



Director of
Central
Intelligence

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Soviet Forces and Capabilities for Strategic Nuclear Conflict Through the Late 1990s (U)

National Intelligence Estimate
Volume I—Key Judgments and Summary

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NIE 11-3/8-87JX/1
TCS 7134-87/1
10 July 1987

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

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

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

Also Participating:

- The Deputy Chief of Staff for Intelligence, Department of the Army
- The Director of Naval Intelligence, Department of the Navy
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NIE 11-3/8-87JX/I

SOVIET FORCES AND CAPABILITIES FOR
STRATEGIC NUCLEAR CONFLICT
THROUGH THE LATE 1990s (U)

VOLUME I—KEY JUDGMENTS AND SUMMARY

Information available as of 10 July 1987 was used
in the preparation of this Estimate, which was
approved by the National Foreign Intelligence
Board on that date.

[redacted]

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NOTE

This Estimate is issued in several volumes:

— *Key Judgments*.

— *Volume I* contains the Key Judgments and a summary of Soviet programs and capabilities believed to be of greatest interest to policymakers and defense planners.

[redacted]

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This information is [redacted]

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KEY JUDGMENTS

Strategic Offensive Forces. Evidence and analysis over the past year have reaffirmed our judgment that all elements of Soviet strategic offensive forces will be extensively modernized between now and the late 1990s, and will be more capable, diverse, and generally more survivable. An increasing proportion of Soviet intercontinental attack warheads will be deployed on submarines and mobile intercontinental ballistic missiles (ICBMs), and a smaller but still substantial proportion in fixed silos. The major changes in the force will include:

- *ICBMs.* Preparations are underway to deploy in 1988 or 1989 a new, silo-based heavy ICBM with an improved capability to destroy hardened targets. ICBMs of the SS-X-24-class (a 10-warhead system) will be deployed in SS-19 silos by 1988. The new silo-based deployments will be more vulnerable as US countersilo capabilities improve, but will enhance the Soviets' already formidable capabilities for prompt attack on hard and soft targets. SS-X-24-class ICBMs will also be deployed in a rail-mobile mode this year. These rail-mobile deployments, continued deployments of the road-mobile SS-25 (a single-warhead ICBM), and expected improvements and follow-ons to both missiles, will significantly improve Soviet force survivability.
- *SLBMs.* The proportion of survivable Soviet weapons also will grow through the deployment of much better nuclear-powered ballistic missile submarines (SSBNs) and new submarine-launched ballistic missiles (SLBMs). The new submarines are quieter and are capable of operating from deep under the ice-pack, and carry long-range missiles. We expect the Soviets to build a total of eight Typhoons and up to 12 to 14 Delta-IVs, and judge they will introduce a new SSBN, carrying a new SLBM, in the middle-to-late 1990s. Soviet SLBMs are likely to have sufficient yield and accuracy by the late 1990s to attack current US ICBM silos with greater confidence, but SLBMs during the next 10 years will not be nearly as effective for this role as Soviet silo-based ICBMs.
- *Bombers and Cruise Missiles.* Ongoing modernization will give the heavy bomber force a somewhat greater role in intercontinental attack, with more weapons and greater force diversity.

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While production of the Bear H, which carries the AS-15 long-range air-launched cruise missile (ALCM), seems to be winding down, the new swingwing Blackjack, which will carry ALCMs and short-range attack missiles, will be operational in 1988. The Soviets appear to have a program for development of a Stealth fighter and a Stealth bomber; [redacted]

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[redacted] The earliest we would expect the fighter would be the mid-1990s; the Stealth bomber could be operational by the late 1990s, but more likely not until about 2000. The SS-NX-21 long-range, land-attack, sea-launched cruise missile (SLCM) is in the process of being deployed, including on a dedicated submarine carrying up to 40 SLCMs. The SSC-X-4 long-range, ground-launched cruise missile could begin deployment in late 1987 or 1988, and SLCM and ALCM versions of a large, long-range supersonic cruise missile are likely to become operational in 1988 and 1989. [redacted]

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Strategic Defensive Forces. The Soviets continue to invest about as heavily in active and passive strategic defenses as they do in offensive forces, and their capabilities will improve in all areas:

- *Air Defense.* Soviet capabilities against low-flying bombers and cruise missiles are increasing because of continuing deployments of the SA-10 all-altitude surface-to-air missile and three different types of new lookdown/shutdown aircraft. These will be supported by the Mainstay airborne warning and control system (AWACS) aircraft, which should be deployed in 1987 or 1988.
- *Ballistic Missile Defense.* The new Moscow antiballistic missile (ABM) defenses, with 100 interceptors, should be fully operational in 1988 or 1989 and will provide an improved intercept capability against small-scale attacks on key targets around Moscow. The Soviets have developed all the required components for an ABM system that could be used for widespread deployments that would exceed Treaty limits. There are differing views about the likelihood that the Soviets would make such deployments, and we have major uncertainties about the degree of protection such deployments would afford the USSR. [redacted] some new ABM components may be under development and might begin testing in the next year or two; if so, a new ABM system could be ready for deployment as soon as the mid-1990s. Also, improving technology is blurring the distinction between air defense and ABM systems.

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— *Hardened Protection for the Leadership.* We have identified [redacted] hardened Soviet command posts for military and political leaders, [redacted] deep-underground complexes—bunkers, tunnels, secret subway lines, and other facilities. Costing the equivalent of tens of billions of dollars, the Soviets' 40-year program to provide deep-underground shelters for the leaders is designed to enable them to survive a nuclear war, and to direct the war effort, reconstitution, and postwar recovery.

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— *Antisubmarine Warfare.* The Soviets still lack effective means to locate US SSBNs at sea. While we expect the Soviets to continue to pursue vigorously all ASW technologies, we judge they will not be able to deploy in the 1990s, and probably not until well beyond, a nonacoustic ASW detection system that could reliably monitor US SSBNs patrolling in the open ocean. However, the Soviets may be able to deploy [redacted] [redacted] ASW remote detection systems by about 2005 that, under certain conditions, would have some effectiveness against US attack submarines approaching Soviet SSBN bastions.

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— *Laser Weapons.* There is strong evidence of Soviet efforts to develop high-energy lasers for air defense, antisatellite (ASAT), and ballistic missile defense (BMD) applications. [redacted] [redacted] about how far the Soviets have advanced, and the status and goals of any weapon development programs. We expect the Soviets to deploy mobile tactical air defense lasers by the early 1990s, followed by more powerful strategic and naval systems. The Soviets are developing ground-based, airborne, and space-based high energy laser weapons for ASAT. While there are differing views on dates of operation, limited capability prototypes in some cases could be available by the mid-1990s. If ground-based BMD lasers prove feasible and practical, we expect a prototype would be tested in the middle-to-late 1990s, although an operational system probably would not be deployed until after the year 2000. The Soviets also appear to be considering space-based lasers for BMD. We think they may be able to test a feasibility demonstrator as early as the mid-1990s, but we do not expect them to deploy an operational system until after the year 2000.

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— *Other Advanced Technologies.* The Soviets are also engaged in extensive research on other technologies that can be applied to ASAT and BMD weapons. [redacted]

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[redacted] there is potential for a surprise development in one or more of these areas. However, the Soviets probably are at least 10 to 15 years away from testing any prototype particle-beam weapon for ASAT or BMD. The Soviets might test a ground-based radio-frequency ASAT weapon by the early 1990s. We believe it is possible that a space-based, long-range, kinetic-energy BMD weapon could be deployed, but probably no earlier than the late 1990s. [redacted]

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Space Program. The Soviets have a vigorous military space program, and we expect their large investments to allow expanded access to space for a variety of missions in the early 1990s. For example, the new SL-X-17 heavy-lift launch vehicle, now being flight-tested, is comparable in lift capacity to the former US Saturn V lunar launch vehicle. It will provide key support for the establishment of larger space stations and options for orbiting large components for possible future space weapons. [redacted]

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Projected Forces. This year, we have projected four alternative Soviet strategic forces to illustrate possible force postures under various assumptions of the strategic environment the Soviets will perceive over the next 10 years. The number of deployed intercontinental nuclear warheads, currently about 10,000, will increase by about 1,000 by 1990, as new systems are deployed that carry more warheads than the systems they replace. Two of the projected forces are premised on a Soviet belief that relations with the United States are generally satisfactory and arms control prospects look good. If the Soviets decide not to exceed the quantitative sublimits of SALT II, by 1995 deployed warheads would probably number between 13,000 and 14,000, perhaps as low as 11,500 if modernization and growth were more limited. In the absence of an arms control process the Soviets would not necessarily expand their intercontinental attack forces beyond these figures, but they clearly have the capability for significant further expansion. In an environment where the Soviets see relations with the United States as generally poor and arms control prospects bleak, the number of deployed warheads on Soviet intercontinental attack forces could grow to some 16,500 by 1995 and 18,500 by 1997. In all of these cases, the introduction of modernized systems will result in a decline in the number of launchers. [redacted]

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We also include a projection for an SDI "response" force that features a larger offensive force expansion (up to 21,000 warheads by 1997). The projection is based on a near-term Soviet judgment that the

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United States will deploy land-based ABM interceptors and space-based SDI assets beginning in the middle-to-late 1990s. The projection depicts Soviet measures aimed primarily at overwhelming US defenses through sheer numbers of warheads, and does not reflect such possible responses as increased ASAT efforts, Soviet BMD deployments, or advanced penetration aids. While increasing the sheer size of their offensive forces would be the most viable near-term Soviet response, advanced technical countermeasures would be critical to dealing with SDI in the long term. The size of the force could be several thousand warheads lower than the projected 21,000, depending on the timing of the introduction of technological countermeasures. Given the uncertain nature of the US program and the potential disruption of their efforts, we judge that the Soviets have not yet committed to deploy offensive force modifications specifically to respond to SDI. Thus, in the absence of a crash effort, such modifications would be unlikely to be deployed in significant numbers until about 2000 or beyond. [redacted]

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Implications of Gorbachev's Declaratory Policy. We have considered the potential impact of Gorbachev's declaratory policy that takes an apparently more benign approach to issues of nuclear war than we have typically characterized in previous years in this Estimate. Analysts differ about the impact this policy may have, if any, on Soviet weapons procurement and operational planning. On the basis of all the available evidence which we present in this Estimate, we do not expect any significant reduction in the priority the Soviets have given to nuclear forces or any serious revision of their operational priorities and practices. [redacted]

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At the same time, the Gorbachev leadership has placed a special emphasis on revitalizing the Soviet economy and has made arms control proposals calling for deep cuts in strategic forces. Economic factors might affect somewhat the rate and levels at which some strategic systems are deployed. However, the large sunk costs in production for new strategic weapons and the fact that such production facilities cannot readily be converted to civilian uses mean that Gorbachev's industrial modernization goals almost certainly will not have major effects on strategic weapons deployments through the mid-1990s. We judge that strategic forces will continue to command the highest resource priorities, and therefore would be affected less by economic problems than other elements of the military. [redacted]

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Arms Control. We believe the Soviets are willing to reach arms control agreements calling for deep cuts in intercontinental offensive forces, contingent upon the curtailment of the US SDI. Greater

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flexibility with respect to arms control, however, would not prevent continued vigorous modernization of all aspects of Soviet strategic forces. Moreover, we judge that in negotiating agreements, the Soviets would aim, at a minimum, to preserve the net strategic capabilities of these forces to serve the gamut of Soviet security objectives. [redacted]

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Soviet Force Goals and Capabilities. Although Agencies have long differed on the interpretation of Soviet military doctrinal issues, there is reasonably close agreement on the trends in Soviet strategic forces and on their employment in war. Soviet strategic capabilities serve many vital functions for the political leadership. Powerful strategic forces provide the most effective means to deal with the contingency that global nuclear war could actually occur, and give the USSR the superpower status that is critical to the maintenance and expansion of its foreign policy influence. Moreover, the Soviets have maintained the more traditional military view that forces prepared to fight a war are also better able to deter war; they have never subscribed to Western concepts, such as Mutual Assured Destruction, that draw sharp distinctions between the strategic force requirements for deterring a nuclear war and those for fighting one. [redacted]

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The Soviets apparently believe that, in the present US-Soviet strategic relationship, each side possesses strategic nuclear capabilities that could devastate the other after absorbing an attack. Thus, the Soviets have strong incentives to avoid risking global nuclear war. [redacted]

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While the Soviets apparently do not foresee that this strategic reality will soon change, they continue to procure weapons and plan force operations intended to secure important combat advantages and goals in the event of nuclear war, including, to the extent possible, limiting damage to Soviet forces and society. Ideally, a favorable outcome for them in such a war would comprise neutralizing the capability of US intercontinental and theater forces to interfere with Soviet capabilities to defeat enemy forces in Eurasia, dominating Eurasia, and preserving the ability of the Soviet state to survive and recover. [redacted]

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Because of the Soviets' demanding requirements for force effectiveness, they are likely to rate their capabilities as lower in some areas than we would assess them to be. They are probably apprehensive about the implications of US strategic force modernization programs—including significant improvements in US command, control, and communications—and are especially concerned about the US SDI program and its potential to undercut Soviet military strategy. Although we do not have specific evidence on how the Soviets assess their prospects in a

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global nuclear war, we judge that they would not have high confidence in the capability of their strategic offensive and defensive forces to accomplish all of their wartime missions—particularly limiting the extent of damage to the Soviet homeland. [redacted]

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Nuclear War Initiation and Escalation. The Soviets' strategic outlook would affect their decision as to whether or not to risk initiating global nuclear war in various circumstances. In peacetime, their lack of high confidence in accomplishing all of their wartime missions, and their appreciation of the destructiveness of nuclear war, would strongly dissuade them from launching a "bolt-from-the-blue" strategic attack. The Soviets also would probably be inhibited from provoking a direct clash with the United States and its allies that could potentially escalate to global nuclear war. [redacted]

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The Soviets believe that a major nuclear war would be likely to arise out of a NATO-Warsaw Pact conventional conflict that itself was preceded by a political crisis. The Soviets see little likelihood that the United States would initiate a surprise nuclear attack from a normal peacetime posture. [redacted]

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In a conventional war in which the Soviets were prevailing, they would have obvious and strong incentives to keep the war from escalating. Yet, they continue to believe it likely that NATO, to avoid conventional defeat, would at some point resort to nuclear weapons—potentially including US strategic strikes. The Soviets themselves are prepared to use nuclear weapons, potentially including strategic strikes on the US homeland, if they suffer serious setbacks in a conventional war with NATO. [redacted]

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If NATO used only a small number of battlefield nuclear weapons to try to halt a Warsaw Pact conventional offensive, there is a substantial possibility that the Soviets would respond in kind or, if their offensive was not stymied, even refrain briefly from resorting to nuclear weapons at all. However, they would see the chances of global nuclear war increasing significantly once any nuclear weapons were used in a theater war with NATO. [redacted]

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If they had convincing evidence of US intentions to launch its strategic forces (in, for example, an ongoing theater war in Europe) the Soviets would attempt to preempt. It is more difficult to judge whether they would decide to preempt in situations where they see inherently high risks of global nuclear war but have only ambiguous evidence of US intentions to launch its strategic forces. Because preempting on the basis of such evidence could initiate global nuclear war unnecessarily,

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the Soviets would have to consider the probable nuclear devastation of their homeland that would result, the reliability of their other nuclear employment options (launching their forces quickly upon warning that a US ICBM attack is under way and retaliating after absorbing enemy strikes), and their prospects for success on the conventional battlefield.

[redacted]

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We cannot ultimately judge how the Soviets would actually weigh these difficult tradeoffs. Their nuclear warfighting strategy, however, does not predispose them to exercise restraint if they saw inherently high risks that global nuclear war could occur and believed restraint on their part could jeopardize their chances for effectively waging such a war. The Soviets have strong incentives to preempt in order to maximize the damage to US forces and limit damage to Soviet forces and society. Moreover, their strategic programs indicate that for the period of this Estimate the Soviets' nuclear warfighting strategy will endure. [redacted]

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MAJOR CHANGES IN THIS YEAR'S ESTIMATE

There have been a number of new developments and some changes in our assessments since the last Estimate. We wish to highlight that:

- Preparations are under way at deployment complexes to replace silo-based SS-18s with a new heavy ICBM and, contrary to our expectations last year, some SS-19s with silo-based SS-X-24-class ICBMs. Both new missiles are now in flight testing. (See paragraph 2)
- SS-X-24-class ICBMs will be deployed this year in specially configured trains. [redacted] (See paragraph 2)
- Some SS-17 silos are being deactivated. (See paragraph 2)
- On the basis of new analysis, we now judge that Delta-IV SSBN production will continue beyond the five or six projected last year, possibly reaching 12 to 14 units by the late 1990s and that a new-class SSBN will not be introduced until the middle-to-late 1990s, rather than the late 1980s or early 1990s. (See paragraph 4)
- New evidence indicates the Soviets are apparently working on prototypes of both a Stealth fighter and a Stealth bomber. (See paragraph 5)
- The SS-NX-21 land-attack sea-launched cruise missile is in the process of being deployed on several submarine classes, including the Yankee 402AA, a dedicated carrier with up to 40 missiles. (See paragraph 6)
- We have detected [redacted] large phased-array radars under construction that are for the purpose of ballistic missile detection and tracking. (See paragraph 13)
- We have new judgments, and alternative views, on Soviet widespread ABM deployments over the next 10 years in the absence of, or in the face of, US SDI deployments. (See paragraph 15)
- On the basis of further analysis, we have additional insights into the Soviets' 40-year program to provide deep-underground facilities [redacted] to protect key leaders in a large-scale nuclear war. (See paragraph 20)

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- We have reevaluated our estimates of, and in some cases lengthened the time for, the potential availability of Soviet directed-energy and kinetic-energy weapons and their prototypes, primarily because of new analysis. There are alternative views. (See paragraph 26)
- The launch of the new SL-X-17 heavy-lift launch vehicle is a milestone in the Soviet use of space for military purposes. (See paragraph 31)
- We have modified somewhat our projections of future Soviet offensive forces (see paragraph 32) and this year we have included a projection of Soviet offensive force expansion that could be part of a response to possible US SDI deployments in the middle-to-late 1990s. (See paragraph 37)
- We have additional insights regarding the potential for the Strategic Rocket Forces' highly centralized command, control, and communications capability to improve the effectiveness of Soviet ICBM attacks and regarding the integration of Soviet strategic force operations. (See paragraphs 48 and 55)
- We have improved our understanding of how the Soviets are likely to view escalation in a future war. (See paragraph 52)
- New analysis provides insights into the Soviets' potential use of high-yield nuclear weapons to generate electromagnetic pulse as part of an initial strike against North American targets. There is an alternative view. (See paragraph 65)
- We have examined the issue of the effect, if any, that Gorbachev's declaratory policy on nuclear war issues might have on current and future Soviet strategic force procurement and operational planning. (See paragraph 79) [redacted]

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SUMMARY

Strategic Offensive Forces

1. All elements of Soviet strategic offensive forces will be extensively modernized between now and the late 1990s and will become more capable, diverse, and generally more survivable. While the Soviets will continue to rely on fixed, silo-based ICBMs, mobile ICBMs will be deployed in large numbers (see figure 1), and major improvements will be made to the sea-based and bomber forces. The major changes in the forces will include:

- An improved capability against hardened targets through further improvements to the heavy ICBM force.
- Significantly better survivability from improvements in the SLBM force through quieter submarines and longer range missiles and from continuing deployment of mobile ICBMs. Mobile ICBMs will also improve Soviet capability to use reserve missiles for reload and refire. An alternative view holds that reload and refire operations are as problematic for mobile launchers as for silos.¹
- An increase in the diversity of the bomber force and in the number of its deliverable warheads, as a result of the deployment of new bombers with long-range, land-attack cruise missiles.
- Deployment of a variety of new long-range, land-attack cruise missiles on ground-based launchers, aircraft, and submarines. [redacted]

Land-Based Ballistic Missile Forces

2. The Soviets are continuing programs to modernize these forces by deploying more survivable, mobile systems while upgrading their highly reliable silo-based systems. The ICBM force, as shown in figure 2, will have been almost entirely replaced with new systems by the late 1990s:

- Preparations are under way to deploy two new silo-based ICBMs. A new heavy ICBM, carrying at least 10 reentry vehicles (RVs), is being flight tested and will replace the SS-18 beginning in [redacted]

1988 or 1989. Modification of SS-18 silos has begun. A 10-RV SS-X-24-class ICBM is in flight testing and will be deployed in SS-19 silos by 1988. Conversion of some SS-19 silos began last year.

- The Soviets are preparing to deploy SS-X-24-class missiles in a rail-mobile mode in 1987. [redacted]

[redacted] We expect, within the next several years, testing of improved versions of SS-X-24-class ICBMs, as the Soviets continue to develop this major missile type.

- The Soviets have now deployed [redacted] the road-mobile single-warhead SS-25. [redacted]

[redacted] An SS-25 follow-on, which we judge will have single- and three-RV payload options, will probably begin flight-testing in late 1987 or early 1988. By the mid-1990s, we expect some 300 to 400 SS-25-class launchers to be deployed.

- The Soviets have continued to phase out older silo-based single-RV SS-11s as they have deployed the single-RV road-mobile SS-25.

- We continue to project that the SS-17 force will be phased out beginning this year as newer ballistic missiles with multiple independently targetable reentry vehicles (MIRVs) are deployed. [redacted]

3. In the absence of negotiated reductions, we expect the number of deployed SS-20-class missiles to change only slightly, if at all, from the current level. SS-4 medium-range ballistic missile (MRBM) launchers are being deactivated, and it is probable that this force will be phased out over the next year or two. [redacted]

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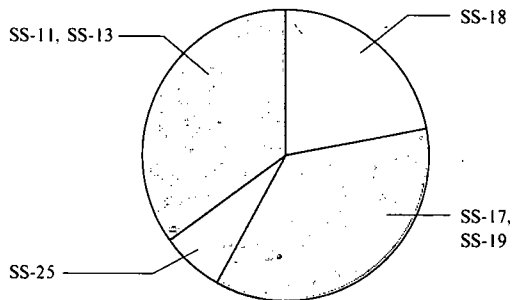
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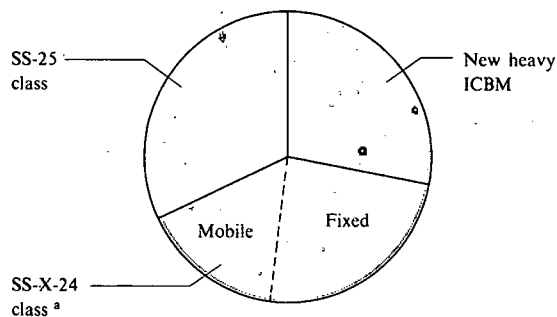
Figure 2
Modernization of Soviet ICBMs

Launchers

1987

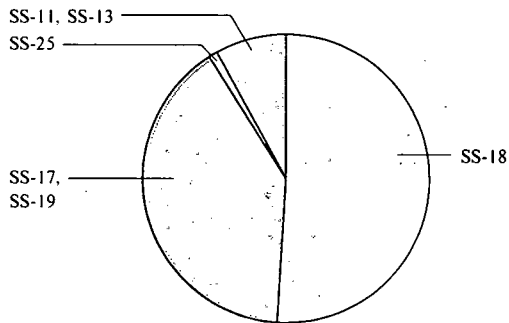


Late 1990s

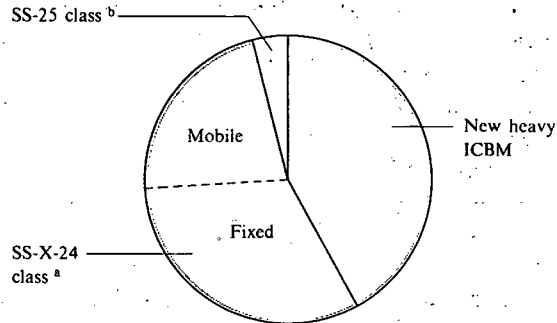


Warheads

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Late 1990s



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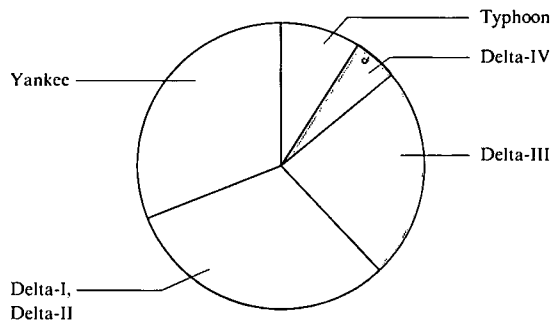
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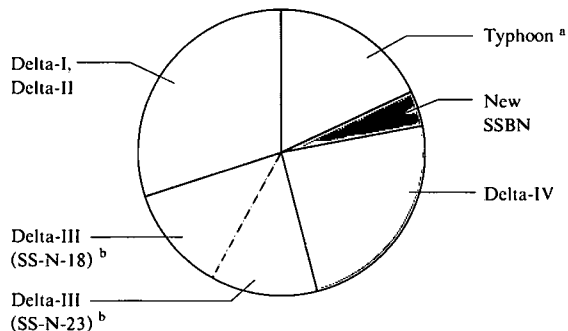
Figure 3
Modernization of Soviet SLBMs

Launchers

1987

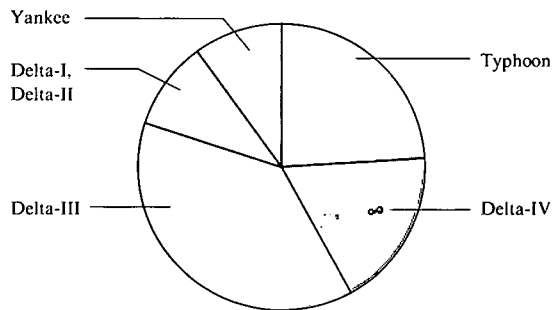


Late 1990s

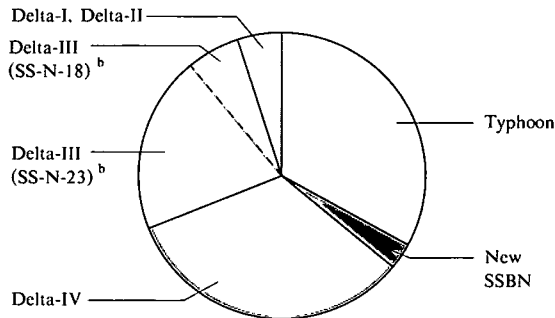


Warheads

1987



Late 1990s



^a Color change for Typhoon in the late 1990s indicates new missile deployed in existing submarine class.

^b Dashed line indicates one-half Delta-III SSBNs backfitted with the SS-N-23 SLBM. We estimate there is an even chance some, but probably not all, will be backfitted.

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SS-N-23, relative to that of the SS-N-18 missile currently on Delta-IIIs, will make SS-N-23-equipped SSBNs more survivable. An alternative view holds that the Soviets are unlikely to retrofit the SS-N-23 into the Delta III.³

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- A replacement for the SS-N-20 on Typhoon SSBNs. We expect the replacement to begin initial testing in 1987 and probably begin deployment in 1990 or 1991 [Redacted]

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Cruise Missiles

6. Soviet long-range land-attack cruise missile programs include continued development and, in some cases, deployment of subsonic and supersonic systems:

- The AS-15 ALCM continues to be deployed with the Bear H aircraft and will soon be deployed on the Blackjack.
- The SS-NX-21 SLCM is in the process of being deployed. Four classes of submarines are probable deployment platforms: the Yankee 402AA dedicated SS-NX-21 carrier, and Victor, Akula, and Sierra nuclear-powered attack submarines (SSNs).

[Redacted]

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We project the Soviets will deploy eight to 10 402AA submarines, each carrying up to 40 SS-NX-21s.

Strategic Aviation

5. Soviet long-range strategic aviation is undergoing its first major modernization since the 1960s; by the late 1990s, as shown in figure 4, almost all older heavy bombers will have been replaced. The heavy bomber force will have a somewhat greater role in intercontinental attack and will be more diverse:

- Deployment continues for Bear H aircraft and AS-15 ALCMs, although production of Bear H aircraft seems to be winding down.
- We project the Blackjack will be operational in 1988, and will carry ALCMs and short-range attack missiles (SRAMs). This aircraft may have entered serial production in early 1987.
- The new Midas tanker is operational, enhancing the capabilities of the Soviet air forces. The initial deployment pattern indicates that the first Midas tankers will be used primarily to support intercontinental strike aircraft.
- The Soviets are developing a new peripheral attack aircraft that will probably replace, beginning in the mid-1990s, Fencer aircraft for deep interdiction missions.
- We now have evidence that the Soviets are working on prototypes of both a Stealth fighter and a Stealth bomber [Redacted]

- [Redacted] the SSC-X-4 ground-launched cruise missile (GLCM) could begin deployment in late 1987 or 1988.

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[Redacted]

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- The Soviets are continuing to develop a large supersonic cruise missile. We expect that the SLCM version, the SS-NX-24, will be operational in 1988 on a converted Yankee-class submarine. Also, we project a new dedicated submarine class for this system could be operational in 1989. The AS-X-19 ALCM, which we estimate will be deployed externally on Bear H aircraft, could be operational in about 1989. There possibly is a GLCM version. [Redacted]

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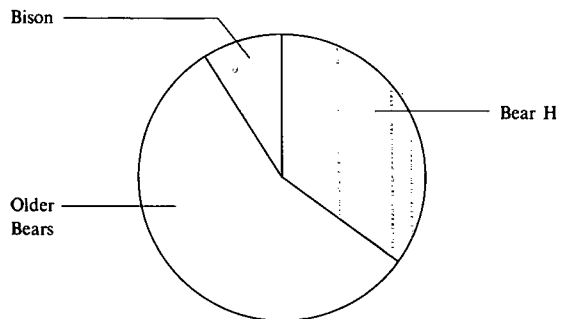
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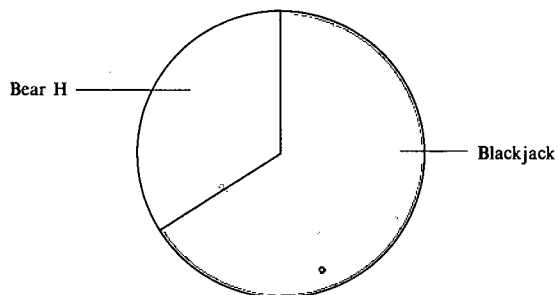
Figure 4
Modernization of Soviet Heavy Bombers

Heavy Bombers

1987

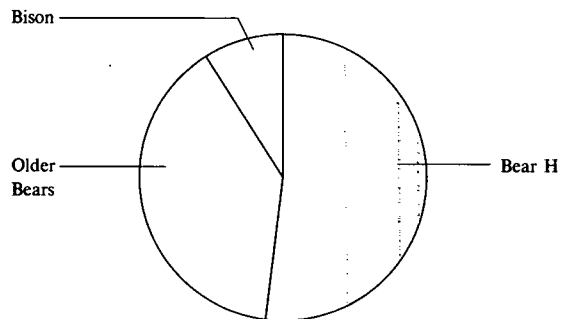


Late 1990s

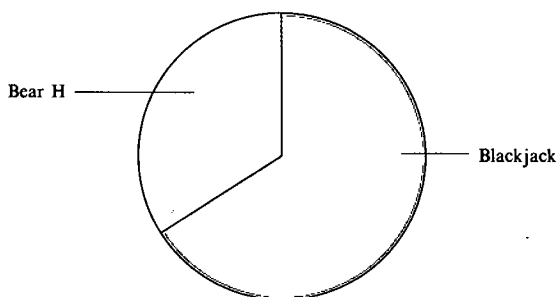


Weapons

1987



Late 1990s



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Strategic Defensive Forces

10. The Soviets continue to invest about as heavily in active and passive strategic defenses as they do in offensive forces. [Redacted]

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Air Defense

11. Deployment rates of low-altitude-capable, strategic air-defense systems are increasing. By the late 1990s, the SA-10 all-altitude surface-to-air missile (SAM) will constitute nearly half of the deployed strategic SAM battalions and will contribute a large increase in firepower. The Soviets are deploying new lookdown/shootdown aircraft—Foxhounds, Flankers, and Fulcrums—with much better capabilities against low-flying targets; these new aircraft will make up a majority of the air defense-capable aircraft in the homeland by the mid-1990s. The fighter force will be about the same or smaller in size, but, compared to our previous Estimate, there are significant increases this year in our estimate of the rate of modernization of newer fighters with a lookdown/shootdown capability. The Mainstay airborne warning and control system (AWACS) aircraft will begin to be deployed during 1987 or 1988 (later than we had forecast), and a family of balloon-borne sensors is also being developed.

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Ballistic Missile Defense

12. The new Moscow ABM defenses, which will be fully operational in 1988 or 1989, will have 100 silo-based interceptors, providing an improved intercept capability against small-scale attacks on key targets around Moscow. [Redacted]

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13. As new large phased-array radars become fully operational in the late 1980s and early 1990s, they will provide a much improved capability for ballistic missile early warning, attack assessment, and accurate target tracking. These radars will be technically capable of providing battle management support to a widespread ABM system, but there are uncertainties and differences of view about their suitability for battle management and whether the Soviets would rely on these radars to support a widespread ABM deployment. Since last year, we have detected [Redacted] new large radars under construction, [Redacted]

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14. The Soviets have developed all the required components for an ABM system that could be used not only to augment the Moscow defenses but also for widespread deployments beyond Moscow in excess of ABM Treaty limits. The components include the Flat Twin radar, an aboveground launcher, and the Gazelle missile, which will soon be deployed as part of the Moscow ABM system. Assuming they have already begun making the necessary preparations, we judge the Soviets would be capable of undertaking rapidly paced ABM deployments (sites could be prepared in months). Such deployments would be designed to strengthen the defenses at Moscow, to cover key targets in the western USSR, and to extend protection to key targets east of the Urals. We have major uncertainties about the degree of protection such deployments would afford the USSR. (See paragraph 75.)

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16. [Redacted] some new ABM components may be under development and might begin testing in the next year or two. We judge that the Soviets will probably test a new or modified endoatmospheric interceptor—and possibly a new exoatmospheric interceptor. [Redacted]

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[Redacted] If testing of these components, and possibly new radars, began in the next year or two, a new ABM system could be ready for deployment as soon as the mid-1990s. [Redacted]

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17. As long as the Soviets do not perceive clear US intentions to deploy an ABM system in the 1990s, we will find it difficult to judge the likelihood of a Soviet deployment in mid-decade. Lacking such a perception, the Soviets would be unlikely to deploy a system based on the components currently available; [Redacted]

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[Redacted] if the Soviets believed US SDI deployments would occur in the 1990s, they would almost certainly take steps to deploy their own ABM system in the 1990s. Depending on when the Soviets decide that such a US deployment was certain, they would either use currently available components—Gazelle and Flat Twin—or new or modified components if they were available. [Redacted]

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15. We judge it unlikely that the Soviets would conduct such a widespread ABM deployment beginning in the late 1980s or early 1990s (roughly a 10-percent chance). [Redacted]

[Redacted] The Soviets probably perceive the potential near-term military benefits of such a deployment as outweighed by the implications of US and Allied responses, particularly the prospects of a unified commitment to SDI and the end of the USSR's ability to advance its interests through the arms control process. An alternative view holds that it is unlikely that the Soviets will begin widespread deployments of ABMs in the 1980s but the likelihood increases during the early 1990s when major portions of the large phased-array radar network become operational. Major components of a rapidly deployable ABM system remain intact and continue operating at Saryshagan. [Redacted]

ABM Capabilities of SAMs

18. The mobile SA-12 system can engage conventional aircraft, cruise missiles, and tactical ballistic missiles. [Redacted]

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19. Analysis indicates that the SA-10, with feasible upgrades, could achieve some capability for point defense of hardened targets against most types of RVs. According to an alternative view, the SA-10 system has some advantages as an ABM over the SA-12 system, and, if certain ABM features exist in the SA-10, or are added, this system could intercept all current types of US RVs. ⁸ According to another view, the SA-10 has essentially no capability against ballistic missile RVs. This view further holds that an upgrade sufficient to give the SA-10 any significant ABM capability is tantamount to building a new system. ⁹ [redacted]

Hardened Protection for the Leadership

20. A primary objective of the Soviets' strategic defense effort is to protect and support the leadership from the outset of crisis through the postattack period. We have identified [redacted] hardened Soviet command posts (CPs) for military and political leaders, [redacted] urban deep-underground complexes. We estimate there are [redacted] more deep-underground facilities [redacted]

Antisubmarine Warfare

21. [redacted] New, quieter SSNs such as Akula will enhance the Soviets' ability to protect their own SSBNs; [redacted]

[redacted] We expect the Soviets to continue to pursue vigorously all ASW technologies as potential solutions to the problems of countering US SSBNs and defending their own SSBNs against US attack submarines. They are energetically trying to develop a capability to sense, from platforms in air and space, submarine-generated effects. [redacted]

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22. We judge the Soviets will not be able to deploy in the 1990s, and probably not until well beyond, a nonacoustic ASW detection system that could reliably monitor US SSBNs patrolling in the open ocean. This judgment is based on operational considerations, difficulties we expect the Soviets to encounter in exploiting the basic phenomena of wake detection, and the major advances required in high-speed computing and in sensor and signal-processing technologies. There is a low to moderate (10 to 60 percent) probability that the Soviets could deploy, before the year 2000, an airborne ASW remote detection system, and, by about 2005, a spaceborne submarine wake detector. Such systems would have some effectiveness against enemy SSNs operating at very shallow depths and at high speeds and approaching ASW barriers near Soviet bastions. [redacted]

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Directed-Energy and Kinetic-Energy Weapons

23. [redacted] Soviet efforts to develop directed-energy weapons—especially high-energy laser weapons—for air defense, ASAT, and BMD applications. We estimate that just the high-energy laser efforts we have been able to observe would cost roughly \$1 billion per year if carried out in the United States. [redacted]

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[redacted] Our estimate has changed because of reevaluations of the level of Soviet technology development, a better understanding of how the Soviets bring new technology into the weapons development process, and, in some cases, new evidence. We are also better able to define the timing and potential capabilities of less complex weapon systems or prototypes of such systems that the Soviets may be able to deploy in the near term. An alternative view holds that the new analysis and evidence are insufficient to give much confidence in judgments of lengthened times for the potential availability of Soviet directed-energy weapons. [redacted]

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Deep-Underground Facilities

For 40 years, the Soviet Union has had a vast program under way to ensure the survival of the leadership in the event of nuclear war. This multifaceted program has involved the construction of deep-underground bunkers, tunnels, secret subway lines, and other facilities [Redacted]

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[Redacted] Costing the equivalent of tens of billions of dollars, this program is designed solely to protect the senior Soviet leadership from the effects of nuclear war. [Redacted]

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[Redacted]

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Neither changes in the Soviet leadership nor the restructuring of the strategic balance and the refinements in military doctrine that accompanied these changes appear to have diminished the Soviets' commitment to the program. Over the program's history, its purpose has remained unchanged—leadership survival so that the leaders can maintain internal control and so that Soviet military power can be centrally directed throughout all phases of a world war. The secrecy of the program, and the uncertainty thereby created in US planning about the extent and nature of these facilities, contributes to this purpose. [Redacted]

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The Soviets' experience with civil defense, leadership protection, and massive relocation efforts during World War II has taught them the benefits of a leadership protection program. [Redacted]

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[Redacted] The enormous and continuing Soviet investments in the leadership protection program indicate that they believe its benefits are well worth the large cost. [Redacted]

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24. We expect laser weapons that are deployed in an air defense role to be integrated with SAMs in a point defense role. The Soviets will probably field a mobile tactical air defense laser capable of electro-optical sensor damage by the early 1990s. We expect more powerful (hundreds of kilowatts) and capable strategic and naval systems to be deployed later in the 1990s. If the Soviets do not complete technological development of a megawatt-class air defense laser until the late 1980s, deployment of such a weapon would not begin until about 2005. It is possible, however, the Soviets have advanced more quickly, in which case deployment could begin in the middle-to-late 1990s. [Redacted]

25. We have evidence that the Soviets are developing one or more ground-based, high-energy laser devices with potential ASAT capabilities. Some militarily useful capability can be achieved for ASAT missions without deployments in large numbers or complex tracking and command and control systems. A Soviet laser ASAT device, whether a one-of-a-kind weapon or an experimental device, can potentially cause serious damage to US space systems. [Redacted]

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26. [Redacted]

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[Redacted] we judge that the Soviets probably will begin deployment of operational ground-based 2-MW-class laser ASAT weapons by the late 1990s. Further, we judge that by the early-to-middle 1990s, the Soviets are likely to have prototypes of 2-MW-class ground-based laser ASAT weapons that will potentially have some military capability.

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[Redacted]

27. The Soviets are probably continuing to experiment with airborne laser devices that could be used for air defense or ASAT missions. We believe an operational airborne laser ASAT system to be unlikely before about 2005, but a prototype, with some limited damage capability, is possible as early as the mid-1990s. An alternative view holds the Soviets will have a prototype in the early 1990s and achieve an operational capability by the late 1990s. ¹⁷ [Redacted]

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there is potential for a surprise development in one or more of these areas:

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[Redacted] the Soviets are conducting research under military sponsorship on particle beam weapons (PBWs). Because of questions of feasibility and severe requirements on technology, we judge that the Soviets are at least 10 to 15 years away from testing any prototype long-range, ground-based PBW for terminal BMD or a space-based neutral PBW.

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29. There is evidence of a large Soviet program to develop ground-based laser weapons for terminal defense against ballistic missile RVs. There are, however, many unknowns concerning the feasibility, practicality, and timing of ground-based laser weapons for BMD. There are also large uncertainties in any estimate of when the Soviets might have such a system operational. If such a system proves feasible and practical, we expect that a prototype ground-based weapon would be tested in the middle-to-late 1990s. An operational system probably would not be deployed until after the year 2000. However, if tests prove successful, the Soviets could choose to take the risk of not constructing a prototype weapon, and proceed directly to final system deployment. Although we assess this course to be unlikely, a few such systems could be operational by the middle-to-late 1990s. The Soviets also appear to be considering space-based lasers for BMD missions. We estimate they will not test a feasibility demonstrator of a space-based laser BMD system before about the mid-1990s; an operational system based on such concepts would not be deployable until after the year 2000, possibly about 2010.

We estimate that, by the early 1990s, there is a moderate likelihood that the Soviets will test a ground-based RF ASAT weapon potentially capable of damaging unprotected satellites, but it is unlikely that a space-based RF-damage ASAT feasibility demonstration device could be tested before the mid-to-late 1990s.

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plans to develop kinetic-energy weapons for strategic applications. To date, identified Soviet research efforts have been in short-range technologies,

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In the mid-1980s, the Soviets began to consolidate the research, possibly to give it the same type of central direction and organization as in the laser program. It is possible that the Soviets could place in orbit a feasibility demonstration device of a long-range kinetic-energy weapon as soon as the early 1990s. If so, they could begin testing prototypes with some military capability in the middle-to-late 1990s and could begin deploying an operational system about 2005.

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[Redacted]

30. The Soviets are also engaged in extensive research efforts of other technologies (particle beam, radiofrequency, and kinetic energy) that can be applied to ASAT and BMD weapons,

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[redacted] the earliest we judge the Soviets could have an operational system in space is the late 1990s. [redacted]

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Space Program

31. The Soviets have a vigorous military space program, and we expect their large investments in space systems R&D to pay off in the early 1990s in terms of expanded access to space for a variety of missions. The Soviets recently conducted the first test-flight of their new heavy-lift launch vehicle, the SL-X-17, that is comparable in lift capacity to the former US Saturn V lunar launch vehicle. Once operational, this launch vehicle will be key in establishing larger space stations, and will give the Soviets the option of orbiting large power sources and other components for future space weapons.

[redacted]

and would enable the Soviets to achieve key military objectives.¹⁹

— Force 2 assumes an environment of continuing arms control negotiations. The Soviets deploy new and modernized weapons at a higher rate than Force 1 and remain at the upper bounds of the MIRVed sublimits of SALT II. At the same time they avoid deploying weapons, other than the SS-25, that would demonstrably contravene SALT modernization limits. Older launchers are replaced on a less than one-for-one basis.

— Force 3 posits new and modernized Soviet forces growing beyond SALT limits, although the total number of launchers decreases somewhat. The Soviets assess Soviet-US relations will be generally poor and arms control prospects bleak. US SDI deployments do not begin in the 1990s but the Soviets believe they are still in the offing.

— Force 4 portrays an SDI “response” force that features a larger (than Force 3) expansion of Soviet strategic offensive forces, both launchers and warheads. The expansion is based on a near-term Soviet judgment that the United States will deploy land-based ABM interceptors and space-based SDI assets beginning in the middle-to-late 1990s. [redacted]

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Projected Forces

32. This year we have again projected alternative Soviet strategic forces that illustrate possible force postures under different assumptions about the strategic environment the Soviets will perceive over the next 10 years:

— Force 1, featuring limited growth in strategic force warheads, is premised on Soviet belief that Soviet-US relations are generally satisfactory, with the pace of Soviet modernization being somewhat restrained and with more of their older forces being retained. We emphasize that, in this force projection, the Soviets build fewer new strategic systems and modernize at a slower rate than we actually expect. An alternative view holds that while the deployment levels and rates projected in Force 1 for some individual systems may prove to be too low, the aggregate level of weapons and the modernization rates implied by this force would be more consistent than those in the other forces with the high priority the Soviets are placing on modernizing their economy

33. The projected growth in the number of deployed warheads on Soviet intercontinental attack forces is shown in figure 6:

— The force currently consists of about 10,000 warheads on some 2,500 deployed ballistic missile launchers and heavy bombers. Most warheads are in the ICBM force.

— Force diversity is increasing. A growing proportion of Soviet intercontinental attack warheads will be deployed on SSBNs and mobile ICBMs, with a smaller but still substantial proportion in fixed silos.

— Warheads are increasing. Systems now being deployed (new Typhoon and Delta-IV submarines, Bear H bombers, and SS-X-24-class ICBMs) carry many more warheads than the systems they are replacing.

— With deployment of these new ballistic missiles, and, if the Soviets decide to remain within the quantitative sublimits of SALT II, by 1990 the

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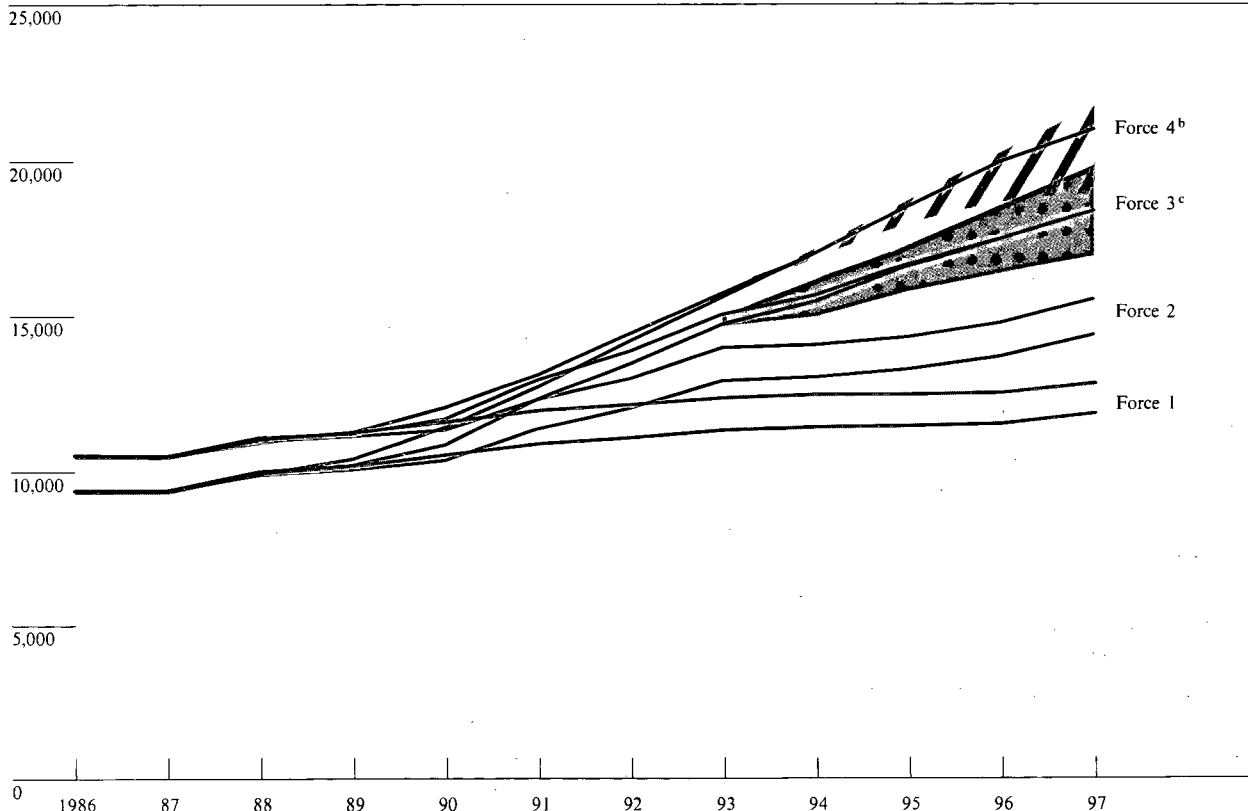
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Figure 6
Projected Total Number of Deployed Soviet Warheads-
ICBMs, SLBMs, and Heavy Bombers^a

Midyear



^a The range in the number of weapons in Forces 1 and 2 and up to the early 1990s in Forces 3 and 4 reflects uncertainty in the number of warheads on the SS-18 Mod 4 and new heavy ICBM.

^b The striped uncertainty band indicates Force 4 may be somewhat higher or as many as 3,000 weapons lower than we project.

^c The darker uncertainty band indicates that Force 3 could be some 1,500 weapons higher or lower in 1997 than we project.

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deployed warheads will grow to between 10,500 and 11,500; by 1995 probably between 13,000 and 14,000.

deployment. There is an alternative view to Force 4. (See paragraphs 38 and 39.) [Redacted]

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— In the absence of an arms control process, the Soviets would not necessarily expand their intercontinental attack forces beyond the SALT II figures; however, they clearly have the capability for significant further expansion. Force 3 projects about 16,500 deployed warheads by 1995 and 18,500 by 1997, and Force 4 projects as many as 21,000 by 1997 in response to an early SDI

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[Redacted] the maximum possible number of intercontinental attack warheads by 1997 is about 22,000. Some increase in the number of weapons beyond that is possible, [Redacted]

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[redacted]

stances—relative to offensive responses—is unclear. Competition for resources (special nuclear materials, for example) could require some trade-offs between offensive and defensive responses, but the extent of such competition is unclear. [redacted]

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35. Despite the widely diverse assumptions underlying our four projections, substantial strategic force modernization is probable in all cases; the Soviets most likely will replace most of the weapons in their arsenal with new or modernized systems by the late 1990s. It is notable that, in our projections, deploying these modernized systems will result in a decline in the number of launchers, except for an SDI response force. Overall, force composition does not dramatically change. The Soviets will continue to increase the number of mobile ICBMs and cruise missiles, but silo-based ICBMs will continue to carry a substantial portion of the total warheads. While Soviet heavy bomber weapons will increase, ICBMs and SLBMs will continue to be the primary elements of intercontinental attack forces. [redacted]

36. Both the US and Soviet proposals at the strategic arms reduction talks (START) would significantly reduce the current force size and would have a major effect on the current and planned programs. These proposals, however, differ in major ways. We judge that the Soviets would be slow to drastically reduce the number of their heavy ICBMs, given the importance they attach to them and the unique counterforce capabilities of these weapons. Any willingness to make such reductions would depend on major US concessions, including substantial constraints on SDI, and a corresponding reduction in US silo-based ICBMs. [redacted]

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37. The "SDI response" force projection is intended to illustrate key measures the Soviets might attempt in their offensive forces to counter early US SDI deployments. Primarily the projection posits overwhelming or saturating US ballistic missile defenses through sheer numbers of warheads. This projection does not include other possible Soviet responses, such as an increased effort in antisatellite programs, deployed ballistic missile defenses of their own, or technological improvements such as maneuvering RVs (to evade defenses) and other advanced penetration aids. While we expect the Soviets to continue their own advanced technology BMD efforts in any case, in the face of prospective near-term US SDI deployments they would probably take steps to deploy their own conventional ABM defenses in a nationwide defense as noted in paragraph 17. The degree of effort they would devote to ABM deployments under these circum-

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38. While increasing the sheer size of their offensive forces would be the most viable Soviet response in the near term, the incorporation of advanced technical countermeasures would be critical to dealing with SDI in the long term. One key uncertainty in evaluating Soviet offensive responses to SDI is the point at which the Soviets decide to incorporate such countermeasures into their offensive forces. The Soviets have been engaged in efforts relevant to SDI countermeasures for many years, and presumably undertook additional work when the United States began pursuing SDI. On balance, however (given the uncertain nature of the US program and the potential disruption of their own efforts), we judge that the Soviets have not yet committed to the deployment of specific SDI-responsive modifications to their strategic offensive programs. In the absence of a crash effort, therefore, advanced technological countermeasures to SDI would be unlikely to be deployed in any significant numbers until about 2000 or beyond. We also are uncertain about the effect that the introduction of advanced countermeasures could have on the subsequent growth of Soviet strategic forces. We would expect, however, that in the late 1990s, as the Soviets prepared for an increased emphasis on qualitative responses, the rate of expansion of offensive forces would slow considerably and the force size would roughly flatten out. The size of the force could be a few thousand warheads lower than our "SDI response" projection, depending on the timing of the introduction of technological countermeasures. We note, however, that these observations are tentative, and that we are very uncertain about how the Soviets would actually undertake SDI responses and how effective the Soviets would perceive such responses to be. [redacted]

39. An alternative view agrees with the foregoing discussion, but holds that the possibility of a force lower than 21,000 warheads by 1997 is considerably more likely than the main text implies. According to this view, the Soviets could begin to introduce qualitative improvements in their strategic offensive forces in the middle-to-late 1990s. The introduction of these qualitative improvements would probably limit the growth of offensive weapons to about 19,000 by 1997. For example, the introduction of penetration aids such as decoys, chaff, and faster burning missiles in the middle-to-late 1990s, would require the offloading of

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some reentry vehicles from their ballistic missiles, thereby constraining warhead growth. Thus, in this view, Force 4 should reflect the earlier introduction of qualitative measures that the Soviet would require to counter an evolving US strategic defense system. Force 4 projects a total force level which this view judges to be quantitatively excessive.²⁰ [redacted]

Resources

40. [redacted] over the next decade the Soviets will make substantial resource commitments for modernizing strategic forces. This strategic force upgrade comes at a time when General Secretary Gorbachev has firmly established industrial modernization as a top priority. The ambitious goals outlined in the 1986-90 Five-Year Plan (FYP) are intended not only to accelerate the slow economic growth of the past decade, but also to narrow the technological gap between the Soviet Union and the United States and to establish the infrastructure needed for production of the next generation of high-technology weaponry. Toward this end, Gorbachev has called for a large-scale replacement of outdated plants and equipment and has emphasized high-technology industries. [redacted]

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41. As a result of heavy investment in the defense industries since the late 1970s, existing weapon facilities and those already under construction will be able to produce the strategic forces projected in this Estimate at least through the early-to-middle 1990s. For some basic materials and intermediate goods used in the production process, however, competition within the defense sector and between the military and civilian economies might be stiff during this period. It is possible these factors could somewhat affect the rate at which some strategic systems are introduced and the levels deployed. Nevertheless, the large sunk costs in production for new strategic weapons and the fact that such production facilities cannot readily be converted to civilian uses mean that Gorbachev's industrial modernization goals almost certainly will not have major effects on strategic weapons deployments through the mid-1990s. [redacted]

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42. New construction of defense plants and retooling of existing facilities will be required in the late 1980s and early 1990s to produce the next generation [redacted]

[redacted]

of weapons. Success in the current economic modernization effort over the next few years, through increases in the quantity and quality of Soviet machinery and other products important for defense, would put the USSR in a good position to produce the more advanced weapons of the late 1990s and beyond and still provide for growth in civilian investment and consumption. On the other hand, it appears more likely that—despite some important successes—the modernization provided for in the FYP will fall far short of the goal. This will present the Soviet leadership with a dilemma: to delay or scale back somewhere in their planned allocation of resources—consumption, modernization of the economy, and the military. We judge, however, that, even if military programs are affected, strategic forces will continue to command the highest resource priorities and therefore would be affected less by economic problems than any other element of the Soviet military. [redacted]

43. Although we do not believe that the Soviets' economic difficulties are the primary reason for their interest in arms control, failure of the modernization program to spur economic growth might increase the attractiveness of an arms control agreement. Restraining or eliminating SDI, for example, could free enormous amounts of technical and industrial resources vital to other Soviet military and civilian programs which would otherwise be spent on countermeasures. On balance, in the near term the civilian economy would accrue only small benefits from reducing or even eliminating particular strategic systems that are well under development and for which production facilities have been constructed. Over the long run, cost avoidance associated with systems in the early stages of R&D, particularly responses to SDI, could be substantial and the Soviets could pursue advanced technology efforts at their own pace. An additional view holds that the Soviet leadership is well aware that the potential economic savings from arms control are marginal, as strategic weapons make up only a small portion of the defense budget. The holder of this view believes that Soviet force decisions, including potential arms control agreements, will continue to be driven primarily by the requirement to meet military objectives, rather than economic concerns.²¹ [redacted]

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Arms Control Issues

44. At least for the near term, continued Soviet SALT "interim restraint" and the prospect of new arms control agreements will influence the quantita-

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tive and qualitative development of Soviet strategic offensive forces. Soviet "interim restraint" is likely to revolve around SALT II's key quantitative provisions, especially the MIRV sublimits. The Soviets probably regard the near-term US deployments beyond SALT II as having marginal military significance. Even if they abandon all pretense of SALT adherence, the Soviets are likely to take actions, such as delaying dismantlement of older strategic systems, that they can portray as "proportionate" to US measures. Because of arms control considerations, the Soviets also will probably hedge in the development and testing of new systems.

[Redacted]

strategic deterrent in the eyes of European governments. That is, in the Soviet view, the Europeans would believe that, if the United States had to depend almost entirely on its central strategic systems to threaten strikes against the Soviet homeland in the event of a Warsaw Pact offensive against NATO, the United States would be confronted with the prospect of provoking a massive Soviet strike against North America.

- Soviet proposals for deep cuts in intercontinental offensive forces in return for US curtailment of SDI could allow the USSR to preserve its net strategic advantages, covering critical fixed targets and improving Soviet prospects for damage limitation. The more stable planning and budgetary environment that would ensue could enhance Gorbachev's efforts to rehabilitate the Soviet economy in the near term so as to make the Soviets more competitive in the longer term.

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45. Goals the Soviets apparently hope to gain through the arms control process or any resulting agreements are to:

- Protect and enhance the capabilities of Soviet military forces in relation to their opponents.
- Constrain US and NATO force modernization, especially in such fields as ballistic missile defense and space warfare.
- Make the prospective military environment more predictable, so as to facilitate military planning and avoid unnecessary military expenditures.
- Use the arms control process itself to help stimulate public pressures in the West that might unilaterally constrain US and NATO programs and undermine the cohesion of the Western alliance. [Redacted]

46. If they believe the potential payoff from formal agreements to be sufficiently high, we judge that the Soviets would accept some constraints on their military programs:

- Their apparent willingness to ban INF missiles reflects an attempt to magnify the political and military advantages of their conventional preponderance in Europe, while at the same time covering theater nuclear targets with systems unlimited by the agreement. The Soviets probably believe that the elimination of NATO's INF missiles would erode the credibility of the US

Soviet Scenarios for Nuclear War

47. Soviet military planning is guided by fundamental wartime objectives: to decisively defeat enemy conventional and nuclear forces, to occupy enemy territory in the theater, and to defend the homeland against enemy attack. To meet these objectives, the Soviets train their forces for a global nuclear conflict. This training has diversified in scope and become increasingly complex. [Redacted]

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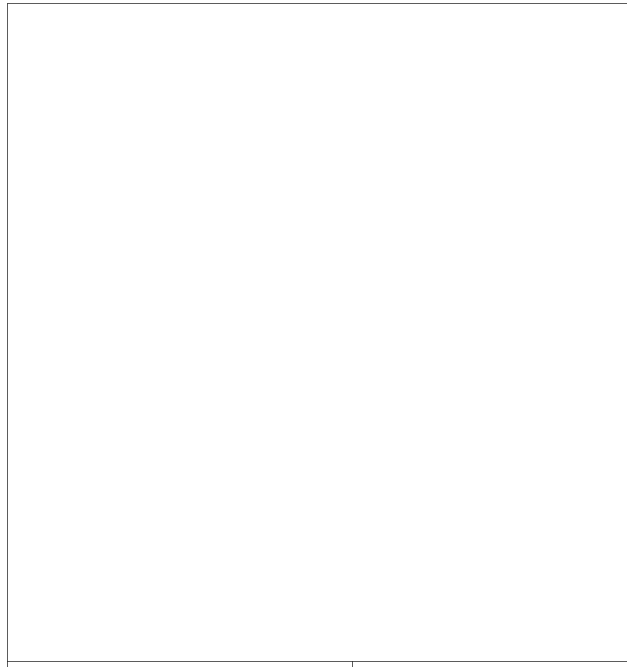
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49. The Soviets believe that, if a major nuclear war occurred, it would be likely to arise out of a NATO-Warsaw Pact conventional conflict preceded by a political crisis that could last several weeks or longer. They perceive a conventional phase as lasting from a few days to several weeks or longer. In recent years they have devoted increasing attention to preparing for conventional war. (See paragraphs 79 through 89 for further discussion of potential changes in Soviet military doctrine relating to the future prospects for conventional and nuclear war.) The Soviets see little likelihood that the United States would initiate a surprise nuclear attack from a normal peacetime posture; we judge it to be unlikely that they would mount such an attack themselves. The Soviets' key objectives in the conventional phase would be to weaken the enemy's theater-based and sea-based nuclear forces with attacks by conventional weapons, while protecting their own nuclear forces. We estimate that during the conventional war there would be a high likelihood that the Soviets would attempt to interfere with selected US space systems that provide important wartime support, using both destructive and nondestructive means. (However, the Soviets' own growing reliance on space assets for the conduct of military operations is likely to pose a dilemma if the United States deploys antisatellite capabilities.)



51. If the Soviets were advancing on NATO territory, they would be unlikely to initiate use of nuclear weapons unless they believed that NATO was about to use them. They would be likely to initiate nuclear weapons use if they suffered serious setbacks in the conventional war. If there were localized use of a few battlefield nuclear weapons, the Soviets would probably still think there was an opportunity to avoid large-scale nuclear war. If NATO launched small numbers

of such weapons, but did not stymy a Warsaw Pact conventional offensive, there is a substantial possibility the Soviets themselves would even refrain, at least briefly, from resorting to nuclear use. However, once large-scale use of nuclear weapons occurred in the theater, imminent Soviet escalation to intercontinental nuclear war would be probable.



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53. As the likelihood of large-scale nuclear conflict increased, Soviet leaders would face the difficult decision of whether to seize the initiative and strike, as would be consistent with their general military doctrine, or to be more cautious in the hope of averting large-scale nuclear strikes on the Soviet homeland. We cannot state with high confidence what the Soviets would actually do under a particular set of circumstances, despite the weight of evidence indicating the doctrinal imperative to mount large-scale preemptive nuclear attacks.

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54. The Soviets have three principal strategic employment options: preemption, launch-on-tactical warning (LOTW), and retaliation. In the event the Soviets decide to use strategic nuclear weapons, we believe preemption remains their preferred option because it maximizes the chances for destroying enemy forces and thus limiting damage to Soviet forces.

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Soviet Capabilities and Incentives To Control Escalation

Although we do not fully understand how the Soviets would rate their chances to keep a war with NATO from escalating to global nuclear war, we have gained some additional insights this year into the wide range of factors that would bear on this crucial issue. [Redacted]

Factors contributing to control. The Soviets have been emphasizing measures and practices that, among other benefits, provide flexibility for keeping a future war with NATO from escalating to global nuclear war:

- European theater exercises in the 1980s have improved Soviet capability to fight a longer conventional war, perhaps without escalating. These exercises have featured prolonged conventional warfare with emerging advanced conventional weapons, and frequently have demonstrated only limited Warsaw Pact advances into NATO territory.
- Growing diversity of Soviet offensive forces, including deployments of mobile ICBMs, improves their overall secure retaliatory capability. In the Soviet view, this might help intimidate NATO from threatening nuclear escalation.
- The Soviets apparently expect that high attrition rates for their SSBN force and some attrition to other strategic forces will be a reality of major conventional war. These would not necessarily provoke the USSR to rapid escalation.

[Redacted]

— There is continued Soviet interest, indicated in exercises, in a modest limited nuclear option involving the brief use of small numbers of battlefield nuclear systems. Combined with recent growth and improvements in battlefield nuclear systems, this option provides the Soviets with an additional opportunity to try to limit escalation in a European war so as to avoid nuclear strikes on the Soviet homeland or escalation to global nuclear war.

— The Soviets apparently consider that the United States might attempt a limited intercontinental strike, and there could conceivably be circumstances under which the leaders would consider responding to a limited intercontinental strike

with a limited strike of their own. [Redacted]

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Factors contributing to escalation. The Soviets have continued to emphasize certain measures and practices that could actually diminish their flexibility for controlling escalation, but would help them to prosecute a global nuclear war. The evidence includes:

- Their continued heavy emphasis in their conventional operations on destroying NATO's nuclear assets. That destruction would improve Soviet chances for combat success if nuclear operations began, but could increase the chances of provoking NATO's nuclear escalation.
- Soviet retention of a large, and increasingly vulnerable, silo-based ICBM force through the 1990s that is likely to contribute to Soviet incentives to preempt, even though preemption carries a greater risk (than other employment options) of escalating a theater war unnecessarily.

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Assessment. We cannot ultimately judge how the Soviets would actually weigh the trade-offs when faced with a decision to risk escalation in a future war with NATO. However, we believe that Soviet military and political leaders continue to expect that a future war with NATO would likely escalate to global nuclear war—especially if any nuclear weapons are used. Moreover, it is far from clear that Soviet political leaders would be predisposed to try to control escalation in a crisis or conventional war, rather than seize the initiative to maximize the USSR's combat advantages in an ensuing global nuclear war. Indeed, where choices have to be made, the Soviets have apparently sought to prepare for global nuclear war at the expense of facilitating escalation control. [Redacted]

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55. In their initial intercontinental strikes the Soviets would seek to neutralize US and Allied military operations and capabilities by destroying US-based nuclear forces, disrupting and destroying the supporting infrastructure and control systems for these forces as well as the National Command Authority, and attempting to isolate the United States from the theater campaign by attacking its power projection capabilities. They probably would also attempt to reduce US military power in the long term by attacking nonnuclear forces, US military-industrial capacity, and governmental control facilities, although the extent of the attack on these targets in the initial strikes could vary, depending on the circumstances. It is highly unlikely that the Soviets would limit initial intercontinental strikes to only a "decapitation" attack against command, control, and communications targets, or to only a portion of US strategic forces, such as ICBM silos.

[Redacted]

58. As force modernization proceeds, the Soviets will continue to rely primarily on silo-based ICBMs for initial strikes while withholding many of their SLBMs and presumably most of their dispersed mobile ICBMs [Redacted] for subsequent strikes during later phases of nuclear conflict.

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56. The Soviets have considerable flexibility in their employment of ICBMs. In our judgment, they would not launch their ICBMs in a single massive strike.

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59. There is an alternative view that the main text overstates the difficulties the Soviets would have in reconstituting their current silo-based ICBM force in

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nuclear conflict, [redacted]

[redacted] ²² According to another alternative view, Soviet reload attempts would be on a contingency basis; that is, any reserve missiles not required to maintain the online force would be used for reloading. Furthermore, in this view, it is by no means clear that reload and refire operations during nuclear war would be less problematic for mobile launchers than for silos. ²³ [redacted]

[redacted]

60. Besides a growing role for mobile ICBMs, other key operational developments we expect include:

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- An increasing role for SLCMs, especially for follow-on strikes.
- A greater role and greater survivability for the heavy bomber force as a consequence of the improved capabilities of the Blackjack.
- Extension of Soviet air defense coverage farther from Soviet borders with the deployment of Midas tankers to support Mainstay AWACS and fighter aircraft, and with increased use of Arctic support bases for interceptors. [redacted]

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61. In addition, we expect the Soviets to take greater advantage of ice cover for their SSBNs. Longer

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range SLBMs, such as the SS-N-23, permit the Soviets to cover targets while operating deep within Soviet bastion areas.

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sor strikes only if they did not jeopardize the effectiveness of their main attack.

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Capabilities of Strategic Forces

62. The Soviets have enough hard-target-capable ICBM RVs today to attack all US missile silos and launch control centers with at least two warheads each.

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63. Our analysis suggests that the Soviets have generally emphasized the destructive effects of ground burst attacks against ICBM silos.

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66. We judge that, for a comprehensive Soviet attack against North America, the Soviets currently have enough warheads to meet most and possibly all of their targeting objectives in a preemptive strike. This would also be the case if the Soviets could accomplish a reasonably successful LOTW. However, we judge the Soviets may have insufficient warheads to meet high damage goals against US ICBM silos if they were to retaliate after absorbing an initial US attack (presumably an important scenario in Soviet force planning) because of expected Soviet losses in their silo-based ICBMs.²⁵

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64. Beginning with the SS-N-23, Soviet SLBMs are expected to achieve better accuracy. They are likely to have sufficient yield and accuracy by the late 1990s to attack current US silos with greater confidence, but SLBMs are inherently less suited than ICBMs for use in an initial countersilo strike and during the next 10 years will not be nearly as effective for this role as Soviet silo-based ICBMs.

67. Over the next 10 years, we expect that Soviet offensive forces will not be able to effectively target and destroy patrolling US SSBNs, alert aircraft, air-

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65. Soviet plans for nuclear attack against North America probably include high altitude electromagnetic pulse (EMP) attacks by heavy ICBMs designed to degrade US command, control, and communications. We judge that the Soviets would employ EMP precu-

²⁵ We judge that the Soviets would wish to destroy US ICBM silos even in a retaliatory strike when most US silos would be empty. The Soviets would be unable to determine which US silos had launched, and thus would want to attack all US silos in order to destroy any ICBMs that were withheld or failed to launch. Moreover, the Soviets may be concerned that the United States would try to reload some surviving silos.

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craft in flight, or the dispersed land-mobile ICBM force. Moreover, we judge that the Soviets would regard ballistic missile barrage attacks to be militarily impractical against both US bomber flyout corridors and US mobile missiles, unless they could localize mobile missiles with near-real-time surveillance capabilities—a capability we do not foresee in at least the next 10 years. We believe that the Soviets would credit undegraded US warning and control systems in a crisis or conflict with the ability to launch ICBMs on tactical warning. [redacted]

the preemption option. [redacted]

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68. The Soviets probably perceive their ICBM silos to be somewhat more vulnerable to a US attack than we would assess, given their differing views of nuclear effects and attack modes. [redacted]

Soviets will continue to view preemption as the most desirable option, even though the ambiguities of strategic warning could potentially leave them in the dilemma of either failing to preempt and thereby suffering much greater damage, or launching their forces unnecessarily. [redacted]

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Soviet concern over the vulnerability of their silo-based ICBMs will increase over the period of this Estimate as the United States deploys more accurate missiles. However, the Soviets will continue to rely on silo-based ICBMs for the bulk of their preemptive attack capabilities, and most of their ICBM force will continue to be silo based. [redacted]

[redacted] the Soviets continue to see certain advantages in silo basing, such as quick reaction and reliability, which are desirable for performing prompt soft- as well as hard-target missions. [redacted]

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69. Dispersed Soviet mobile missiles, many SSBNs patrolling in waters near the USSR, and a large part of the silo-based ICBM force would survive an attack by current US forces. To assure adequate retaliatory and protracted warfare capabilities, the Soviets will increasingly depend on SLBMs and mobile ICBMs. [redacted]

71. Thus, the Soviets will probably continue to view their LOTW option as a highly important fallback. Indeed, compared to absorbing an enemy strike and retaliating, the Soviets may become even more dependent on LOTW in the 1990s. This is because, should they absorb a strike, their silo-based forces would suffer greater attrition in the future as a result of improved US countersilo capabilities. At the same time, the Soviets probably appreciate that, should they fail to preempt or execute LOTW successfully, their ongoing modernization program will still increase their overall ability to deliver devastating counterstrikes after absorbing an enemy nuclear strike. [redacted]

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72. Current Soviet ASAT capabilities could not deny the United States the use of space in time of war, but Soviet ASAT systems could attack a number of key US satellites. [redacted]

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[redacted]—the nuclear Galosh ABM interceptor and one, perhaps two, ground-based, high-energy lasers—have the potential to destroy or interfere with some satellites in near-Earth orbit. None of these Soviet capabilities, however, would survive a nuclear attack. Electronic warfare currently represents the only potential Soviet threat to unprotected satellites in higher orbits. [redacted]

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70. These characteristics of Soviet strategic offensive force modernization have strengthened the judgments we made in previous Estimates about the nuclear employment options the Soviets are likely to find necessary, feasible, or desirable in the 1990s. While the Soviets are improving their retaliatory capabilities, the inherent advantages to striking first and their continuing dependence on relatively vulnerable silo-based systems, especially for prompt attacks on hard targets, indicate a continuing commitment to

73. The United States would require multiple high-yield accurate weapons to achieve a high probability of severely damaging almost all types of Soviet hardened exurban leadership facilities that we have located. [redacted]

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bombers and cruise missiles is subject to considerable uncertainty. Penetration of improved Soviet air defenses by currently deployed bombers would be more difficult. These defenses, however, would be considerably less effective against US cruise missiles and future bombers. Our judgment is that, against a combined attack of penetrating bombers, SRAMs, and cruise missiles, Soviet air defenses during the next 10 years probably would not be capable of inflicting sufficient losses to prevent considerable penetration of Soviet air defenses. These judgments, however, are highly dependent on the effectiveness of US electronic countermeasures and the penetration altitudes of US bombers and cruise missiles. [redacted]

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74. Sufficient warning to implement relocation plans would allow survival of a large percentage of the Soviet leaders, mostly those at territorial levels. However, the Soviet wartime management system would be seriously disrupted as the result of a US attack; there would be major degradation or denial of many national-level leadership functions associated with the Moscow area. Damage would also be pronounced at the intermediate level of the command chain, affecting military districts (and regional military high commands) as well as the leadership of the Soviet republics. [redacted]

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75. The current Moscow ABM system of [redacted] Galosh launchers provides a limited, single-layer defense capable of intercepting ballistic missile RVs only before they reenter the atmosphere. [redacted]

77. There is an alternative view that this Estimate substantially understates the capability of the Soviet air defense system to defend key target areas against low-altitude penetrators. The holder of this view believes that the effectiveness of Soviet air defenses in such areas would be significantly higher against a combined attack of penetrating bombers, SRAMs, and cruise missiles than the Estimate suggests. ²⁶ [redacted]

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78. While significant improvements in the capabilities of both Soviet and US strategic offensive forces will occur throughout the next 10 years, sizable forces on both sides would continue to survive large-scale nuclear strikes. It seems highly likely that the Soviets could maintain continuity of command and control throughout all phases of a war, although it would probably be degraded. The Soviets could have difficulty maintaining endurance and effectiveness over weeks of continuous operations, particularly if subjected to US strikes. Soviet long-range reconnaissance capabilities could be particularly affected. We believe the Soviets would launch continuing attacks on US and Allied strategic command, control, and communications to prevent or degrade the coordination of retaliatory strikes, thereby easing the burden on Soviet strategic defenses, and degrading US and Allied abilities to marshal military and civilian resources to reconstitute forces. [redacted]

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The New Gorbachev Declaratory Policy on Nuclear War

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[redacted] widespread deployment of a Soviet ABM system, even if US evaluations indicated it could be overcome by an attacking force, would complicate US attack planning and create uncertainties for US planners about the effectiveness of a US strike. [redacted]

79. The Gorbachev regime has enunciated a declaratory policy that takes an apparently more benign approach to issues of nuclear war than we have typically characterized in previous years in this Estimate.

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76. Any judgment about the overall effectiveness of the future Soviet air defenses against an attack by [redacted]

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mate. In some analysts' views, this policy may at least reflect a greater Soviet willingness to be flexible on arms control and may possibly portend significant changes in Soviet goals and priorities for conventional and nuclear war with NATO. In other analysts' views, this declaratory policy will have little or no effect on Soviet strategic goals and priorities. The potential significance of this declaratory policy and the controversy it has sparked among analysts warrant a deeper examination. [redacted]

longer deemed inevitable. Consequently, they continually improve the warfighting capabilities of their strategic forces.

— In their view these forces deter adversaries from taking the risk of starting a war with the USSR in the first place and perhaps even from escalating once a war has begun.

— Such forces give the USSR superpower status and underpin an assertive Soviet foreign policy. Strategic nuclear weapons are the most visible confirmation of Soviet superpower status. [redacted]

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80. Since the late 1970s, an evolving Soviet declaratory policy has eschewed superiority in nuclear forces and dismissed victory as an attainable objective in nuclear war. More recently, Gorbachev has forcefully adopted it as a key element in his publicly espoused "new political thinking." This new declaratory policy was written into the Party program, approved by the 27th CPSU Congress in early 1986, and has been echoed by key military spokesmen such as Chief of the General Staff Akhromeyev. We acknowledge that, because Gorbachev has shown himself willing and able to question long-cherished precepts in the domestic field, we must be alert to the possibility that something new and fundamentally different is happening in Soviet military doctrine and policy, while at the same time carefully weighing the evidence with an appropriate degree of caution and skepticism. [redacted]

83. We emphasize that, although the Soviets have shared the West's goal of avoiding nuclear war, they have not accepted such Western deterrence concepts as mutual assured destruction (MAD) as a sound basis for strategic nuclear force planning. At the same time, the Soviets apparently believe that in the present US-Soviet strategic relationship each side possesses strategic nuclear capabilities that could devastate the other after absorbing an attack. Soviet leaders have stated that nuclear war with the United States would be a catastrophe that must be avoided if possible and that they do not foresee such a war as inevitable. Nevertheless, they regard nuclear war as a continuing possibility for which they must be prepared; they have continued to improve their nuclear warfighting capabilities through force modernization and operational improvements. They have continued to emphasize passive defenses, such as deep-underground leadership facilities that are designed to protect the leaders and enable them to conduct the war, reconstitute forces, and direct the postwar recovery. Indeed, a tenet of their strategic thinking holds that the better prepared the USSR is to fight in various contingencies, the more likely it is that potential enemies will be dissuaded from initiating attacks on the Soviet Union and its allies and will hesitate in countering Soviet political and military actions. In short, while certain Western strategic theories, such as MAD, have drawn sharp distinctions between deterrence and warfighting requirements for strategic forces in the nuclear age, the Soviets have maintained the more traditional military outlook that forces that are prepared to fight a war are also better able to deter war. [redacted]

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81. Although the Gorbachev regime has codified a public policy that rejects superiority and victory as Soviet objectives in the development of strategic nuclear forces, these statements, by themselves, cannot be taken as clear evidence of the Soviet leadership's real views on nuclear war or of a change in emphasis on nuclear forces. Some of these statements, for example, are clearly self-serving—intended, at least in part, to influence Western perceptions. Moreover, there is evidence that there is not a unanimity of views within the Soviet military hierarchy on nuclear force issues. Consequently, analysts both inside and outside the Intelligence Community differ on the impact, if any, that Gorbachev's declaratory policy may have on current and future Soviet weapons procurement and operational planning. [redacted]

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82. Nevertheless, we continue to judge that the USSR's national security decisionmakers underwrite the research, development, testing, and deployment of its strategic nuclear arsenal for three principal reasons:

— As Marxist-Leninists they see a deep and abiding antagonism with the West that could result in nuclear war—even though such a war is no

84. Soviet doctrinal writings long have posited the objective of victory in war. The Soviet view of victory in nuclear war and the extent to which it drives their nuclear force acquisitions and employment policy have been the most controversial issues over the years for Western analysts of Soviet doctrine. The Soviet political and military leadership certainly recognizes

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the difficulty of applying such doctrinal tenets to nuclear war. In particular, the objective of victory in general nuclear war would have been extremely difficult for the Soviets to attain in any meaningful sense even as the Soviets were moving toward strategic parity with the United States in the 1960s and into the 1970s. More recently, the Soviets have made impressive gains in all aspects of their strategic forces, but we judge that they would not have high confidence in the capability of their strategic offensive and defensive forces to accomplish all of their wartime missions, particularly the key mission of limiting the damage to the Soviet homeland. (For details see volume II, chapter VII.) There is no indication that the Soviets were ever sanguine about the consequences they could expect to suffer in a nuclear war no matter which side struck first, and they clearly recognize that the devastation would be so enormous as to call into question the ability of their society to function. Nevertheless, the Soviets apparently have seen, and probably continue to see, significant value in trying to prevail in general nuclear war, particularly in terms of succeeding in their military and political objectives in Eurasia while limiting damage to a sufficient extent to provide some chance for reconstituting Soviet leadership and society. For all practical purposes, this is what might constitute for them "winning" a nuclear war. [redacted]

85. The holder of an alternative view agrees that the Soviets are well aware that the USSR would suffer enormous damage in a general nuclear war, and notes the judgment in volume II, chapter VII that Soviet offensive and defensive forces will continue to be unable to prevent such damage. In this view, the Soviets also recognize that the damage each side would inflict on the other in a general nuclear war prevents either side from being a "winner" in any practical sense, and renders meaningless the concept of "prevailing."²⁷ Another alternative view holds that the main text understates the potential for the most critical elements of Soviet society to function following a nuclear war. Given the extensive preparations the Soviets are continuing to make in passive and active defenses, command, control, and communications redundancy, leadership protection, and preparations for protracted nuclear operations, the Soviets expect to be able to reconstitute the most critical elements of their society following large-scale nuclear strikes. Such [redacted]

elements include strategic and theater forces, centralized control over regional military forces and territorial government, national communications networks, and selected industrial production.²⁸ [redacted]

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86. With respect to the issue of superiority, which Gorbachev's apparently more benign declaratory policy also rejects as a goal, the following realities of the nuclear balance may still keep relevant and attainable various key advantages in building forces and in waging nuclear war. Nevertheless, these realities make any overall, decisive superiority extremely difficult to achieve and thus help inhibit a major clash between the superpowers:

- The continuous and energetic modernization of the Soviets' strategic nuclear forces has, since the 1960s, dramatically increased their capability to wage nuclear war.
- The number of US strategic weapons that would survive a Soviet first strike has continued to be in the thousands, and has increased—despite major improvements to Soviet counterforce capabilities.
- The Soviets continue to invest heavily in strategic defenses, particularly air defense, leadership protection, and advanced weapons technologies. However, even with the improvements taking place in these forces, they are well aware of their inability to prevent massive damage to the USSR.
- While the Soviets have achieved advantages in certain areas and will continue to strive for forces superior to those of the United States, they expect that the United States will not allow them to achieve a clear superiority in strategic intercontinental forces. Similarly, they have overcome early US strategic superiority and are determined to prevent any such US superiority in the future.

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According to an alternative view, the Soviets recognize that any meaningful "nuclear superiority" is unattainable because: (1) both sides' forces will continue to be unable to prevent massive damage and (2) even if "nuclear superiority" were theoretically possible, each side would take whatever steps were necessary to prevent the other from attaining it.²⁹ [redacted]

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87. There are divergent interpretations among Western analysts of whether and to what extent these realities and Gorbachev's declaratory policy will guide the development of future Soviet nuclear forces, operational concepts, and nuclear employment strategy. These interpretations range from an expectation of a Soviet deemphasis on nuclear forces as compared to the past, to an expectation that these factors will have little or no operational significance in terms of either Soviet force acquisition or employment strategies.

[Redacted]

88. We believe it is highly significant that, considering the longstanding differences of view on Soviet military doctrinal issues and the question of victory, there is reasonably close agreement among agencies on the trends in Soviet forces and their employment in war. On the basis of all the available evidence which we lay out in this Estimate, we do not expect to see any significant reduction in the priority the Soviets have given to nuclear forces, or a serious revision of Soviet operational priorities and practices. The Soviets are continuing to procure the forces and the capabilities to be able to wage nuclear war. We expect the Soviets to maintain a vigorous offensive and defensive force modernization effort. We judge that strategic forces will continue to command the highest resource priority and therefore would be affected less by economic problems than other elements of the military.

89. We also see the Soviets as being willing to reach arms control agreements calling for deep cuts in intercontinental offensive forces, contingent upon the curtailment of the US Strategic Defense Initiative. Greater flexibility with respect to arms control, however, would not prevent continued vigorous Soviet efforts to modernize all aspects of their strategic forces. Moreover, we judge that the Soviets would aim, at a minimum, to preserve the net strategic capability of their forces to serve the gamut of Soviet security objectives, from fighting a nuclear war to maintaining geopolitical leverage as a superpower.

Concluding Observations

90. The evidence shows clearly that Soviet leaders are improving the counterforce capability, survivability, and damage-limiting capabilities of their military forces, both to dissuade enemies from starting a war and to prepare for the possibility that the USSR will actually have to fight a global nuclear war.

91. The Soviets have seriously addressed many of the problems of conducting military operations in a global nuclear war, and are training for increasingly complex war situations, thereby improving their ability to deal with the many contingencies of such a war. Their persistence in enhancing their strategic offensive and defensive capabilities is pursued, not with the expectation that they would avert widespread disaster in all circumstances, but rather in a belief that, if nuclear strikes took place, sizable forces would be likely to survive on both sides, the war might well continue, and they should be prepared to pursue an outcome as favorable as possible. Ideally, that outcome would comprise neutralizing the ability of US intercontinental and theater nuclear forces to interfere with Soviet capabilities to defeat enemy forces in Eurasia, dominating Eurasia, and preserving the ability of the Soviet state to survive and recover.

92. In the Soviets' view, strategic offensive and defensive capabilities that can even begin to measure up to such demanding wartime goals also serve well to dissuade adversaries from taking the risk of starting a nuclear war with the USSR in the first place and perhaps even from escalating once a war has begun. These capabilities also give the USSR the superpower status that is critical to the maintenance and expansion of its international influence. At the same time, the recent declaratory policy of the Gorbachev regime, questioning the attainability of some of the traditional Soviet nuclear warfighting goals, reminds us that the USSR's strategic nuclear forces, no less than its other military forces, are not ends in themselves. Rather, they are the most powerful instruments of the political leaders who authorize these forces to be built and who have the ultimate authority to decide whether, when, and how to use them. Accordingly, we acknowledge that the Gorbachev regime may at least be more prepared to seriously bargain with these strategic forces in arms control. Nevertheless, even while allowing for some uncertainty, we judge that the Gorbachev regime, like its predecessors, highly values powerful strategic forces both because they offer the only effective means to cope with the persistent contingency that nuclear war could occur and because of their other vital contributions to Soviet security interests. Thus, we expect the regime will continue to emphasize strategic nuclear forces for the period of this Estimate.

93. Soviet military planners operate in a planning environment that typically places high priority on preparing for the possibility of actually having to wage

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a global nuclear war. Consequently, planners emphasize:

- Passive defenses, active defenses, and massive initial strikes on enemy forces to limit the damage they can inflict.
- Highly redundant and extensive command, control, and communications capabilities, and leadership protection to ensure continuity of control of the war effort and the integration and coordination of force operations both at the intercontinental level and in Eurasian theaters.
- In general, preparations for more extended operations beyond the initial nuclear strikes. [Redacted]

94. As a result of such demanding requirements, the Soviets are likely to rate their capabilities as lower in some areas than we would assess them to be. They clearly are concerned about:

- The vulnerability of their submarines to US ASW, particularly in view of the reserve mission they assign to a part of their SSBN force.
- The impact of continuing and potential US strategic nuclear modernization programs, SDI, NATO INF deployments (as well as NATO's emerging advanced technology conventional weapons capabilities), and improvements in British, French, and Chinese nuclear forces.
- The increased probability that US improvements in command, control, communications, and intelligence will enable the United States to retaliate more effectively and to manage forces more efficiently in at least the initial stage of a nuclear war.
- Their own ability to maintain effective command, control, communications, and intelligence connectivity throughout key phases of a war.
- Their inability to prevent, or confidently inhibit, the United States from launching a large-scale counterstrike. We judge that the Soviets would anticipate that a large force of US and Allied weapons—alert bombers, patrolling SSBNs, and at least a small number of ICBMs—would survive a major massed strike. Moreover, the Soviets could not be confident that the United States would be unable or unwilling to launch its ICBM force on tactical warning or under attack. The Soviets are well aware of their inability to prevent massive damage to the USSR with their strategic defenses even with the improvements

taking place in these forces. They also recognize that US strategic defenses cannot prevent massive damage. [Redacted]

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95. We conclude that the Soviets' calculations of their chances for success in any nuclear war would occur against a backdrop of fundamental uncertainty. They recognize the many uncertainties that would affect their chances for success in nuclear war. We judge, therefore, that the Soviets would not have high confidence in the capability of their strategic offensive and defensive forces to accomplish all of their wartime missions, particularly the limitation of damage to the Soviet homeland. [Redacted]

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96. The Soviets' probable lack of high confidence, their appreciation of the destructiveness inherent in global nuclear war, and the seriousness with which the Soviets have approached the contingency of actually having to wage such a war would probably inhibit them from provoking a direct clash in peacetime with the United States or its NATO Allies. [Redacted]

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97. Should the Soviets get involved in a major conventional war with the United States and its NATO allies, however, the Soviets would see inherently high risks that global nuclear war would ensue. In this situation, they would consider: the likely nuclear devastation of their homeland; the reliability of their employment options to launch their forces quickly upon warning that a US ICBM attack is under way and, failing that, to retaliate effectively after absorbing a US attack; and their prospects for success on the conventional battlefield. They would also consider that they could maximize damage to US forces and help limit damage to Soviet forces and society in the ensuing nuclear war by launching a preemptive nuclear strike. In weighing a decision to preempt, the Soviets would further consider that they may have only ambiguous evidence of US intentions to launch its strategic forces. [Redacted]

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98. We cannot ultimately judge how the Soviets would actually weigh such difficult trade-offs. We do emphasize, however, that, because of their nuclear warfighting strategy, exercising restraint to avoid escalation to global nuclear war would not necessarily be the Soviets' overriding concern. Indeed, because of the stakes involved the Soviets may well accept some risk that, by preempting, they might unleash global nuclear war unnecessarily. Their strategic programs indicate, moreover, that, for the period of this Estimate, the Soviets' nuclear warfighting strategy will endure. [Redacted]

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