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# Soviet Forces and Capabilities for Strategic Nuclear Conflict Through the Late 1990s

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## Key Judgments

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

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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/shootdown 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] 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] 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]

[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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[redacted]

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]

*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]

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]

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]

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]

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.



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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.



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