the size and structure of theater forces will be affected.

K. We believe that modernization of general purpose forces will continue and that by 1970 a moderate reduction in the number of divisions will have occurred. By that time there will probably have been some increase in the proportion of combat and service support elements. The rate of modernization of tactical aviation will probably increase, although total numbers of aircraft in the force will gradually decline. In any case, economic and doctrinal compromises, Sino-Soviet relations and developments in NATO, rather than any single clearly-defined strategic concept, will probably continue to govern the development of Soviet general purpose forces.

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DISCUSSION

I. SOVIET POLICY WITH RESPECT TO GENERAL PURPOSE FORCES

Considerations Affecting the Present Size and Composition of General Purpose Forces

1. Despite the rapid and costly development of Soviet strategic attack and strategic defense forces, the general purpose forces remain the largest and most expensive element in the Soviet military establishment. Historical, geographical, and political factors have made large-scale land warfare on the Eurasian continent the traditional preoccupation of Soviet military thought. That preoccupation has continued into the nuclear age. It is reflected in the composition of the Soviet strategic attack forces as well as in the general purpose forces. As is usually the case in human experience, the present size and composition of general purpose forces does not reflect a single clear and coherent conception, but is the net result of the impact of various factors, including the pressures for change generated by technological developments and changing strategic circumstances, the limitations imposed by competing demands for funds and other resources, the rationalizations advanced for the protection of vested interests, and the inertia inherent in any large establishment.

2. The present structure of the Soviet general purpose forces is based upon operational doctrines adopted some years ago which presuppose a general war beginning with a massive nuclear exchange. The Soviet ground forces, with air and missile support, are expected to advance rapidly, in the conditions created by the exchange, in order to destroy the surviving NATO forces and thus to dominate Western Europe. The naval general purpose forces are expected to defend against seaborne nuclear attack and then to interdict US support of NATO in Europe. At the time these doctrines were adopted the Soviets dismissed the possibility of a local non-nuclear war between nuclear powers, or of a war in which only tactical nuclear weapons would be used, holding that the first would almost certainly escalate into general nuclear war and that the second certainly would.

3. The Soviets have made a costly effort to modernize their general purpose forces and to equip them for the sort of war envisaged in the foregoing operational doctrines. During the past five years they have reduced the number and size of their line divisions, while enhancing their firepower and maintaining about half of them combat ready. Anticipating operations in a nuclear environment, they have sharply reduced conventional artillery in favor of tactical missiles and rockets with nuclear and chemical warheads. Expecting to attack a disorganized and demoralized enemy, they have emphasized speed and shock effect at the expense of staying power.

4. As a result of this effort, the Soviet general purpose forces have been substantially modernized, but budgetary restraints have prevented the USSR

from equipping them fully with the best equipment it could develop and produce for them. The Soviets have found it difficult to keep pace with rapid technological advances and the consequently rapid obsolescence of relatively new equipment, and with the developments in opposing forces.

Khrushchev's Attitude Toward General Purpose Forces

5. During the past several years Khrushchev frequently expressed dissatisfaction with the size and composition of the Soviet general purpose forces. Concerned with the whole problem of the proper allocation of limited Soviet resources, as the military were not, Khrushchev found it imperative to check the continuing increase in the cost of the Soviet military establishment as new strategic weapons systems were developed and deployed. According priority to the development of missile forces for both strategic attack and strategic defense, he could accomplish his purpose only by reducing the size of the general purpose forces, or by retarding their modernization in order to spread the cost, or both. In stating his strategic views, he contended that US and Soviet nuclear capabilities precluded either US or Soviet resort to general war, and that, if such a war did nevertheless occur, large scale theater operations would be inconceivable in the aftermath of a massive nuclear exchange. In these circumstances, Khrushchev poured scorn on the utility of general purpose forces in the modern world and advocated a drastic reduction in their size.

The Military Debate

6. Khrushchev's views were strongly opposed by the military establishment in general. In order to reduce this opposition, Khrushchev stimulated a debate among military authorities regarding basic military issues, including the utility and function of general purpose forces in modern circumstances. Various shadings of military opinion emerged in the debate. At one extreme³ were officers who sought vigorously to defend the existing general purpose force establishment by contending that large scale and protracted land campaigns would be indispensable for victory in a general nuclear war, despite the devastating effect of the nuclear exchange upon the enemy. At the other extreme³ were officers who contended that a general nuclear war would necessarily be of short duration and that the effect of the nuclear exchange would determine the outcome. This latter contention could be used to support the maintenance of a standing force which would be smaller but at a higher state of combat readiness. It put in question reliance upon extensive mobilization, as well as the concept of a strategic requirement for multi-million man armies to defeat NATO forces in Europe.

7. The doctrinal position adopted by most important Soviet military leaders (including Marshal Malinovsky, the defense minister) was a compromise. This compromise accepted the decisiveness of nuclear weapons and the probability

³The terms "traditionalist" and "modernist" are sometimes used as a matter of convenience to refer to military spokesmen taking the most extreme positions in the debate.

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that a general war would be short, but it also provided for the possibility that such a war would be protracted and held that the requirement for large theater forces continued into the nuclear era. Thus these leaders supported a military policy emphasizing strategic attack and defense capabilities, but they supported as well the maintenance of large general purpose forces for use in all phases of a general war. There is much evidence, however, that debate continued and that central tenets of doctrine remained at issue.

8. The latest word in this debate, before the fall of Khrushchev, was pronounced by Marshal Sokolovskiy in an article published in August 1964. Sokolovskiy, who has occupied a middle position in the debate, now declared it indisputable that a general nuclear war would be of short duration. He also indicated that it would not be necessary or even possible to occupy some enemy territory which had been subjected to massive nuclear attack. At the same time, he presented a new rationale for maintaining the strength of theater forces. He added the thought, new in public Soviet writings, that the USSR must prepare for the possibility of *protracted* non-nuclear war. This new consideration may have reflected notice of current US emphasis on "flexible response" instead of "massive retaliation." It may also have reflected growing concern regarding the possibility of an armed conflict with Communist China.

9. The Soviet concentration on preparation for a general nuclear war has impaired the capabilities of the general purpose forces for non-nuclear warfare, although their inherent capabilities for such warfare remained formidable. Sokolovskiy's statement is the latest and least equivocal of a series of Soviet expressions over the past few years suggesting growing acceptance of the possibility of non-nuclear conflict between major powers. If now the Soviets take seriously the possibility of a protracted non-nuclear conflict, some adjustments in the composition of the general purpose forces on that account are likely to follow.

10. Soviet general purpose force structure provides an inherent capability for limited nuclear warfare. Although there was brief reference to the possibility of limited wars involving tactical nuclear weapons in the military press in 1963, the Soviets continue to insist that any use of tactical nuclear weapons would trigger a strategic exchange. Limited nuclear warfare against NATO would pose acute problems to the Soviets in that their most significant nuclear delivery capability against European targets rests with MRBM/IRBM and medium bomber forces whose bases are inside the USSR.⁴

Implications of the Fall of Khrushchev

11. Khrushchev put new pressures on the size of Soviet general purpose forces in the last year of his regime. Toward the end of 1963, he put through his ambitious new chemical industry program, announced a small reduction in the overt defense budget, and launched new proposals for some further cut in total military manpower. Given Khrushchev's strategic views and the known improve-

⁴For the views of the Assistant Chief of Staff, Department of the Army on this subject, see his footnote to paragraph 151.

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ments in strategic attack and defense forces during the past year, we think these initiatives must again have been at the expense of general purpose forces. Finally, in September 1964, he gave notice of his position in the next round of economic planning by forcefully stating that defense "is at the proper level." In view of the continuing expansion of strategic attack and defense forces, this statement implied that he intended to impose still further cuts in general purpose force allocations.

12. Many factors contributed to Khrushchev's fall. We have no reason to believe that it was initiated by military leaders, but we believe that his strategic concepts and his attitudes toward manpower and funding made his overthrow agreeable to most of the marshals. We believe that his removal will not bring about any sharp changes in the allocation of resources to defense. Upward pressure would in fact be felt if the new regime were to hold general purpose forces at present levels while continuing to build strategic attack and defense forces and to maintain recent growth rates of military R&D.⁵

13. All things considered, we think that the size of the general purpose forces will remain relatively unchanged in the near term. But over the years, Khrushchev's successors will be subject to many of the same pressures which moved him. They will almost certainly not find the problems of an unfavorable strategic balance and a strained economy any more tractable than he did, and it is likely that they will come to consider a return to the policy of restraining the growth of military spending. Before long they, in their turn, will probably be seeking ways to reduce the cost of the general purpose forces.

14. The strategic debate has been muted for the past several months and it may remain so for a time, but we think it will continue because fundamental issues have not been resolved. Among these, of course, the role and utility of general purpose forces looms large. Future Soviet policy towards these and other types of forces will continue to be shaped, not only by a variety of strategic, historical, technical, economic, and political factors, but also by differing views about the relative importance of these factors and by shifting compromises among these views. Among the key elements of uncertainty at this time are the possible effects of a prolonged struggle for power within the top Soviet political leadership and the effects of the future course of Sino-Soviet relations. For all these reasons, the size and composition of Soviet general purpose forces during the period of this estimate will probably not reflect any single, well-defined strategic concept.

II. PERSONNEL STRENGTHS

15. Our estimates of total Soviet military manpower are based primarily on two types of analysis. The first uses demographic data indicating the availability of fit males for military service by year and information on the operation of the

⁵The four percent reduction in the announced 1965 defense budget cannot be taken to reflect the trend in total defense expenditures, a considerable part of which is financed from other budget categories.

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conscription system. The second proceeds from order of battle and uses estimates of types and numbers of Soviet units and their peacetime manning levels.

16. We are confident that the Soviet military establishment totaled about 3.6 million men in 1959. The security forces, which are also manned through conscription, are believed to have numbered an additional 400 thousand men at that time. Included in these forces were some 3 million conscripts, mostly from the large draft classes born in 1937, 1938, and 1939. The subsequent draft classes, composed of men born during World War II, were much smaller, and the Soviets were faced with the problem of replacing about a million men per year from draft classes only marginally able to supply enough manpower.

17. Motivated by both economic and strategic considerations, Khrushchev in early 1960 announced his plan to reduce total military manpower to 2.4 million by the end of 1961. We estimate that by early 1961 Soviet military forces had been reduced to about 3 million men plus about 250 thousand security troops, including some 2.4 million conscripts. At that time the reductions were stopped, in part because of the deepening Berlin crisis and the US military buildup in Europe. Some reserves were called up and some conscripts were retained beyond their normal release dates, with the result that the total strength of the armed forces increased. However, these temporary expedients did not solve the basic manpower problem.

18. Demographic data for the period 1961-1964 suggest that there was pressure to reduce military manpower levels and that the Soviets would have had difficulty in maintaining their force level. It was during this period that the effects of the low Soviet birth rate during World War II were most keenly felt. At the low point during this period, the number of men becoming eligible for induction into the armed forces fell to less than half of the number eligible in 1958. Such constraints would not necessarily have required a reduction from early 1961 levels of military manpower, provided that the Soviets were willing to draft an unusually high percentage of the eligibles. At this very time, however, the economy was faltering and had a great need for manpower, particularly for the higher quality manpower which the armed forces were also absorbing in increasing numbers. Thus, the pressures exerted by the smaller size of draft classes were reinforced by pressures from the civilian economy.

19. In 1962 the Soviets departed from normal draft procedures and ordered two classes (1944 and 1945) to be registered for conscription in 1963. This measure probably reflected an intention at the time to maintain the existing strength of the armed forces. In the fall of 1963, however, when these two classes of conscripts could have been inducted, only one was called up. The one class inducted in 1963 was squeezed hard, i.e., the number of deferrals was reduced. It is conceivable that this and the other classes in the 1961-1964 period were squeezed hard enough to maintain military manpower at the 1961 level (about 3,000,000). We believe it more likely that there has been a moderate decline, on the order of 100,000-200,000 men.

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20. The order of battle approach to an estimate of military manpower produces results which are generally consistent with the demographic analysis. Current evidence indicates that the total number of ground force divisions was reduced rather sharply during the 1959-1960 force reductions, but has remained generally stable since mid-1961. There are indications that both the TOE " strengths and the actual manning levels of Soviet ground force units have been decreased. When new manning factors are applied to current estimates of order of battle, the result is a calculated range of some 2.6 to 3.1 million men in the Soviet armed forces, excluding security troops. The extremes of the calculated range are the sums of all highs and lows for all force components. Neither extreme is likely to reflect the actual total personnel strength, and the methodology itself provides no basis for judging where within the range the actual total is likely to fall. However, the middle portion of this calculated range reflects a probable range much the same as that derived from the demographic data. We therefore estimate that the current total strength of the Soviet military establishment is 2.8 to 2.9 million men, excluding security troops.

21. The following table presents our estimate of the current distribution of total Soviet military manpower:

ESTIMATED SOVIET MILITARY MANPOWER

Strategic Attack Forces	300,000
Strategic Defense Forces	400,000
General Purpose Forces	1,800,000-1,900,000
Ground	(1,250,000-1,350,000)
Naval	(400,000)
Air	(150,000)
Command and General Support	300,000
TOTAL	*2,800,000-2,900,000

* This range represents a considerable downward revision of the 3.25-3.45 million range (including 2.15-2.35 million in general purpose forces) presented in NIE 11-14-63. It is the result of new evidence leading to new analysis, however, and should not be taken to indicate that the Soviets have reduced their forces by this amount since the publication of our last estimate.

III. SOVIET THEATER GROUND FORCES

22. Soviet ground forces are characterized by a large number of heavily armored line divisions which, even at full strength, are substantially smaller than US divisions. In general, the smaller size of Soviet combat units in comparison with nominally corresponding US units reflects a different concept of their employment. Although Soviet divisions generally have less equipment than US divisions, they have a high proportion of tanks relative to manpower. Soviet divisions have less organic combat and service support than US divisions, even relative to the differences in overall size, and are backed up by less nondivisional combat and service support. This is due in part to the Soviet concept of the role

* Tables of Organization and Equipment.

of ground forces in general nuclear war, emphasizing speed and shock effect at the expense of staying power. For reasons such as these, any description of Soviet ground units in terms of equivalents or percentage equivalents of like-named US units can be of little value in portraying relative capabilities.

Types of Divisions

23. Soviet motorized rifle and tank divisions are both armored-type divisions, having as their main maneuver elements motorized rifle regiments and tank regiments. The motorized rifle division has three motorized rifle regiments and one tank regiment, while the tank division has three tank regiments and one motorized rifle regiment. These tank regiments are equipped with medium tanks, except that a few tank divisions have one heavy tank regiment. In both divisions the motorized rifle regiment has an organic tank battalion and armored personnel carriers are provided for the infantry elements. Soviet battalions are small: the motorized rifle battalion contains fewer than 400 men, and the tank battalion fewer than 200.

24. We have much less evidence on the organization and strength of the Soviet airborne divisions. They are similar in structure to the motorized rifle division, but considerably smaller. They have no tank units and are lighter in artillery.

Strengths of Divisions

25. We have fairly good evidence regarding the actual strength of the Soviet divisions in Germany, but little evidence regarding the strength of the divisions in the USSR. Soviet military writings refer to divisions at three different levels of strength—"at or near full strength," "reduced strength," and "cadre." From Soviet descriptions of the intended use of the divisions in these three categories we deduce three different peacetime manning levels, as follows:

a. Category I (combat strength) divisions are intended to form the first echelon of Soviet ground forces in the initial operations of a war. The Soviet divisions in Germany, Poland, and Hungary are obviously in this category, as are some others in the border areas of the USSR (see Table I, Annex). We estimate that the motorized rifle divisions in Germany have an average strength of about 9,500; the tank divisions, an average strength of about 7,800. No Soviet divisions are likely to have a higher level of peacetime manning. The divisions in this category might receive some minor augmentation in anticipation of war, if the circumstances permitted, but they are, by Soviet definition, ready for immediate commitment to combat without augmentation.

b. Category II (reduced strength) divisions are intended for the early reinforcement of the Category I divisions. They are probably maintained at about two-thirds of the strength of Category I divisions, with some subordinate units in cadre status. They could be fleshed out with reservists and made ready to move to the theater of operations in a week or so.

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c. Category III (cadre strength) divisions are intended to provide a base for reserve training and mobilization. They are probably maintained at about 20 percent of the strength of Category I divisions, with most of their officer complement but few troops. All the divisions in this category are believed to be motorized rifle divisions. They could be fleshed out with reservists in a week or so, but would not be effective against powerful enemy forces until they had undergone a considerable period of training. They could be used earlier for mopping-up operations, line-of-communications or internal security duties, or reconstruction work.

Numbers of Divisions

26. We estimate that the total number of Soviet line divisions lies somewhere between 120 and 140. Improved evidence and continuing analysis during the past year have provided the basis for narrowing our range of uncertainty, and have changed the nature of the uncertainty. Our previous spread (110-140 divisions) reflected, in large part, uncertainty as to the continued existence of entities which might be considered divisions. The actual existence of all the entities included in our current estimate, at least during 1963-1964, is strongly supported in evidence; the spread of figures reflects uncertainty as to whether all of them are divisions.

27. We believe that the probable number of Category I divisions falls within the range 60 to 75; Category III, 30 to 45. The remainder are Category II. We make this estimate with more confidence than hitherto, on the basis of improved information. It should be noted, however, that divisions can change from one category to another fairly readily without producing indications recognizable to US intelligence for some time. In view of the evident stability in total numbers of divisions over the past several years, it is probable that any manpower reductions were absorbed by shifting some divisions to lower categories and by paring down the already austere non-divisional combat and service support elements of the ground forces.

28. Order of battle methodology continues to produce a total number of divisions near the high side of the estimated range of 120-140 ground divisions, i.e., 138 divisions. We use the order of battle figure as a matter of convenience when discussing probable distribution of Soviet divisions by type and location in succeeding paragraphs and in our tables. However, this is not intended to suggest that this figure is any more probable than any other within the 120-140 range.

Ground Armies and Corps

29. Some 92 Soviet line divisions are incorporated into about 19 armies and 9 corps.⁷ The remaining divisions are not. These latter include the seven airborne divisions, which are centrally controlled by a directorate in Moscow, and

⁷ The Soviet corps is not an intermediate echelon between division and army, but rather is in effect a small army.

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the six divisions subordinated to the two groups-of-forces headquarters in Poland and Hungary.

30. Soviet armies are of two types: combined arms armies and tank armies. The combined arms armies usually consist of two to four motorized rifle divisions and one tank division; the tank armies, of three or four tank divisions. There are indications that the Soviets now intend to include a motorized rifle division in their tank armies. This change would make such armies more effective in a defensive role or in non-nuclear warfare. At present, Soviet tank armies have no army artillery except a Scud missile brigade.

31. Soviet armies and corps are much smaller than those designations would suggest, not only because of the relatively small size of their constituent divisions, but also because of the paucity of their non-divisional elements. For example, the strength of the five armies in the Group of Soviet Forces Germany (GSFG), which are deemed to be close to combat strength, ranges from 35,000 to 55,000 men. In GSFG each of the combined arms armies has some 10,000-13,000 men in non-divisional elements (headquarters and combat and service support units); each tank army, some 8,500-10,000 men in such elements.

32. The five armies in GSFG are probably the only ones that are combat ready, with all their divisions in Category I and with their non-divisional support at a level which would permit commitment to combat without augmentation. We believe that the armies and corps in the USSR have some divisions at reduced or cadre strength and generally lower levels of non-divisional support, averaging perhaps two-thirds of wartime strength in the latter respect. However, three armies on the western borders of the USSR appear to have at least three of their divisions in Category I and are therefore probably at a higher level of combat readiness than the others.

33. In the event of war, most Soviet armies would be grouped into *fronts*. The Soviets wartime *front* is an echelon roughly corresponding to a Western army group, but including a tactical air army. The size and composition of a *front* would vary with the conditions within a given theater of operations. The Group of Soviet Forces Germany (GSFG) can be considered the nearest equivalent of a wartime Soviet *front* currently operational. It contains five ground armies, and one tactical air army. *Front*-level units in GSFG include about 16,000 men in combat support, 25,000 in headquarters and service support, and over 10,000 in miscellaneous housekeeping functions. GSFG is tailored to meet its particular mission in East Germany; wartime *fronts* would vary in numbers of armies and divisions, as well as in numbers of combat and service support troops.

34. The Soviets envisage general war campaigns broken down geographically into Theaters of Military Operations (TVDs), defined as land and sea areas lying along a single operational-strategic axis. Evidence has revealed four of these TVDs—the Northwestern, including Scandinavia; the Western, including Western Europe and Great Britain; the Southwestern, including the Balkans, Italy, and all the shores of the Mediterranean; and the Far Eastern, with areas unspecified. There are probably one or two more in Central Asia.

35. Historically, there has been no permanent echelon of command between the *front* and the Supreme High Command in Moscow, and we have no evidence of Soviet plans to organize such intermediate headquarters. The complexity of operations in the communications zone in the rear of Soviet *fronts*, however has increased enormously since World War II. Air defense, logistics support, and damage control in the rear areas of widely separated operations would be extremely difficult to coordinate directly from Moscow. To meet these problems, the Soviets may plan to provide intermediate headquarters, particularly for TVDs in which they envisage more than one *front* or the use of non-Soviet units. If so, such headquarters might control additional headquarters and communications zone units, such as railroad troops, sealift and airlift units, and administrative support elements. We believe that the 15 Military Districts inside the USSR would provide most of the headquarters and the supporting units for *fronts* and for any TVD headquarters which would be activated in wartime. Since TVDs include sea as well as land areas, any TVD organization would probably include some naval elements.

Ground Force Training

36. Soviet forces contain very few professional NCOs, but proportionally more junior officers on whom the responsibility for training largely devolves. There is about one-third turnover in troop strength each year due to the Soviet three-year conscription policy. The recruits are assigned directly to units and are trained almost entirely within those units. While this system permits effective utilization of the pool of conscripts and eliminates the need for a large separate training establishment, it also causes a drop in combat efficiency each winter as new recruits replace trained men. The increasing technical complexity of Soviet theater forces has accentuated the problems associated with the annual turnover of large numbers of conscripts. There is some evidence that the Soviets are now attempting to expand their corps of technically-trained enlisted men by offering additional inducements to re-enlist, although the harsh discipline in the Soviet Army tends to make such efforts unsuccessful.

37. The Soviet ground forces conduct extensive individual and unit level training. There is no reason to doubt the professional competence of the officer corps. Training of commanders and staffs at all echelons receives special emphasis. However, there are some deficiencies in the nature of Soviet training, evidently occasioned in part by a desire to conserve funds and to avoid wear-and-tear on the most up-to-date equipment, and also by a penchant for theoretical training methods. There is good evidence that training ammunition for tanks and artillery is allocated sparingly and that most firing practice is conducted with sub-caliber weapons. Tank main armament firing is probably quite limited by Western standards. There are indications that field training exercises with troops at levels above the regiment are relatively infrequent and that in consequence the larger unit commanders and staffs have relatively little opportunity

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to practice the solution of real tactical and logistical problems which can be appreciated only when large forces are active in the field.

Land Armaments

38. In the two decades since World War II the Soviets have continued the process of reorganizing ground force units while introducing a wide range of new types of equipment, including missiles and combat vehicles. In some instances, successive generations of the same type of equipment have been produced. At any given time during the period, however, the distribution pattern of equipment has been uneven as the development and production of newer models overtook the gradual issue of previous equipment. Thus Soviet ground forces are not fully equipped with the latest available material; many of the older models remain in service. Category I divisions probably have first priority for the issue of new equipment.

39. We have conducted a thorough review of all evidence bearing on Soviet production and inventories of land armaments and conclude that our evidence does not permit an estimate of total Soviet production and inventories of ground force equipment within useful ranges of confidence. There is little doubt that the Soviets have produced large quantities of a wide selection of items. As many as 80 models of land armament may have been produced since the end of World War II, and production in sizable quantities of at least 60 of these models is substantiated by firm evidence. Soviet divisions appear to have all the equipment required for adequate training or commitment in combat although older models remain in use in many units. There is evidence that even obsolete equipment, such as the T-34 tank, is in many cases retained for routine training in order to extend life of newer equipment on hand.

40. The Soviets have exported several thousand T-54 tanks, and we believe they have almost certainly produced a sufficient quantity of various versions of this tank to satisfy the wartime requirements of all Category I and II divisions. It is possible that enough are available for Category III divisions as well, but there is some evidence indicating that T-34 tanks are substitute items in such units. The latest medium tank has a 115 mm smoothbore gun and has been designated T-62. We believe that this model is not intended as a replacement for the main battle tank, and that it will be assigned primarily an anti-tank role, perhaps replacing heavy tanks for this purpose.

41. In NIE 11-14-63 we estimated that there was a shortage of armored personnel carriers (APCs) in Soviet units. Evidence acquired during the past year indicates that the motorized infantry elements requiring APCs are smaller than previously estimated, and that more men are carried per vehicle. Consequently, we now believe that Soviet divisions have APCs in sufficient numbers to transport their motorized infantry. The bulk of the APCs in motorized rifle divisions are the first generation BTR-152s, which are not amphibious and lack cross-country mobility and are thus not compatible with Soviet operational doctrine. Infantry elements of tank divisions have been largely reequipped with the

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tracked amphibious carrier, BTR-50p. The later and much improved amphibious BTR-60p has appeared in very limited numbers.

42. Authoritative Soviet military spokesmen have discussed equipment deficiencies and obsolescence in the open press. Some of the standard substitutes believed to be prevalent in Soviet divisions are: earlier model T-54 medium tanks for later models (T-55, T-62); early model APCs for BTR-50p and BTR-60p; and 82 mm recoilless rifles and earlier anti-tank guns for anti-tank missile-systems (Snapper/Swatter). These and other substitutes can be used to perform the functions of later models, with the significant exception of the older APCs. In some categories of equipment, such as general purpose trucks and POL transporters, there have been good indications of shortages. All things considered, we conclude that the Soviets probably have enough land armaments in inventory to equip fully their 120-140 division force at wartime strength, but that few, if any, of the line divisions are likely to be completely equipped with latest model items.

Mobilization Potential

43. The Soviets have available large numbers of trained reservists who could be used for filling out existing understrength units or mobilizing new units. About one million of these reserves would probably be required to fill the current force to wartime strength; this would involve fleshing out existing units and mobilizing a large number of additional combat and service support units for armies and fronts.⁸ Stocks of materiel on hand at or near existing units, supplemented by engineer items and motor transport from civilian sources, would probably be sufficient for such a mobilization.

44. The Soviets have planned to mobilize additional forces, if need be, by splitting the cadres of existing units to form new ones and by creating additional supporting units from civilian resources. This process would, of course, entail some loss of the more immediate capabilities obtainable through filling out the existing divisions. We do not know how many additional divisions the Soviets may have planned to form in this manner, or how many they could equip. In a war emergency, the availability of manpower would not be a limiting factor. There are enough reservists to man twice the current number of ground force units, although this would require calling up men whose service experience was more than three years past. The Soviets could have retained considerable stocks of superseded military equipment, at some cost for maintenance and storage, but we have not been able to establish the existence of such stocks beyond the requirements of the present 120-140 division force. No matter what mobilization plans the Soviets may have, considerations brought forward in the military debate (paras. 6-10) and continuing budgetary stringencies may have prompted them to reconsider the utility of providing for the mobilization of any considerable number of line divisions additional to the number in the present force.

⁸ Additional reserve personnel would have to be mobilized as replacements and to expand the Command and General Support forces.

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IV. THEATER FORCES AIR AND MISSILE SUPPORT

Tactical Aviation

45. The mission of Soviet tactical air armies is to support the *fronts* to which assigned by gaining local air superiority and providing direct support to ground forces. Since the publication of NIE 11-14-63 we have acquired evidence of increased concern by Soviet military authorities to strengthen their tactical air capabilities. There has been more emphasis on training for reconnaissance, on bombing techniques, and on the use of unimproved airfields to increase flexibility and mobility. Soviet interceptor units in East Germany, including those equipped with all-weather interceptors, are being cross-trained for ground attack roles. In addition the Soviets have experimented with at least one type of an air-to-air missile as an air-to-ground weapon.

46. During the 1960-1961 reduction in Soviet general purposes forces, Tactical Aviation underwent a complete reorganization. In mid-1959 Tactical Aviation had a strength of approximately 7,500 operational aircraft; by mid-1961 it had been reduced to approximately 3,350 aircraft. This sharp reduction probably reflected a Soviet intention to retire aircraft which they considered obsolescent. A large part of the decrease involved the aging Beagle light bomber. The 90-100 Badger medium bombers which had been in Tactical Aviation were reassigned to Long-Range Aviation during this same period. The reductions left Soviet Tactical Aviation with about half the number of aircraft previously assigned; of these almost 90 percent were older models. The force had limited offensive support capabilities; all the fighters were basically interceptors and thus had limited range and load-carrying capabilities for ground attack missions.

47. Shortly after the reduction in tactical air strength, the military leaders, apparently influenced by developments in NATO and the US announcement of a "flexible response" policy, began to consider the possibility of non-nuclear conflicts. They were certainly well aware of the weaknesses of their tactical aviation for non-nuclear operations. They probably decided by 1961 to arrest the decline in numerical strength of Tactical Aviation by retaining older models in the force as long as possible, by accelerating the introduction of newer models, and by increasing capabilities for ground attack through modification of current aircraft and cross-training of interceptor units.

48. A recent review of all evidence on this subject leads us to believe that there have been no deliberate cuts in tactical air strength since mid-1961. Attrition and wear-out of older models has slightly exceeded the input of newer models into units, but the total number of aircraft has remained fairly steady. The proportion of older model aircraft has decreased, but is still about 60 percent.

49. The total combat aircraft strength of Tactical Aviation was about 3,250 as of 1 October 1964. These aircraft are assigned to regiments and separate squadrons in accordance with primary roles. There are about 2,400 fighters, exclusive of those assigned to reconnaissance roles, in some 65 regiments, of which roughly a third are primarily ground attack and the remainder primarily

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interceptor units. The ground attack units are being re-equipped with the Fitter, and the interceptor units with the all-weather Fishbed D. About 300 light bombers, including over 100 new Brewers, are assigned to bomber units. About 550 additional fighters and Beagle light bombers are in reconnaissance units. Soviet Tactical Aviation is organized in tactical air armies for the support of major ground commands, generally one TAA per *front*. There are currently 13 tactical air armies which vary considerably in size and composition. The 24th TAA in East Germany has about 825 combat aircraft, while the others are much smaller, ranging in strength from about 80 to 385.

50. The Soviet TAAs in Eastern Europe and in the Soviet Far East generally have a higher proportion of current model fighters than TAAs in the Soviet interior. The 24th TAA in East Germany has over 60 percent current model fighters, including a high proportion of all-weather interceptors. Over half of the total Soviet fighters in East Germany are believed to be assigned primarily to the mission of controlling the air over their own forces.

Tactical Missiles

51. Soviet theater forces have tactical missile and rocket systems available at division, army, and *front* level. We believe that these tactical systems can deliver nuclear, chemical, and high explosive (HE) warheads. In addition, we believe that many of the initial medium and intermediate range missile strikes of the Strategic Rocket Troops would be directed against targets of importance to *front* commanders, and that subsequent MRBM/IRBM strikes would be used to support theater operations.

52. The division-level system is the Frog (free rocket over ground) with ranges up to 29 n.m. We believe that all Soviet Category I and II divisions (except airborne) have a Frog battalion with at least two launchers, each mounted on light tank chassis. Such units may also be available for Category III divisions. Some divisions in GSFG probably now have three launchers rather than two in their Frog battalions. The Soviets have been dissatisfied with the small number of Frog launchers in the divisions, because of the difficulty in providing continuous fire support for the fast moving offensive operations prescribed by Soviet doctrine. There is some evidence of a new truck-mounted Frog; the addition of such weapons would help to overcome this problem.

53. The army-level missile system is the SS-1 (Scud). It is a 150 n.m. ballistic missile system with the launcher mounted on a heavy tank chassis. The Soviets have produced this missile in several successive versions, the latest being the SS-1c, which is probably now standard in Soviet ground forces. A 6-launcher Scud brigade is probably assigned to combined arms and tank armies. There are tenuous indications that the Soviets are developing a follow-on missile system with similar range characteristics.

54. Our evidence indicates that the Soviets at one time considered the SS-1 (Scud), the SS-2 (Sibling), and two types of cruise missiles as *front* level

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systems. We believe that the Sibling, which was a modified V-2, and a short-range cruise missile system have been retired from service, although a few Sibling units may still exist. Evidence indicates that the Soviets were dissatisfied with the range characteristics of Scud as a *front* system, but Scud brigades are probably available for assignment to wartime *fronts*. Soviet classified documents indicate that one, possibly two, 8-launcher regiments of Shaddock (SSC-1), a 300 n.m. road-mobile cruise missile system, would be assigned to the *front's* tactical air army. The Soviets are probably developing a new 400-550 n.m. ballistic missile system which may be introduced as a *front* level system.

55. We believe that each of the armies in GSFG has its Scud brigade. It is possible that an additional Scud brigade and a Shaddock regiment also are present in East Germany as GSFG level. Thus, there are probably 30-36 Scud and possibly 8 Shaddock launchers in addition to 40-60 divisional Frog launchers in GSFG. The level of missile support for most ground forces inside the USSR is likely to be lower than that in GSFG.

Tactical Nuclear Weapons

56. The entire system of command and control of nuclear weapons appears well designed to reserve to the national leadership the decision to initiate the use of nuclear weapons. Special units of KGB (Committee of State Security) troops have been created to maintain custody of nuclear weapons, not only in storage, but also during delivery to units. It is probable that the KGB must receive instructions through its own channels before nuclear weapons can be released. These procedures give Moscow strict control over the numbers and yields of weapons employed in major theaters.

57. We have been able to identify nuclear weapons storage sites only inside the USSR. If the Soviets do not already have nuclear weapons stored in Eastern Europe, a substantial logistical effort would be required to supply a reasonable quantity for the delivery systems currently in the area. For example, a large number of sorties by transport aircraft would be required to move warheads and bombs forward from storage sites inside the USSR. We estimate that the Soviets could launch nuclear-armed aircraft from East Germany bases within a few hours after the transports had landed at the bases. In the case of Frogs and tactical missiles, we estimate that it would take longer to move the warheads to the delivery units because reshipment by land transport or helicopter would be required. Movement of nuclear weapons from the Soviet Union by rail would, of course, take considerably longer than by air. In view of the above, we think that there is a good chance that nuclear weapons are stored in some GSFG depots, although we have no firm evidence.

58. The broad range of nuclear tests in 1961 and 1962 indicated an effort to improve the nuclear capabilities of all arms of the Soviet military establish-

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ment. We believe that a variety of tactical nuclear weapons is now available for delivery by tactical rockets, missiles, and aircraft, virtually all of them with yields in the kiloton range. The Soviets may have developed nuclear rounds for artillery, or even sub-kiloton weapons, but we have no evidence that they have developed specialized delivery systems for such weapons. Several years ago they produced some prototype large nuclear cannon, but they apparently did not pursue this development further.

59. The numbers of nuclear weapons available to the Soviet theater forces have probably been limited by higher priorities afforded the strategic attack forces. With the passage of time, however, we believe that they have by now been able to provide a considerable number of tactical nuclear weapons for the use of the field forces. Classified documents indicate that Soviet military planners a few years ago were in a position to think in terms of committing up to a few hundred nuclear weapons in a *front* operation.

60. The Soviets consider mass initial nuclear strikes, including those delivered by strategic forces, to be of decisive importance to theater force operations in general nuclear war. The theater forces will participate in these initial strikes to the extent that the availability of suitable targets and weapons allocations permit. The primary targets in all phases of theater operations are enemy nuclear delivery systems. To the extent of weapons availability, nuclear strikes would also be directed at command and control complexes, air defense facilities, logistical installations, and major troop formations. We believe, however, that existing procedures, together with deficiencies in logistic support, would hamper Soviet operational readiness and rapid response in their employment of tactical nuclear weapons. We have no doubt that the Soviets are working to overcome these deficiencies, although we have no evidence on their progress.

Reconnaissance

61. There is little new information on Soviet battlefield surveillance capabilities. Most Soviet aircraft designated for this mission are obsolete, although some current models have been introduced. The new light bomber, Brewer, as well as other tactical aircraft could be modified for use in reconnaissance roles. In the theater ground forces there are apparently no longer any non-divisional armored reconnaissance units; divisions themselves are expected to perform required ground reconnaissance missions, but their specialized reconnaissance elements are minimal. The Soviets apparently rely heavily on clandestine agents and infiltrated ground reconnaissance teams for target acquisition. Some Soviet authors have strongly criticized the system of battlefield surveillance available, at least up to 1962, as incapable of fully meeting the requirements of nuclear warfare. We believe that Soviet reconnaissance and battlefield surveillance capabilities have not improved significantly since that time, but there are some indications of developmental activity designed to correct deficiencies.

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Chemical and Biological Warfare

62. *Chemical Warfare.*⁹ Soviet tactical doctrine prescribes the use of chemical weapons in conjunction with nuclear weapons. We believe that in Soviet thinking the same constraints which apply to the use of nuclear weapons apply also to toxic CW, and that the use of either would require a decision at the highest political level. The present Soviet emphasis on CW munitions for theater operations probably results in part from restricted availability of tactical nuclear weapons due to the longstanding nuclear priority assigned strategic forces. Considering this and other factors, we believe that the Soviet leaders almost certainly would authorize the use of toxic chemical agents by their theater forces in a nuclear war. In a non-nuclear war, the Soviets probably would not initiate the use of toxic chemicals.

63. We possess good technical data on Soviet toxic chemical warheads available for use with cruise and ballistic missiles and Frogs. In addition, chemical bombs and projectiles are available for use with other delivery systems such as tactical aircraft, artillery, mortars, and multiple-launch rockets. Spray systems and land mines have also been developed. Whereas our evidence indicates that missile warheads are bulk-filled, probably with one of the extremely toxic "V" agents, other munitions are apparently filled with nerve agents including the "G" type (sarin or soman) or with agents of older types first used in World War I.

64. Our evidence indicates that Soviet organization, equipment, training, and research and development can support substantial toxic chemical warfare operations. CW munitions are probably immediately available to Soviet tactical units, but logistical problems might affect the Soviets' ability to bring additional CW stocks into play against NATO forces in Europe. Most of the probable toxic chemical storage depots we have identified are located east of the Volga. They are therefore not well sited for use in a war in the West which began with short warning time and involved heavy interdiction of transportation facilities.

65. *Biological Warfare.*¹⁰ Intelligence derived from Soviet scientific publications indicates continued interest and research in the field of biological warfare. We have no evidence of current Soviet military capabilities for application to theater operations, however, and we believe Soviet tactical use of BW to be highly unlikely.

66. *Chemical, Biological, and Radiological Defense.* Soviet military authorities evidently assume that the West would use chemical and biological as well as nuclear weapons in the event of general war. All elements of the Soviet forces stress training for chemical defense. This training, as well as most items of chemical defense equipment, is intended also for defense against nuclear radiation and biological warfare agents. Manual and automatic radiation and chem-

⁹ For a fuller discussion, see NIE 11-10-63, "Soviet Capabilities and Intentions with Respect to Chemical Warfare," dated 27 December 1963, SECRET.

¹⁰ For a fuller discussion see NIE 11-6-64, "Soviet Capabilities and Intentions with Respect to Biological Warfare," dated 26 August 1964, SECRET.

ical detection devices are available, but sensitivity of the latter to nerve agents is inadequate to guarantee human safety. An armored personnel carrier has been modified for mobile chemical and radiation reconnaissance, but we do not know the sensitivity of the detection systems.

Theater Force Air Defense

67. Soviet theater air defense still depends heavily on the interceptors of Tactical Aviation. The defense capabilities of this force have been increasing steadily over the past few years. It now consists of about 2,400 fighters. All of these have good intercept capabilities under clear air mass conditions. More than 700 of these aircraft are likely to be armed with air-to-air missiles, including about 500 Fishbed D, an all-weather interceptor. An air defense control system with semi-automatic features is being deployed in East Germany.

68. The SA-2 (Guideline) remains the only surface-to-air (SAM) system known to be deployed with Soviet theater forces. It is organized into regiments of three or four firing battalions and a support battalion. The firing battalions differ from the SA-2 units of PVO (homeland air defense) primarily in the addition of a 57 mm gun battery to provide local low-altitude defense. One of these regiments is believed to be assigned to each army outside the USSR, and two such regiments may be made available for each wartime *front*. Theater force SAM units inside the USSR are almost certainly under the operational control of PVO.

69. The Soviets have displayed a new missile system, Ganef, which we believe to be a theater force SAM, although it may be a surface-to-surface cruise missile. It is a dual-launcher system mounted on an assault gun chassis. Its mobility would overcome one of the prime deficiencies of the SA-2 as a field SAM system, i.e., its inability to displace quickly enough to provide continuous defense for ground forces. However, the Ganef is probably not a low-altitude system. Soviet theater force SAM defenses will continue to be deficient in this respect unless and until a mobile low-altitude system is developed and introduced into units. The currently operational SA-3 system has apparently not been deployed with theater forces.

70. The Soviet SA-2 system may be capable of destroying short-range (50 n.m. or less) tactical missiles, but only under the most favorable circumstances. We believe that the Soviets do not consider it an anti-tactical ballistic missile (ATBM) defense system.

71. Despite increasing numbers of surface-to-air missiles, Soviet theater force air defenses still rely primarily on tactical aircraft and automatic anti-aircraft weapons (57 mm and smaller). The automatic anti-aircraft weapons currently constitute the only defenses mobile enough to provide continuous air defense for troops when fighter cover is not available, and the effectiveness of these weapons against modern high performance aircraft is minimal.

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V. DISTRIBUTION OF SOVIET THEATER FORCES¹¹

72. The strongest segment of Soviet theater forces is the Group of Soviet Forces, Germany (GSFG). Since 1958 this force has consisted of 20 combat strength (Category I) divisions. It has by far the strongest, most modern tactical air support of any major concentration of Soviet theater forces, and probably the highest level of supporting elements. We believe that GSFG is generally as well equipped with new model land armaments as any Soviet ground forces, although it is possible that some of the ground forces in the western military districts in the USSR receive the latest model land armaments earlier.

73. Since June 1964 there have been indications of a reorganization in GSFG, probably accompanied by a small force reduction. The number of army headquarters has been reduced from six to five and many GSFG divisions have been resubordinated within the force. The number of troops withdrawn remains uncertain, although we believe that deactivation of the army headquarters plus the known withdrawal of some GSFG administrative elements have reduced the force by up to 5,000 men. There are some indications that as many as 14,000 men were withdrawn from East Germany this past summer. None of the 20 divisions of GSFG has been withdrawn, however.

74. We are uncertain of the reasons for this reorganization of GSFG, but in effect it appears to improve command and control, especially for defensive operations against a surprise attack. Two armies of five divisions each are now disposed in depth in the central part of the Soviet Zone, well situated to resist penetrations or support defensive operations on any of the major avenues of approach. This reorganization may be in response to a Soviet reappraisal of strategic requirements, with implications regarding the composition of Soviet armies elsewhere. On the other hand, we cannot exclude the possibility that it is a temporary arrangement pending further adjustments or even the withdrawal of a few divisions from East Germany.

75. The Northern Group of Forces in Poland and the Southern Group of Forces in Hungary have political value as a Soviet military presence in those countries; they also serve as a prominent reminder of Soviet power to neighboring neutral and Satellite countries. Moreover, they constitute nuclei for war-time expansion and employment against NATO. Both forces possess sizable tactical air elements, and what is known of their training indicates they are regular combat forces.

76. Soviet theater forces within the USSR are strongest in the western border areas, especially in the Baltic, Belorussian, and Carpathian military districts. Those along the northwestern and southern borders are characterized by a preponderance of understrength divisions. Soviet theater forces in the Far East have a relatively high proportion of combat strength divisions, and during the past year the tactical air army in the Far East has apparently had priority

¹¹ See also Tables 1 and 3, Annex.

over other forces inside the USSR for the delivery of new tactical aircraft. There have been indications of increased Soviet concern with the combat readiness of their forces on the borders of China, but no transfers of divisions from the western USSR to these areas appear to have occurred as yet.

VI. STRENGTHS AND WEAKNESSES OF SOVIET THEATER FORCES

77. The Soviet Army, despite reductions in strength from previous manpower levels, remains the largest modern army in the world. It has a very high proportion of its manpower in small, but heavily armored and mobile line divisions. While only about half of these divisions are at combat strength, the others can be filled up with reservists in a relatively short period of time.

78. Soviet operational concepts for the conduct of general nuclear war demand that theater forces be organized and equipped for high-speed armored operations by day and night. Delays at obstacles or pauses for resupply cannot be tolerated. Motorized rifle units are supposed to fight from their vehicles, never dismounting unless forced to do so; water obstacles are to be crossed in stride using snorkel devices for tanks, amphibians for motorized infantry, and rapid bridging techniques.

79. While the theater forces have made considerable progress toward meeting the requirements dictated by Soviet doctrine, the equipment in the hands of troops is in some respects not well suited to the operations prescribed. Some items, such as amphibious armored personnel carriers with good cross-country mobility, have been developed and produced, but have appeared in units in insufficient quantities; others, such as mobile SAM launchers and specialized reconnaissance means, have failed to appear at all.

80. The execution of the Soviet operational concepts depends heavily on gaining the initiative immediately and never losing momentum. If the Soviet attack were halted or slowed, lucrative targets for enemy nuclear strikes would soon form. Protracted battles would quickly exhaust the limited logistic support structure.

81. The Soviets have a mobile logistical support system which is designed to support their concept of tactical operations. They have exhibited great concern over the problem of POL supply and have sought to solve the problem through the wide usage of diesel engines and auxiliary fuel tanks, the introduction of a pipeline capability and POL transporters, and the prepositioning of large-volume portable POL containers. Potential weaknesses are lack of experience in providing logistical support for their modernized forces during large-scale operations and a general shortage of service support units in the peacetime army.

82. Numbers of combat units, tactical aircraft, armored firepower, and tough fighting men are enough to give the Soviet theater forces a formidable capability for non-nuclear operations. Nevertheless, the restructuring of Soviet theater forces for operations in general nuclear war has resulted in force characteristics which could be serious handicaps in non-nuclear operations, particularly if at

all prolonged. The combat and service support elements are insufficient for any large-scale conventional operations.

83. Soviet Tactical Aviation has a large inventory of operational combat aircraft, but its strength is small in relation to the size of the ground forces it is intended to support. Furthermore, the Soviets maintain no Tactical Aviation reserve units. The Soviets apparently plan on using missiles and rockets with nuclear and chemical warheads to accomplish most tactical bombardment missions. Most of the aircraft assigned to Tactical Aviation were designed as interceptors and their utility as fighter bombers for other than nuclear operations would be limited by their small payload capacity, by their relatively short range on low level missions, and by their lack of an all-weather bombardment capability. On the other hand, the light weight and simplicity of Soviet tactical aircraft permits them to use relatively undeveloped airfields and bases.

VII. NAVAL GENERAL PURPOSE FORCES

84. The capabilities of the Soviet Navy are not readily divided among strategic attack, strategic defense, and general purpose missions. We believe, however, that the Soviets view their ballistic missile submarines as strategic attack weapons. They probably consider their coastal defense missiles and their anti-carrier and ASW forces essentially as strategic defense forces. Cruise-missile submarines could be used in either role. In this estimate, however, we include all naval forces except ballistic missile submarines in the category of general purpose forces.

85. Since the publication of NIE 11-14-63, there has been an upturn in the attention given the Soviet Navy both in the military press and in force development. Soviet naval officers have long been the chief spokesmen for the extension of Soviet capabilities to conduct campaigns beyond the confines of the Eurasian land mass, and there has recently been a flurry of naval articles in the open press attacking traditional emphasis on land warfare.

86. During 1964 we have observed increased Soviet emphasis on qualitative improvement of their naval forces. New construction and modernization of surface ships and submarines continues. A new naval air-to-surface missile may be under development for use on the medium bomber Blinder, which is entering Navy units almost as fast as it is entering Long Range Aviation (LRA). Heavy and medium bombers of LRA regularly support naval operations. Soviet surface warships and submarines have been markedly more active in realistic training exercises in the Atlantic and the Mediterranean Sea. Soviet Naval Infantry, a force almost completely neglected for many years, has re-emerged as an apparently elite corps. Although as yet probably small in number, it indicates new Soviet attention to amphibious warfare capabilities.

Submarine Forces

87. There are about 350 units (excluding ballistic missile submarines) in the Soviet general purpose submarine force, including a small but growing number

of nuclear powered units. Submarines equipped with cruise missiles, capable of attacking both land targets and surface ships, continue to receive emphasis in the improvement of the Soviet force. There are currently about 12 E-class nuclear-propelled units and 6 or 7 diesel-propelled units of the J-class operational with more of both these classes under construction. The conversion of the older W-class diesel units to carry cruise-missiles has probably ceased, with 13 now operational. Soviet cruise missile submarines have varying numbers of launchers for the SS-N-3 missile. The SS-N-3 missile system can be used in either high or low altitude profiles and to a maximum range of 300 or 450 n.m. depending on the model of this missile involved.

88. About a dozen N-class torpedo-attack nuclear propelled units are also operational. The only diesel powered torpedo-attack submarines with sufficient endurance to operate off the continental US from their home bases are the F and Z classes; since the program started in the early 1950's the Soviets have produced 56-59 of these submarines. The remainder of the torpedo-attack submarines, about 230 units, have considerably shorter ranges. Older submarines are being phased out of the operational inventory, although some are probably being used for basic training.

89. Early Soviet nuclear submarines, built prior to 1961, experienced difficulties in the operation of their engineering plants. The engineering plants of submarines built since 1961 are believed to have incorporated significant improvements which overcame many of the early problems. With existing hull designs and currently operational engineering plants, Soviet nuclear submarines can attain a maximum speed of about 20 knots, with normal cruising speeds probably on the order of 12 to 14 knots. An assessment of available data indicates that the radiated noise levels of existing Soviet nuclear submarines are at least as high as those of early US nuclear submarines. Nuclear submarines of the H, N, and E-I classes are estimated to have a normal operating depth limit of 800 feet; the E-II may have a capability as great as 940 feet.

Surface Forces

90. Soviet naval surface forces, which are still heavily dependent upon land-based logistic and air support, appear suited primarily for defensive operations in waters adjacent to the USSR. Conventionally armed major surface units now comprise 14 light cruisers, 83 destroyers, and 58 destroyer escorts. In recent years, the Soviet Navy has considerably increased the firepower of its surface forces by the addition of surface-to-surface and surface-to-air missile armament, which has extended the potential scope of effective operations.

91. The only known major surface combatant ships now being built in the USSR are missile destroyer types. The Soviets now have operational 21 destroyers armed with missiles. The Kynda, Krupnyy, and Kildin classes carry surface-to-surface cruise missiles for antiship use. The Kashin class, one covered Kotlin class, and the Kynda class are armed with surface-to-air missiles for use in air defense. In addition to their missile armament, these ships, like most of

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the conventionally armed major surface units, also carry ASW weapons systems. All of these ships are probably intended primarily for operations against both naval surface forces and submarines, either in defense of the sea approaches to the USSR or in support of Soviet theater field forces in coastal areas. In this latter role, as well as for direct defense of Soviet coastal areas against amphibious assault, the Soviet Navy also has a large number of patrol boats armed with short-range cruise missiles, as well as shore-based coastal defense installations armed with short-range cruise missiles.

92. Afloat logistic support capabilities of the Soviet Navy, provided primarily by old auxiliary ships, are being augmented by new tankers and support ships. The Soviets are improving afloat logistic support for submarines by construction of modern submarine tenders, rescue ships, repair ships, and special missile support ships. The Soviet Navy utilizes the merchant marine for additional logistic support. In circumstances which permitted them to continue to operate, the large and widespread Soviet fishing fleets could provide limited support to submarines. They also have considerable potential for mine warfare and for intelligence collection and transmission. The extensive research effort conducted by ships of the Soviet Academy of Sciences and other institutions provides oceanographic support to the Soviet Navy.

Naval Aviation

93. Naval Aviation is composed largely of jet medium bombers (about 400 Badgers and 40 Blinders). It also includes jet light bombers, patrol aircraft, and helicopters, but no fighters. Its capabilities are focused primarily on reconnaissance and strike missions against maritime targets, and to some extent on antisubmarine warfare. If defensive air cover for naval operations were to be provided, it would have to come from fighter aircraft not subordinate to Naval Aviation.

94. Nearly 300 naval Badgers are equipped to deliver antiship air-to-surface missiles. Of these, 70-100 are each equipped to carry two 55 n.m. subsonic AS-1 missiles. This system is probably being phased out. The remainder are equipped to deliver a single 100 n.m. supersonic AS-2 missile. Both missiles are estimated to have a CEP of 150 feet against single, well-defined ship targets. The AS-2 is believed capable of employing either HE or nuclear warheads.

95. Those naval Badgers which are not equipped to carry missiles are assigned to reconnaissance, tanker, ASW, or other support roles. The naval requirement for long-range aerial reconnaissance continues to grow and will probably be met by the continued use of Lang Range Aviation aircraft or by the provision of longer range aircraft for Naval Aviation.

Strengths and Weaknesses

96. Major overall Soviet Navy strengths are the size and capabilities of the submarine force, the growing firepower embodied in surface ship missile armaments, and the large naval shipbuilding capacity. Conspicuous weaknesses are

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the lack of strategic mobility and capability for mutual reinforcement among the four widely separated fleets, the lack of adequate air cover for surface forces operating beyond coastal waters, and inadequacy of afloat logistic support which necessitates heavy reliance on a relatively vulnerable shore base complex. The most important weakness is the Soviet Navy's almost complete lack of capability to detect and destroy submarines in open ocean areas.

97. *Against Carrier Task Forces.* Soviet capabilities against carrier task forces have been improved by continued conversion of jet medium bombers to carry antiship missiles, by the assignment of Blinders to Naval Aviation, and by the construction of additional submarines equipped with cruise-type missiles. In the European area, Badgers with antiship missiles could operate against surface ships in the northeastern Atlantic, the Norwegian and Barents Seas, and the Mediterranean. In the Pacific, Badger aircraft of Naval Aviation could range from the southern tip of Taiwan to the Aleutians. These capabilities are, of course, subject to problems of target detection and identification. In the past year or so, reconnaissance of open ocean areas by Lang Range and Naval Aviation has increased. Submarine operations against carrier task forces could extend to US coastal waters.

98. *Against Sea Lines of Communications.* The threat of the Soviet submarine force to Free World sea communications is greatest in the northeast Atlantic and northwest Pacific. The capability of Soviet submarines to interdict these supply lines would depend on a number of factors: endurance of the submarines, transit time to station, repair and overhaul requirements, logistic support, and the extent of opposition. Interdiction operations against North Atlantic supply lines would be conducted largely by submarines of the Northern Fleet. We estimate that this force includes some 130 torpedo-attack submarines, of which 80 would be limited by endurance to operations in the Norwegian Sea and eastern Atlantic.

99. Not considering combat attrition, about 24 Northern Fleet submarines could be maintained on station continuously in the eastern Atlantic approaches to the UK and Europe; this number might be augmented slightly by submarines deployed from the Baltic prior to hostilities. The Soviets could also maintain some 8-13 nuclear and diesel torpedo-attack submarines on more distant stations for operations in the western Atlantic and in the approaches to the Mediterranean. If the Soviets were able to provide logistic support during patrols from a forward base such as Cuba, the number in the western Atlantic could be more than doubled. In addition, the number of Soviet submarines deployable throughout the Atlantic would be significantly increased if the Soviets were able to obtain unrestricted egress from the Baltic or advance bases on the Norwegian coast.

100. In the Pacific, the Soviets are estimated to have about 60 torpedo-attack submarines which could be used against sea lines of communications, as well as eight nuclear and three diesel submarines armed with antiship cruise missiles. While only about one-third of this force has sufficient endurance to operate off the US west coast, the remainder can operate in those areas through which US

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shipping must pass to support Pacific island bases and Asian allies. The 11 Soviet nuclear and diesel cruise-missile submarines also constitute a threat to land targets, in addition to their antishipping role. The Soviets could probably maintain some 13-20 submarines on station in the ocean area between Hawaii and Japan, as well as about five off the US west coast.

101. *Against Submarines (ASW)*. Since the mid-1950's, the Soviets have constructed a large number of ASW ships (mostly coastal types) and have tested new fixed and rotary-wing aircraft. An ASW role may have been assigned to Badger and there are indications of such a role for modified Coot aircraft. An ASW role may also have been assigned to the Soviet F and R-class submarines, as well as to the nuclear-powered N-class, which appear to be the classes best suited for this purpose. Recent evidence of Soviet submarines with unusual sonar installations indicates a continuing effort to improve submarine detection capabilities.

102. Since the late-1950's Soviet surface-ship ASW capabilities have been improved by the introduction of new ships with improved weapons—principally the MBU series of ASW rocket launchers. These multiple-tube launchers can deliver antisubmarine rockets to probable maximum ranges of 2,000 to 5,000 yards. MBUs appear on all new combatant surface units and have been back-fitted on some older types.

103. The only operational ASW torpedo now known to be available to the Soviet fleet is the ET-80A passive acoustic-homing torpedo. It can attack cavitating submarines to depths of 500 feet, but its capability would be limited against high-performance nuclear-powered submarines. A new 16-inch anti-submarine torpedo (Petya) soon may be operational with an HE warhead aboard some ASW surface ships and probably all nuclear powered submarines. This weapon has essentially the same passive acoustic-homing characteristics as the ET-80A, but can attack targets to depths of 950 to 1,000 feet. An air-dropped version of this weapon may become available in 1965.

104. Mines play an important role in Soviet ASW. The Soviets have a moored, contact-firing mine, with antennae. It can effectively mine from the surface down to 260 feet in waters as deep as 1,500 feet. Existing or new influence-firing mines would be used in waters shallower than 180 feet.

105. Soviet Naval Aviation using Hound helicopters and Madge seaplanes can support coastal ASW operations against conventional submarines in good flying weather. Airborne ASW detection equipment consists of passive sonobuoys of 2,000 to 4,000 yard range against a noisy target, and magnetic anomaly detection (MAD) gear with a range of 600 to 800 feet (i.e., the distance from the aircraft to the enemy submarine). Confirmed air-dropped ASW weapons now consist only of the conventional HE depth bomb, B-1, effective to depths of possibly 700 feet. Nuclear depth bombs, however, probably are available now in limited numbers in all fleet air forces.

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106. Soviet Navy ASW exercises are expanding in scope, and training doctrine has become more sophisticated. We believe that the USSR now has the capability to conduct fairly effective ASW operations within 50 miles of a major Soviet naval base against a conventional submarine operated by a moderately well-trained crew. Against a conventional submarine with a highly trained crew this capability would be materially degraded. Against a nuclear submarine, with its inherent advantages, Soviet capabilities would be poor. Soviet ASW capabilities diminish rapidly as the distance from their naval bases approaches 200 miles, and beyond that distance must still be regarded as negligible.

107. *Amphibious Capabilities.* During the past year we have acquired evidence of increased Soviet emphasis on improving their limited amphibious capabilities. The re-establishment of Naval Infantry and sightings of improved landing craft in 1964 indicate that a decision to improve amphibious capabilities was made more than a year ago. If this emphasis continues, we would expect the Soviets to construct at least some new assault shipping.

108. Soviet Naval Infantry strength is probably greatest in the Baltic area, where a brigade-size unit may exist. There have been indications of the existence of Naval Infantry units in the other fleet areas also. Overall, however, the Soviets have few amphibious ships and craft, and these are usable primarily for shore-to-shore operations over short distances. Only in the Baltic are there sufficient numbers of appropriately designed ships and craft to lift balanced forces in an amphibious assault. In this area, a maximum of two motorized rifle regiments could be lifted. The token numbers of amphibious ships and craft in other fleet areas could be used for ship-to-shore logistic support or for small landing operations not requiring assault by balanced forces.

VIII. AIRLIFT AND SEALIFT

109. Evidence acquired during the past year indicates that the Soviets are making vigorous efforts to improve their sea and airlift capabilities. Paratroop and airlifted troop training exercises have increased in scope and frequency. Improvement in amphibious capabilities has occurred in both Soviet and East European forces.

110. Military Transport Aviation (VTA) now contains some 1,600 aircraft, of which about 200 light and 500 medium transports are assigned to Airborne Troops. The light transports, which are older piston types, are being phased out of inventory as they are replaced with medium turboprop (Cub) transports. The range of the current military transports limits paratroop operations to a distance of about 560 n.m. from bases, and airlifted operations to about 1,400 n.m.

111. The Soviets are developing aircraft which will increase the lift and range capabilities of Soviet Military Transport Aviation considerably in the future. A new civil jet transport, the TU-134, has been developed, and a military version may be produced as well. In 1964 the Soviets probably completed a prototype military heavy cargo transport. It could have a maximum payload of 100,000

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lbs. and a range of up to 4,000 n.m. This aircraft may have been designed to correct the longstanding deficiency of Soviet airlift capability in terms of range and payload. The current lift capability of VTA could be substantially increased through the use of Aeroflot (civil air fleet) transports.

112. There are large numbers of helicopters in service, providing mobility for ground troops. Among them are 100-200 heavy helicopters capable of lifting payloads of almost 15 tons. These helicopters are rugged and reliable and can be used for the rapid operational redeployment of units or the rapid delivery of critical supplies, such as nuclear warheads.

113. Soviet sealift capabilities continue to be improved, particularly through the construction of large-hatched ships such as those which delivered missiles to Cuba. These and other new Soviet merchant ships are characterized by fairly high sustained speeds, long endurance, and heavy lift boom capacity, all of which contribute to military sealift value.

114. The following table presents theoretical Soviet sealift capabilities by area, assuming in one case that all Soviet merchant ships are available within their area of registry and in another that 70 percent of the ships are available within their area of registry:

	100 Percent Availability		70 Percent Availability
North Sea	3	Motorized Rifle Div	2
Baltic Sea	5	Motorized Rifle Div	3
Black Sea	7	Motorized Rifle Div	5
Pacific	7	Motorized Rifle Div	5

Such a lift operation would require port or other extensive off-loading facilities in the landing area.

115. The recent trends in Soviet air and sealift point toward increased capabilities for distant limited military actions. However, the Soviets do not appear to be developing sea and air combat escort capabilities which would make possible long-range military sea and airlift against the opposition of a major military power.

IX. CONTRIBUTION OF EAST EUROPEAN FORCES

Warsaw Pact

116. A growing body of evidence indicates that changes in Soviet military doctrine and force structure over the past three or four years have been accompanied by a revised policy toward East European forces. This evidence points to the provision of more modern equipment to a portion of the Satellite forces, a more responsible role for them within the Warsaw Pact, and increased Satellite control over their own forces.

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117. The types and models of equipment appearing in Satellite units from about 1961 onwards have included some of the best the Soviets have produced. The fact that such equipment appeared in Satellite units before Soviet units in East Germany had been fully re-equipped marked a sharp departure from the previous policy of providing the Satellite forces with hand-me-downs. During the past two years, the Satellite forces have been receiving tactical missiles and rockets, new model fighters, tanks, armored personnel carriers, and anti-tank missiles.

118. Over the last several years there have been increasing indications of nationalistic trends and growing capabilities for independent action in East European forces. Large Warsaw Pact military exercises in which Soviet units have participated have been at least nominally under the command of East European officers. Within several of the Satellites, there has been an increased emphasis on training at field army rather than division level, suggesting that most of the combat-ready East European divisions will be grouped into their own field armies, at least in wartime. Because, in Soviet organizational concepts, the field army is the lowest echelon with sufficient support to conduct independent operations, this development points to a lessening requirement for support by Soviet units.

119. The increasing capability for independent action of Satellite theater forces within the Warsaw Pact structure probably reflects an increasing awareness on the part of the Soviet military leadership that a war with NATO might have to be fought with forces in place. The new trends probably also reflect Soviet concessions in the military area to the increased political leverage now available to the East Europeans in their relationships with the USSR.

Ground Forces

120. The total personnel strength of the East European ground forces is estimated to be 940,000 (excluding Yugoslavia and Albania). Of this total, more than half are in the 63 Satellite line divisions. There are wide variations in personnel strengths, equipment, and probable combat effectiveness of the line divisions. We believe that 33 Satellite divisions could be committed to combat on short notice. They would probably be organized into field armies of their own nationality and integrated into Soviet *fronts*. The other divisions would probably be used as theater reserves and for rear area security.

121. The East European countries have detailed mobilization plans and large numbers of trained reservists. We believe that, in the event of war, they would bring their existing units up to strength and form new combat and service support units. Enough trained reservists exist to form a considerable number of additional divisions, but we have no evidence of large reserve stocks of equipment. For the most part major items of equipment for additional Satellite divisions would probably have to be provided by the Soviet Union.

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Air Forces

122. The Satellite air forces supplement both Soviet Tactical Aviation and PVO. There have been increasing indications of closer cooperation among the East European air forces, particularly in the air defense role. Their primary mission is air defense, but some fighter units are being trained and equipped to perform ground attack missions as well. During the past year, the capabilities of these forces for ground support missions has increased. The Czechs and Poles have received some Fitters, the best fighter for ground attack now available in Soviet inventory. About 90 percent of the 2,600 combat aircraft in Satellite air units are obsolescent or obsolete. However, new fighters such as Fitter and Fishbed, and the Mangrove reconnaissance aircraft continue to enter inventory.

Missiles

123. The presence of Frog and early model Scud launchers in some of the Satellite countries has been confirmed. We believe that the others will receive them, and that by the end of 1965, Frogs will be available to the combat-ready Satellite ground divisions on about the same scale as in Soviet forces. We believe that, within the next year or so, there will be one Scud brigade available for each wartime Satellite field army. There are some SA-2 sites defending major East European cities, but we have no evidence of any SAM units in Satellite theater forces.

Nuclear and Chemical Weapons

124. East European armies now possess a variety of tactical missiles and aircraft which are capable of carrying nuclear or chemical warheads and bombs. We believe it highly unlikely that nuclear weapons would be turned over to Satellite control under any circumstances. In wartime some nuclear weapons probably would be made available to Satellite forces, but only under strict Soviet control. Available evidence indicates a considerable stress on the use of chemical weapons in Satellite forces, and it is possible that chemical warheads are now available for Satellite missiles and rockets.¹²

Reliability

125. The reliability of Satellite forces in combat would depend primarily on the nature, causes, and locale of the conflict. We believe that Satellite forces would be far more reliable if fighting in defense of their own territory than as part of any Soviet offensive operation against NATO. The nationality of the opposing forces would be a critical factor in any case. Most East Europeans would resist anything that they regarded as German aggression and the Bulgarians have a long-standing antagonism toward Greeks and Turks, but it is doubtful that East German troops would be reliable opposing West Germans.

¹² See NIE 11-10-63, "Soviet Capabilities and Intentions with Respect to Chemical Warfare," dated 27 December 1963, SECRET, for further details.

X. SOVIET THEATER FORCE CAPABILITIES AGAINST WESTERN EUROPE

Concept of Operations

126. The Soviets have structured their theater forces against the contingency of general nuclear war. Soviet military doctrine does not address itself in any depth to the variety of circumstances in which general nuclear war might begin. Although there is increasing attention given to general war resulting from escalation, most Soviet military writings assume that such a war would be initiated by Western strategic attacks against the Soviet Bloc. In this context, a primary Soviet concern is to ensure that the theater forces would be able to survive the massive employment of nuclear weapons by the enemy and to fight effectively in conjunction with the USSR's own air and missile strikes.

127. Soviet theater forces would contribute to the initial action by conducting nuclear and chemical strikes with their own delivery means. As soon thereafter as possible, they would be expected to attack the enemy on a broad front to seize and occupy strategically important territory. The principal area of such operations would be the Central Region of NATO, where Soviet concepts call for a rapid and continuous advance (up to 100 km per day) to the Channel coast by large ground forces.

128. Of the various TVDs (Theaters of Military Operations) which the Soviets visualize in their strategic concepts, the Western TVD, comprising Czechoslovakia, Poland, Germany, France, the Benelux Countries, Great Britain, and (less certainly) Denmark, has been given by far the most attention. Units located and probably earmarked for operations in this area are the most powerful of the Soviet theater forces.

Forces Immediately Available

129. The Warsaw Pact forces immediately available in the Western TVD include 45 Soviet and Satellite divisions at or near combat strength. These divisions, which are supposed to be able to move on the same day they are alerted, include:

- a. Group of Soviet Forces, Germany—20 divisions
- b. Northern Group of Forces (Poland)—2 divisions
- c. 9 Czech, 8 Polish, and 6 East German divisions—23 divisions.

Soviet tactical air strength in the area includes about 1,100 combat aircraft in two tactical air armies, of which about 60 percent are current models and 40 percent are older. There are also over 1,700 East German, Czech and Polish aircraft in the area, most of which are older models.

130. Without prior buildup, the Soviets could launch a limited objective attack against Western Europe designed to maximize surprise. The East German, Polish, and Czech divisions listed above could be employed to the extent that the Soviets considered them reliable in the circumstances. Such an attack, however, would conflict with Soviet operational concepts.

Reinforcement

131. Should the Soviets elect to launch a ground offensive against NATO, their operational doctrines indicate that, if circumstances permitted, they would seek to assemble a considerably larger striking force. A great many variable factors have bearing on the size of the forces which the Soviets could and would employ in operations against NATO. Some of the most important of these are: (a) the manner in which the conflict arose, i.e., whether suddenly or gradually; (b) the number of units which would be retained as a mobilization and training base; (c) the extent of employment and the combat effectiveness of Satellite divisions; and (d) force requirements in other areas. Considering Soviet concepts of organization for combat and the geography of the area, we believe that the Soviets would seek to organize a striking force of three *fronts* comprising some 50-60 divisions and 1,700-2,000 Soviet tactical aircraft for a campaign against the Central Region of NATO. In addition they would seek to assemble a theater reserve.

132. The Soviets could draw from a total of 56 Category I and 14 Category II Soviet divisions located within about 1,000 miles of Berlin, and from a total of 23 combat strength and 12 reduced strength in East German, Polish, and Czech divisions. In practice the Soviets would probably draw their ground and air forces primarily from the western border military districts—Baltic, Belorussian, and Carpathian. These military districts contain three tank armies and four combined armies with a total of 26 line divisions at various strength levels. In addition, there are seven motorized rifle divisions and two airborne divisions in the area apparently not subordinated to armies. With the possible exception of one army in the Carpathian MD which might be used in the Southwestern TVD for reinforcing Soviet troops in Hungary, these ground forces would be available for use against Western Europe. These areas also contain three small tactical air armies with a total of 860 aircraft, including about 200 of current models. Additional reinforcements could be drawn from the Leningrad, Moscow, and Kiev MDs and from the forces in Hungary if they were not required for other operations.

133. In reassessing our last year's estimate of Soviet capabilities to augment forces for a campaign into the Central Region of NATO, we have carried out a detailed study of a number of factors, including the capacity of the East European rail and road networks, the time required to convert the transportation systems to handle military movement, the reduced size of Soviet units, and improvements in the transportation systems, especially highways. Considerable evidence has also accumulated that the Soviets plan to employ a combined technique involving the integrated use of road and rail to move their forces to Central Europe, and our reassessment has been particularly affected by the increased capability such a method would provide. Our reassessment indicates that the capacity of the East European rail and road transportation systems is theoretically sufficient for the assembly of an 85-division Soviet and Satellite force in 15 days. Thus, assuming no enemy interdiction, the capacity of transportation systems presents no practical impediment to the speed of Soviet reinforcement in Eastern Europe.

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134. Soviet capabilities for rapid reinforcement are likely to be governed more directly by factors less calculable than transportation system capacity. For example, we believe that, for the most part, a Soviet reinforcement in Eastern Europe would involve the movement of forces by army rather than by individual division regardless of present subordination. The armies inside the USSR are not at combat strength, since their divisions are not all in Category I and army support units are also believed to be understrength. Thus it appears that, while some elements of these armies could move immediately, a week or so might be required to bring other elements up to strength and prepare them for movement. In Soviet classified military writings, considerable attention has been given to this particular drawback to the rapid forward deployment of the border armies.

135. Considering the confusion common to all large military movements and the problems of organizing divisions and supporting elements into effective armies and *fronts*, we estimate that under noncombat conditions the Soviets could assemble and organize in the theater a 50-60 division striking force, plus a theater reserve, within about three to four weeks of decision to do so. The striking force could consist of the 22 Soviet divisions normally stationed in East Germany and Poland, 18 combat strength divisions from the western USSR, and 10 to 20 East European divisions. These divisions would be organized into 12-15 Soviet and Satellite armies comprising three *fronts*. Each of these *fronts* would include a tactical air army and there might be a fourth TAA to bolster air defenses in the communications zone of the TVD.

136. The striking force, when assembled, would number about one million men, of which up to one-third would be Satellite troops. It would include 14,000-17,000 tanks and 250-350 tactical missile and rocket launchers. It would be supported by 1,700-2,000 Soviet tactical aircraft, plus about 1,700 aircraft of the East German, Polish, and Czech air forces. In addition, a theater reserve of Polish, Czech, and Soviet divisions could be assembled in eastern Poland and Czechoslovakia.

137. The Soviets would expect movement on such a scale to be quickly detected, and would therefore have to consider the possibility that such an effort would provoke an immediate Western response. Should the Soviets attempt to maintain secrecy in their preparations and troop movements, reinforcement would be much slower and more limited.

Capabilities for Naval Operations Against NATO

138. Long-range torpedo-attack and cruise missile submarines, both nuclear and diesel-powered, could be deployed in the North Atlantic for operations against NATO naval forces, and this would probably be a primary Soviet objective in the initial period of a general war. Aircraft of Long Range Aviation and Naval Aviation could operate against surface ships in the northeastern Atlantic, the Norwegian and Barents Seas, and the Mediterranean. Ballistic and cruise missile submarines could contribute, in the initial period, to a campaign

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against Western Europe by attacks against important coastal targets. Attacks could also be directed against some inland targets, depending on their locations in relation to sea approaches and on the depth and effectiveness of Western coastal ASW defenses. Following the initial phase of a campaign, part of the Soviet submarine fleet could be deployed for operations against sea lines of communication from North America.

Capabilities for Theater Operations in Other Areas

139. The Soviets maintain theater forces opposite Scandinavia, Southern Europe, and Turkey which could be used for campaigns into those NATO areas. These forces, however, have proportionately fewer combat strength units and very light tactical air support. The most likely of these areas for a campaign launched simultaneously with an offensive into Western Europe is Thrace and western Anatolia—an attack by Bulgarian and Soviet forces to seize the Straits. Any other Soviet land offensive into Southern Europe would be complicated by the positions of Austria and Yugoslavia. Finland and Sweden would impose similar complications on a Soviet campaign in Scandinavia. All such campaigns would involve difficult terrain and logistical restrictions on the size of forces which could be supported.

140. Soviet forces in the Far East have been strengthened somewhat over the past few years, but these forces have no significant capability for amphibious assault. They are probably adequate to cope with any incursion into Soviet territory short of a full-scale Chinese invasion.

XI. TRENDS IN THE GENERAL PURPOSE FORCES TO 1970

141. An attempt at this time to project future trends in the size and composition of the Soviet general purpose forces is fraught with more than usual uncertainty. Although Khrushchev was never able to implement his ideas fully, his attitude toward such forces was clear and consistent. It was possible to predict that, under his regime, there would be some continuing reduction in the size of the general purpose forces, and perhaps even a drastic cut. The attitude of Khrushchev's successors is less certain. For a time at least, they will probably rely more heavily on professional military advice than Khrushchev did, and in any case, they will probably not be able to deal as firmly with military recommendations as we think Khrushchev often did. Among the military themselves there remain unresolved issues regarding the role of the general purpose forces in present circumstances, but most of the marshals evidently disagreed with Khrushchev's efforts to reduce general purpose forces. For these reasons we foresee no substantial alteration in the present size of the general purpose forces for several years at least.

142. In the longer term, however, any Soviet political administration will probably find it desirable, if not imperative, to check the steady growth in the cost of the military establishment—which means, in practical effect, to reduce the cost of the general purpose forces. Moreover, the military debate will continue,

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in private if not in public, and is likely to produce some redefinition of the roles of the general purpose forces. We therefore believe that by 1970 there will have been some further reduction in the size of those forces and perhaps a considerable restructuring of them to meet new and different requirements.

Ground Forces

143. The present structure of the Soviet ground forces contemplates extensive mobilization, large-scale reinforcement, and a general onslaught to overrun Western Europe in the aftermath of a nuclear exchange. The difficulties of implementing such a concept have been dealt with extensively in Soviet military writings. If the Soviets should conclude that this concept is unrealistic, and that the East European armies, with some Soviet stiffening, can be given greater responsibility for their own national security, then the USSR might consider both a reduction in its mobilization base and a withdrawal of some combat ready divisions from Germany.

144. Similarly, if the Soviets should conclude that they must seriously prepare for the contingency of a protracted non-nuclear war, then they would have to increase the proportion of motorized infantry, conventional artillery, tactical aircraft, and combat and service support troops in their theater forces.

145. The interaction of all the factors involved cannot be clearly foreseen. On balance, we believe that by 1970 there will have been some reduction in the number of Soviet line divisions, but not a drastic one. On this basis, we estimate that in 1970 the USSR will have about 120 line divisions, perhaps somewhat fewer. As at present, some of these divisions would be at or near combat strength, some at reduced strength, and some at cadre strength. We believe that there will by then have been some increase in the proportion of nondivisional combat and service support elements.

146. Modernization will continue to improve the quality of the Soviet ground forces. The extent of improvement, however, will be closely related to trends in total size; the larger the forces which the USSR elects to retain, the more it will have to contend with obsolescence and shortages.

Tactical Aviation and Missiles

147. We believe that the Soviets will continue to modernize Tactical Aviation, improving its ground attack capabilities in particular. We expect the rate of modernization to increase over the next few years, and we believe that tactical aircraft with much improved range, armament, and payload characteristics will be introduced. We expect a gradual decline in total numbers of tactical aircraft, due to the retirement of older aircraft exceeding the input of newer models. The number of free rocket launchers in divisions will probably increase to three or four per Frog battalion. The numbers of guided ballistic and cruise missiles in Soviet theater forces may remain about constant or increase somewhat, but with new and improved systems becoming operational.

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148. Field force air defense capabilities will continue to improve over the next few years through the modernization of Tactical Aviation, as a result of technical improvements in early warning, airborne, intercept, and CCI equipment, and through the introduction into ground formations of a follow-on SAM system capable of greater mobility. The new track-mounted, surface-to-air missile (Canef) may appear in the Soviet ground forces in the near future. We have no evidence of a low-altitude SAM for field forces, but we believe that the Soviets may introduce a system to meet field force low-altitude defense requirements by mid-1968.

149. Although the Soviets may be developing a field-transportable ABM defense system, we have no evidence indicating that a field ABM will be introduced into ground units during the period of this estimate.

Tactical Nuclear Weapons

150. Shortages of nuclear weapons for support of theater forces will probably be alleviated before 1970, even if the Soviets allocate priority to air and missile defense warheads. Soviet procedures for control and use of tactical weapons, including reconnaissance and target acquisition, are likely to improve significantly over the next year or so.

151. We believe that the Soviets will continue to regard tactical nuclear weapons as for use in the context of a general nuclear war and will develop their tactical missile and rocket forces accordingly. The Soviets continue to maintain their longstanding view that limited nuclear war would inevitably trigger general nuclear war. If they were to prepare seriously for the contingency of limited nuclear war, they would have to make increased provision of more suitable delivery systems, with a consequent further increase in their requirements for tactical nuclear warheads and bombs.¹³

¹³ The Assistant Chief of Staff for Intelligence, Department of the Army, believes that there is some evidence that the Soviets have considered the contingency of a limited nuclear warfare situation, and consequently that their statements on this subject, which for the most part have dismissed the possibility on the grounds of inevitable escalation, may have been a purely declaratory response to statements of Western policy. The Soviet leadership almost certainly is realistic enough to have recognized that their limited strategic capabilities cannot prevent the virtual destruction of the Soviet Union, and that they must be prepared to respond to Western options at a lower scale to allow them alternatives to destruction. Despite the stand taken on this subject in current writings, the Soviets have provided their general purpose forces with a considerable capability to conduct limited nuclear warfare, aside from MRBM/IRBM forces. To compensate for their inferior position with regard to numbers and yield selectivity of tactical nuclear warheads, the Soviets have indicated that they would resort to chemical warfare, which they have consistently coupled with tactical nuclear weapons both in writings and in exercises, and in which they have a considerable superiority over the West. The Assistant Chief of Staff for Intelligence, Department of the Army, estimates that Soviet capabilities to respond to western options, particularly those under the US "flexible response" doctrine, will increase during the period of the estimate, and could lead to an overt Soviet acceptance of limited nuclear war concepts.

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Naval Forces

152. We believe that the numerical strength of Soviet surface naval forces will remain fairly stable over the next five years. The composition of this force, however, will change somewhat as the production of guided missile destroyers and of smaller specialized craft continues. Modernization of existing destroyers will also continue, and additional surface ships may be retrofitted with missile armament. Naval medium bomber strength will probably increase moderately over the next few years through the introduction of increasing numbers of the supersonic dash Blinder medium bomber and possibly through the transfer of additional aircraft from Long Range Aviation. A new antiship air-to-surface missile system for the Blinder may become operational in 1965, and missile-carrying Blinders will almost certainly appear in Naval Aviation units.

153. Improvement of both ASW detection equipment and weapons systems, including land based hydroacoustic detection installations in some areas, will probably occur. The USSR will probably place increased emphasis on the use of submarines for open-ocean ASW. The effectiveness of surface units will probably be increased through such means as the addition of SAM armament, new sonar equipment, and better torpedoes. Airborne ASW capabilities will be improved by increasing numbers of more effective, turbine-powered aircraft with improved detection equipment and armaments. Despite these improvements, however, we believe that the capabilities of the Soviet Navy to conduct ASW operations in open ocean areas will remain severely limited. In particular, it probably will have only a limited capability to detect, identify, localize, and maintain surveillance on submarines operating in open seas.

154. The capabilities of Soviet submarines for all purposes will be increased during the period by the introduction of new classes and by improvements to current classes. A new torpedo-attack diesel submarine with an improved hull design may be introduced within the next few years. Nuclear classes may attain speeds of more than 25 knots. Utilizing present steels and technology, Soviet submarines becoming operational after 1967 may achieve maximum operating depths of 1,300-1,500 feet.

155. Incremental improvements in the noise level of submarines could be made at any time, but an effective noise reduction program for existing submarines would probably require extensive redesign and rework or replacement of main propulsion and auxiliary machinery. A relatively quiet submarine would probably require the development of a completely new class, which, in addition to internal machinery redesign, would have a new hull form and propellor arrangement. With sufficient priority and effort, the Soviets could develop a relatively quiet new class of submarine, but the construction of significant numbers would require several additional years. We have no knowledge of the existence of such a development, but the Soviets may have undertaken such a program.

156. We believe that the Soviets are developing a system for the emergency mobile basing of surface ships and submarines in their coastal waters. Mobile

base units probably would include several small ships for repair, refueling, and replenishment of weapons and supplies. As the period advances, we think a number of such units will be deployed in protected coves and fiords to provide wider dispersal and thus enhance the survivability of the Soviet support base for naval operations. There is some evidence of improvement of the Soviet Navy's rudimentary capability to replenish ships on the high seas.

157. Soviet efforts to increase their amphibious capabilities are likely to continue. By 1970, the Soviets could provide appropriate assault and support shipping, perhaps including helicopter-carriers, for one division of Naval Infantry in each of the Fleet areas.

Distant Limited Actions

158. A variety of developments in Soviet theater forces point to early efforts to increase Soviet capabilities to introduce military forces into areas distant from the borders of the USSR. These developments include increased emphasis on specialized troops, such as paratroops and Naval Infantry, as well as development of better means of air and sealift. The numbers of merchant-type ships capable of supporting military sealift operations will continue to increase, and assault type transports may also be produced. If new heavy transport aircraft enter service, the Soviet capability to airlift troops to distant areas will increase sharply. However, none of these developments will permit long-range lift operations against significant armed resistance.

Satellite Forces

159. The military and strategic considerations mentioned earlier will obviously affect the course of Warsaw Pact development, as will political and economic trends in Eastern Europe. The individual states are likely to insist on at least the outward trappings of a national—as opposed to a Soviet-dominated—military force. They will probably want better equipment at lower cost and some, for domestic economic reasons, may wish to cut back on military expenditures. Most will probably insist on a greater role for their own forces and personnel within the Pact organization; under these circumstances, national rivalries among the member states, as between Hungary and Rumania, would probably emerge within military councils. In short, if—as we have estimated elsewhere as likely—present trends toward particularism in Eastern Europe continue to grow, the Warsaw Pact may in time come to resemble the structure and assume the problems of more traditional forms of multilateral military alliances. Although some national components of the Pact might thus be strengthened, the cohesiveness of the alliance for concerted action in a variety of contingencies would tend to diminish.

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Table 1
ESTIMATED NUMBERS AND DEPLOYMENT OF SOVIET LINE DIVISIONS *

AREA	MOTORIZED RIFLE			TANK			AIRBORNE			TOTAL	
	NUM- BER	CATE- GORY I	CATE- GORY II	CATE- GORY III	NUM- BER	CATE- GORY I	CATE- GORY II	NUM- BER	CATE- GORY I		CATE- GORY II
East Germany.....	10	10	0	0	10	10	0	0	0	0	20
Poland.....	0	0	0	0	2	2	0	0	0	0	2
Hungary.....	2	2	0	0	2	2	0	0	0	0	4
Western USSR.....	25	11	5	9	14	12	2	3	2	1	42
Southwestern USSR....	10	1	2	7	4	1	3	0	0	0	14
Northwestern USSR....	6	2	3	1	1	0	1	1	1	0	8
Southern USSR.....	20	2	8	10	5	0	5	2	1	1	27
Central USSR.....	8	0	5	3	1	0	1	0	0	0	9
Far Eastern USSR.....	7	3	2	2	4	3	1	1	0	1	12
	88	31	25	32	43	30	13	7	4	3	138 *

* The actual number of divisions in Soviet ground forces almost certainly falls somewhere in the range 120-140. The 138-division figure used herein is the result of the only analytical approach which permits a detailed breakdown of divisions by location, type, and strength category. The number derived from this approach last year was 139, but the distribution and types of divisions shown in NIE 11-14-63 was quite different from that presented in this table. (See paragraph 25 for description of categories of Soviet divisions.)

Table 2
ESTIMATED STRENGTH OF EAST EUROPEAN SATELLITE GROUND FORCES

	STRENGTHS			DIVISIONS				
	TOTAL	IN DIVISIONS	OTHER UNITS *	TOTAL	MOTOR- IZED RIFLE OR MECHAN- IZED	TANK	AIR- BORNE	ASSAULT LAND- ING
East Germany.....	90,000	53,000	37,000	6	4	2	0	0
Poland.....	225,000	121,500	103,500	15	9	4	1	1
Bulgaria.....	125,000	72,000	53,000	10	7	3	0	0
Czechoslovakia.....	200,000	118,000	82,000	14	9	5	0	0
Hungary.....	100,000	37,500	62,500	6	5	1	0	0
Rumania.....	200,000	103,500	96,500	12	11	1	0	0
Totals.....	940,000	504,500	434,500	63	45	16	1	1

* Includes all non-divisional combat and service support units, home air defense forces, and command and general support elements.

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Table 3
ESTIMATED STRENGTH OF SOVIET TACTICAL AIRCRAFT IN OPERATIONAL UNITS BY LOCATION AND TYPE
AS OF 1 OCTOBER 1964

	FAGOT/ FRESCO A, B, C	FRESCO D, E	FARMER	FLASH- LIGHT A	FISH- BED C, E	FISH- BED D	FITTER	M.A.S- GROVE	BREWER	BEAGLE	TOTALS (ROUNDED)
East Germany.....	155	20	50	10	20	280	145	10	45	105	820
Poland.....	90	25	20	..	50	50	35	30	..	10	310
Hungary.....	25	15	15	..	35	130	25	..	..	80	325
Baltic.....	40	10	25	..	20	25	35	..	25	55	235
Belorussia.....	120	20	10	..	30	..	15	..	..	20	215
Carpathian.....	235	..	10	..	..	..	45	20	10	65	385
Moscow.....	10	..	20	..	30	..	10	25	..	..	95
Leningrad.....	55	..	..	..	..	..	10	..	..	35	100
Kiev.....	80	..	..	..	..	..	..	..	..	..	80
Odessa.....	55	..	10	20	..	10	35	25	..	20	175
Trans Caucasus.....	35	10	30	..	15	20	..	..	25	20	155
Turkestan.....	110	..	20	..	..	..	30	..	..	20	180
Far East.....	75	10	70	30	185
Totals by Type											
(Rounded).....	1,085	110	210	30	200	495	455	110	105	460	3,260

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Table 4
ESTIMATED STRENGTH OF EAST EUROPEAN SATELLITE AIRCRAFT IN OPERATIONAL UNITS
BY TYPE AS OF 1 OCTOBER 1964

	FAGOT/ FRESCO A, B, C	FRESCO D/E	FARMER	FITTER	FISHBED C/E	FISH- BED D	MAN- GROVE	BEAGLE	TOTALS BY COUNTRY (ROUNDED)
Bulgaria.....	165	65	90	..	25	..	..	20	365
Czechoslovakia.....	275	80	175	20-25 ^a	20	10	10	50	645 ^b
East Germany.....	160	75	40	..	70	..	..	..	345
Hungary.....	35	10	10	..	65	20	..	..	140
Poland.....	520	160	35	..	20	20	..	50	805
Polish Navy.....	60	10	..	..	..	..	5	10	85
Rumania.....	150	10	40	..	40	..	..	15	255
Totals by Type (Rounded).....	1,365	410	390	20-25	240	50	15	145	2,640

^a Probably still in transitional training.

^b Includes about 15 FLASHLIGHT A not listed on this table.

Table 5
ESTIMATED SOVIET NAVAL STRENGTH AND DEPLOYMENT OCTOBER 1964 TO MID-1960

TYPE OF SHIP	BY FLEETS, OCTOBER 1964						Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
	North	Baltic	Black Sea	PA-Cific	October 1964	Mid-1965					
FIRST LINE SUBMARINES											
Ballistic Missile**											
Nuclear ^b											
H-Class	8-10	0	0	0	8-10	8-10	8-10	8-10	8-10	8-10	8-10
New Class	0	0	0	0	0	1-1	2-3	3-5	5-8	7-11	9-14
SUB TOTAL	8-10	0	0	0	8-10	9-11	10-13	11-15	13-18	15-21	17-24
Diesel											
Z-Conv.	4	0	0	3	7	7	7	7	7	7	7
G-Class	21-24	0	0	7	28-31	28-31	28-31	28-31	28-31	28-31	28-31
SUB TOTAL	25-28	0	0	10	35-38	35-38	35-38	35-38	35-38	35-38	35-38
TOTAL BALLISTIC	33-38	0	0	10	43-48	44-49	45-51	46-53	48-56	50-59	52-62
Cruise Missile											
Nuclear ^{b*}											
E-I	0	0	0	6	6	6	6	6	6	6	6
E-II	3-5	0	0	2	5-7	8-11	11-15	14-19	14-22	14-25	14-28
SUB TOTAL	3-5	0	0	8	11-13	14-17	17-21	20-25	20-28	20-31	20-34
Diesel											
W-Conv.	8	1	1	3	13	13	13	13	13	13	7
J-Class	1	1-2	4	0	6-7	10-12	14-18	16-22	18-24	18-24	18-24
SUB TOTAL	9	2-3	5	3	19-20	23-25	27-31	29-35	31-37	31-37	25-31
TOTAL CRUISE	12-14	2-3	5	11	20-33	37-42	44-52	49-60	51-65	51-68	45-66
Torpedo											
Nuclear ^b											
N, Improved and follow-on	10-12	0	0	1	11-13	14-16	17-18	20-20	25-23	30-26	35-29
Diesel											
Long Range Z	11	3	0	5	19	19	19	19	17	11	5
F, Improved F	25-28	2	0	10	37-40	41-45	45-51	40-57	53-63	57-69	61-75
W, R	84	35	29	46	194	194	194	194	190	139	78
Q	0	12	3	0	15	15	15	15	15	10	5
TOTAL TORPEDO ATTACK	130-135	52	32	62	276-281	283-289	290-297	297-305	300-308	247-255	184-192

* See footnotes to table on page 47.

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Table 5 (Continued)

TYPE OF SHIP	BY FLEETS, OCTOBER 1964				PA- BLACK CIFIC	OCTOBER 1964	MID- 1965	MID- 1966	MID- 1967	MID- 1967	MID- 1969	MID- 1970
	NORTH	BAL- TIC	54-55	37									83	349-362	364-380	379-900	392-418	399-429	348-382	281-319
TOTAL FIRST LINE SUBMARINES...	175-187	0	19	9	7	35	35	31	25	25	78	151
SECOND LINE SUBMARINES...	175-187	0	73-74	46	90	384-397	395-415	414-431	417-443	424-454	426-460	432-470
FIRST LINE SURFACE SHIPS												
Cruisers ^a	3	4	4	5	4	16	16	16	16	16	16	13
Msl Destroyers.....	5	5	7	4	4	21	23-25	25-29	27-33	29-37	31-41	33-45
Destroyer Escorts.....	22	19	15	27	83	83	82	82	82	82	82	76
SECOND LINE SURFACE SHIPS ^b												
Cruisers.....	0	1	1	2	4	4	4	0	0	0	0	52
Destroyers.....	0	0	0	0	0	0	0	0	0	0	0	3
Destroyer Escorts.....	0	0	0	0	0	0	0	0	0	0	0	6

^a Although not considered to be included in the term "General Purpose Naval Forces," ballistic missile launching submarines are included in this table for convenience of reference.

^b The total Soviet force of nuclear-powered submarines projected here has been derived by adding to the current force an increment which takes into account production rates and the availability of construction facilities. Within the total, two broad alternative mixes of missile and torpedo classes have been assumed. In order to show cumulative totals of operational nuclear submarines and total annual increments, the larger numbers of nuclear torpedo attack submarines are shown (where appropriate) on the left and the smaller numbers on the right.

^c The distinction between first and second line submarines is an arbitrary one based on age. First line submarines are those of modern construction; the second line category lists units from 14-20 years old. Some units carried as first line may be removed from operational status or be scrapped earlier than on an age basis in order to maintain personnel levels and the adequacy of logistic support. Submarines in the second line category may continue in an operational status and if employed in a war at sea represent military capability.

^d The total of cruisers includes two Sverdlov Class units fitted for missile R and D.

^e The surface ships in this table are designated second line when they become 20 years old. They are carried in this status until removed from the fleet or, in the absence of contrary evidence, until they are 25 years old.

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Table 6

I. ESTIMATED NUMBERS OF SOVIET TACTICAL AIRCRAFT, OCTOBER 1964 TO MID-1970

	OCTOBER 1964	MID-1965	MID-1966	MID-1967	MID-1968	MID-1969	MID-1970
Soviet							
Old Models ^a	1,900	1,500-1,350	1,200-950	900-500	700-300	500-50	300-0
Current Models ^b	1,350	1,600-1,850	1,800-2,250	1,900-2,500	1,900-2,500	1,900-2,450	1,850-2,350
Future Model ^c *	0	0	0	0-100	50-200	100-400	150-450
Total	3,250	3,100-3,200	3,000-3,200	2,800-3,100	2,650-3,000	2,500-2,900	2,300-2,800

II. ESTIMATED NUMBERS OF AIRCRAFT IN EAST EUROPEAN AIR FORCES ^d

	OCTOBER 1964	MID-1965	MID-1966	MID-1967	MID-1968	MID-1969	MID-1970
Satellite							
Old Models ^a	2,300	2,250-2,200	1,950-1,850	1,800-1,550	1,600-1,300	1,400-1,100	1,200-1,000
Current Models ^c	300	350-500	450-750	500-1,000	600-1,200	750-1,400	900-1,500
Total	2,600	2,600-2,700	2,400-2,600	2,300-2,550	2,200-2,500	2,150-2,500	2,100-2,500

^a Includes FAGOT, FRESKO, FARMER, FLASHLIGHT A, and BEAGLE aircraft which phased out of production prior to 1960.

^b Includes FISHBED, FITTER, BREWER, and MANGROVE.

^c An advanced design tactical fighter estimated to become operational as early as mid-1967.*

^d The primary mission of the Satellite aircraft is air defense, but some also serve in the tactical support role.

* Currently includes FISHBED and MANGROVE and FITTER; FISHPOT, BREWER, and a future model may enter inventory later in the period.

* The Assistant Chief of Staff, Intelligence, USAF believes there may be three new tactical aircraft rather than only one as reflected in the table. He considers that the FIDDLER, a large long-range interceptor now entering IA PVO units, may also be assigned to Tactical Aviation during this period. The FIDDLER, configured for a tactical reconnaissance-strike role, would improve the range and payload capabilities of the current force, and its use would be in keeping with the past Soviet practice of adapting interceptor aircraft to tactical roles. He also believes the TF-67 tactical fighter described in Footnote ^c to this table could enter the inventory in 1966, and that a tactical STOL aircraft may be introduced as early as 1968.

Table 7

ESTIMATED STRENGTH OF SOVIET NAVAL AVIATION MID-1964 TO MID-1970

	Mid-1964	Mid-1965	Mid-1966	Mid-1967	Mid-1968	Mid-1969	Mid-1970
MEDIUM BOMBERS							
BADGER A (Recco/Tanker).....	100-120	120-150	150-200	150-200	150-170	130-150	100-120
BADGER B (two AS-1).....	100-70	70-40	40-20	20-0	0	0	0
BADGER C (one AS-2).....	200-220	200-220	200-220	200-220	210-200	200-180	190-140
BLINDER A.....	40-50	50-75	50-75	50-75	50-75	50-75	50-75
BLINDER with one ASM.....	..	0-10	10-30	20-50	30-70	40-90	50-100
Total.....	440-460	440-495	450-545	440-545	440-515	420-495	390-435
LIGHT BOMBERS							
BEAGLE.....	100-120	70-90	10-30	..	..	..	..
PATROL AIRCRAFT							
MADGE.....	65-75	60-70	55-65	50-60	40-50	30-40	20-30
MALLOW.....	20-25	15-20	10-20	5-15	0-15	0-10	0-10
MAIL or Improved Land-Based ASW (Possibly COOT with MAD gear).....	5-15	15-60	50-110	85-150	95-165	95-165	90-160
HELICOPTERS							
Heavy.....	5-10	5-15	10-20	10-20	10-20	5-20	5-20
Light.....	100-120	110-130	125-150	125-175	150-200	150-250	150-300

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