Director of
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Soviet Capabilities for Strategic Nuclear Conflict Through 1990

National Intelligence Estimate
Volume I—Summary

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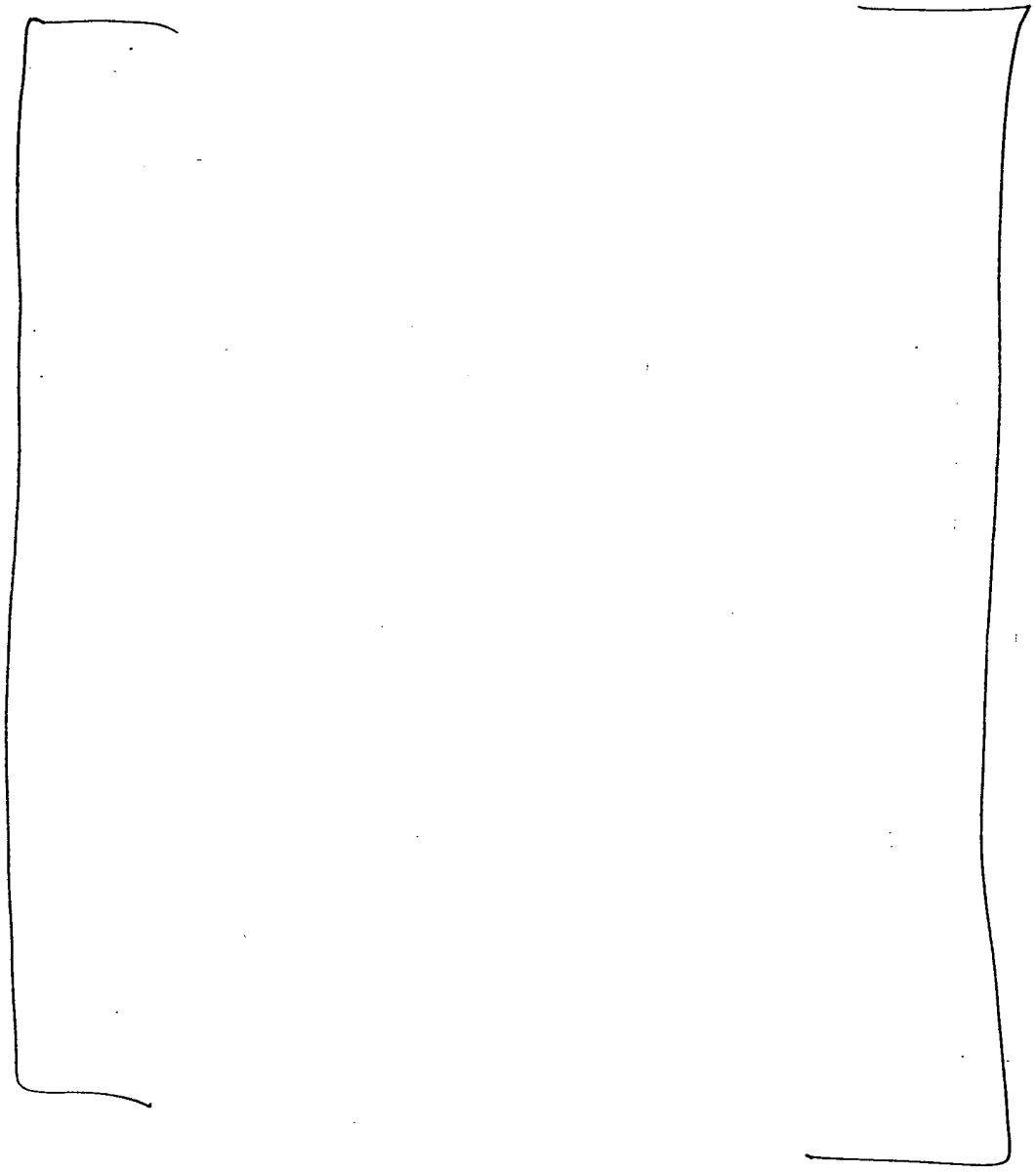

NIE 11-3/8-80

SOVIET CAPABILITIES FOR STRATEGIC NUCLEAR CONFLICT THROUGH 1990

Volume I—SUMMARY

THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS, EXCEPT AS NOTED IN THE TEXT.

The following intelligence organizations participated in the preparation of the Estimate:

The Central Intelligence Agency, the Departments of State and Energy, the Defense Intelligence Agency, and the National Security Agency.

Also Participating:

The Assistant Chief of Staff for Intelligence, Department of the Army

The Director of Naval Intelligence, Department of the Navy

The Assistant Chief of Staff, Intelligence, Department of the Air Force

The Director of Intelligence, Headquarters, Marine Corps

SCOPE NOTE

This Estimate of Soviet strategic forces is produced annually by the Intelligence Community. It assesses Soviet policies and doctrine applicable to strategic nuclear forces for intercontinental attack, peripheral attack, and strategic defense. It presents estimates of the numbers, types, characteristics, and capabilities of Soviet offensive and defensive forces for strategic nuclear conflict and of their supporting elements over the next 10 years.

To meet the needs of a variety of consumers, the Estimate consists of three volumes. The first summarizes the main developments and trends in Soviet strategic programs, and assesses the implications of future Soviet strategic forces, which should be of value to senior planners and to many policymakers. It also contains Key Judgments intended for the President and his key advisers on foreign policy. The second volume comprises six chapters addressing current and future Soviet strategic forces, programs, and capabilities in detail, along with relevant aspects of Soviet doctrine, policy, and operational concepts. The third volume contains supplementary annexes and tables of future force projections. These last two volumes are intended for use by military planners and intelligence analysts.

The cutoff date for information and analysis in volumes I and II is 16 December 1980. The date of information for volume III is 31 December 1980.

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PART ONE—KEY JUDGMENTS

PREFACE

These Key Judgments consist of two sections. This year the Director of Central Intelligence has added his own key judgments (section A), which have not been coordinated with the Intelligence Community. He does not hold major disagreements with the key judgments coordinated by the Intelligence Community agencies (section B) or with the basic analysis in the Estimate. He does not believe, however, that the findings in section B adequately emphasize those areas of key importance to the President and his principal advisers on foreign policy. His key judgments, therefore, address what the basic Estimate tells us about the following four issues of cardinal importance to US policy on strategic forces:

— How the strategic capabilities of the two sides compare.

— What actions the Soviets may take as they view the comparative strengths of the strategic forces.

— Whether and how the balance of strategic forces prompts the Soviets to pursue strategic arms control agreements with the United States.

— Whether or not the advantages that the Soviets seem to have in ICBMs through 1986 would induce or pressure them to exploit what they might perceive as a "window of opportunity" before those advantages may be erased toward the end of this decade.

A. KEY JUDGMENTS OF THE DIRECTOR OF CENTRAL INTELLIGENCE

Soviet Perceptions of the Strategic Environment

1. The comprehensive nature of Soviet strategic offensive and defensive programs, the emphasis in Soviet military doctrine on capabilities to fight a nuclear war, and assertions that general nuclear war can be won indicate that some Soviet leaders hold the view that victory in general nuclear war is possible. The Soviets assert that a general nuclear war will probably be brief, but we believe that they have

contingency plans for protracted conflict. Soviet military writings and exercises imply that victory would be an outcome that preserves the Communists' political control, permits reconstitution of their economy, and leaves them in a superior military position on Eurasia, while neutralizing the United States and undermining the political and social systems of their weakened adversaries. Despite their growing strategic capabilities, the Soviets are aware that they could not prevent a large-scale retaliatory US nuclear attack from causing tens of millions of casualties and massive destruction of urban-industrial and military facilities in the USSR. Whether they view this as contradictory to what they consider to be their definition of "victory" is difficult to gauge.

2. We see the Soviets as basically pleased with the general recognition that they have achieved at least "parity" or perhaps "superiority" with the United States in strategic weaponry and the acknowledgment of superpower status which this confers. The Soviets must also see that they hold certain advantages in the strategic force competition with the United States that will help them maintain their present position.

— They have a massive, well-disciplined R&D organization, with a large number of new programs, as well as an expanding production capability, all of which provide options for future force growth and improvement. There are, for instance, 16 design bureaus engaged in developing some 90 strategic, tactical, and space systems or system improvements.

— In the defensive area, they are continuing an active ABM R&D program; attempting to solve problems of defense against low-flying aircraft and missiles, against SSBNs, and against satellites; continuing to expand their civil defense program (however, this effort relies heavily on massive evacuation and would likely provide a tipoff of Soviet intentions); and striving to achieve technological breakthroughs in laser and directed-energy approaches to solving defensive tasks.

— In the area of command and control, the Soviets continue to enhance their ability to flexibly control strategic forces. They are constructing redundant, hardened, and mobile command and communication links to enhance force survivability. Their early warning system, though suffering from some shortcomings, continues to improve, and the Soviets have the capability to employ their strategic nuclear forces in both initiative (bolt-from-the-blue or preemption) and responsive (launch-on-tactical-warning or retaliation) strikes.

The greater weight of Soviet effort in these areas also contributes to the perception of Soviet parity or superiority.

3. At the same time, the Soviets could be apprehensive about whether they can hold on to their hard-won gains because:

— They are entering the 1980s with a record of declining productivity in the industrial sector, with reduced levels of output in a number of important raw materials such as coal, with a sharp drop in the rate of growth of the labor force, with the prospect of a peak and then a decline in oil production, and with increasing demands for economic support to their client states in Eastern Europe. They would prefer to avoid the additional strain which increased competition in the strategic arena would create.

— The Soviets must anticipate that if the SALT process does not collapse entirely, negotiations for a new strategic arms limitation agreement will take a long time. The Soviets view SALT II as a step toward avoiding greater tensions with the United States than they wish to risk and, they hope, toward reducing the possibility of a US surge in the strategic arms race.

— They feel that they now face an aroused US public which is willing to spend more on defense and a new administration that is likely to increase US strategic programs. This is particularly disturbing to them because of their respect for US technological prowess and industrial capacity.

— They are concerned with the range of major US strategic programs that are in process. They argue that MX is a move toward a first-strike capability; that modernization of tactical nuclear forces in Europe is much the same because of the short time of flight of those weapons to targets in the Soviet Union; and that the cruise missile and Trident programs further compound their problems of defense against attack by nuclear weapons. Moreover, the multiple protective shelters being considered for the MX missile will substantially increase the number of weapons required for a Soviet counterforce attack.

— The Soviets also contend that they face a considerable threat from third, fourth, and fifth nuclear powers, while the United States faces no such threat. The Soviet concern with this threat has been a constant thread in the positions the USSR has taken in SALT.

The strategic environment that the USSR may perceive is, then, one in which the trends in the strategic balance could shift against it later in the decade when programed US force improvements are deployed. In this environment we conclude that there is substantial likelihood that the leaders of the USSR will be looking at their next Five-Year Plan, which they are currently formulating, with a view toward acquiring even greater strategic forces than they might have contemplated a year ago.

What Does "Parity" or "Superiority" Mean, and What Condition Prevails Today?

4. In considering how the Soviets and others view the strategic force balance today, there are three types of measures for comparing strategic forces:

— First, static indicators, such as the number of units, their size, range capability, and so forth.

— Second, quasi-dynamic indicators which describe the fighting or destructive potential of the forces. These are, in effect, measures of what the forces could do if unleashed.

— Third, dynamic measures, such as war games, that attempt to forecast how opposing forces would actually be used and to what end result.

In this Estimate we use the first two measures to compare US and Soviet strategic forces. Adequate means of conducting war-gaming on this scale and of translating the results into estimative conclusions have not yet been achieved.

5. Starting with static indicators, the four most useful are displayed on figure I:

— **Number of delivery vehicles.** This is a simple indicator which has been the basis for SALT negotiations to date. The upper left-hand graph shows that the Soviet buildup of the late 1960s and early 1970s put the USSR ahead of the United States, which during this same period was retiring older systems.

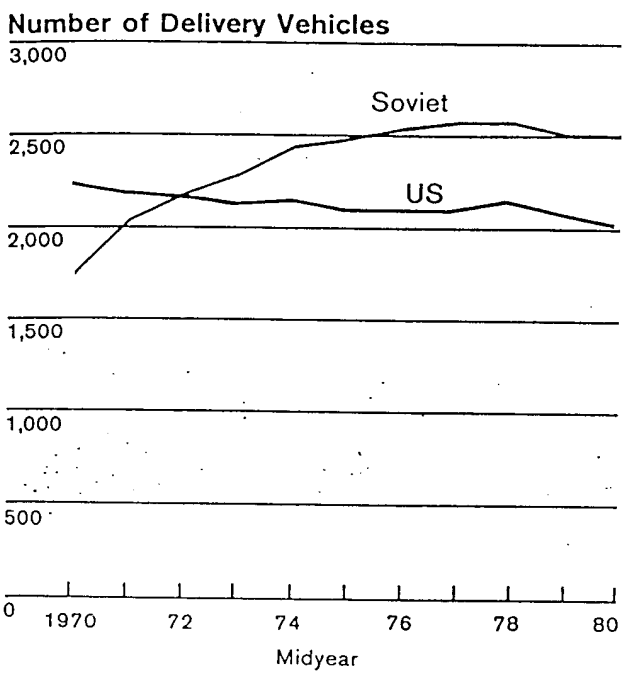
— **Number of weapons.** This measure dictates how many targets can be attacked when a delivery vehicle carries more than one weapon—that is, a bomber with a number of bombs or air-launched missiles, or an ICBM with multiple independently targetable reentry vehicles (MIRVs). The upper right-hand graph shows the United States has maintained a substantial lead throughout the decade. Although the Soviets have been closing this gap, the United States still has 40 percent more weapons than the Soviets have today.

— **Equivalent megatons.** This is a rough measure of the theoretical capabilities that weapon yield and number of weapons provide against soft area targets. The lower left-hand graph shows a growing Soviet advantage beginning in the mid-1970s, which is a direct result of an increasing number of ICBMs with large throw weights.

— **Accuracy.** Accuracy of each side's best ICBMs is another rough measure of the trends. The lower right-hand graph shows that the newest Soviet ICBMs have now surpassed the best US ICBM accuracies, thus eliminating the historical US advantage in this characteristic.

Figure I

Comparison of Soviet and US Forces for Intercontinental Attack, 1970–80



In sum, according to these measures the US force excels only in the number of weapons. The Soviets lead in numbers of vehicles and their size, and have now surpassed the United States in ICBM accuracy, thereby closing this technological gap.

6. Next, quasi-dynamic indicators in effect combine these four static indicators into two measures of the destructive potential of a force.

— The first of these is known as lethal area potential (LAP). This is the area of land in which reinforced concrete buildings would be leveled.[1] This calculation is purely theoretical; that is, the target is a nominal, not a specific urban area, and no battle conditions or tactics are considered. Figure II shows that the Soviets have been ahead in LAP throughout the decade. This is because of their large throw-weight advantage.[

] Figure II also shows, however, that the US urban area is more than twice that of the Soviet Union. [

]

— The second quasi-dynamic measure is hard-target potential (HTP), or the potential to attack targets with hardnesses comparable to those of missile silos.[2] Figure III shows that when we consider both the lethality of the large Soviet warheads and their improving accuracies,[

]the Soviets have achieved a substantial advantage in

[1] For calculations of lethal area potential, an overpressure of [

]As a practical matter, it is not possible to lay down nuclear weapons in such a way that a constant overpressure could be obtained over an entire area. Furthermore, neither side would actually expend all its weapons in such an attack.

[2][

]As with LAP, neither side would actually expend all its weapons in attacks on hard targets only.

HTP. Figure III also compares the HTP of both sides with the respective number of hardened silos. This comparison shows that theoretically the Soviets now have almost twice as much hard-target potential as the United States has silos,

[3] In actuality HTP overstates the capability of a side to destroy the other side's ICBMs, but this measure does show important trends in counterforce potential.

7. The critical issue that dominates perceptions in this country, however, is indicated on figure IV. The left-hand graph displays the vulnerability of US ICBMs to a first strike by the Soviets and assumes that the United States does not launch its ICBMs on warning. Today only about 30 percent of the US ICBM launchers would survive.[

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8. To discern the full meaning of the vulnerability of US ICBMs, we must look at the total forces the Soviets would have to expect the United States to have left, after a Soviet surprise first strike eliminated most US ICBMs. Would surviving US forces be adequate either to deter such a strike in the first place or to wage nuclear warfare thereafter? To examine this issue, we use residual analyses of Soviet and US forces and project them out into the decade ahead.[5] These residual analyses are, again, theoretical calculations. They depict how many forces of one side would survive a first strike by the other and how that would compare with the forces that would still be left to the attacking side for other missions.[6]

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[5] For these calculations we assume that the Soviets deploy, as their one new missile permitted under the SALT II terms, a medium-size, solid-propellant, silo-based ICBM with a single RV rather than the maximum of 10 RVs which is permitted. The United States is assumed to deploy 200 MX missiles based in 4,600 hardened shelters.

[6] In this analysis:

— The respective arsenals are reduced by subtracting those ICBMs needed for the attack and those retaliatory forces destroyed in the attack (bombers and SSBNs not on alert or at sea are assumed destroyed); the ICBMs of the side attacked are assumed to ride out the attack without being launched.

— The residuals are on-pad potentials, calculated without considering such factors as specific targeting doctrines, command and control degradation, attrition by air or ASW defenses, and other operational variables.

The calculations in the analysis do not attempt to simulate actual conflict outcomes:

— They seek to display comparative capabilities and limitations in a manner most relevant to nuclear deterrence in its most elementary form—that is, assured destruction.

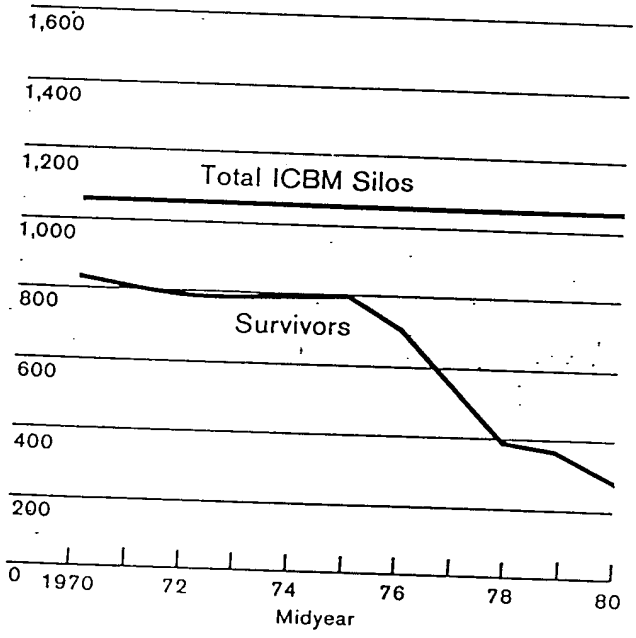
— The analysis illustrates the retaliatory destructive potential that a side contemplating an attack would have to expect to survive on the side attacked even following a surprise attack—the worst case for the side attacked.

— The analysis makes no estimate of how many of these two types of targets would likely be attacked in retaliatory or second strikes.

Figure IV

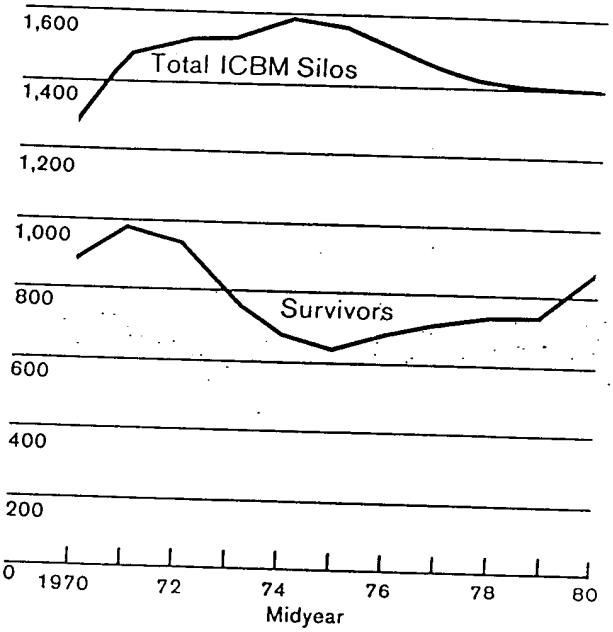
Capability of Soviet ICBMs To Attack US ICBM Silos, 1970–80

(Two-on-One Targeting)



Survivability of Soviet ICBM Silos If Attacked by US ICBMs, 1970–80

(Two-on-One Targeting)



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9. Figure V displays, in terms of LAP, what the residual forces of both sides could still do after a Soviet surprise first strike.

10. Figure VI illustrates the qualitative differences in the composition of the two residual forces. On the left, the Soviet force is shown to be nearly all ICBMs (until the late 1980s). On the right, the US force has few ICBMs, but many SLBMs and aerodynamic weapon systems such as bombs and cruise missiles. There are, of course, important differences here. ICBMs have greater speed of attack and better responsiveness to command and control. The slower aerodynamic systems would have to penetrate large, growing, and increasingly more effective Soviet air defenses. It is possible that the generally held notions of Soviet superiority derive in part from a preference for the qualities of ICBM systems over those of SLBMs and air-breathing weapons.

11. The answer to the question of whether the residual US forces would be adequate to deter the Soviets lies in a subjective judgment as to conditions under which a Soviet leadership would risk initiating strategic nuclear war. It is likely, however, that, considering the US residual force that is shown on the right on figure VI, the Soviets would see such a war as being a very high risk even in the early 1980s when US surviving potential would be at its lowest.

12. The question of whether Soviet and/or US residual forces would be adequate for war fighting relates not only to the numbers of residual weapons and their destructive potential but also to the enduring survivability of their command, control, communications, and postattack assessment systems. For most of the 1980s the Soviets clearly have greater endurance capability. In terms of residual LAP following a Soviet first strike, they would need greater potential in the late 1980s, if they sought to be able to damage the same percentage of US urban area as they could earlier in the decade. In terms of residual HTP, they have an excess potential relative to the number of US hard targets, even in the late 1980s.

13. Another point on figures V and VI is the sharp dropoff in Soviet residual potential in the latter half of the decade. This dropoff is

due to the construction of MX shelters, which absorb most of the Soviet warheads in their initial strike. If the Soviets perceive these trends in anything like these terms, they will certainly consider actions to prevent this potential reversal.

14. The Soviets, as noted previously, are poised with a multiplicity of R&D programs. They can move out on whatever track they deem appropriate. We must try to deduce what they may attempt and how it would affect the comparison of forces.

Soviet Options in Strategic Force Programs

15. In considering their strategic programs for the 1980s, the Soviets will want to preserve and extend the gains of the 1970s and early 1980s; and despite economic difficulties and changes in leadership in the Soviet Union that are bound to occur in this decade, they will make a great effort to continue their emphasis on military preparedness.[7] Under these assumptions, there are a number of options which the Soviets are likely to consider. These include: (1) encouraging some form of nuclear arms limitations; (2) observing the SALT II constraints; (3) ignoring the SALT II constraints and increasing fractionation (increasing the number of RVs carried by a missile); (4) deploying additional offensive and defensive systems. The United States has, of course, a variety of options of its own, including expanding the number of additional MX shelters to counterbalance the Soviet options on fractionation.

16. We believe that the Soviets almost certainly prefer the first of these options—to encourage the ratification of SALT II or some other form of nuclear arms limitation—because it is most likely to dissuade the United States from entering into a strategic arms race. Besides this, it would, the Soviets hope, abet another of their key objectives, that of splitting the NATO allies by lulling them into a false sense of security. The Soviets are particularly worried by the prospect of a buildup of NATO tactical nuclear forces with long enough range to strike at the Soviet homeland. From their point of view, the addition of Pershing II's and GLCMs to the NATO arsenal would affect their position relative to the United States in the late 1980s even more adversely than shown in figure V.

17. If the Soviets chose to observe the limits under SALT II, we believe that they would probably push close to the limits under the agreement and thus hedge against an even greater need in the late

[7] The membership of the Soviet Politburo has changed substantially during the last 10 years but this has apparently not altered Soviet strategic force objectives.

1980s. One area for expansion within the Treaty limits is in the number of ICBM RVs. The maximum to which the Soviets can expand is 8,600, an increase of 2,700 over that assumed in the previous discussion.[8] On the left side of figure VII we show again, as in figure V, the decline of residual Soviet LAP in the late 1980s under basic SALT II conditions. At the right we add a graph that shows the situation if the Soviets expand to 8,600 RVs. There would still be a dropoff in residual Soviet LAP but not nearly as much as on figure V. We have also calculated, however, that if the United States should build a total of 7,200 shelters for MX rather than 4,600, the curve would return approximately to that of figure V. In short, an increase by the Soviets of 2,700 warheads could be offset by the addition of 2,600 shelters.

[8] They could reach 8,600 RVs by choosing to deploy a 10-MIRV ICBM as their one new ICBM permitted under SALT II rather than the single-RV version assumed in the previous calculations. This missile would replace currently deployed SS-17 and SS-19 ICBMs, thereby causing some programmatic disruptions.

19. If the Soviets chose not to observe any SALT II limitations, especially those on fractionation, we estimate that the Soviets have the capacity to build to 14,000 ICBM RVs by 1990. The consequent new curve of LAP is shown in the right-hand graph of figure VIII (the two graphs from figure VII are on the left for comparison). Clearly this would completely offset the expected decline in Soviet potential. In turn, a total of about 10,700 MX shelters would be required to counter this and return conditions to those displayed on the left-hand graph. There would also be a US alternative of abrogating the ABM Treaty and deploying a new mobile ABM system.

20. The options examined above put some bounds on the impact of possible Soviet and US moves. It is unlikely that the Soviets would fractionate to 14,000 RVs or that the United States would build 10,700 MX shelters as a countermove. Other alternatives exist for both sides. What the calculations indicate, however, is that the Soviets will have an incentive to enter into a competition to maintain their present relative status; that the United States will then have an incentive to respond in some manner; and that these numbers of 14,000 and 10,700 simply represent some measure of the magnitude of the actions that would have to be considered.

21. Obviously the costs of whatever programs are selected would be considerable. Despite past evidence that economics has not had a profound effect on the size of the Soviets' strategic programs, the magnitude of their forthcoming economic problems may change this. They will at least try to avail themselves of lower cost options. In particular, we expect them to emphasize arms control agreements and to attempt to gain as much leverage as possible from the threat to fractionate extensively. This is certainly the option they can use most readily to pressure the United States. It is also an option they can implement relatively rapidly, and, the earlier they move to extensive fractionation, the more certain they can be of making the competition difficult for the United States. Ultimately, however, the Soviets will not let economic considerations deprive them of strategic forces they deem important to their security.

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21. The deployment of MX in the US inventory will have a second impact on the Soviets over and above that of acting as a sponge to absorb large numbers of Soviet warheads. As shown on figure IX, the advent of MX will be accompanied by a progressive decline in the survivability of Soviet silo-based ICBMs under conditions of a US first strike. This will then drive the Soviets to take steps to reduce the vulnerability of their ICBM force:

— One step would be to deploy additional SLBMs.

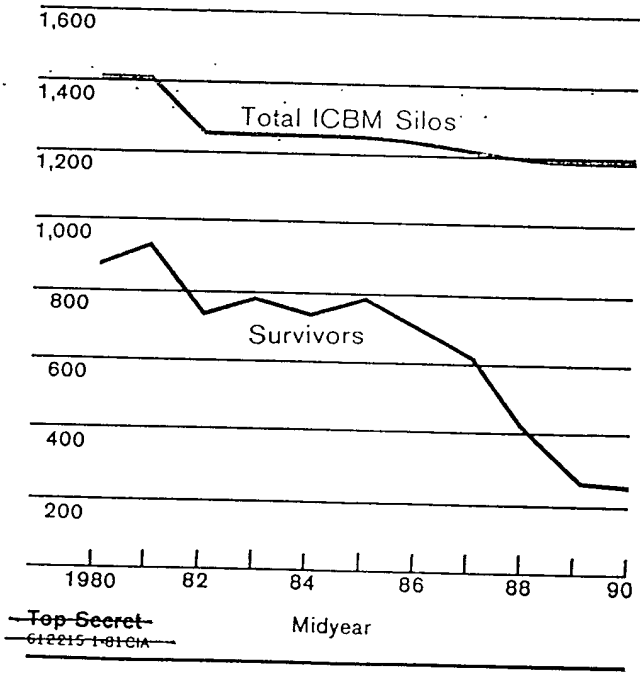
— Another would be to abrogate the ABM Treaty and expand their ABM defenses around their ICBM fields.

— Another would be to develop and deploy mobile ICBMs.

— Still another would be to press the development of long-range cruise missiles.

It is worth noting that the means of verifying mobile ICBMs and cruise missiles under an arms control agreement are limited.[

Figure IX
Survivability of Soviet ICBM Silos If Attacked by US ICBMs, 1980–90



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Implications

22. Because the Soviets will want, for a time at least, to keep open the possibility of a future SALT accord that would constrain US programs, we estimate that they will approve programs for the next five years that:

— Push their strategic forces toward the maximum levels permitted under SALT II and emphasize growth of a wide range of strategic programs not constrained by SALT II.

— Lay the groundwork for rapid expansion (even during this Five-Year Plan) of their forces in areas now constrained by SALT II, if they concluded that the Treaty were dead.

23. In light of the stark contrast in the projected Soviet strategic position in the first half of the 1980s, and the threat to it in the last half, should we expect the Soviets to take advantage of what some have referred to as the "window of opportunity" of the early-to-middle 1980s? The Soviets have regularly exploited opportunities in the Third World and have taken those measures necessary to secure their control of Eastern Europe even before they achieved parity. They have apparently done this less with reference to the strategic balance with the United States than with their estimation of the US resolve to take counteraction. Since the Vietnam war they have perceived the possibility of such counteraction as remote, especially in the Third World.

24. Accordingly, we believe that the Soviets will continue to make their estimation of US resolve the primary determinant in the degree to which they conduct an aggressive foreign policy in the Third World. Their sense of strategic parity or superiority may well, however, make them judge the risks to be less than they were in the past. In short, the "window of opportunity" which appears to exist in the early-to-middle 1980s with respect to the strategic equation will make the Soviets more willing to be adventuresome but not so much so as to "go for broke" in exploiting every opportunity that presents itself in the Third World. Their perception of the strategic balance is unlikely to induce them to undertake military action in Europe or against the United States. Still, these judgments must be caveated by the recognition that there are several important uncertainties in this estimation:

— First, internal political dynamics in the Soviet Union may become less predictable during a prolonged period of leadership change.

— Second, the Soviets have surprised us before with the continued strength of their strategic programs and might build to a point of such strength that they might miscalculate the prospects for successful military action.

— Finally, with their extensive R&D program, they might achieve a technological breakthrough that would clearly give them superiority.

B. KEY JUDGMENTS COORDINATED BY THE INTELLIGENCE COMMUNITY AGENCIES

1. In this section we describe current Soviet programs and highlight those issues and uncertainties that we believe will be critical to the administration as it develops US strategic nuclear policy. We project alternative Soviet forces and discuss some of the implications of these forces. Finally, we address whether the US-Soviet strategic relationship would induce the Soviets to exploit what they may perceive as a period of strategic opportunity before US programs alter trends advantageous to the USSR.

Current Soviet Strategic Programs and Policies

2. Soviet leaders assert the inevitable victory of "socialism" in its struggle with capitalism, and, although they describe general nuclear war as a disaster to be avoided if possible, their military leaders argue that such a conflict can be won by the USSR. Moreover, the Soviets actively plan for national survival in the event of such a war. In public and private commentary, at SALT and in other forums, they have rejected Western notions of strategic sufficiency and the concept of mutual assured destruction. The Soviet Union's refusal to accept mutual vulnerability as a permanent basis for the strategic relationship is consistent with their open-ended weapons acquisition system and policy. The Soviets seek strategic forces and supporting elements, that, in the event of general nuclear war, could:

— Launch crippling counterforce strikes.

— Survive large-scale nuclear attack.

— Be employed flexibly against a wide range of targets.

— Substantially limit damage to the USSR.

3. To these ends the USSR relies on both offensive and defensive measures. Its offensive forces consist primarily of a large land-based ballistic missile force that today has the potential to destroy the bulk of US ICBM silos, and a survivable submarine-launched ballistic missile force that is growing in size and capability. The Soviet long-range bomber force is expected to continue to provide a relatively small portion of the USSR's total intercontinental attack capability. See figure I for an illustration of the growth and composition of Soviet strategic offensive forces over the last decade.

4. The Soviets continue to expand and upgrade what is already by far the largest air defense system in the world. They are developing a

new ballistic missile defense system that could begin widespread deployment in the next few years.[1] They have a nationwide civil defense program that would cost at least $2 billion per year if duplicated in the United States. Although their antisubmarine warfare (ASW) capabilities have major deficiencies, they continue to expend great efforts in seeking solutions to their problems in this field.

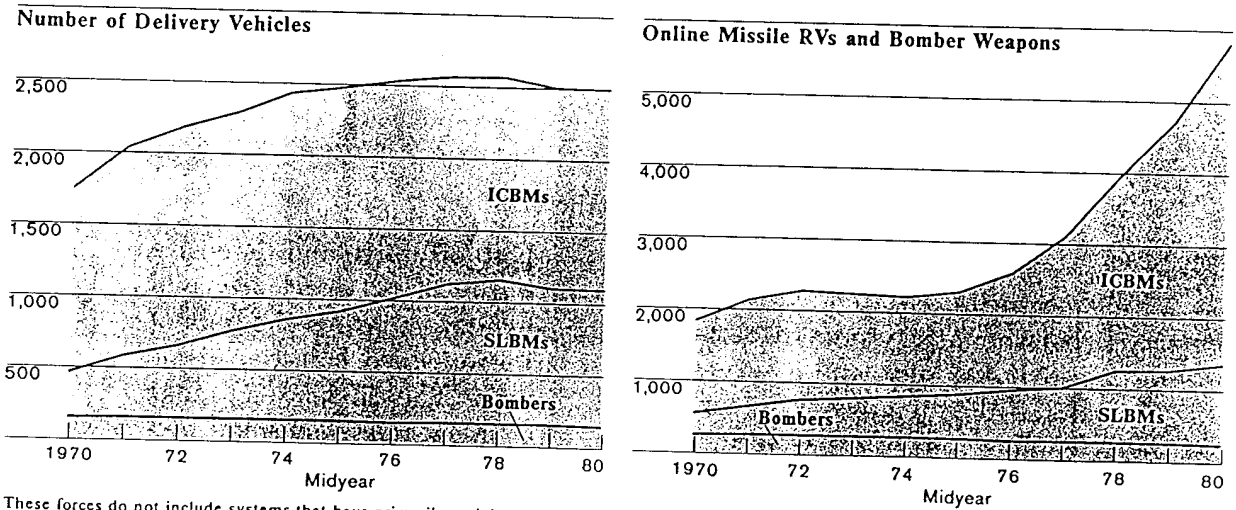
5. The Soviets have long stressed the importance of their command, control, and communications systems as critical to the fulfillment of their strategic goals in the event of war. These systems, even if directly attacked, can ensure the transmission of initial launch instructions to strategic forces. Their communications systems are sufficiently redundant that the loss of any one would not severely degrade command and control capabilities. Moreover, the primary communications circuits could be reconstituted within a period of several hours to a few days. Improvements in command and control have been an important aspect of the Soviets' efforts to enhance the flexibility of their forces.

6. The Soviets have sought to assure their ability to employ intercontinental forces in either initiative or responsive attacks, in either brief or extended conflicts. Which attack option the Soviets would

[1] *For an alternative view held by the Director, Bureau of Intelligence and Research, Department of State, see paragraph 36.*

Figure I

Growth and Composition of Soviet Offensive Strategic Forces, 1970–80



These forces do not include systems that have primarily peripheral missions, but also have some capabilities for intercontinental attack.

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select—surprise first strike, preemption, launch-on-tactical-warning, or retaliation—would depend on the circumstances, including the warning indicators available and the Soviet assessment of potential risks and gains.

7. To permit effective weapon systems to be regularly produced and deployed in support of the leadership's military and political objectives, the USSR's military research, development, and production establishments have been largely insulated from economic problems. At present the Soviets have under way about a dozen programs devoted to new or modified ballistic missile systems for intercontinental and peripheral attack, a new class of very large ballistic missile submarines (SSBNs), possibly long-range cruise missiles, a new ABM system, a new generation of fighters and advanced surface-to-air missiles. Experience indicates that many of these weapon systems will be deployed; however, for technical, political, or mission-related reasons some will not. While the Soviet approach to R&D relies mostly on evolutionary steps to minimize risks and avoid production problems, high-risk, innovative approaches are also undertaken. For example, in the defensive field directed-energy systems are being evaluated for their potential in air and ballistic missile defense and antisatellite applications. Today, the Soviets, by dint of broad and intensive research and development efforts, are in a good position to further modernize their strategic forces.

Critical Issues and Uncertainties

8. *Victory.* The comprehensive nature of Soviet strategic offensive and defensive programs, the emphasis in Soviet military doctrine on fighting nuclear wars, and assertions that general nuclear war can be won combine to indicate that some Soviet leaders hold the view that victory in general nuclear war is possible. While Soviet military writings available to us deal with preparations and operations on the assumption that a war may have to be fought, they do not specify what would constitute a politically meaningful victory in nuclear war. Soviet military writers devote their attention to the accomplishment of military missions rather than to political results, emphasizing what US strategists would call counterforce, damage-limiting missions and culminating in the seizure of key enemy military, political, and economic centers. [ ] imply that victory would be an outcome that preserves the Communists' political control, permits reconstitution of their economy, and leaves them in a superior military position on Eurasia, while neutralizing the United States and undermining the political and social systems of their weakened adversaries.

9. There is a divergent view that the concept of "victory" in Soviet writings is based on ideology rather than on objective, operational fac-

tors. To deny the possibility of "victory" under any circumstances would challenge the legitimacy of Soviet ideology and, in effect, of the regime itself. This view further holds that the existence of military missions is not proof of an operational concept of "victory," given the lack of any identification of the requirements or character of "victory" in Soviet writings.[2] There is a second divergent view that available evidence indicates clearly that Soviet political and military leaders are in agreement on what would constitute victory. The holders of this view believe that the Soviet concept of a military and politically meaningful victory calls for: the survival of the USSR as a viable political entity, with the Communist party and leadership remaining supreme; the strategic and military neutralization of the United States; and the seizure and occupation of Western Europe.[3]

10. We believe that the Soviets would launch a preemptive intercontinental nuclear strike only if their leaders were to acquire what they considered unequivocal evidence that a US strike was both imminent and unavoidable. [ ] indicate a belief that the most likely way in which intercontinental conflict with the United States would begin would be by escalation from a NATO–Warsaw Pact theater conflict. The Soviets apparently believe that the United States, facing a NATO defeat in Europe, would seek to salvage the situation by launching nuclear strikes.

11. ***Limited Intercontinental Nuclear War.*** We are uncertain about Soviet capabilities and strategy for limited intercontinental nuclear conflict. The Soviets publicly reject the possibility that limited nuclear wars can be kept limited. On this point, their public condemnation of the so-called "Schlesinger Doctrine" and more recently of PD-59 has been consistent. Privately, however, some Soviet spokesmen seemed to signal in 1975 that the USSR did not entirely disapprove of these concepts, and there is evidence that the Soviets plan for limited nuclear conflict at the theater level. Soviet forces have the technical sophistication and flexibility to initiate a broad range of limited options, although we continue to believe that even a "limited" Soviet strike, in keeping with the major tenets of their military doctrine, would involve a large-scale attack on US strategic forces and command and communication centers. The Soviets' ability to respond in kind to limited nuclear attacks on the USSR is constrained by their attack assessment capabilities. The improvements we expect the Soviets to make in their strategic forces during the 1980s will give them better capabilities for limited

[2] *The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.*

[3] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

intercontinental nuclear war, but we cannot predict the degree of improvement they will make in their attack assessment capabilities.

12. ***Protracted Intercontinental Nuclear War.*** The Soviets assert that a general nuclear war will probably be brief, but they have long allowed for the possibility that it might become lengthy. In view of their extensive activities aimed at survivability and command continuity—civil defense, leadership protection, force hardening and reconstitution, and hardened and redundant communications—we believe that the Soviets have contingency plans for protracted conflicts.[

]We cannot determine how thorough such planning may be or what specific preparations have been made.

13. *SALT.* Throughout the strategic arms limitation talks the Soviets have endeavored to slow the pace of US strategic force development while keeping open, to the extent feasible, options consistent with the USSR's military doctrine and its force acquisition plans. The agreements, however, have forced the USSR to make some trade-offs. In particular, the Soviets would not have reduced the number of SS-17, SS-19, and possibly SS-18 launchers that we believe they planned for deployment, and would not have dismantled Y-class SSBNs except for the arms control process. Nevertheless, since the strategic arms negotiations began, the Soviets have markedly enhanced the counterforce capabilities of their ICBMs and have continued ABM research and development.

14. Regardless of the fate of SALT II and despite anything the United States is likely to do or not do, the Soviets will substantially increase the capabilities of their forces during the next 10 years. Although they have indicated their willingness, if the Treaty is ratified, to proceed promptly to negotiate further reductions and limitations, we think the Soviet leaders will be very reluctant to entertain deep cuts in land-based ballistic missiles, because this would jeopardize the strategic posture they have worked so long to acquire. Moreover, continuation beyond 1985 of the SALT II limitations on new ICBMs, ICBM fractionation, and perhaps total numbers of MIRVed launchers would limit the USSR's ability to increase the counterforce potential of its ICBM force in response to projected US strategic force improvements. We are, therefore, uncertain whether the Soviets would be willing to extend such limits beyond 1985.

15. In the absence of SALT limitations, particularly in light of prospective US and NATO force improvements, the Soviets probably would take actions that would have been prohibited by the SALT II

Treaty and associated documents. During the next few months the USSR could:

— Begin sea trials for a new SSBN without dismantling older launchers as compensation.

— Test more than one "new type" of ICBM.

— Increase the number of reentry vehicles on the SS-18 beyond the Treaty's limit.

And in the next few years it could:

— Increase the number of land-based MIRVed launchers beyond Treaty limits.

— Deploy mobile ICBMs.

— Increase production of the Backfire bomber.

16. ***Soviet Perceptions of the Strategic Environment in the 1980s.*** Soviet planning seems driven by the perceived need to maintain forces adequate to prevail over any combination of opponents. There is an alternative view that Soviet force planning is based not on an operational imperative to achieve victory in nuclear war but on a strategy of deterrence through the development of a war-fighting capability.[4] The Soviets can expect that through the early-to-middle 1980s their ongoing force improvement programs will bring further gains in their strategic posture relative to the United States, NATO, and China. Despite the USSR's favorable prospects over the next few years, the issues now confronting Soviet policymakers and the implications for strategic force programs in the 1980s are unusually complex. They are faced with discontent among allies, the possibility of a deepening military involvement in Afghanistan, a volatile situation involving Middle East clients, continued poor relations with China, and an uncertain future for their relations with the West. They also see a growing Western determination to counter improvements in Soviet military forces. Key among the US and allied strategic initiatives with which the Soviets need to concern themselves are: MX missiles in multiple protective shelters (MPS), cruise missile and Trident programs, possibly a new bomber, and planned deployments in Western Europe of new long-range offensive systems. Thus, the strategic environment that the USSR may project is one in which Soviet gains of the 1970s and early 1980s could be eroded later in the decade.

17. ***MX/MPS*** is almost certainly a critical element affecting Soviet planning for the late 1980s. The MX missile represents a severe threat to

[4] *The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.*

the survivability of the Soviet silo-based force. To enhance the survivability of their strategic forces with or without SALT the USSR could, for example, increase the number of its SLBM RVs. In the absence of the SALT II Protocol limits they could also deploy large numbers of mobile ICBMs.

18. In the event of a massive counterforce attack by the Soviets, the numerous hardened shelters in the MPS scheme would require the use of thousands of weapons in attacks on empty shelters. In response to the requirement to target large numbers of MX shelters, the USSR could, under SALT II limits, replace some of their existing MIRVed ICBMs with a 10-RV version of a missile now under development. In the absence of SALT they could further fractionate existing ICBMs. Another alternative for the Soviets would be to expand the role of their SSBN force to include attacks against MX shelters. The Soviets are considering a program to develop an advanced guidance system for future SLBMs. We do not believe that they will be able to deploy a hard-target-capable SLBM in the 1980s because of the difficulties in achieving the necessary accuracies. An alternative view holds that these accuracies could be attained by the end of the decade.[5]

19. *Long-Range Theater Nuclear Forces.* Prospective NATO long-range theater nuclear force (LRTNF) improvements—the deployment of advanced Pershing ballistic missiles and ground-launched cruise missiles—present the Soviets with new problems and uncertainties regarding warning time and assessment of the size and objectives of a nuclear attack from Europe. Moreover, these weapons could be seen by the Soviets as lessening the probability that they could accomplish their military objectives before a conflict escalated to the nuclear level. LRTNF deployment also serves to undermine the broader Soviet political objective of weakening the NATO alliance by casting doubt on the credibility of the US strategic umbrella.

20. The Soviets will seek to slow or halt these programs by diplomatic pressures, by arms control efforts, and by propaganda. Militarily, they will probably seek to counter NATO deployments by continuing steady improvements in their long-range theater offensive forces, and by deploying new shorter range nuclear missiles in the forward area of Eastern Europe. The Soviets may also have defensive counters. They have been working, since the early 1970s, on a new antitactical ballistic missile that when fully developed and joined to a suitable radar could have limited capabilities against some long-range theater ballistic missiles like the Pershing IIs and some submarine-launched ballistic missiles.

[5] *The holders of this view are the Director, Defense Intelligence Agency, and the Director of Naval Intelligence, Department of the Navy.*

21. *Economic Factors.* Soviet defense spending has been increasing at an annual rate of 4 to 5 percent since about 1965. In 1978-79 the rate of growth in gross national product dropped to 2 percent, the lowest since World War II, thus increasing the defense burden. In the 1980s we expect the Soviet economy to continue to experience low growth rates. If, as expected, military outlays continue to rise at previous rates, the military share of GNP could reach 13 to 15 percent by 1985, as compared with today's 12 to 14 percent. Thus, the allocation of available resources among competing sectors of the Soviet economy will become more difficult. Nevertheless, evidence indicates defense spending will continue to increase at the rate of 4 to 5 percent at least through 1985. The number of major weapon systems under development and their pace have remained constant, more technologically complex systems have pushed costs higher, and construction activity at defense plants is at a high level. There is also evidence of planned expansion and modernization of military forces and of greater demands being made on Warsaw Pact allies for significant increases in defense spending.

22. Even if the Soviet leaders were forced by economic pressures to slow the growth of defense spending, we believe strategic programs would be the last to suffer a cutback. Reductions in strategic programs would offer only limited economic benefits, because the production resources devoted to them are highly specialized and are not readily transferable to the civilian economy. If, nevertheless, some cuts had to be made in Soviet strategic programs, we think they would choose only to defer or stretch out some force improvement programs.

Projections of Soviet Offensive Forces

23. Our projections of specific weapon programs are based on our knowledge of programs now in progress, past development and production trends, and our perceptions of Soviet force requirements. We have considered the possibility that, faced with a more challenging strategic environment and mounting economic difficulties, the Soviets might moderate their objectives for strategic forces and their resource commitments to them. We conclude, however, that the Soviets are not likely to alter significantly their commitment to long-term strategic force improvements.

24. *Impact of SALT Limitations.* Certain of the SALT II Treaty provisions would serve to constrain the Soviets' options for improving their forces. The limitations that most directly impact on our projections are:

— **No increase in the number of RVs on existing ICBMs.** The large throw weight of Soviet MIRVed ICBMs, particularly of the SS-18 booster, would permit much greater payload fractionation without sacrificing countersilo capabilities.

— **Only one "new" ICBM, with a maximum of 10 RVs.** The Soviets have at least two ICBMs under development that would be categorized as "new" under SALT II. We believe that the constraints of SALT II would lead the Soviets to choose as their "new" ICBM the larger of the two. Its greater throw weight would give the USSR more flexibility in selecting payload options that would maximize counterforce capability under SALT.

— **No more than 1,200 launchers for MIRVed missiles.** We expect that the continued deployment of the D-III SSBN, concurrent with the deployment of the new very large Typhoon SSBN, will bring the Soviets to the sublimit of 1,200 MIRVed-missile launchers in the mid-1980s. At that time, they would have to dismantle other MIRVed missile launchers to compensate for launchers on new Typhoon SSBNs.

25. ***Projections.*** To take account of the uncertainties about the future of US-Soviet arms limitation negotiations, we have projected alternative Soviet forces for intercontinental attack. We have used dates of initial operational capability (IOC) and deployment rates consistent with past trends, as well as our best estimates of weapon system characteristics. The SALT-limited projection assumes that the constraints imposed by the SALT II Treaty remain in effect through 1990. We project a single force, with an upper and a lower bound that reflects our uncertainty about Soviet ICBM and SLBM deployment options. Although a Soviet SALT-limited force will probably fall within the range presented, the upper bound is considered a less likely projection than the lower. In the absence of an agreement to extend the SALT II terms, the Soviets have the potential to expand their forces considerably in the mid-to-late 1980s. This potential is illustrated by the SALT/No-SALT projection. The No-SALT force illustrates Soviet development and deployment options under circumstances in which the SALT II Treaty is abandoned by mid-1981 and the SALT process breaks down. Our projections are summarized in the accompanying table.

Comparisons of Soviet and US Offensive Forces

26. To illustrate the capabilities of Soviet strategic offensive forces we use several indexes and we compare Soviet with US forces. US forces were provided by the Office of the Secretary of Defense (OSD) and are consistent with programed forces except in the No-SALT examples. The US No-SALT forces provided by OSD are regarded by the Secretary of Defense as unsuitable for use in an NIE. The Department of Defense has not produced an official estimate of what forces it would construct in the absence of SALT limitations. Accordingly, the comparisons which are made in this area must be viewed as representative of what might

Soviet Options for Strategic Offensive Forces With and Without SALT

	Delivery Vehicles				Weapon Totals [a]		
	ICBM Launchers	SLBM Launchers	Bombers	Total	Hard-Target ICBM RVs	RVs on Mobile ICBM Launchers and SLBMs	Missile RVs and Bomber Weapons
1985							
SALT Lower Bound	1,238	908	104	2,250	5,700	2,650	8,650
SALT Upper Bound	1,238	908	104	2,250	6,100	2,650	9,350
No-SALT	1,569	1,089	151	2,809	8,800	3,400	12,250
1990							
SALT Lower Bound	1,178	972	100	2,250	5,900	3,600	10,250
SALT Upper Bound	1,238	908	104	2,250	8,200	4,400	12,650
SALT/No-SALT	1,454	1,068	190	2,712	12,150	5,950	18,400
No-SALT	1,695	1,224	230	3,149	14,000	6,300	20,450

[a] These numbers have been rounded to the nearest 50.

—Secret—

be done, not as specific predictions. The indexes we use include static measures of the current relative size and qualitative characteristics of Soviet and US forces. We also look at measures of the destructive potential of Soviet and US forces to attack soft urban areas and hardened military targets like silos. There is an alternative view that the US forces used in the Estimate have no official status and therefore should not be used.[6]

27. The static indexes we look at include number of missile RVs and bomber weapons and equivalent megatonnage of the two forces. We also look at key qualitative characteristics, including accuracy of each side's most effective hard-target ICBMs and the hardness of each side's ICBM silos. Our comparisons of current forces indicate the following:

— **Missile RVs and Bomber Weapons.** The number of weapons is a rough indicator of the number of targets that can be attacked. The United States continues to maintain a substantial lead. It [ ] and the Soviets about 6,000. The major factors weighing in the US favor are a larger MIRVed SLBM force and a larger force of intercontinental bombers.

— **Equivalent Megatons.** This measure combines weapon yield and numbers of weapons to provide a rough indicator of the potential of a force to attack soft area targets. The present Soviet advantage that began in the mid-1970s is primarily the result of a large number of ICBMs with high throw weights.[

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[6] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

— **Accuracy.** The accuracy of each side's best ICBMs is a rough measure of the trends in hard-target capability.[

]

— **Silo Hardness.** The hardness of a silo is a rough measure of its survivability.[

] Overall, Soviet silo systems are probably more vulnerable than indicated by these figures, but we still consider them to be significantly harder than US silo systems.

In sum, the Soviets lead in equivalent megatonnage and average hardness of ICBM silos, and have now surpassed the United States in ICBM accuracy. They still lag behind the United States in numbers of weapons.

28. ***Measures of Destructive Potential.*** We examine the total number of missile RV and bomber weapons in terms of two theoretical measures—lethal area potential (LAP) and hard-target potential (HTP). LAP is defined as the area of land over which an overpressure[

]sufficient to level reinforced concrete structures, can be applied. The second measure, HTP, assesses the potential of each side's total force—ICBMs, SLBMs, and bomber weapons—to destroy hardened targets such as missile silos. While these measures indicate trends in the destructive potential of offensive forces, neither side would plan to employ its entire force exclusively for one of these missions and there is thus no pretense that our calculations are based on the application of strategic weapons to real target sets. However, because we apply the same assumptions for both sides, the comparisons are useful in that they convey more information than presented by static force comparisons alone.

— With respect to LAP the USSR has been ahead throughout the 1970s. However, the US urban area is twice the size of the USSR's[

]

[redacted]

[redacted]

— The number and lethality of large Soviet warheads and the hardness of Soviet ICBM silos give the USSR a substantial advantage over the United States in HTP.

29. There is a divergent view that only detailed damage assessment of individual targets can properly indicate destructive potential for meaningful comparison of strategic forces. According to this view, LAP overstates the potential destructive capabilities of a force because actual targets are not clustered in neat circles where [redacted] overpressure can achieve maximum damage. The HTP calculations also misstate force potential because in many cases when weapons are applied to real target sets the damage achieved is less than the theoretical HTP of a given weapon.[7]

30. ***Soviet Potential To Attack US ICBMs.*** Projected Soviet ICBM forces will have an increasing potential to destroy US ICBM silos. Using two RVs against each silo, they could destroy about 60 percent today and about 90 percent by 1985. Deployment of the MX missile in multiple protective shelters in the late 1980s, however, would make the accomplishment of the Soviet counterforce mission a much more expensive proposition. Although the US shelter program could dramatically

[7] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

increase the RV requirements for a Soviet counterforce attack—in both the SALT and No-SALT environments—we project the Soviets could meet that requirement but would have to expend most of their ICBM RVs.

31. ***Soviet and US Residual Potentials.*** The methods and measures used in our analysis are simplified ones. They do not depict the outcome of a US-Soviet nuclear exchange or a protracted nuclear conflict and do not account for the operational factors that would be essential to assess the performance of Soviet and US forces under wartime conditions. They do, however, illustrate the progress made by the Soviets toward satisfying the counterforce requirements they have established for their forces. Further, our assessment of the surviving US potential, after US forces have absorbed a hypothetical first strike, is particularly important to those who see the key ingredient of the strategic balance as the ability of the United States to absorb a first strike and retain enough absolute destructive potential for a large-scale retaliatory attack.

32. There is a divergent view that the residual analysis in this Estimate produces misleading results with respect to trends in the strategic balance, sheds little light on the question of deterrence or escalation control, and comprises an unrealistic net assessment. According to this view, net assessments from a US perspective are not a proper function of intelligence. In this view, analysis based on a US perspective should be accomplished within the Department of Defense with intelligence as a full partner, and should not be included in a National Intelligence Estimate.[8]

33. It is the view of the Director of Central Intelligence that the residual analysis in this Estimate is indeed a proper function for the Intelligence Community. The DCI believes that the Department of Defense should be a full partner in such assessments, but he does not believe it in the national interest that DoD should control all comparisons of the effectiveness of its forces with other forces.

34. Figure III displays the destructive potential of Soviet remaining and US surviving weapons, with and without SALT, following a surprise Soviet attack when US forces are on day-to-day alert—a worst case circumstance for US forces. The charts illustrate that the potentials of Soviet forces—measured in terms of either LAP or HTP—will improve over the next few years whether or not SALT is in effect. The sharp decline in residual Soviet destructive potential in the latter half of the 1980s, shown on the charts, results from planned US strategic force

[8] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

improvement, especially MX/MPS. Similar calculations show that in the case of a US first strike, the potential of Soviet surviving forces would also grow only through the mid-1980s.

35. We have examined the potential of US forces during their most vulnerable period—after a surprise attack by the USSR in the early 1980s. Our analysis shows that the United States would retain significant retaliatory potential even though US residual capabilities would be at their nadir. We have presumed mission requirements that surviving US forces be capable of destroying 70 percent of the Soviet economic and military base. We find that:

— Either the surviving US SLBM or bomber force could each destroy more than 70 percent of Soviet economic value and the surviving ICBM force could almost do the same.

— For retaliatory attacks against nonsilo military targets, presumed to have varying degrees of hardness, the mission could be accomplished by a combination of surviving SLBMs, bombers, and ICBMs.

These calculations have not taken into account the attrition caused by Soviet strategic defenses.

36. ***The Extent to Which Soviet Strategic Defenses Can Limit Damage.*** In the 1980s the Soviets are expected to deploy new air defense systems, particularly for low-altitude defense; further develop their ABM options; continue efforts to acquire effective ASW capabilities; and improve their civil defenses. Despite these growing strategic capabilities, the Soviets during the 1980s could not prevent a large-scale US nuclear attack by surviving US forces from causing tens of millions of casualties and massive destruction of urban-industrial and military facilities in the USSR:

— **Strategic Air Defense.** At present the massive Soviet air defense forces could perform well against aircraft at medium and high altitude, but would have little aggregate capability against targets at low altitudes. In the middle and late 1980s, Soviet air defenses will have the potential to inflict considerably higher attrition against US bombers of current types. By 1990 areas with adequate deployments of new systems could be defended against currently programed US cruise missiles. In addition, a forward defense with AWACS aircraft and interceptors could threaten some cruise missile carriers prior to launch. Nevertheless, because of numerical deficiencies, the Soviet capability to defend against an attack by large numbers of US cruise missiles will probably be limited over the next 10 years. Finally, collateral damage from a prior ballistic missile attack and the use of

defense saturation, suppression, and electronic warfare tactics would degrade the overall effectiveness of Soviet air defenses. Thus, the actual performances of Soviet air defenses against combined attacks involving large numbers of US bombers, SRAMs, and cruise missiles will probably remain low during the period of this Estimate.

— **Ballistic Missile Defense.** The Soviets could begin deployment, after 1982, of an ABM system with the potential for one-on-one intercept of current and programed types of US ballistic missile RVs. As an example (although contrary to the ABM Treaty), the Soviets could have some 150 sites with 900 aboveground launchers for the defense of 20 to 25 high-value targets within four to five years of a deployment decision, assuming a high level of effort. [redacted] The effectiveness of the missile defense would depend on the size of the attack and the availability of target data, as well as US reactions, such as the deployment of penetration aids or the use of saturation tactics. There is an alternative view that discussions in this estimate of a new ABM system and possible deployment scenarios imply a far greater knowledge than we have and do not convey the significant uncertainties regarding the identification and current status of the components which would constitute a system suitable for deployment. According to this view, there is an insufficient basis upon which to evaluate system capabilities and the likelihood of various deployment possibilities. Moreover, it is misleading to imply that deployment could begin within the next few years, [redacted]

[redacted][9]

— **ASW Capabilities.** The present effective range of Soviet submarine detection sensors is too short to enable the Soviets to detect US SSBNs in their patrol areas, and the capabilities of Soviet forces are too limited to maintain continuous tracking of SSBNs once detected. During the 1980s the Soviet ASW problem will become much more difficult as US SSBN operating areas are expanded following deployment of longer range SLBMs on Poseidon and Trident submarines. We believe, therefore, that during the decade the Soviets would be unable to prevent US SSBNs on patrol in broad ocean areas from launching their missiles.

[9] *The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.*

— **Civil Defense.** Soviet casualties from the initial effects of a large-scale US nuclear attack could range from 125 to 150 million if little or no time were available for civil defense preparations. The benefit to the USSR of complete implementation of sheltering and evacuation would be the prevention of about 80 to 100 million casualties in the immediate aftermath of an attack. Under these circumstances the Soviet leadership and most of the essential work force would probably survive. Expected improvements in Soviet civil defense preparations in the 1980s will increase the likelihood of survival of a large percentage of the leadership and essential personnel, but the number of casualties and fatalities among the urban population would be somewhat greater than today. Increases in the number of Soviet blast shelters during the next 10 years will be offset by expected increases in Soviet urban population and in the number and yield of US weapons.

Implications

37. The Soviets credit their strategic programs of the 1970s with lessening the probability of general nuclear war with the United States and probably with improving the war-fighting capabilities of their forces. They probably view their improved strategic position as providing a more favorable backdrop than before to the conduct of an assertive foreign policy and to the projection of Soviet power abroad. They probably believe that their strategic forces would deter the United States from initiating intercontinental nuclear war in circumstances short of a clear threat to US national survival. It is likely that they see a high risk of escalation to the nuclear level in any conflict with the United States in areas (such as Western Europe) perceived vital to US interests. In other areas, particularly in regions where the USSR or its allies would have the advantage in conventional forces, the current strategic relationship enhances Soviet confidence that the risk of a direct US military response would be low.

38. The extent to which Soviet gains in strategic forces projected through 1985 would embolden the USSR to challenge the United States is unclear. In part, this is because the relationship between the strategic balance and Soviet behavior in the international arena is uncertain. Even when they were clearly inferior in strategic nuclear power the Soviets regularly exploited opportunities in the Third World and took those measures necessary to secure their control of Eastern Europe. Thus, during the early-to-middle 1980s, when the Soviets' strategic capabilities relative to those of the United States would be greatest, we would expect them—as in the past—to probe and challenge the United States steadily to determine at what point it will react strongly. For

them to "go for broke" during the next few years would mean that they had ignored the strategic equation. We think it highly unlikely that this eventuality will come to pass. Their perception of the strategic balance is unlikely to induce them to take military action against Western Europe or the United States.

39. There is a divergent view regarding the implications of Soviet strategic programs. The holders of this view believe that the overall pattern of Soviet force improvements, while providing a high degree of military security, also enables the Soviets to create and exploit foreign policy opportunities for expansion. They believe that the early-to-middle 1980s has greater potential for Soviet challenges to Western influence than indicated above. They further believe that the Soviet leadership is now confident that the strategic military balance has shifted in the Kremlin's favor and that the aggressiveness of its foreign policy will continue to increase as the Soviet advantage grows. The Kremlin is likely to accelerate pursuit of its global ambitions, weighing the local "correlation of forces" in those regions where it wishes to increase its influence or gain control.[10]

[10] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

PART TWO—SUMMARY ESTIMATE

I. POLICIES UNDERLYING SOVIET STRATEGIC NUCLEAR FORCE PROGRAMS

A. The Present Soviet Perception of the Strategic Environment [1]

1. The Soviets view strategic arms policy in the context of a long-term struggle with capitalism that drives them to compete with the United States for global power. At the same time, because the USSR is a continental power, Soviet leaders pursue strategic and other military programs that can counter threats from any other Eurasian state, especially the NATO nations and China. Although they regard nuclear war with the United States as a disaster that must be avoided if possible, the Soviet leaders also believe that such a war could occur and that they need strategic forces powerful enough to enable the Soviet Union to emerge as the victor. Thus, the Soviets have been striving to acquire and maintain strategic forces and supporting elements that, in the event of general nuclear war, could:

— Launch crippling counterforce strikes.

— Survive large-scale nuclear attack.

— Be employed flexibly against a wide range of targets.

— Substantially limit damage to the USSR.

2. To further these objectives, the Soviets have moved through steady efforts from a position of strategic inferiority in the late 1950s and early 1960s to a present position in which their strategic nuclear capabilities are widely recognized as at least militarily equal to those of the US. Increases in numbers of offensive weapons and programs to enhance the reliability and survivability of command, control, and communications facilities have improved the Soviets' capability to employ their forces flexibly under a variety of circumstances. They have hardened ICBM silos and deployed more ballistic missiles on submarines, increasing the number of offensive weapons likely to survive a large-scale US nuclear attack. Advances in technology have also permitted the Soviets to greatly improve the qualitative characteristics of their forces. For example, improvements in ICBM accuracy have given the USSR the potential to destroy the bulk of US missile silos in a first strike while retaining large numbers of weapons for other missions.

3. Despite these growing capabilities, the total number of US weapons likely to survive a first strike by the USSR has not changed significantly during the past several years, although the makeup of likely surviving weapons has shifted with the increased vulnerability of the US ICBM force. Moreover, the Soviets' submarine, air, and missile defenses and their civil defense measures could not prevent a large-scale nuclear attack by surviving US forces from causing tens of millions of casualties and massive destruction of urban-industrial and military facilities in the USSR. This situation of mutual vulnerability is regarded by the Soviets as unacceptable, however. Instead, they would prefer, and have been working consistently toward, a strategic relationship in which the outbreak of general nuclear war is deterred by Soviet possession of war-winning capabilities.

4. The Soviets credit their strategic programs of the 1970s with lessening the probability of general nuclear war with the United States. They probably view their improved strategic position as providing a more favorable backdrop than before to the conduct of an assertive foreign policy and to the projection of Soviet power abroad. They probably believe that their strategic forces would deter the United States from initiating intercontinental nuclear war in circumstances short of a clear threat to US national survival. It is likely that they see a high risk of escalation to the nuclear level in any conflict with the United States in areas perceived vital to US interests such as Western Europe. In other areas, particularly in regions where the USSR or its allies would have the advantage in conventional forces, the current strategic relationship enhances Soviet confidence that the risk of a direct US military response would be low.

B. Soviet Doctrine and Strategy for Nuclear War

5. Soviet military doctrine is a body of views officially adopted by the USSR's political and military leadership on the nature of, preparation for, and conduct of war. The essence of Soviet military doctrine and its impact on decisionmaking can be gleaned from

[1] See paragraphs 11 through 14 for differing Intelligence Community interpretations of Soviet military doctrine and differing views concerning the Soviets' perceptions of and goals for their strategic nuclear forces.

the open press, from restricted (that is, limited circulation) and classified writings, from exercises, from the characteristics and deployment patterns of various weapon systems, and from Soviet actions in international affairs. Intelligence judgments made on the basis of these sources are necessarily tentative, because we seldom obtain direct evidence on what the political-military leadership thinks or on the extent to which pragmatic considerations would override the tenets of military doctrine.

6. The most likely way in which nuclear conflict with the United States would begin, according to Soviet [redacted] would be by escalation from a conventional NATO–Warsaw Pact theater conflict. The Soviets seem to believe that the United States, facing a NATO defeat in Europe, would seek to salvage the situation by launching nuclear strikes. Soviet military theorists warn that either conventional or limited nuclear conflict in Europe would likely escalate to the intercontinental level. We believe the Soviets probably have been aiming to enhance their strategic force capabilities to the point where the risk of US intercontinental strikes against the USSR is reduced even in circumstances of large-scale theater nuclear warfare in Europe. From the Soviet point of view, however, the prospective NATO deployment of advanced Pershing ballistic missiles and long-range cruise missiles would make controlling escalation of a war in Europe more difficult. These systems are seen by the Soviets as increasing the risk of strikes on the USSR if a conventional war should escalate to the tactical nuclear level. The Soviets also perceive these systems as presenting new problems and uncertainties regarding warning time and assessment of the size and objectives of a nuclear attack from Europe and in planning of retaliatory strikes.

7. The Soviets have considered scenarios for nuclear war initiation under a variety of circumstances. To this end, they have [redacted] included surprise US intercontinental strikes, preemptive and retaliatory Soviet attacks, and protracted intercontinental nuclear war. Since about 1975 the Soviets have been testing capabilities to launch their forces upon receipt of tactical warning that an enemy attack had been launched. Which employment option the Soviets would select—surprise first strike, preemption, launch-on-tactical-warning, or retaliation—would depend heavily on the circumstances, including the warning indicators available and the Soviet assessment of potential risks and gains.

8. The Soviets maintain a hedged position on the duration of general nuclear war. The usual formulation that such a war will be relatively short is often followed by recognition that a world war could be lengthy because of the enormous potential of the coalitions involved. Evidence from [redacted] appear to anticipate the possibility of protracted nuclear war. The degree to which the Soviets could meet the requirements for such a war, however, is not clear.

9. While Soviet military doctrine deals with preparations and operations on the assumption that a war may have to be fought, it does not specify what would constitute a politically meaningful victory in nuclear war. Soviet writings—including the party program—generally describe such a war as a decisive clash fought between the two opposing socioeconomic systems and assert that the Soviets will emerge victorious. Although civilian spokesmen regularly invoke the inevitability of the triumph of "socialism" in the struggle with capitalism, they have on occasion also argued that general nuclear war could mean the destruction of civilization. In their treatments of general nuclear war, Soviet military writers devote their attention to the accomplishment of military missions rather than to political results. The military missions include:

— Destroying the enemy's means of nuclear attack.

— Repelling attacks on the territory of the USSR or on that of its allies.

— Obtaining control of strategically important regions.

— Seizing important military, economic, and political centers.

10. The link between the military prerequisites for victory and their political consequences is only vaguely specified in Soviet writings. Presumably an outcome that preserves Communist political control, permits reconstitution of the Soviet economy, and leaves the USSR in a superior military position on the Eurasian continent, while neutralizing the United States and undermining the political and social systems of Soviet adversaries, would be considered a victory. The comprehensive nature of Soviet strategic programs (offensive and defensive), the emphasis in Soviet doctrine on fighting general nuclear wars, and Soviet assertions that nuclear war can be won combine

to suggest that some Soviet leaders may not share the view that there would be no victors in general nuclear war.

11. With respect to the preceding section, there are alternative intelligence judgments, based on the same sources, on the essence of Soviet military doctrine and its impact on decisionmaking. According to one view, available Soviet doctrinal discourse is difficult to analyze because it lacks completeness and specificity. However, it is consistent with the view that: the Soviet aim is deterrence of nuclear war; such deterrence requires a convincing nuclear war-fighting capability (in the sense that an adversary must not perceive it will emerge from conflict in a relatively more favorable position); the level of forces must suffice to provide a bulwark against the thwarting of the USSR's policy goals and security interests through coercion by an enemy. Soviet writings do not establish strategic superiority as the principal aim of its strategic programs or set forth an operational definition of "victory" in a nuclear war ("victory" is used to denote the conviction that socialism must ultimately triumph in the historical evolution of social systems). Soviet recognition of the destructive nature of nuclear war shapes its strategy and objectives. It appears to regard mutual vulnerability, however undesirable, as unavoidable (rather than "unacceptable") in practical terms. The holder of this view also believes that; in assessing the Soviet strategic threat, more weight must be given to a realistic assessment of the USSR's capabilities than to its doctrine.[2]

12. There is a second alternative view which holds that the dominant motivation behind Soviet strategic nuclear force policies is offensive and goal directed. The overall objective of Soviet strategic military forces is to create military and political opportunities for Soviet expansion. The Soviets, according to this view, develop their forces to convey a clearly perceived position of dominance, which has a bonus effect of deterring the United States from reacting against Soviet initiatives.

13. The holders of this view believe that Soviet political and military leaders are in basic agreement on what constitutes victory and how to achieve it. After evaluating available evidence—[ ] military doctrine and strategy and Soviet strategic offensive and defensive trends and programs—the holders of this view believe Soviet concepts of victory and political consequences in a European/intercontinental war are clearly defined. Such a victory is to be achieved by Soviet counterforce strikes on US military targets in order to force the United States to accept an early defeat in the intercontinental war. With the decoupling of Western Europe from the intercontinental theater thus achieved, the Soviets would press on with their offensive against Western Europe aimed at seizure and occupation of the continent.

14. The holders of this view also believe that the overall pattern of Soviet force improvements, while providing a high degree of military security, also enables the Soviets to create and exploit foreign policy opportunities for expansion. They believe that the early-to-middle 1980s has greater potential for Soviet challenges to Western influence than indicated above. They further believe that the Soviet leadership is now confident that the strategic military balance has shifted in the Kremlin's favor and that the aggressiveness of its foreign policy will continue to increase as the Soviet advantage grows. The Kremlin is likely to accelerate pursuit of its global ambitions, weighing the local "correlation of forces" in those regions where it wishes to increase its influence or gain control.[3]

C. Other Factors Influencing Soviet Policies

Strategic Weapons Procurement Policies

15. The Soviets are continuing to expand an already large military research and development (R&D) and production establishment to provide the weapons needed to support the leadership's broad military and political objectives. At present, the Soviets have under way about 90 strategic, space, and other military programs, at least a dozen of which are devoted to strategic ballistic missile systems. The Soviet R&D and production establishment has been largely insulated from the USSR's economic problems, permitting effective weapon systems to be regularly produced and deployed. While the Soviet approach to military R&D relies mostly on evolutionary steps to minimize risks and avoid production problems, high-risk, innovative approaches are also undertaken.

Economic Considerations

16. From the mid-1960s until 1978 the Soviets allocated 11 to 13 percent of their gross national product

[1] *The holder of this view is the Director, Bureau of Intelligence and Research, Department of State.*

[3] *The holders of this view are the Director, Defense Intelligence Agency, and the Senior Intelligence Officers of the military services.*

(GNP) to their military establishment, and about a quarter of these expenditures went for strategic forces. During this period the rate of growth of defense spending was 4 to 5 percent per year, about the same as for the economy as a whole. In 1978-79 the rate of growth of GNP dropped to 2 percent per year, but defense spending continued to increase at the 4 to 5 percent rate, making its share of GNP rise to 12 to 14 percent. In the 1980s we expect the Soviet economy to continue its long-term decline, and if military outlays continue to rise at a constant rate their share of GNP could reach 13 to 15 percent by 1985. Thus, the allocation of available resources among competing claimants in the USSR will become a more difficult problem. Nevertheless, there is good evidence to show that defense spending will continue to increase at the rate of 4 to 5 percent. The number of major weapons systems under development and the pace of their development have remained constant, production rates have not gone down, increasingly technologically complex systems have pushed costs higher, construction activity at defense plants is at a high level, and there is evidence of planned expansion and modernization of military forces.

17. Even if the Soviet leaders were forced by economic pressures to slow the growth of defense spending, we believe that strategic programs would be the last to suffer a cutback. Reductions in strategic programs would offer only limited economic benefits, because the production resources devoted to them are highly specialized and are not readily transferable to the civilian economy. If, nevertheless, some compensatory downward adjustments had to be made in Soviet strategic programs, we think they would choose only to defer or stretch out some force improvement programs.

Soviet Views on SALT

18. In the Soviet view, a principal accomplishment of SALT I has probably been the recognition of the USSR as a superpower by the United States and other nations. Moreover, these negotiations did not require the Soviets to forgo essential qualitative improvements in offensive forces. The ABM Treaty indicated their willingness to agree to limitations on the deployment of strategic defenses in the interest of preventing the United States from using its technological superiority in this field. The Soviets, however, have not cut back ABM research and development programs.

19. The Soviets will be under increasing pressure to decide on steps to take if US ratification of SALT II continues to be deferred. In the absence of SALT limitations, the Soviets would probably increase the size and capabilities of their forces substantially beyond the levels specified in the SALT II Treaty

20. The Soviets have indicated their willingness to negotiate further reductions and limitations if the SALT II Treaty is ratified, but we think they would be very reluctant to accept deep cuts in offensive intercontinental forces. They would view US proposals for such limitations, taken together with the planned new Western programs, as a one-sided effort to reduce the gains the Soviets had worked so long to acquire. Moreover, the Soviets might find it difficult to accept an extension of the SALT II provisions that would limit Soviet options for acquiring further counterforce capabilities against the MX/MPS system. In general the Soviets can be expected to negotiate to preserve their options in areas where they are strong and making progress, and to reduce the chances that the United States and its allies will use their economic and technological capacities to turn the strategic balance against the USSR.

D. Soviet Policies for the 1980s

21. The Soviets can expect that through the early-to-middle 1980s their ongoing force improvement programs will enhance their strategic posture relative to the United States, NATO, and China. Nevertheless, the issues confronting Soviet policymakers and the implications for strategic force programs in the 1980s are unusually complex at present. They are faced with discontent among allies, the possibility of a deepening military involvement in Afghanistan, a volatile situation involving Middle East clients, continued poor relations with China, and an uncertain future for their relations with the West. The Soviets will continue to consider China the most threatening peripheral nuclear power, and this threat grows in their eyes because of what they see as signs of Sino-Western cooperation at Soviet expense. They also see a growing

Western determination to counter improvements in Soviet military forces. The Western strategic initiatives with which the Soviets need to concern themselves are: US Trident SSBNs/SLBMs, long-range cruise missiles, the MX/MPS system, and possibly a new intercontinental bomber; planned new NATO long-range theater nuclear forces; British plans to deploy Trident missiles on SSBNs; and programs undertaken by the French to improve their SSBN force components. The Soviets also realize that plans they make now for the middle and late 1980s may have to be changed if US-Soviet relations deteriorate even further or if the United States rejects the SALT II Treaty.

22. Given the many factors bearing on Soviet strategic policies in the 1980s, we have considered the possibility that, faced with a more challenging strategic environment and mounting economic difficulties, the Soviets might moderate their objectives for strategic forces and their resource commitments to them. We conclude, however, that the Soviets are not likely to alter significantly their commitment to long-term strategic force improvements and will strive to maximize the prospects that strategic trends favorable to them will continue throughout the decade of the 1980s. We believe they will:

— Seek to slow or halt US and NATO force modernization programs through a combination of threats, inducements, and arms negotiations.

— Continue to work to overcome current weaknesses, especially in their strategic defenses.

— Initiate and continue offensive weapon development programs designed to give them options for deployment to increase force survivability, counterforce capabilities, and employment flexibility.