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Interagency Intelligence Report

Soviet Strategic Policies and Force Options Under the Vladivostok Understanding

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SOVIET STRATEGIC POLICIES AND FORCE OPTIONS UNDER THE VLADIVOSTOK UNDERSTANDING

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SOVIET STRATEGIC POLICIES AND FORCE OPTIONS UNDER THE VLADIVOSTOK UNDERSTANDING

PREFACE

NIE 11-3/8-74, *Soviet Forces for Intercontinental Conflict Through 1985,* dated 14 November 1974, was issued just before the Summit Meeting at Vladivostok. This Interagency Intelligence Report for recipients of that NIE reexamines Soviet policies and force options in light of the Vladivostok understanding. It contains judgments about Soviet policies and force options based on the provisions of the US-USSR accord at Vladivostok. The Soviets' motives for entering into that accord and their interpretation of its provisions, as may be revealed at the SALT TWO negotiations, may alter some of our understandings and assumptions. The judgments and force projections in this report should be regarded, therefore, as tentative and as supplementing rather than superseding relevant parts of NIE 11-3/8-74.

This Interagency Intelligence Report was prepared by the Central Intelligence Agency with the collaboration of the Defense Intelligence Agency, the National Security Agency, the Energy Research and Development Administration, and the intelligence organizations of the Departments of State, the Army, the Navy, and the Air Force.

KEY JUDGMENTS

We reaffirm our previous estimate that the Soviets will continue a vigorous strategic arms competition with the US and, within the limits agreed to at Vladivostok, will further shift the emphasis to qualitative force improvements. Under ceilings of 2,400 total delivery vehicles and 1,320 MIRVed missiles, the following key judgments of NIE 11-3/8-74 still hold:

— The basis for mutual deterrence should continue to exist for the next ten years.

— Soviet strategic offensive forces will have enhanced capabilities for both deterrence and war fighting through extensive modernization, with substantial improvements in numbers of weapons, counterforce capability, flexibility, and survivability.

— Soviet strategic offensive forces will continue to be superior to those of the US in some characteristics, notably missile throw weight and total megatonnage, but inferior in other respects—in number of bombers, in total number of nuclear weapons, and in system accuracies and other qualitative features.

Soviet Strategic Outlook

In NIE 11-3/8-74, before the Vladivostok Summit, we concluded that Moscow is pursuing a strategic policy which is simultaneously prudent and opportunistic, aimed at assuring no less than the continued maintenance of comprehensive equality with the US, while at the same time seeking to attain some degree of strategic advantage if US behavior permits. The Vladivostok accord has shown that, in a situation in which numbers of US delivery vehicles and MIRVed missiles are limited, the Soviets believe a rough equality of strategic forces will satisfy at least their minimum security requirements over the next ten years. (We still differ over the nature and goals of Soviet strategic policy, and those differences have not been changed by Vladivostok.) Specifically, the Vladivostok accord reflects an outlook on the strategic arms competition in which the Soviets believe:

— Quantitative competition in numbers of delivery vehicles does not offer them greater advantages in the strategic balance during the next decade.

— The USSR could at least maintain and possibly improve its relative position in the qualitative competition with the US in a situation in which an agreement limited US numbers.

— The ceilings imposed on the US would reduce some of the Soviets' own uncertainties about the future and would make it easier for them to handle the significant uncertainties which remain.

— Vigorous research and development in technologically advanced weapon concepts offer a better prospect in the long run for the Soviets to alter the strategic environment in their favor than continued competition in current types of weapons.

Soviet Planning Issues

The prospects for limitations on strategic forces have almost certainly prompted the Soviets to reexamine plans for their strategic attack forces. They must decide which weapons are to be dismantled or destroyed in order to comply with the limit of 2,400 delivery vehicles. They must also consider the rates of deployment for, and the allocation of MIRVed missile launchers between, ICBMs and SLBMs. They have probably already decided on the character of their strategic offensive force modernization program through the late 1970s, but for the period beyond, their choices as to the mix and character of weapons to be deployed will involve the following issues:

— In light of anticipated changes in US forces, what the mix should be among the various fixed and mobile systems to achieve desired hard-target and counterforce capabilities and force survivability.

— Choices among research and development options and levels of effort.

— Advantages and disadvantages of reductions from the Vladivostok levels and the forces to be reduced.

Projections of Soviet Forces

There is little evidence to suggest how the Soviets will resolve these issues or how they intend to mix their forces in the 1980s. We have made three basic projections of forces for intercontinental attack illustrating options available to the Soviets under the Vladivostok ceilings.

Force A (Best Estimate). We believe that the Soviets will take a balanced approach requiring only minimal changes in ongoing programs to upgrade their forces and that they will continue to stress MIRVed ICBMs and emphasize qualitative improvements. This force would incorporate a mix of ICBMs, SLBMs, and bombers which would accommodate bureaucratic interests while striking a balance between improved countersilo capability and overall force survivability. In this option the Soviets:

— Dismantle silo-based launchers at some SS-11 complexes and retire some bombers in order to comply with the 2,400 ceiling on delivery vehicles, while deploying a land-mobile ICBM.

— Continue to emphasize better war-fighting capabilities by allocating most MIRVed missile launchers to the Strategic Rocket Forces.

— Achieve the level of technology in missile characteristics forecast in the best estimate in NIE 11-3/8-74.

— Stay within the limit of 1,320 MIRVed missile launchers largely by deploying fewer MIRVed systems across the board than projected in the NIE 11-3/8-74 best estimate.[1]

— Maintain rates of deployment through the 1970s consistent with those in the NIE 11-3/8-74 best estimate. After 1979, the pace of deployment of MIRVed ICBMs slows somewhat to await the availability of improved systems in about 1983.

— Achieve the level of 1,320 MIRVed missile launchers two or three years later than forecast in the NIE 11-3/8-74 best estimate.

— Maintain about 100 Bear heavy bombers by extending the life of current systems. (If Backfires were counted under the 2,400 ceiling, both Bears and Bisons would be phased out as the Backfire inventory increased.)

Force B (Primary Emphasis on Fixed ICBMs). Force B assumes the Soviets place additional emphasis on fixed ICBMs and MIRV only

[1] The Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Director of Naval Intelligence, Department of the Navy, believe the Soviets will place more emphasis on survivability and stay within the 1,320 total by deploying fewer MIRVed ICBMs than in the NIE 11-3/8-74 best estimate but about the same number of MIRVed SLBMs. The consequence of this is that the limit is approached more rapidly.

these systems. They elect to have large numbers of accurate, high-yield missile warheads. They accelerate the acquisition of MIRVs and other qualitative improvements in silo-based missiles. In this option the Soviets:

— Give even greater priority to the Strategic Rocket Forces, reducing slightly the number of SLBMs[2] and bombers to stay within the limit of 2,400 delivery vehicles.

— Convert nearly all their modern large ICBM launchers and all the SS-11 launchers for MIRVed systems.

— Begin replacement of SS-X-17s, SS-18s, and SS-19s earlier and more rapidly with follow-on missiles having slightly better accuracies than in Force A.

— Deploy new, unMIRVed SLBMs, instead of MIRVed SLBMs.

— Maintain about 100 existing heavy bombers.

Force C (Emphasis on Mobility). In this option the Soviets elect to emphasize MIRVed mobile ICBMs and SLBMs in order to offset the vulnerability of their silo-based ICBMs to attack by improved US forces. In this option the Soviets:

— Reduce the number of fixed-base ICBMs to stay within the limit of 2,400 delivery vehicles while increasing the number of mobile ICBMs and SLBMs.

— Achieve the level of technology in missile characteristics and the rates of deployment forecast in the NIE 11-3/8-74 best estimate.

— Allocate an increasing percentage of their missile launchers for mobile systems, but maintain a significant hard-target capability with MIRVed SS-18s and SS-19s.

— Deploy a new heavy bomber and a new SSBN.

Implications for the Strategic Environment

In general, the forces we project differ more in underlying motives than in demonstrable strategic effect. In terms of effect, what is alike about these forces is more important than what is different about them:

— They are large, diverse, and relatively flexible, and they represent major technological achievements.

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[2] See footnote 4 (at paragraph 45) for comment of the Director of Naval Intelligence, Department of the Navy.

— They have significant countersilo capabilities, Force B somewhat earlier than the other two.

— They are survivable enough to maintain far more weapons than necessary for assured retaliatory capability.

These common characteristics also applied to the force projections in NIE 11-3/8-74—which, however, varied a good deal more widely than those in this report. As we have said in the past, given the character of strategic offensive forces and a situation of rough strategic equality, the most significant variables and uncertainties in the strategic balance have to do with technological qualities, operating practices, and employment plans. The understanding at Vladivostok only strengthens this conclusion.

Our estimate of the principal features of the strategic environment during the next decade has been changed very little by the Vladivostok accord. The USSR's acceptance of equal ceilings on numbers of delivery vehicles and MIRVed missiles reinforces our confidence, however, that its leadership does not foresee dramatic advantages accruing to either side from a competition in these measures of offensive forces—that is, delivery vehicles and MIRVed launchers. The Soviets are likely to remain convinced that in the strategic arms competition with the US they must search for better—and quite possibly different—strategic arms in the decade of SALT TWO and beyond. The Soviets will, accordingly, pursue a vigorous research and development program. But we do not foresee technological advances in strategic forces which would sharply alter the balance in the USSR's favor during the next ten years.

DISCUSSION

I. GENERAL

1. NIE 11-3/8-74, *Soviet Forces for Intercontinental Conflict Through 1985*, 14 November 1974, depicted a Soviet Union vigorously competing in the strategic arena against the prospect of US force improvements and for the possibility of achieving advantages for the USSR. The Estimate projected alternative future Soviet strategic offensive forces that by 1985 could range from around 2,400 to about 3,300 delivery vehicles, and from around 1,500 to about 3,000 MIRVed missile launchers. The best estimate Force postulated about 2,600 delivery vehicles and more than 1,800 MIRVed missile launchers in 1985.

2. On 24 November 1974, shortly after this Estimate was issued, the US and the USSR agreed at the Vladivostok Summit to seek a SALT TWO agreement in 1975 that would limit each side over the next ten years to 2,400 intercontinental delivery vehicles and 1,320 MIRVed missile launchers. At Vladivostok, the USSR dropped its insistence on unequal aggregates of total delivery vehicles to compensate it for US forward-based systems (FBS) and third-country nuclear forces. In this report we review the judgments in NIE 11-3/8-74 on Soviet strategic policy, and provide alternative Soviet force projections under the proposed SALT TWO limits.

3. The events of Vladivostok and since have not caused us to change our views of Soviet strategic objectives or our estimates of general Soviet strategic capabilities as set forth in NIE 11-3/8-74. Specifically, the following judgments still hold:

- The USSR expects, and will be active in, a vigorous strategic arms competition, with emphasis on qualitative force improvements.
- Soviet strategic doctrine will put a high premium on war-fighting capabilities as the best deterrent and on counterforce operations as the best way to employ Soviet forces should deterrence fail. Consequently, the Soviets will continue to be concerned about force survivability and about capabilities to execute preemptive strikes.
- An extensive modernization of Soviet strategic offensive forces for intercontinental conflict will provide substantial improvements in counterforce capability, flexibility, and survivability by 1980.
- Soviet forces will continue to be superior to those of the US in some characteristics, notably missile throw weight and total megatonnage. They are likely to remain inferior, however, in total numbers of de-

ployed strategic nuclear weapons, bombers and bomber armaments, system accuracy, and other qualitative aspects of force posture.

— Soviet strategic force improvement programs over the next ten years are intended to provide no less than continued maintenance of comprehensive equality with the US, while at the same time seeking to obtain a margin of strategic advantage should US behavior permit. (We still differ over the nature and goals of Soviet strategic policy, and those differences have not been changed by Vladivostok.)

— The Soviets will have the potential for posing a major threat to the survivability of US silo-based missiles in the early 1980s, provided they achieve the accuracies we project in their follow-on ICBMs. If the US acquires improved hard-target kill capabilities (currently programed for its ICBMs in the latest US Department of Defense Five-Year Defense Program), the Soviets would face threats to the survivability of the majority of their ICBMs in the early 1980s.

— The Soviets will not be able to launch an attack on US strategic forces of such size and precision as to prevent massive damage to the Soviet Union from US retaliation.

4. We have no further insight into the Soviets' views of selective or limited nuclear options, although they have continued to express concern over US policy with respect to selected uses of nuclear weapons.

5. With the Vladivostok accord, the Soviets have accepted equal ceilings which would foreclose their opportunities to attain clear-cut advantages over the US in the next ten years in terms of total and MIRVed delivery vehicles. This signifies a belief on their part that rough equality in strategic forces over the next ten years will satisfy at least their minimum security requirements.

6. The Vladivostok accord thus reflects an outlook on the strategic arms competition in which the Soviets:

— believe that quantitative competition in numbers of delivery vehicles does not offer them greater advantages in the strategic balance during the next decade.

— believe that they can at least maintain, and possibly improve, their relative posture in the qualitative competition with the US in a situation in which an agreement limited US numbers.

— have concluded that the ceilings imposed on the US would reduce some of their own uncertainties about the future and make it easier for them to handle the significant uncertainties which remain.

— believe that the strategic equilibrium implied by the Vladivostok limits will endure at least ten years before technologically advanced weapon concepts could bring about major changes in the strategic environment.

II. VLADIVOSTOK AND NEAR-TERM SOVIET POLICY

7. The Soviets clearly perceived the Vladivostok accord as an important political act. It required a political decision by them to give up some of their previous negotiating positions for the sake of assuring timely agreement on issues of central importance. From May 1972, when the Interim Agreement was signed, until midsummer 1974 there were indications that their policy was to wait several years to establish the main parameters of a SALT TWO agreement. Their preference appeared to be an extension of the five-year Interim Agreement, with the USSR receiving some numerical compensation for US forward-based systems and third-country nuclear forces.

8. The Soviets may have expected that by late 1976 or early 1977 the impending expiration of the Interim Agreement and the progress of their new deployment programs would provide a pro-

pitious negotiating environment, notwithstanding uncertainties about US electoral politics. In any case, until last year there were no signs in the Soviet decision-making establishment that reaching a new SALT agreement was a matter of great urgency.

9. However, the resignation of President Nixon in August, the perceived need to start off relations with President Ford on a positive note, and the increasingly vocal criticism of detente in the US all may have worked to change this Soviet calculation. The Soviets came to believe that tangible early progress in SALT was vital to the health of their detente policy. Further, they probably reasoned that ensuring some limits in the strategic weapon competition was important to their plans in other sectors of internal and foreign affairs during the next decade.

10. Soviet military reasons for accepting the Vladivostok ceilings were that these ceilings:

— would not limit established Soviet force improvement programs through about 1978-1979—that is, the current deployment of MIRVed fourth-generation ICBMs and expansion and improvement of the SSBN/SLBM force.

— would prevent a decision by the US to MIRV all of its ICBMs while retaining present levels of MIRVed SLBMs. The Soviets probably anticipated such a decision in the event that progress in SALT was not achieved.

11. We can only speculate on the reasons why the Soviets retreated from their position on FBS, third-country forces, and the need for unequal aggregates. Although the Soviet position on FBS was always, in part, a political bargaining ploy, it also had genuine strategic importance. Perhaps Brezhnev was willing to back away from earlier Soviet positions because of the need for a simple agreement soon, because he recognized that FBS would represent the least important military consideration affected, and because the negotiations on mutual and balanced force reductions (MBFR)—as well as future negotiations on strategic force reductions—could offer opportunities in which to address the FBS issue.

12. Another factor may have been that qualitative improvement in Soviet peripheral attack capabilities—deployment of the Backfire bomber and, later, the SS-X-20 IRBM—could dampen the strategic rationale for and diplomatic persuasiveness of the Soviet position on FBS in SALT. Further, the longer range Soviet SLBMs probably reduce concern in the USSR about geographic asymmetries in SSBN basing, an element in Moscow's former FBS position.

13. The Vladivostok accord expresses a Soviet desire to strive for a SALT TWO agreement during 1975. But a number of uncertainties could affect the prospects of actually achieving such a treaty:

— Negotiations over the counting rules and special measures to enhance verification of a treaty incorporating the Vladivostok limits are likely to be complex and difficult. The Soviets are likely to resist verification-related terms that intrude on their force-posture decisions.

— Brezhnev's ill health has raised concern about the political future of the Soviet figure most interested personally in a treaty for signature at a 1975 Summit, and about the short-term ability of the Soviet leadership to resolve difficult policy issues.

— Events beyond the control of either side in the Middle East could precipitate a confrontation that could in turn affect SALT and Summit plans.

— We are uncertain as to the meaning of Soviet strategic concealment and deception activities, or how the Soviet leaders regard them. Further analysis and information from negotiations should help clarify these activities.

The Soviets are surely mindful of these problems, but they probably now expect that some kind of treaty based on Vladivostok can be negotiated in 1975.

14. In the present negotiations, the Soviets probably would not accept a reduction from the ceilings established at Vladivostok. However, they do appreciate that, if a SALT TWO agreement is reached, the US will press for early negotiation on future strategic force reductions. Although the Soviet position on possible force reductions has been generally positive, we doubt that the Soviet leadership has made any firm decisions on this issue.

III. VLADIVOSTOK IN A BROADER CONTEXT

A. Questions of Technological Uncertainty

15. If adopted in an agreement, the Vladivostok ceilings will reduce uncertainties about the size of strategic forces on both sides for the next ten years. But uncertainties about force mix, characteristics, and effectiveness will remain; and increased emphasis on qualitative competition may add somewhat to those uncertainties. We believe that, restricted in the pursuit of more strategic armaments of the types limited at Vladivostok, the Soviets are likely to remain convinced of the need for better—and quite possibly different—strategic arms in the decade of SALT TWO and beyond.

16. In the longer run, the Soviets probably doubt that strategic equilibrium based on the standoff of diversified offensive capabilities can persist indefinitely. The dynamics of technology and a dialectical view of history probably persuade the Soviets that the present strategic environment is transitory. They will continue to assign a high priority to scientific research and to programs intended to preclude US advantages and, if possible, to alter the strategic environment in favor of the USSR through technologically advanced or novel strategic weapons and systems.

17. Because this area is largely uncharted, neither side can be sure what set of technologies might be the source of major change, or even which of them may be made to work. Although new offensive technologies and force basing modes are possible, the present strategic environment is already characterized by offense dominance. Should substantial change occur in the strategic environment, it would almost certainly have to result from technology in strategic defense. The Soviets have active R&D programs in potentially significant areas of lasers and nonacoustic ASW and also may have a program in charged particle beams.

B. The General Correlation of Forces

18. The Soviets continue to see the strategic military balance and competition as key aspects of the global "correlation of forces." They see a SALT TWO agreement as making a significant contribution to detente by helping to inhibit US strategic programs.

19. The Soviets probably expect major changes in their favor to occur in this global correlation because of current economic troubles within and among the Western states, the political consequences of these troubles, and the resulting shifts in regional power balances. Although they may be fearful that such changes in economic, political, and regional terms may create dangerous moments for the USSR, their ideology makes them optimistic that they can profit from the changes. In the Soviet view, a gross strategic equilibrium with the US over the next decade probably will provide a background against which more dynamic factors of economic and political turmoil and of regional military power can operate to Soviet advantage.

IV. SOVIET FORCES UNDER SALT TWO

A. The New Strategic Arms Environment

20. The Soviets almost certainly are reexamining the composition and capabilities of their strategic attack forces in light of the limitations expected to be imposed through 1985 and the likelihood of additional agreements in the future. Although they will probably try to exempt certain weapon systems from inclusion in the aggregate limit, they would have to dismantle or destroy some weapons by October 1977 in order to comply with the aggregate limit of 2,400 strategic delivery

vehicles.[3] The limit of 1,320 MIRVed ICBMs and SLBMs need not have an immediate effect on their plans because the Soviets have deployed only a few ballistic missiles with these warheads to date, but at some point they will have to decide how to allocate MIRVs between their ICBMs and SLBMs.

21. Other weapon systems which might be covered in a SALT TWO agreement are long-range cruise missiles launched from land, air, or sea platforms, and ballistic missiles launched from surface ships or from the seabed within territorial waters. These systems, however, are not considered in this report. If such weapons were developed by the Soviets, they probably could not be deployed in strategically significant numbers in the near term.

22. If long-range cruise missiles were limited by agreement, the Soviets probably would not develop them. If they were unconstrained, however, the Soviets would be more likely to undertake a development program, particularly if the US continues to show interest in air- and submarine-launched long-range cruise missiles. The development of any long-range cruise missiles, if not constrained by agreement, would thus present new channels for arms competition.

23. The Soviets have indicated no interest in the past in ballistic missiles on surface ships or in seabed-based missiles. We do not project Soviet development of these systems.

24. There is little evidence to suggest where reductions will occur or how the Soviets intend to mix their forces to meet the Vladivostok-proposed limits. The projections in this paper are intended to suggest options now available to the Soviets, under alternative assumptions about their decisions. The projections, including the best estimate, will be subject to change as the SALT TWO negotiations give us new insights about Soviet force planning.

[3] The aggregate ceiling of 2,400 delivery vehicles would include heavy bombers, SLBM launchers, land-based ICBM launchers, and bomber-launched air-to-surface missiles with a range of more than 600 kilometers. Within this ceiling, each side would be allowed to alter the composition of its strategic force with two exceptions. First, neither side would be permitted to construct new fixed ICBM launchers. Second, neither would be permitted to convert launchers for light ICBMs or ICBMs deployed prior to 1964 into launchers for heavy ICBMs deployed after that time. The Vladivostok accord stated that the weapon ceiling would run from October 1977 through 31 December 1985.

B. Factors Affecting Force Composition

25. The Soviets have already decided on the direction of their force modernization programs through the 1970s, but important choices remain to be made. In the near term, they must decide how to comply with the ceiling of 2,400 delivery vehicles by October 1977. For the longer term, Soviet choices will concern the force mix and characteristics of weapons to be produced and deployed:

- How are the allowed 1,320 MIRVed missile launchers to be allocated between ICBMs and SLBMs in the late 1970s and how rapidly are they to be deployed?
- In the period of the 1980s, in light of anticipated changes in US forces, how is the Soviet force mix to be drawn from the various fixed and mobile systems in order to achieve desired counterforce capabilities and force survivability?
- Which research and development options should be pursued, and at what level of effort, in order to deal with the strategic environment during the lifetime of the proposed agreement and beyond?
- What strategic advantages and disadvantages would there be in subsequent offensive force reductions?

26. *Delivery Vehicle Limit.* The present (1 February 1975) Soviet intercontinental attack force, in terms of forces we assume to be counted under the Vladivostok limits, is structured as follows (see also first column in Table 1):

- An ICBM force of 1,607 ICBM launchers at 26 complexes. This number now includes 1,439 operational launchers and 168 launchers which are under construction, under-

TABLE 1

Soviet Forces For Intercontinental Attack

	1 Feb 1975	Mid-1977 [1]
ICBMs	1,607	1,476
SS-7, SS-8	209	48
SS-9, SS-18	308	308
SS-11, SS-19, SS-X-17	1,030	1,030
S-13, SS-X-16 Fixed	60	60
SS-X-16 Mobile	0	30 [2]
SLBMs	704	886–904
On the Y class	544	544
On the D class	120	342–360
On the G and H classes	40	0
Bombers [3,4]	140	130
Bear	105	100
Bison	35	30
TOTAL	2,451	2,492–2,510

[1] As projected in NIE 11-3/8-74 with the following exceptions: 16 SLBM launchers on three submarines used as test platforms are excluded, and uncertainty regarding the number of launchers on the modified D-class submarine is taken into account.

[2] Under the Interim Agreement mobile ICBMs are not proscribed, but the US stated unilaterally that it "would consider the deployment of operational land-mobile ICBM launchers during the period of the Interim Agreement as inconsistent with the objectives of that Agreement."

[3] If Backfire bombers and Bison tankers are included, they would increase the totals and compound Soviet problems in meeting a limit of 2,400 delivery vehicles, as shown in the Force A variants which include Backfires (Tables 5 and 6).

[4] The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes that, since the Backfire has intercontinental capabilities and might be included in the 2,400 aggregate ceiling (as shown in the Force A variant tables), it should be included in this table.

going modification or conversion, or otherwise in a nonoperational status. Of these 1,607 launchers, 209 are SS-7 and SS-8 launchers, which under the terms of the Interim Agreement can and probably will be dismantled and replaced by SLBM launchers. Thirty-four of the SS-7 launchers are now nonoperational, and we believe dismantling of SS-7 and SS-8 launchers is likely to begin when the submarine carrying the 741st SLBM begins sea trials in the third quarter of 1975.

— An SLBM force of 704 SLBM launchers. (Included are three submarines which have a total of 16 modern SLBM launchers and are used as test platforms.) At present there are about 260 additional modern ballistic missile submarine launchers under construction. By mid-1977 the Soviets are expected to have 886 to 904 SLBM launchers operational.

— A Bear and Bison force of 140 aircraft. Of these, 70 are Bear bombers equipped with the Kangaroo ASM, which has a range of 645 km and the other 70 are Bear and Bison bombers with an internal bombload. In addition, there are 50 Bison bombers configured as tankers which can be reconverted to a bomber configuration but which are not treated as bombers in this report because they are used to support the bomber force.

27. Before the Vladivostok Summit, our best estimate in NIE 11-3/8-74 was based on the assumption that the limitations of the Interim Agreement would continue. It projected that by mid-1977 the Soviets would have a total of approximately 2,500 ICBMs, SLBMs, and heavy bombers (see second column of Table 1). We assumed a normal pace of construction of new submarines and the dismantling of most SS-7 and SS-8 launchers and older ballistic missile submarine launchers as provided for in the Interim Agreement. We also assumed that by mid-1977 the Soviets would have started deploying a mobile ICBM force.

28. To comply with the aggregate limit of 2,400 agreed to at Vladivostok, it appears that by mid-1977 the Soviets would have to reduce their total force by approximately 100 delivery vehicles. After 1977, as more D-class submarines reach sea trials, further reductions would have to be made. If, as expected, land-mobile ICBMs are deployed, the problem will be compounded.

29. *MIRV Limit.* The ceiling of 1,320 MIRVed delivery vehicles would allow the Soviets considerable flexibility in determining the composition of

their MIRVed force. In the near term it should have little impact on their plans to deploy MIRVed missiles.

30. The Soviets are converting SS-9 and SS-11 silos for their new MIRVed ICBMs or are preparing for such construction at ten complexes containing a total of 798 launchers.

- [ ] SS-19s are already operational at one of four SS-11 complexes (containing a total of 410 silos) where this MIRVed system is being installed.
- [ ] SS-X-17s probably will be operational by June 1975 at one SS-11 complex, containing 110 silos, where the newer system will be deployed.
- Five SS-9 complexes, containing a total of 278 silos, are being converted for the SS-18. [ ] SS-18s with single RVs are already operational, and the MIRVed version probably will be ready for deployment later this year.

31. Assuming that these programs will be completed, there are several avenues open to the Soviets for additional MIRVed missiles under the ceiling of 1,320. We believe there will be strong institutional pressures to develop MIRVed SLBMs and to install them on at least some D-class submarines. [ ] We continue to expect development and deployment of an SS-N-8 follow-on with MIRVs. It probably will not become operational until the period 1978-1980, however.

32. The Soviets also may convert additional SS-9 and SS-11 silos for the new MIRVed ICBMs. [ ] Deployment of MIRVed missiles at these SS-9 and SS-11 complexes would depend on the number of MIRVed SLBMs deployed.

33. Deployment of a MIRVed SS-X-16 is another way the Soviets could go in approaching the 1,320 limit. The missile has not been tested with MIRVs but does have a postboost vehicle. A MIRVed version of the SS-X-16 probably could be ready for deployment a year or so after MIRV testing began.

34. The Soviets could most rapidly approach the 1,320 ceiling by MIRVing only silo-based ICBMs, since other MIRVed systems have yet to be tested. The MIRV ceiling in such a force could be reached as early as 1980, assuming deployment at the highest annual rate demonstrated in the past. If sizable numbers of MIRVed SLBMs are planned, then the Soviets probably could not reach the MIRV ceiling until 1982 or so. These numbers, however, reflect crash programs aimed at rapid MIRV deployment for its own sake. We believe the Soviets would choose more balanced programs, with attainment of the 1,320 limit by about 1985.

35. *Weapon System Vulnerability.* The Soviets probably believe that during the period through 1985 their fixed ICBM force could become more vulnerable to attack as US forces are improved. To counter the threat to their fixed ICBM force the Soviets have under way a major program to deploy their new fixed ICBMs in more survivable silos. They apparently are also developing a mobile ICBM. They may believe that silo hardening will not suffice, and might choose to deactivate some of the silos where the SS-11 Mod 3 is being deployed in favor of mobile ICBMs or SLBMs. Such a choice, however, carries with it a willingness to accept reduced accuracy and reliability as well as problems with command and control.

36. The Soviets are also taking steps to improve the survivability of their SLBM force. They are constructing D-class submarines equipped with the long-range SS-N-8 missile, which can operate in protected local areas and still target all of the US. A new SLBM for Y-class units is apparently under development. We believe it will have longer range than the SS-N-6, thereby permitting Y-class units to operate in areas where they will be less vulnerable to detection by acoustic sensors of the US sound surveillance system (SOSUS). In addition,

underground berthing positions appear to be under construction [ ] to reduce the vulnerability of Soviet SSBNs to nuclear attack while they are in port. Given these improvements, it is unlikely there will be any major reductions in the SSBN force.

37. *Age of Weapon Systems.* Age should not be a prime factor in the choice of Soviet weapon systems to be given up under the Vladivostok aggregate limit. The majority of the weapon systems now in the Soviet ICBM and SLBM forces date only from the late 1960s or early 1970s, and those systems which are older probably will already have been phased out by 1977 under the terms of the Interim Agreement. As for the Bear and Bison heavy bombers—most of them built in the 1950s—the Soviets could keep even these aircraft in service until the mid-1980s by reducing annual flying hours and by undertaking a comprehensive overhaul program.

38. *System Effectiveness and Flexibility.* The capability and flexibility of the individual weapon systems will be major influences in the Soviet decision-making process. The new generation of ICBMs has been developed to increase the survivability, flexibility, and effectiveness of the Strategic Rocket Forces (SRF). The Soviets evidently have placed a premium on improving their targeting and hard-target capability.

39. [ ] and MIRVed payloads of the SS-X-17, SS-18, and SS-19 systems give them better targeting capabilities than their predecessors. In addition, [ ] These improvements will add to the overall flexibility of the Soviet ICBM force in a preemptive attack and to the targeting potential of a surviving retaliatory force, giving Soviet planners more leeway in adapting operational plans to changing circumstances.

40. To achieve a significant hard-target capability, the Soviets will have to depend primarily on their ICBM force. The new ICBMs, with CEPs between 0.25 and 0.5 nautical mile, will be more accurate than the systems they replace. [ ] With these new systems, the bulk of the ICBM force will have better hard-target capabilities than in the past. However, to acquire high kill probabilities against US missile silos the Soviets will need the improved or follow-on systems projected for deployment in the 1980s.

41. For the foreseeable future, SLBMs will remain an important retaliatory weapon, able to survive a nuclear attack and return a strike against unhardened military, industrial, and population targets. In addition, while present-day SLBMs probably do not have a hard-target capability they could be used as first-strike weapons against time-urgent targets such as US bomber bases.

42. Strategic bombers diversify the Soviet intercontinental attack force and increase its effectiveness. Bombers equipped with free-fall bombs have a hard-target capability which can be best utilized if the target is not time urgent. Bombers also have several important attributes which ballistic missiles lack. They may be recalled or retargeted in flight, they are reusable, they have a poststrike reconnaissance capability, and they can be used in either a conventional or nuclear war. These attributes suggest that the Soviets will retain an intercontinental bomber force.

43. *Recent Investment Decisions.* The Soviets will seek to eliminate or minimize the impact of the aggregate ceiling limitation on their plans to improve their forces qualitatively. It is likely that reductions will take place in those areas of their forces where investments in force improvements are not under way or planned. It is probable, moreover, that some currently planned force improvements will not be made or will be made on a smaller scale.

44. In the Soviets' program to upgrade their ICBM force, no improvement activity has been detected at the Kostroma SS-11 complex or the Aleysk SS-9 complex. If the SRF chose to dismantle ICBM launchers in addition to those for the SS-7 and SS-8, the launchers at these two complexes

would be candidates for dismantling. In addition to the 90 SS-11s at Kostroma and the 30 SS-9s at Aleysk, the 60 SS-13 silos at the Yoshkar-Ola complex could also be dismantled if the Soviets opt for deploying only the mobile version of the SS-X-16.

45. The Soviets could also reduce the delivery-vehicle aggregate by curtailing the D-class submarine program. This appears very unlikely because the D-class apparently will be the mainstay of the Soviet SSBN force. If the Soviets plan to deploy substantially fewer SLBMs than the 950 permitted under the Interim Agreement, it is likely that some Y-class submarines would be dismantled.[4] Most of the submarines of this class are older than those of the D-class, and they currently carry a less effective SLBM and are more vulnerable to detection while on missile patrol because of SOSUS coverage.

46. The Soviets have not made any major additions to the Bear/Bison bomber force in over a decade, but some Soviet statements suggest that they are developing a new heavy bomber. If the decision is made to deploy a new bomber, the Soviets probably could not begin to replace their Bears and Bisons before 1980 at the earliest. In any event, the intrinsic flexibility and poststrike reconnaissance capability of a bomber probably will mean that some heavy bombers will be retained through the mid-1980s.

47. Two new programs—those for the SS-X-20 IRBM and the Backfire bomber—will impact on the force composition the Soviets plan to have eventually. Even if neither of these systems is constrained by the proposed 1975 agreement, their deployment might alter the presumed mission or number of other forces included under the aggregate ceiling.

48. The SS-X-20 IRBM—a two-stage variant of the SS-X-16—apparently has a MIRVed payload and may be launched from a mobile platform. Large-scale deployment of the SS-X-20 would enable the Soviets to replace older MRBMs or IRBMs and to reduce reliance on ICBMs for targeting against peripheral areas—primarily in China and Europe. As many as 310 SS-11s may now be targeted against peripheral areas, and some of their replacements—the SS-X-17 and SS-19—may also be assigned peripheral targets. If so, deployment of the SS-X-20 might permit dismantling of some SS-11 launchers.

49. The Backfire's range and radius capabilities are estimated to be approximately the same as those of the Bison heavy bomber on a high-altitude subsonic mission. These capabilities make the Backfire a potential threat to the continental US, but current evidence is insufficient to determine whether the Soviets intend to use it for intercontinental missions and, if so, to what extent.[5] In view of these capabilities, if the Backfire is excluded from a SALT TWO agreement, the Soviets may conclude that more of their Bears and Bisons can be retired from the heavy bomber force. On the other hand, inclusion of the Backfire in an agreement could raise the additional question of whether all or a portion of the Backfire force—in both Long Range Aviation (LRA) and Soviet Naval Aviation—should be counted. Obviously, decisions in this area would significantly affect the mix of forces under the agreement.

C. Force Projections [6]

50. Considerable uncertainty exists over what systems will be included in a SALT TWO agreement based on the principles agreed to at Vladivostok and how the Soviets will structure their forces. Our force projections illustrate options available to the Soviets, and result from varying assumptions about their objectives, their willingness to restructure their force mix, and their perception of the threat posed by US strategic forces.

— Force A is our best estimate. In this projection we assume the Soviets take a balanced approach requiring only minimal

[4] The Director of Naval Intelligence, Department of the Navy, believes it unlikely that the Soviets plan to dismantle any of the Y-class SSBNs.

[5] The Assistant Chief of Staff, Intelligence, Department of the Air Force, believes that some portion of the Backfire force will probably be assigned missions against the continental United States.

[6] The force projections in this section (Tables 3 through 8) assume that no collateral constraints are in effect. A discussion of possible effects of collateral constraints is in the Appendix.

force restructuring. We believe they are likely to opt for this approach because it would not seriously affect ongoing programs to upgrade their forces. Both ICBMs and SLBMs would be MIRVed. We have also projected a variation of our best estimate in which we assume that the Backfire will be counted in the aggregate of intercontinental delivery vehicles.

— Force B assumes the Soviets place primary emphasis on fixed ICBMs and MIRV only these systems. The Soviets might opt for this force structure if they wanted to MIRV rapidly and maximize the qualitative aspects of their forces, and if they believed that silo hardening would be sufficient to ensure the survivability of their ICBM force.

— Force C assumes the Soviets emphasize mobile systems and deploy a large number of MIRVed mobile ICBMs and SLBMs. The Soviets might take such a course if they were seriously concerned that their fixed ICBM force was becoming vulnerable to improved US forces.

51. These illustrative approaches, because of different objectives, would involve different priorities for the services affected—the SRF, the Navy, and LRA. Force A would probably accommodate bureaucratic interests best, whereas Force B or Force C would tend to give priority to one or another of the services. This being the case, services that came out lower in priority with respect to strategic forces would probably push for expanded programs in other areas. The concepts involved in the alternative force structures, and the possible effects on forces not limited by SALT, are summarized in Table 2.

52. *Force A: The Best Estimate.* This Force incorporates a mix of ICBMs, SLBMs, and bombers, which would accommodate bureaucratic interests and strike a balance between counterforce-capable systems and force survivability. In this option the Soviets reach and maintain the aggregate limit by somewhat reducing the number of fixed ICBMs and Bear/Bison heavy bombers. The deployment rates and weapon system characteristics are comparable to those projected in the best estimate (Force 1) of NIE 11-3/8-74. The SRF dismantles silo-based SS-11 launchers in order to deploy land-mobile SS-X-16s, and LRA retires its Bison bombers so that the ICBM and SLBM modernization programs can continue. No new bomber is projected in this Force. The Soviets allocate MIRVed missiles within the limit of 1,320 permitted by the treaty to both the SRF and the Navy.

53. The Central Intelligence Agency, the Department of State, the National Security Agency, and the Assistant Chief of Staff, Intelligence, Department of the Air Force, estimate that by 1985 the Soviets will have a force of 1,152 MIRVed ICBM launchers consisting of 262 SS-18 or follow-on large missiles and 890 smaller ICBMs—SS-X-17s, SS-19s, and a new small follow-on. They believe the Soviets will deploy 110 single-RV SS-18s and maintain this level through 1983 because of that weapon's counterforce capability. In addition, this Force projects that the Soviets will MIRV only the 162 launchers on the nine lengthened D-class submarines—the Mod Ds.

54. The Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Director of Naval Intelligence, Department of the Navy, believe that the Soviets will place more emphasis on survivable systems. In their view, the Soviets will equip all of the 390 missiles on the D and Mod D SSBN force with MIRVs and deploy a larger mobile ICBM force. They believe the Soviets will equip all of their modern large ballistic missiles and the missiles for all 610 SS-X-17 and SS-19 launchers with MIRVs, but no additional small ICBMs.[7]

[7] The Director, Bureau of Intelligence and Research, Department of State, believes that Force A is the best projection which can be made at present. He notes, however, that the Soviets may well elect to deploy larger numbers of MIRVed SLBMs in the early 1980s as projected in the variant of the best-estimate Force. Assuming the Vladivostok accord is successfully completed, Soviet decisions with regard to whether to emphasize ICBMs or SLBMs under the 1,320 MIRV limit may not be made until the follow-on SALT negotiations—and especially the negotiation of reductions—are under way.

Table 2

Comparison of Illustrative Soviet Force Concepts

	Force A Best Estimate,[1] Diversified Force	Force B Emphasis on Fixed ICBMs	Force C Emphasis on Mobility
Rationale	Requires minimal impact on ongoing programs to upgrade ICBM force.	Accelerates acquisition of MIRVs and other qualitative improvements.	Emphasizes mobile systems for survivability.
Services	SRF and LRA take force cuts. SRF and Navy get new systems.	SRF gets preference. LRA and Navy take cuts.	Navy and LRA get preference at expense of SRF.
ICBMs	Some SS-11 launchers deactivated but a mobile ICBM is deployed. MIRVs on SS-X-17s, SS-18s, SS-19s, and their follow-on missiles.	All MIRVs in the SRF.	Substantial numbers of fixed launchers deactivated but a large force of mobile ICBMs (MIRVed) is deployed.
SLBMs	62 SSBNs with 934 SLBMs are deployed. MIRVs on the 9 Mod D-class SSBNs. (Alternative View: MIRVs on all D-class SSBNs.)[2]	Three Y-class SSBNs dismantled.[3] No MIRVs on SLBMs.	New SSBN with MIRVed SLBM. Force goes beyond Interim Agreement limits.
Heavy Bombers	Force reduced significantly and no new heavy bomber is deployed.[4]	Force reduced significantly and no new heavy bomber deployed.	Force expanded, with new bombers deployed.
Other Systems	LRA compensated by Backfire, SRF compensated by SS-X-20 deployment.	LRA compensated by Backfire.	SRF expands SS-X-20 deployment to handle all Eurasian targets.

[1] See paragraph 56.
[2] See paragraph 54.
[3] See paragraph 58.
[4] See paragraphs 49 and 50.

55. Summarized for comparison below are the two views of the force mix of a best estimate in 1985:

	CIA, State, NSA, AF	DIA, Army, Navy
Aggregate	2,382	2,400
Fixed ICBMs	1,258	1,198
SLBMs	934	934
Mobile ICBMs	100	180
Bombers	90	88
MIRV Limit	1,314	1,308
SS-18, Large follow-on	262	308
SS-X-17, SS-19, Small follow-on	890	610
SS-N-8 follow-on	162	390

56. In the variants to the best estimate in which Backfire is included, the Soviets retire all the Bison and Bear bombers and make additional adjustment to their missile forces to maintain the aggregate ceiling.

57. *Force B: Primary Emphasis on Fixed ICBMs.* For this Force, we assume that most ICBM characteristics and deployment rates are comparable to those given in the high Forces (3 and 4) of NIE 11-3/8-74. The higher technology levels of Force B (as reflected in more accurate missile CEPs) are intended to be illustrative of potential Soviet force improvements judged possible but not most likely in NIE 11-3/8-74. They need not necessarily be tied to any one force mix. Survivability would be improved through silo hardening, rather than through deployment of mobile ICBMs or increased numbers of SLBMs. The SRF would have priority in getting new resources, with

the Navy and LRA giving up some systems to stay within the aggregate of 2,400 delivery vehicles.

58. The aggregate in this Force consists of approximately 1,400 ICBMs, 900 SLBMs, and 100 bombers. To reduce their delivery vehicles to this level the Soviets dismantle their SS-7 and SS-8 ICBMs and retire some bombers. To maintain the aggregate force level below 2,400, the Soviet Navy phases out three Y-class submarines containing 48 launchers,[8] but continues to introduce additional D-class submarines through 1979. There is no mobile missile deployment in this Force, and the SS-X-16 receives only token deployment in SS-13 silos at the Yoshkar-Ola complex. With the emphasis on fixed ICBMs, older bombers are retained and no new heavy bomber is projected.

59. Only ICBMs are equipped with MIRVs in this Force. It is assumed the Soviets MIRV all but 20 of their modern large ballistic missiles by 1981—these 20 being the single-RV variant of the SS-18. All 1,030 of the SS-11 launchers are converted for MIRVed missile deployment by 1983. These MIRVed missiles initially consist primarily of the SS-X-17 and SS-19 and later a new small follow-on missile which enters the force in 1980. It is also projected that a follow-on missile with extended range and a single RV is deployed on the Y-class SSBN beginning in 1978, and that a follow-on missile with a single RV is deployed on the D-class SSBN beginning in 1979. No new heavy bomber is projected in this Force.

60. *Force C: Emphasis on Mobility.* In this projection, the Soviets seek to structure their strategic forces with weapons which they consider the least vulnerable to destruction by an improved US Minuteman missile. Mobile systems comprise the bulk of the forces and, by 1985, 180 mobile ICBMs, 992 SLBMs, and 190 heavy bombers are in service. Y-class submarines are replaced with a new submarine and the last of the Bisons with a new heavy bomber. The fixed ICBM force is reduced significantly. In addition to the deactivation of the SS-7 and SS-8 launchers, it is assumed the Soviets will dismantle 36 modern large ballistic missile launchers and 340 SS-11 launchers.

61. The Soviets are assumed to allocate an increasing percentage of the allowed 1,320 MIRVed missiles to mobile systems. This Force projects 180 MIRVed mobile ICBMs and 252 MIRVed SLBM launchers. The Soviets, however, have not significantly decreased the ability of their offensive strategic force to destroy hard targets. Although they have reduced the number of fixed ICBM launchers, the number of fixed ICBM launchers and of MIRVed SS-18s and SS-19s deployed in the 1980s will still provide a significant counterforce capability. Figure 1 compares the levels of fixed and mobile launchers and on-line RVs in the three force projections for the years 1975, 1980, and 1985.

D. Quantitative Measures of Offensive Forces

62. The charts in Figure 2 compare the Force A projected in this report (Vladivostok Best) with Force 1 of NIE 11-3/8-74 (NIE Best) and with the US strategic offensive forces called for in the 1 January 1975 Department of Defense Five-Year Defense Plan (US FYDP). The comparisons are made in terms of conventional static measures such as numbers of delivery vehicles (total and MIRVed) numbers of missile RVs and bomber weapons, and throw weights. Force 1 is used for comparison because it represents a likely Soviet force under the less restrictive limitations imposed by the Interim Agreement. The static measures shown for the US should be considered only as a basis for reference and not as predictions of actual US deployments. It should be noted, however, that an improved Minuteman III is included in this latest FYDP and that it significantly increases the US counterforce capability.

E. Implications for the Strategic Environment

63. We remain confident that during the next ten years the Soviets will not be able to launch an attack on US strategic forces of such size and precision as to reduce damage to themselves to accept-

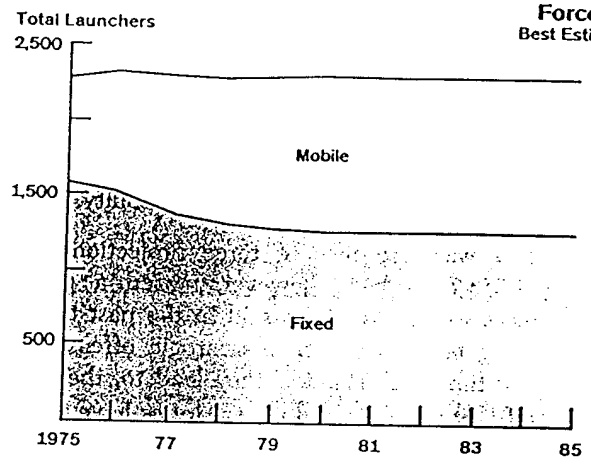
[8] See footnote 4 (at paragraph 45) for comment of the Director of Naval Intelligence, Department of the Navy.

Soviet Missiles: Fixed and Mobile*

Figure 1

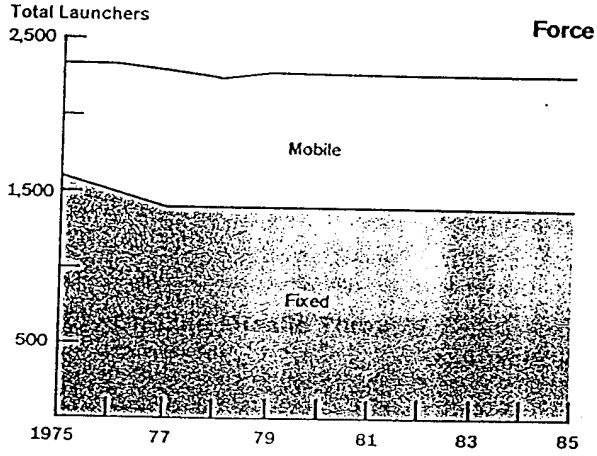
Force A

Best Estimate**



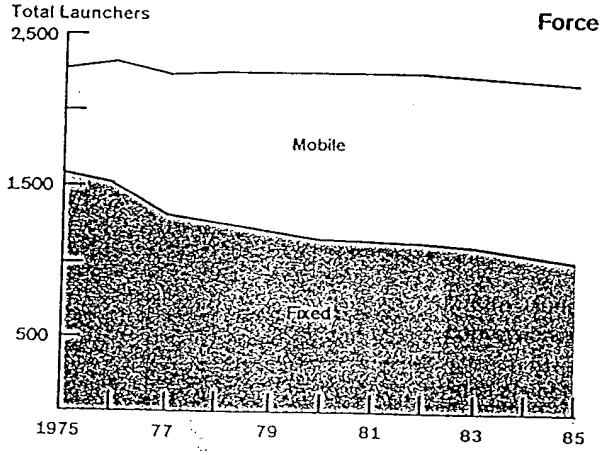
	On-Line RVs	
	Fixed	Mobile
1975	1,629	588
1980	4,568	1,360
1985	7,162	1,216

Force B



	On-Line RVs	
	Fixed	Mobile
1975	1,549	588
1980	6,508	726
1985	11,776	690

Force C



	On-Line RVs	
	Fixed	Mobile
1975	1,629	588
1980	4,394	1,580
1985	5,512	1,984

* Mobile includes SLBM and land-mobile ICBM launchers.

** The alternate view of DIA, Army, and Navy is that the Soviets will have 5,084 fixed and 1,452 mobile on-line RVs in 1980, and 6,142 fixed and 1,836 mobile on-line RVs in 1985.

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able levels. Similarly, the Soviets would hold the same view of the outcome of a US attack on them. Thus, the basis for mutual deterrence should continue to exist for the next ten years, although substantial force improvements will be achieved.

64. A principal reason for this judgment is that we do not foresee during the next ten years technological advances which would sharply alter the strategic balance in the Soviets' favor. Nevertheless, Soviet research and development, particularly in strategic defensive systems, bear especially close watching in the years ahead.

65. In general, the three forces we project differ more in underlying motive than in demonstrable strategic effect. In terms of strategic effect, what is alike about these forces is more important than what is different about them.

— They are large, diverse, and relatively flexible.

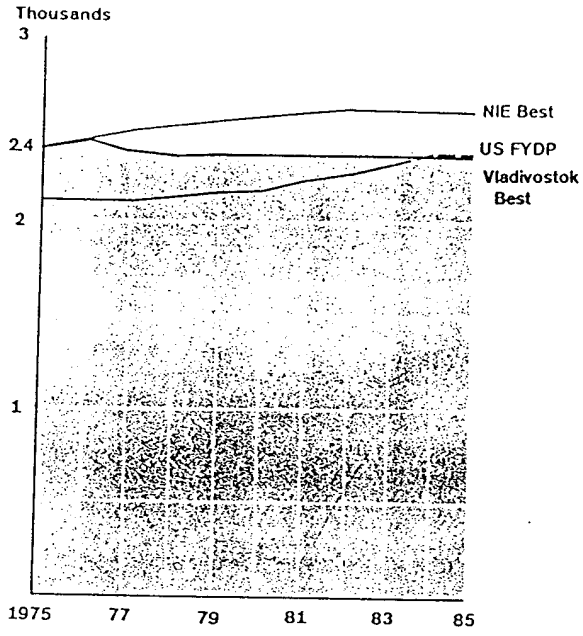
— They develop significant countersilo capabilities, Force B somewhat earlier than the other two.

— They appear survivable enough to maintain an assured retaliatory capability.

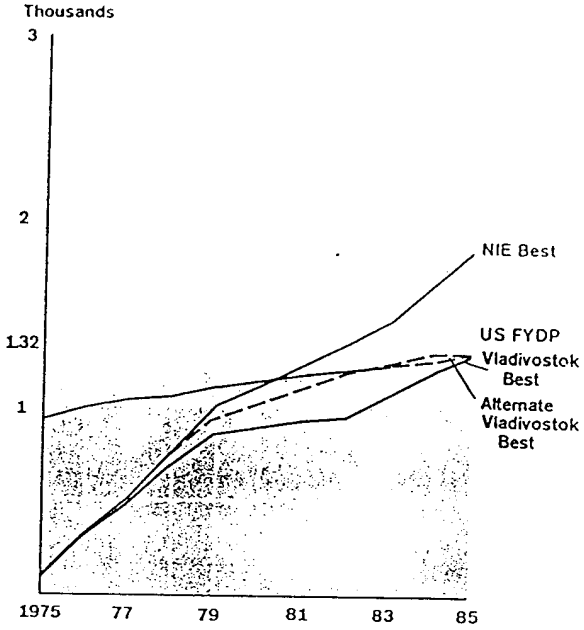
This was also true of force projections in NIE 11-3/8-74—which, however, varied a good deal more widely. We have said in the past that, given the general character of strategic offensive forces and the rough standoff they lead to, the most significant variables and uncertainties have to do with technological qualities, operating practices, and employment plans. The Vladivostok accord tends to strengthen this observation.

Quantitative Comparisons of Forces for Intercontinental Attack*

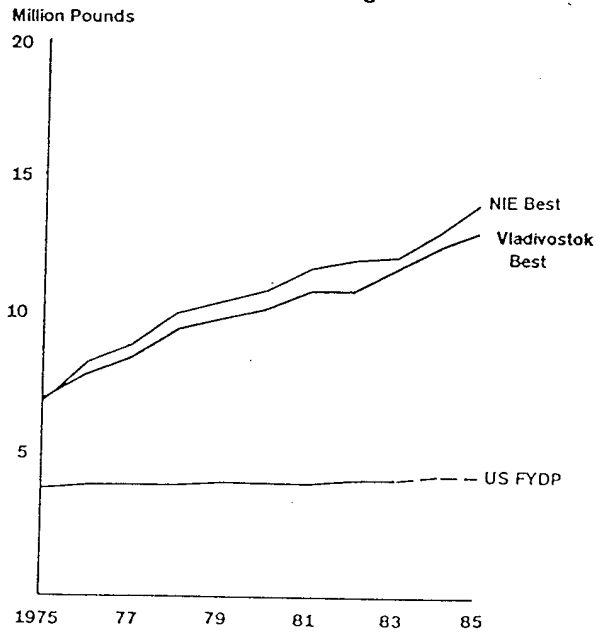
Total Delivery Vehicles



Total MIRVed Delivery Vehicles



On-Line Missile Throw Weight



On-Line Missile Throw Weight and Bomber Loadings

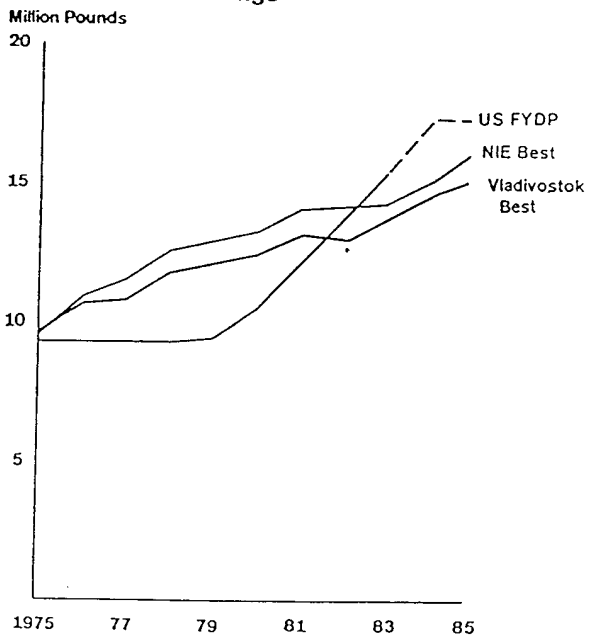


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Figure 2

* Vladivostok Best refers to the Force A projection in this paper, and NIE Best to Force 1 in NIE 11-3/8-74.

The US programed force (FYDP) is derived and extrapolated from the force projections of the US Department of Defense Five-Year Defense Program as of January 1975.

Total delivery vehicles include ICBMs operational, in conversion, or under construction; SLBM launchers operational, under conversion, or in shipyard overhaul; and operational bombers. Excluded are SLBM launchers in SSBNs which have not yet begun initial sea trials and bombers configured for tanker or reconnaissance missions.

The intelligence community disagrees on the most likely mix of MIRVed systems for Force A. Two alternative views are presented in the chart of total MIRVed delivery vehicles.

On-line static measures exclude ICBM silo launchers under construction or conversion and SLBM launchers on SSBNs undergoing sea trials, conversion, or shipyard overhaul.

Missile payloads composed of MRVs (which are not independently targetable) are counted as one RV.

Bomber loadings are essentially the same as shown in Volume II of NIE 11-3/8-74.

Backfire bombers are not included in these figures. Their inclusion under the terms of the Vladivostok accord would alter the composition of the Soviet intercontinental attack forces, as shown in the Force A Variant and Alternate Force A Variant projections (Tables 5 and 6).

TABLES OF FORCE PROJECTIONS

Table 3

Force A: Soviet Intercontinental Attack Forces Without Collateral Constraints
(Best Estimate)[1]

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,349	1,306	1,201	1,256	1,281	1,298	1,346	1,238	1,238	1,308	1,358
SS-7 Soft	90	90	48	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	66	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1	[	0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	168	120	72	24	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	12	12	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)[1]		10	26	50	74	92	110	110	110	110	92	46
SS-18 Mod 2 (MIRV)[1]		0	26	54	78	108	108	108	72	24	0	0
SS-18 Mod C (MIRV)[1]		0	0	0	0	0	30	78	126	174	174	174
Large follow-on (MIRV)[1]		0	0	0	0	0	0	0	0	0	42	88
SS-11 Mod 1		410	230	100	0	0	0	0	0	0	0	0
SS-11 Mod 2/3[1]		400	400	360	340	310	290	290	170	50	0	0
SS-X-17 Mod A (MIRV)[1]		10	70	130	190	190	90	0	0	0	0	0
SS-X-17 Mod B (MIRV)[1]		0	0	0	0	0	100	190	190	190	190	190
SS-19 Mod A (MIRV)		50	200	290	380	410	360	260	160	60	0	0
SS-19 Mod B (MIRV)	[	0	0	0	0	0	50	150	250	350	410	410
Small follow-on (MIRV)[1]	0	0	0	0	0	0	0	0	0	120	240	290
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	60	60	60	60
SS-X-16 Mod A (1 RV) Mobile[1]	0	0	0	25	50	75	100	100	100	100	100	100
Launchers off line	168	224	206	202	102	72	60	12	120	120	50	0
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	76	72	72	72	60	12	0	0	0	0
SS-11	100	160	130	130	30	0	0	0	120	120	50	0
Total ICBMs	1,607	1,573	1,512	1,403	1,358	1,353	1,358	1,358	1,358	1,358	1,358	1,358
SSBNs/SLBMs												
On line	45/576	46/588	48/674	50/758	52/782	50/758	51/774	49/738	49/738	49/738	49/738	49/738
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1	[	20/320	15/240	10/160	4/64	0	0	0	0	0	0	0
Y/SS-N-6-2/3	[	7/112	11/176	16/256	20/320	20/320	15/240	10/160	5/80	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	12/192	17/272	22/352	25/400	20/320	15/240
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192

D/SS-N-8[1]	10/120	11/132	13/156	15/180	17/204	15/180	15/180	15/180	15/180	15/180	15/180	15/180
Mod D/SS-N-8[2]	0	0	5/90	9/162	6/108	0	0	0	0	0	0	0
Mod D/Large A (MIRV)	0	0	0	0	3/54[3]	9/162	9/162	7/126	7/126	5/90	3/54	1/18
Mod D/Large B (MIRV)	0	0	0	0	0	0	0	0	0	2/36	4/72	6/108
Off line	7/112	7/112	8/128	8/128	8/128	12/176	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8[1]	0	0	0	0	0	4/48	4/48	4/48	4/48	4/48	4/48	4/48
Mod D/SS-N-8 follow-on (MIRV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	60/910	62/934	62/934	62/934	62/934	62/934	62/934	62/934
Heavy Bombers	140	140	140	105	105	105	100	100	100	90	90	90
Bear	105	105	105	105	105	105	100	100	100	90	90	90
Bison	35	35	35	0	0	0	0	0	0	0	0	0
Summary of Force A												
Total Delivery Vehicles	2,435	2,413	2,454	2,394	2,373	2,392	2,392	2,392	2,392	2,382	2,382	2,382
ICBMs	1,607	1,573	1,512	1,403	1,358	1,353	1,358	1,358	1,358	1,358	1,358	1,358
SLBMs	688	700	802	886	910	934	934	934	934	934	934	934
Heavy Bombers	140	140	140	105	105	105	100	100	100	90	90	90
Total MIRVed Delivery Vehicles[1]	10	60	296	474	702	870	900	948	960	1,080	1,218	1,314
SS-18/Large follow-on	0	0	26	54	78	108	138	186	198	198	216	262
SS-X-17/SS-19/Small follow-on	10	60	270	420	570	600	600	600	600	720	840	890
SS-N-8 follow-on	0	0	0	0	54	162	162	162	162	162	162	162
Other Systems[4]	66	96	121	126	156	186	216	245	260	260	265	270
Bison Tanker[5]	50	50	50	30	30	30	25	25	25	20	20	20
Backfire Bomber	0	30	55	80	110	140	175	210	235	240	245	250
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] See Table 4 for the alternate view of the Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Director of Naval Intelligence, Department of the Navy.

[2] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[3] Some believe that a new MIRVed SS-N-8 follow-on will not become available before 1980.

[4] We do not know if any of these systems will be included in the aggregate ceiling of 2,400. If so, this would alter the composition of forces shown above.

[5] This aircraft could be converted to a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport, which could be used to support Bear, Bison, and Backfire aircraft and a new heavy bomber.

Table 4

Alternate Force A: Soviet Intercontinental Attack Forces Without Collateral Constraints
(DIA, Army, Navy Best Estimate)[1]

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,349	1,316	1,206	1,276	1,306	1,318	1,366	1,378	1,328	1,278	1,308
SS-7 Soft	90	90	48	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	66	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1		0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	168	120	72	24	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	12	12	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)[1]		10	20	20	20	20	0	0	0	0	0	0
SS-18 Mod 2 (MIRV)[1]		0	42	84	132	180	180	180	180	180	138	96
SS-18 Mod C (MIRV)[1]		0	0	0	0	0	48	96	128	128	128	128
Large follow-on (MIRV)[1]		0	0	0	0	0	0	0	0	0	42	84
SS-11 Mod 1		410	230	60	0	0	0	0	0	0	0	0
SS-11 Mod 2/3[1]		400	400	400	340	310	280	250	220	170	70	0
SS-X-17 Mod A (MIRV)[1]		10	70	130	200	200	100	0	0	0	0	0
SS-X-17 Mod B (MIRV)[1]		0	0	0	0	0	100	200	200	150	50	0
SS-19 Mod A (MIRV)		50	200	290	380	410	360	260	160	60	0	0
SS-19 Mod B (MIRV)		0	0	0	0	0	50	150	250	350	410	410
Small follow-on (MIRV)[1]	0	0	0	0	0	0	0	0	0	50	150	200
Small follow-on (un-MIRVed)[1]	0	0	0	0	0	0	0	0	0	0	50	150
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	60	60	60	60
SS-X-16 Mod A (1 RV) Mobile[1]	0	0	0	30	60	90	120	150	180	180	180	180
Launchers off line	168	224	196	202	102	72	60	12	0	50	100	70
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	66	72	72	72	60	12	0	0	0	0
SS-11	100	160	130	130	30	0	0	0	0	50	100	70
Total ICBMs	1,607	1,573	1,512	1,408	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
SSBNs/SLBMs												
On line	45/576	46/588	48/674	50/758	52/782	50/758	51/774	49/738	49/738	49/738	49/738	49/738
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1		20/320	15/240	10/160	4/64	0	0	0	0	0	0	0
Y/SS-N-6-2/3		7/112	11/176	16/256	20/320	20/320	15/240	10/160	5/80	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	12/192	17/272	22/352	25/400	20/320	15/240
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192

D/SS-N-8[1]	10/120	11/132	13/156	15/180	17/204	15/180	13/156	9/108	5/60	1/12	0	0
D/Large A (MIRV)[1]	0	0	0	0	0	0	2/24	6/72	10/120	14/168	13/156	9/108
D/Large B (MIRV)[1]	0	0	0	0	0	0	0	0	0	0	2/24	6/72
Mod D/SS-N-8[2]	0	0	5/90	9/162	6/108	0	0	0	0	0	0	0
Mod D/Large A (MIRV)	0	0	0	0	3/54	9/162	9/162	7/126	7/126	5/90	3/54	1/18
Mod D/Large B (MIRV)	0	0	0	0	0	0	0	0	0	2/36	4/72	6/108
Off line	7/112	7/112	8/128	8/128	8/128	12/176	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8[1]	0	0	0	0	0	4/48	4/48	4/48	4/48	4/48	1/12	0
D/Large A (MIRV)[1]	0	0	0	0	0	0	0	0	0	0	3/36	4/48
Mod D/SS-N-8 follow-on (MIRV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	60/910	62/934	62/934	62/934	62/934	62/934	62/934	62/934
Heavy Bombers	140	140	140	105	105	88	88	88	88	88	88	88
Bear	105	105	105	105	105	88	88	88	88	88	88	88
Bison	35	35	35	0	0	0	0	0	0	0	0	0
Summary of Alternate Force A												
Total Delivery Vehicles	2,435	2,413	2,454	2,399	2,393	2,400	2,400	2,400	2,400	2,400	2,400	2,400
ICBMs	1,607	1,573	1,512	1,408	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
SLBMs	688	700	802	886	910	934	934	934	934	934	934	934
Heavy Bombers	140	140	140	105	105	88	88	88	88	88	88	88
Total MIRVed Delivery Vehicles[1]	10	60	312	504	766	952	1,024	1,120	1,200	1,248	1,296	1,308
SS-18/Large follow-on[1]	0	0	42	84	132	180	228	276	308	308	308	308
SS-X-17/SS-19/Small follow-on[1]	10	60	270	420	580	610	610	610	610	610	610	610
SS-N-8 follow-on[1]	0	0	0	0	54	162	186	234	282	330	378	390
Other Systems	66	96	121	126	156	186	216	245	260	260	265	270
Bison Tanker[3]	50	50	50	30	30	30	25	25	25	20	20	20
Backfire Bomber	0	30	55	80	110	140	175	210	235	240	245	250
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] The judgments reflected in the changes from Table 3 (indicated by the references to this footnote) are that the Soviets:
—will MIRV all 308 large missiles within the decade.
—will MIRV only 610 small liquid ICBMs, undertake the SS-11 drawdown at a slower pace, and replace the SS-X-17 with the small follow-on ICBM, which will also be deployed in a non-MIRVed version.
—will opt for more ICBM survivability through mobility and deploy a mobile force of 180 SS-X-16 launchers.
—will opt for increasing the capability of their more survivable D-class force by MIRVing it, thereby acquiring 390 MIRVed launchers (30 percent of the MIRV force) on SSBNs.

[2] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[3] This aircraft could be converted to a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport, which could be used to support Bear, Bison, and Backfire aircraft and a new heavy bomber.

Table 5

Force A Variant: Soviet Intercontinental Attack Forces Without Collateral Constraints
(Best Estimate Including Backfire)[1]

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,349	1,306	1,201	1,276	1,261	1,248	1,286	1,178	1,178	1,238	1,238
SS-7 Soft	90	90	48	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	66	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1		0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	168	120	72	24	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	12	12	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)[1]		10	26	50	74	92	110	110	74	26	0	0
SS-18 Mod 2 (MIRV)[1]		0	26	54	78	108	108	108	108	108	66	24
SS-18 Mod C (MIRV)[1]		0	0	0	0	0	30	78	126	174	200	200
Large follow-on (MIRV)[1]		0	0	0	0	0	0	0	0	0	42	84
SS-11 Mod 1		410	230	100	0	0	0	0	0	0	0	0
SS-11 Mod 2/3[1]		400	400	360	360	290	240	230	110	0	0	0
SS-X-17 Mod A (MIRV)[1]		10	70	130	190	190	90	0	0	0	0	0
SS-X-17 Mod B (MIRV)[1]		0	0	0	0	0	100	190	190	190	190	190
SS-19 Mod A (MIRV)		50	200	290	380	410	360	260	160	60	0	0
SS-19 Mod B (MIRV)		0	0	0	0	0	50	150	250	350	410	410
Small follow-on (MIRV)[1]	0	0	0	0	0	0	0	0	0	120	230	230
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	60	50	0	0
SS-X-16 Mod A (1 RV) Mobile[1]	0	0	0	25	50	75	100	100	100	100	100	100
Launchers off line	168	224	206	202	102	72	60	12	120	110	0	0
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	76	72	72	72	60	12	0	0	0	0
SS-11	100	160	130	130	30	0	0	0	120	110	0	0
Total ICBMs	1,607	1,573	1,512	1,403	1,378	1,333	1,308	1,298	1,298	1,288	1,238	1,238
SSBNs/SLBMs												
On line	45/576	46/588	48/674	50/758	52/782	50/758	51/774	48/722	47/706	46/690	46/690	46/690
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1		20/320	15/240	10/160	4/64	0	0	0	0	0	0	0
Y/SS-N-6-2/3		7/112	11/176	16/256	20/320	20/320	15/240	9/144	3/48	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	12/192	17/272	22/352	22/352	17/272	12/192
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192

D/SS-N-8[1]	10/120	11/132	13/156	15/180	17/204	15/180	15/180	15/180	15/180	15/180	15/180	15/180
Mod D/SS-N-8[2]	0	0	5/90	9/162	6/108	0	0	0	0	0	0	0
Mod D/Large A (MIRV)	0	0	0	0	3/54[3]	9/162	9/162	7/126	7/126	5/90	3/54	1/18
Mod D/Large B (MIRV)	0	0	0	0	0	0	0	0	0	2/36	4/72	6/108
Off line	7/112	7/112	8/128	8/128	8/128	12/176	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8[1]	0	0	0	0	0	4/48	4/48	4/48	4/48	4/48	4/48	4/48
Mod D/SS-N-8 follow-on (MIRV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	60/910	62/934	62/934	61/918	60/902	59/886	59/886	59/886
Heavy Bombers	140	140	140	105	105	125	150	175	200	225	250	250
Bear	105	105	90	30	5	0	0	0	0	0	0	0
Bison	35	10	0	0	0	0	0	0	0	0	0	0
Backfire	0	25	50	75	100	125	150	175	200	225	250	250
Summary of Force A Variant												
Total Delivery Vehicles	2,435	2,413	2,454	2,394	2,393	2,392	2,392	2,391	2,400	2,399	2,374	2,374
ICBMs	1,607	1,573	1,512	1,403	1,378	1,333	1,308	1,298	1,298	1,288	1,238	1,238
SLBMs	688	700	802	886	910	934	934	918	902	886	886	886
Heavy Bombers	140	140	140	105	105	125	150	175	200	225	250	250
Total MIRVed Delivery Vehicles[1]	10	60	296	474	702	870	900	948	996	1,164	1,300	1,300
SS-18/Large follow-on	0	0	26	54	78	108	138	186	234	282	308	308
SS-X-17/SS-19/Small follow-on	10	60	270	420	570	600	600	600	600	720	830	830
SS-N-8 follow-on	0	0	0	0	54	162	162	162	162	162	162	162
Other Systems[4]	66	56	46	36	16	16	16	10	0	0	0	0
Bison Tanker[5]	50	40	30	20	0	0	0	0	0	0	0	0
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] See Table 6 for the alternate view of the Defense Intelligence Agency, the Assistant Chief of Staff for Intelligence, Department of the Army, and the Director of Naval Intelligence, Department of the Navy.

[2] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[3] Some believe that a new MIRVed SS-N-8 follow-on will not become available before 1980.

[4] We do not know if any of these systems will be included in the aggregate ceiling of 2,400. If so, this would alter the composition of forces shown above.

[5] This aircraft could be converted to a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport which could be used to support Bear, Bison, and Backfire aircraft and a new heavy bomber.

Table 6

Alternate Force A Variant: Soviet Intercontinental Attack Forces Without Collateral Constraints
(DIA, Army, Navy Best Estimate Including Backfire)[1]

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,349	1,316	1,126	1,196	1,186	1,188	1,226	1,178	1,158	1,208	1,208
SS-7 Soft	90	90	48	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	66	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1		0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	168	120	72	24	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	12	12	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)[1]		10	20	20	20	20	20	20	0	0	0	0
SS-18 Mod 2 (MIRV)[1]		0	42	84	132	180	180	180	180	180	138	96
SS-18 Mod C (MIRV)[1]		0	0	0	0	0	48	96	128	128	128	128
Large follow-on (MIRV)		0	0	0	0	0	0	0	0	0	42	84
SS-11 Mod 1		410	230	0	0	0	0	0	0	0	0	0
SS-11 Mod 2/3[1]		400	400	380	260	190	150	110	60	10	0	0
SS-X-17 Mod A (MIRV)[1]		10	70	130	200	200	100	0	0	0	0	0
SS-X-17 Mod B (MIRV)[1]		0	0	0	0	0	100	200	200	150	50	0
SS-19 Mod A (MIRV)		50	200	290	380	410	360	260	160	60	0	0
SS-19 Mod B (MIRV)	0	0	0	0	0	0	50	150	250	350	410	410
Small follow-on (MIRV)[1]	0	0	0	0	0	0	0	0	0	50	150	200
Small follow-on (un-MIRVed)[1]	0	0	0	0	0	0	0	0	0	50	110	110
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	20	0	0	0
SS-X-16 Mod A (1 RV) Mobile[1]	0	0	0	30	60	90	120	150	180	180	180	180
Launchers off line	168	224	196	202	102	72	60	12	50	60	0	0
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	66	72	72	72	60	12	0	0	0	0
SS-11	100	160	130	130	30	0	0	0	50	60	0	0
Total ICBMs	1,607	1,573	1,512	1,328	1,298	1,258	1,248	1,238	1,228	1,218	1,208	1,208
SSBNs/SLBMs												
On line	45/576	46/588	48/674	50/758	52/782	50/758	51/774	49/738	49/738	49/738	49/738	49/738
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1		20/320	15/240	10/160	4/64	0	0	0	0	0	0	0
Y/SS-N-6-2/3		7/112	11/176	16/256	20/320	20/320	15/240	10/160	5/80	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	12/192	17/272	22/352	25/400	20/320	15/240
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192

D/SS-N-8[1]	10/120	11/132	13/156	15/180	17/204	15/180	13/156	9/108	5/60	1/12	0	0
D/Large A (MIRV)[1]	0	0	0	0	0	0	2/24	6/72	10/120	14/168	13/156	9/108
D/Large B (MIRV)[1]	0	0	0	0	0	0	0	0	0	0	2/24	6/72
Mod D/SS-N-8[2]	0	0	5/90	9/162	6/108	0	0	0	0	0	0	0
Mod D/Large A (MIRV)	0	0	0	0	3/54	9/162	9/162	7/126	7/126	5/90	3/54	1/18
Mod D/Large B (MIRV)	0	0	0	0	0	0	0	0	0	2/36	4/72	6/108
Off line	7/112	7/112	8/128	8/128	8/128	12/176	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8[1]	0	0	0	0	0	4/48	4/48	4/48	4/48	4/48	1/12	0
D/Large A (MIRV)[1]	0	0	0	0	0	0	0	0	0	0	3/36	4/48
Mod D/SS-N-8 follow-on (MIRV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	60/910	62/934	62/934	62/934	62/934	62/934	62/934	62/934
Heavy Bombers	140	160	170	180	190	200	210	220	230	240	250	250
Bear	105	105	105	105	90	75	60	45	30	15	0	0
Bison	35	30	15	0	0	0	0	0	0	0	0	0
Backfire[3]	0	25	50	75	100	125	150	175	200	225	250	250
Summary of Alternate Force A Variant												
Total Delivery Vehicles	2,435	2,433	2,484	2,394	2,398	2,392	2,392	2,392	2,392	2,392	2,392	2,392
ICBMs	1,607	1,573	1,512	1,328	1,298	1,258	1,248	1,238	1,228	1,218	1,208	1,208
SLBMs	688	700	802	886	910	934	934	934	934	934	934	934
Heavy Bombers	140	160	170	180	190	200	210	220	230	240	250	250
Total MIRVed Delivery Vehicles	10	60	312	504	766	952	1,024	1,120	1,200	1,248	1,296	1,308
SS-18/Large follow-on	0	0	42	84	132	180	228	276	308	308	308	308
SS-X-17/SS-19/Small follow-on	10	60	270	420	580	610	610	610	610	610	610	610
SS-N-8 follow-on	0	0	0	0	54	162	186	234	282	330	378	390
Other Systems	66	66	66	56	46	46	41	35	25	20	10	0
Bison Tanker[4]	50	50	50	40	30	30	25	25	25	20	10	0
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] The judgments reflected in these changes are the same as those enumerated in footnote 1 to Table 4, above, Alternate Force A.

[2] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[3] Sum of weapons carriers in Long Range and Naval Aviation.

[4] This aircraft could be converted to a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport, which could be used to support Bear, Bison, and Backfire aircraft and a new heavy bomber.

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Table 7

Force B: Soviet Intercontinental Attack Forces Without Collateral Constraints

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,269	1,236	1,218	1,308	1,226	1,186	1,238	1,318	1,398	1,398	1,398
SS-7 Soft	90	90	18	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	60	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1		0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	150	90	30	0	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	12	0	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)		10	20	20	20	20	20	20	20	20	20	20
SS-18 Mod 2 (MIRV)		0	36	96	156	216	266	218	158	98	38	0
Large follow-on Mod A (MIRV)		0	0	0	0	0	10	70	130	190	250	278
Large follow-on Mod B (MIRV)		0	0	0	0	0	0	0	0	0	0	10
SS-11 Mod 1		330	110	0	0	0	0	0	0	0	0	0
SS-11 Mod 2/3		400	420	420	420	320	120	0	0	0	0	0
SS-X-17 Mod A (MIRV)		10	90	170	200	200	200	160	40	0	0	0
SS-19 Mod A (MIRV)		50	230	350	410	410	410	410	410	330	130	0
Small follow-on Mod A (MIRV)	0	0	0	0	0	0	100	300	500	700	900	930
Small follow-on Mod B (MIRV)	0	0	0	0	0	0	0	0	0	0	0	100
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	60	60	60	60
Launchers off line	168	304	260	180	90	172	212	160	80	0	0	0
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	90	90	90	72	12	0	0	0	0	0
SS-11/SS-X-17	100	240	170	90	0	100	200	160	80	0	0	0
Total ICBMs	1,607	1,573	1,496	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398
SSBNs/SLBMs [1]												
On line	45/576	46/588	48/674	50/758	51/766	48/726	48/726	46/690	46/690	46/690	46/690	46/690
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1		20/320	15/240	10/160	3/48	0	0	0	0	0	0	0
Y/SS-N-6-2/3		7/112	11/176	16/256	20/320	18/288	11/176	7/112	2/32	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	13/208	17/272	22/352	22/352	17/272	12/192
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192
D/SS-N-8	10/120	11/132	13/156	15/180	17/204	13/156	9/108	5/60	1/12	0	0	0

D/SS-N-8 follow-on (1 RV)	0	0	0	0	0	2/24	6/72	10/120	14/168	15/180	15/180	15/180
Mod D/SS-N-8 [2]	0	0	5/90	9/162	9/162	6/108	3/54	0	0	0	0	0
Mod D/SS-N-8 follow-on (1 RV)	0	0	0	0	0	3/54	6/108	7/126	7/126	7/126	7/126	7/126
Off line	7/112	7/112	8/128	8/128	7/112	11/160	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8	0	0	0	0	0	4/48	4/48	4/48	4/48	0	0	0
D/SS-N-8 follow-on (1 RV)	0	0	0	0	0	0	0	0	0	4/48	4/48	4/48
Mod D/SS-N-8 follow-on (1 RV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	58/878	59/886	59/886	59/886	59/886	59/886	59/886	59/886
Heavy Bombers [3]	140	135	135	115	115	115	115	110	95	90	90	90
Bear	105	105	105	95	95	95	95	95	95	90	90	90
Bison	35	30	30	20	20	20	20	15	0	0	0	0
Summary of Force B												
Total Delivery Vehicles	2,435	2,408	2,433	2,399	2,391	2,399	2,399	2,394	2,379	2,374	2,374	2,374
ICBMs	1,607	1,573	1,496	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398
SLBMs	688	700	802	886	878	886	886	886	886	886	886	886
Heavy Bombers	140	135	135	115	115	115	115	110	95	90	90	90
Total MIRVed Delivery Vehicles	10	60	456	616	766	826	986	1,198	1,318	1,318	1,318	1,318
SS-18/Large follow-on	0	0	36	96	156	216	276	288	288	288	288	288
SS-X-17/SS-19/Small follow-on	10	60	420	520	610	610	710	910	1,030	1,030	1,030	1,030
Other Systems [4]	66	91	111	131	156	181	216	245	255	250	245	250
Bison Tanker [5]	50	45	40	35	30	25	25	25	20	10	0	0
Backfire Bomber [3]	0	30	55	80	110	140	175	210	235	240	245	250
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] The Director of Naval Intelligence, Department of the Navy, believes it unlikely that the Soviets plan to dismantle any of their Y-class SSBNs.

[2] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[3] Some believe that because this force emphasizes ICBMs, the Bear and Bison heavy bombers would be phased out and replaced with land-mobile ICBMs. All believe that attrition of the Bears and Bisons would be likely to result in the deployment of more Backfires to compensate Long Range Aviation for the loss of strategic aircraft.

[4] We do not know if any of these systems will be included in the aggregate ceiling of 2,400. If so, this would alter the composition of forces shown above.

[5] This aircraft could be converted to a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport, which could be used to support Bear, Bison, and Backfire aircraft and a new bomber.

Table 8

Force C: Soviet Intercontinental Attack Forces Without Collateral Constraints

	1 Feb 1975	Midyear 1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
ICBMs												
Launchers on line	1,439	1,349	1,316	1,186	1,240	1,250	1,298	1,322	1,222	1,212	1,242	1,202
SS-7 Soft	90	90	48	0	0	0	0	0	0	0	0	0
SS-7 Hard	66	66	66	0	0	0	0	0	0	0	0	0
SS-8	19	19	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 1	[redacted]	0	0	0	0	0	0	0	0	0	0	0
SS-9 Mod 2		222	168	120	48	0	0	0	0	0	0	0
SS-9 Mod 4		12	12	12	0	0	0	0	0	0	0	0
SS-18 Mod 1 (1 RV)		10	26	50	74	92	92	92	92	92	92	92
SS-18 Mod 2 (MIRV)		0	26	54	78	108	108	108	48	0	0	0
SS-18 Mod C (MIRV)		0	0	0	0	0	48	72	132	180	138	96
Large follow-on (MIRV)		0	0	0	0	0	0	0	0	0	42	84
SS-11 Mod 1		410	220	30	0	0	0	0	0	0	0	0
SS-11 Mod 2/3		400	420	420	410	350	310	290	190	90	40	0
SS-X-17 Mod A (MIRV)		10	70	110	110	110	60	0	0	0	0	0
SS-X-17 Mod B (MIRV)		0	0	0	0	0	50	110	110	110	110	110
SS-19 Mod A (MIRV)		50	200	290	380	410	310	210	110	0	0	0
SS-19 Mod B (MIRV)	[redacted]	0	0	0	0	0	100	200	300	410	410	410
Small follow-on (MIRV)	0	0	0	0	0	0	0	0	0	90	170	170
SS-13	60	60	0	0	0	0	0	0	0	0	0	0
SS-X-16 Mod A (1 RV) Fixed	0	0	60	60	60	60	60	60	60	60	60	60
SS-X-16 Mod A (1 RV) Mobile	0	0	0	40	80	80	80	60	0	0	0	0
SS-X-16 Mod B (MIRV) Mobile	0	0	0	0	0	40	80	120	180	180	180	180
Launchers off line	168	224	196	162	102	72	24	0	90	80	0	0
SS-7	34	0	0	0	0	0	0	0	0	0	0	0
SS-9/SS-18	34	64	76	72	72	72	24	0	0	0	0	0
SS-11	100	160	120	90	30	0	0	0	90	80	0	0
Total ICBMs	1,607	1,573	1,512	1,348	1,342	1,322	1,322	1,322	1,312	1,292	1,242	1,202
SSBNs/SLBMs												
On line	45/576	46/588	48/674	50/758	52/782	50/758	51/774	49/738	49/738	49/738	51/774	52/796
H-II/SS-N-5	8/24	8/24	4/12	0	0	0	0	0	0	0	0	0
Y/SS-N-6-1	[redacted]	20/320	15/240	10/160	4/64	0	0	0	0	0	0	0
Y/SS-N-6-2/3		7/112	11/176	16/256	20/320	20/320	15/240	10/160	5/80	0	0	0
Y/Small A	0	0	0	0	2/32	6/96	12/192	17/272	22/352	25/400	20/320	13/208
Y/Small B	0	0	0	0	0	0	0	0	0	2/32	7/112	12/192
D/SS-N-8	10/120	11/132	13/156	15/180	17/204	15/180	15/180	15/180	15/180	15/180	15/180	15/180

Mod D/SS-N-8[1]	0	0	5/90	9/162	6/108	0	0	0	0	0	0	0
Mod D/Large A (MIRV)	0	0	0	0	3/54	9/162	9/162	7/126	7/126	5/90	3/54	1/18
Mod D/Large B (MIRV)	0	0	0	0	0	0	0	0	0	2/36	4/72	6/108
New Class/Large B (MIRV)	0	0	0	0	0	0	0	0	0	0	2/36	5/90
Off line	7/112	7/112	8/128	8/128	8/128	12/176	11/160	13/196	13/196	13/196	13/196	13/196
Y/SS-N-6	7/112	7/112	8/128	8/128	8/128	8/128	7/112	7/112	7/112	7/112	7/112	7/112
D/SS-N-8	0	0	0	0	0	4/48	4/48	4/48	4/48	4/48	4/48	4/48
Mod D/SS-N-8 follow-on (MIRV)	0	0	0	0	0	0	0	2/36	2/36	2/36	2/36	2/36
Total SSBNs/SLBMs	52/688	53/700	56/802	58/886	60/910	62/934	62/934	62/934	62/934	62/934	64/970	65/992
Heavy Bombers[2]	140	140	140	140	140	140	140	140	145	160	175	190
Bear	105	105	105	105	105	105	105	105	100	95	90	90
Bison	35	35	35	35	35	35	20	5	0	0	0	0
New Heavy Bomber	0	0	0	0	0	0	15	30	45	65	85	100
Summary of Force C												
Total Delivery Vehicles	2,435	2,413	2,454	2,374	2,392	2,396	2,396	2,396	2,391	2,386	2,387	2,384
ICBMs	1,607	1,573	1,512	1,348	1,342	1,322	1,322	1,322	1,312	1,292	1,242	1,202
SLBMs	688	700	802	886	910	934	934	934	934	934	970	992
Heavy Bombers	140	140	140	140	140	140	140	140	145	160	175	190
Total MIRVed Delivery Vehicles	10	60	296	454	622	830	918	982	1,042	1,132	1,248	1,302
SS-18/Large follow-on	0	0	26	54	78	108	156	180	180	180	180	180
SS-X-17/SS-19/Small follow-on	10	60	270	400	490	520	520	520	520	610	690	690
SS-X-16	0	0	0	0	0	40	80	120	180	180	180	180
SS-N-8 follow-on	0	0	0	0	54	162	162	162	162	162	198	252
Other Systems[3]	66	91	116	141	166	191	216	230	245	240	240	240
Bison Tanker[4]	50	50	50	50	50	50	50	45	45	40	40	40
Backfire Bomber[2]	0	25	50	75	100	125	150	175	200	200	200	200
G- & H-class SLBM Launchers	16	16	16	16	16	16	16	10	0	0	0	0

[1] Although it is estimated that the new Mod D-class SSBN could carry 18 or 20 launchers, 18 launchers have been used in the tables for ease of presentation.

[2] Deployment of a new heavy bomber would likely result in a smaller Backfire force, because a new bomber would be expensive, and it, like the Backfire, could be used for conventional or nuclear strikes throughout Eurasia.

[3] We do not know if any of these systems will be included in the aggregate ceiling of 2,400. If so, this would alter the composition of forces shown above.

[4] This aircraft could be converted into a bomber. There is some evidence that the Soviets are developing a tanker variant of the new IL-76 Candid transport, which could be used to support Bear, Bison, and Backfire aircraft and a new heavy bomber.

APPENDIX

COLLATERAL CONSTRAINTS

66. Several collateral constraints have been considered by the US for inclusion in a SALT agreement as a means of monitoring compliance with the MIRV limitation. These constraints, by their very nature, would preclude, inhibit, or alter certain Soviet programs.

67. For example, one constraint requires that a missile booster flight-tested as a MIRVed missile be counted as MIRVed when deployed, even if a single-RV version of the missile has been developed. This would put both the single-RV and MIRV variants of the SS-18 within the MIRV aggregate. It would, therefore, discourage Soviet development of future systems with this deployment flexibility. Another constraint requires counting under the MIRV limit all SLBM launchers on a submarine if any SLBM launchers on submarines of the same class are MIRVed. In the absence of this constraint, the Soviets might opt for deploying MIRVed missiles on only some D-class submarines in order to emphasize MIRVed ICBM deployment.

68. Because of the uncertainty over the negotiability of collateral constraints, our force projections assume that no collateral constraints are in effect. Table 9, however, lists those constraints which would have a significant impact on Soviet deployment options, and Table 10 shows how our Force projections for 1985 would differ if all such constraints are agreed to.

Table 9

Possible Affects of Collateral Constraints on Soviet Force Developments

Constraint	Possible Actions by the Soviets . . .	
	. . . With the Constraint	. . . Without the Constraint
Count under the MIRV limit all launchers at an ICBM complex if any launchers at the complex are MIRVed.	Would deploy MIRVed missiles in all launchers at the complexes selected for deployment of MIRVed missiles.	Might deploy MIRVed missiles in only a portion of the launchers at each complex. They might do this if they wanted to reach the 1,320 limit exactly, retain all existing ICBM complexes, or simplify cheating on the agreement.
Count under the MIRV limit all SLBM launchers on a submarine if any SLBM launchers on submarines of the same class are MIRVed.	Would probably deploy MIRVed missiles on all D-class SSBNs, or not deploy any MIRVed SLBMs.	Might opt for deploying MIRVed SLBMs only on part of the D-class force and concentrate on MIRVing more ICBMs.
An ICBM or SLBM booster of a type flight-tested as a MIRVed missile will be counted as MIRVed when deployed, even if a single-RV version of the booster has also been developed.	Would deploy only the MIRV variant of the SS-18.	Might deploy both the single-RV SS-18 and the MIRVed SS-18. They might also develop and deploy an SS-X-17/SS-19 follow-on payload in the 1980s with both single-RV and MIRV configurations for deployment at the SS-11 Mod 3 complexes.

[p. 36 blank]

Table 10

Comparison of 1985 Levels From Illustrative Projections of Soviet Forces
(Figures for MIRVed missiles are shown in italic type)

	Force A Diversified Force			Force B Emphasis on ICBMs		Force C Emphasis on Mobility	
	Without Constraints Best Estimate[1,2]		With Constraints[3]	Without Constraints	With Constraints[4]	Without Constraints	With Constraints[5]
ICBMs							
SS-9	0	(0)	0	0	30	0	96
SS-18 (1 RV)	46	(0)	0	20	0	92	0
SS-18 (MIRV), Large A/B	*262*	*(308)*	*308*	*288*	*278*	*180*	*174*
SS-11 Mod 2/3	0	(70)	0	0	0	0	0
SS-X-17	*190*	*(0)*	*190*	*0*	*0*	*110*	*110*
SS-19	*410*	*(410)*	*410*	*0*	*0*	*410*	*410*
Small follow-on (MIRV)	*290*	*(200)*	*0*	*1,030*	*1,030*	*170*	*0*
Small follow-on (not MIRVed)	0	(150)	290	0	0	0	220
SS-X-16 Fixed	60	(60)	60	60	60	60	0
SS-X-16 Mobile	100	(180)	100	0	0	*180*	*170*
Total	1,358	(1,378)	1,358	1,398	1,398	1,202	1,180
Deactivated:							
SS-9	0	(0)	0	0	0	36	38
SS-11	140	(200)	140	0	0	340	290
SS-13	0	(0)	0	0	0	0	60
SSBNs/SLBMs							
Y/SS-N-6, Small follow-on	34/544	(34/544)	34/544	31/496	31/496	32/512	32/512
D, Mod D/SS-N-8	19/228	(0)	0	28/390	28/390	19/228	2/24
D, Mod D/SS-N-8, Large A/B (MIRV)	*9/162*	*(28/390)*	*28/390*	*0*	*0*	*9/162*	*26/366*
New Class/Large A/B (MIRV)	*0*	*(0)*	*0*	*0*	*0*	*5/90*	*5/90*
Total	62/934	(62/934)	62/934	59/886	59/886	65/992	65/992
Deactivated:							
Y/SS-N-6[6]	0	(0)	0	3/48	3/48	2/32	2/32
Bombers							
Bear and Bison	90	(88)	90	90	90	80	80
New Bomber	0	(0)	0	0	0	110	110
Total	90	(88)	90	90	90	190	190
Deactivated:	50	(52)	50	50	50	60	60
Total Delivery Vehicles	2,382	(2,400)	2,382	2,374	2,374	2,384	2,362
Total MIRVed Delivery Vehicles	*1,314*	*(1,308)*	*1,298*	*1,318*	*1,308*	*1,302*	*1,320*

[1] Figures in parentheses represent force strengths projected by the Defense Intelligence Agency, the Army, and the Navy (see Table 4).

[2] See also Tables 5 and 6 for variants of Force A which include Backfire bombers.

[3] Collateral constraints would require that all 308 SS-18s and all 390 D-class launchers be counted as MIRVed. This would keep the Soviets from deploying a new small follow-on with MIRVs in the SS-11 Mod 2/3 silos.

[4] Collateral constraints would have little impact on this Force, although the Soviets would have to retain a few SS-9s and refrain from deploying 20 SS-18s with a single RV.

[5] Collateral constraints would oblige the Soviets to retain SS-9 launchers in lieu of deploying SS-18s with a single RV. They would also preclude the deployment of the single-RV variant of the SS-X-16 while deploying a mobile SS-X-16 with MIRVs; for this reason, it is projected that the Soviets would forgo deploying the SS-X-16 in silos.

[6] See footnote 4 at paragraph 45 for comment of the Director of Naval Intelligence, Department of the Navy.