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

National Intelligence Estimate  
Key Judgments and Executive Summary

Approved for Release by CIA  
Date Dec 1999

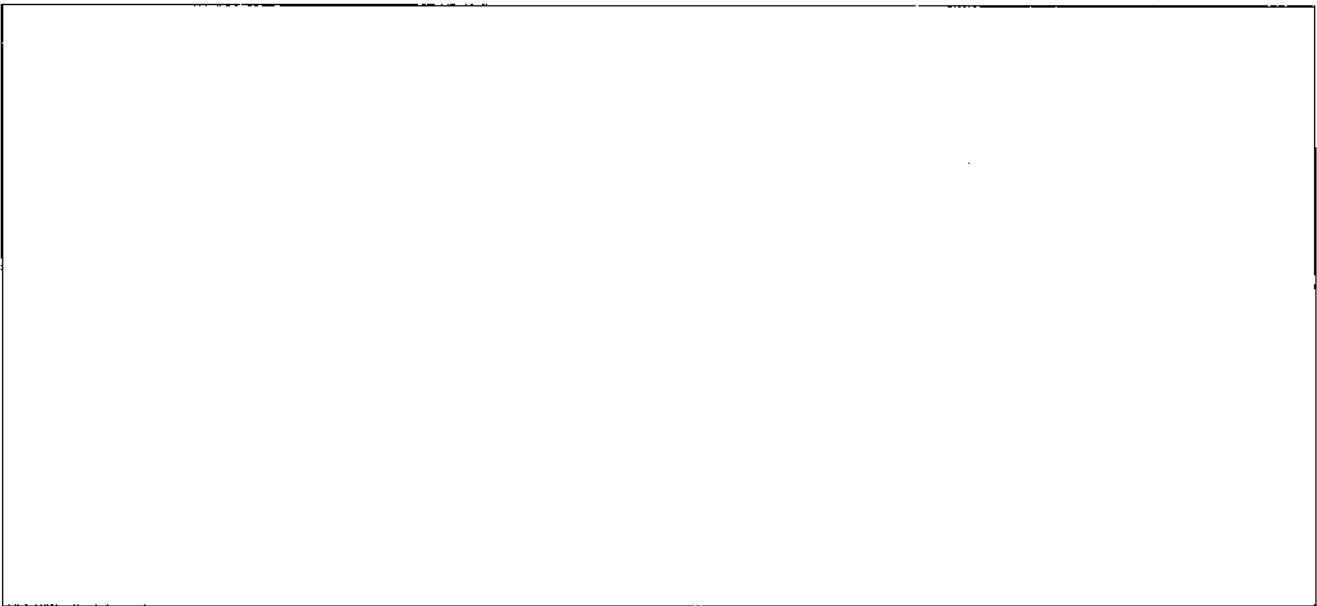
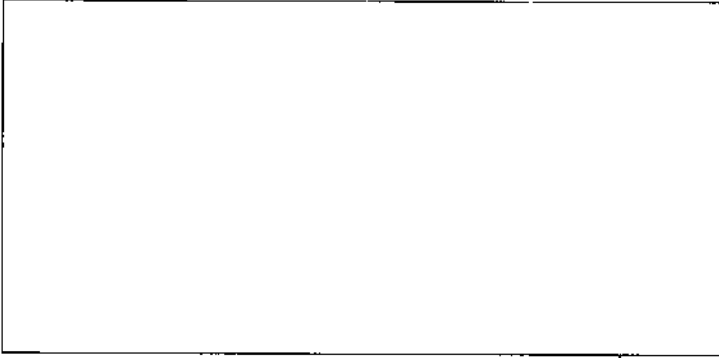
*These Key Judgments and Executive Summary  
represent the views of the Director of Central  
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# Soviet Forces and Capabilities for Strategic Nuclear Conflict Through the Late 1990s

*Information available as of 1 December 1988 was used  
in the preparation of this National Intelligence Estimate.*

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

The Central Intelligence Agency  
The Defense Intelligence Agency  
The National Security Agency  
The Bureau of Intelligence and Research,  
Department of State  
The Office of the Deputy Assistant Secretary  
for Intelligence, Department of Energy

*also participating:*

The Deputy Chief of Staff for Intelligence,  
Department of the Army  
The Director of Naval Intelligence,  
Department of the Navy  
The Assistant Chief of Staff, Intelligence,  
Department of the Air Force  
The Director of Intelligence,  
Headquarters, Marine Corps

*This Estimate was approved for publication by the  
National Foreign Intelligence Board.*

# NOTE

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This Estimate is issued in several volumes:

- **Key Judgments and Executive Summary.**
- **Volume I** contains the Key Judgments, an overview of major Soviet strategic force developments in the 1980s, and a summary of Soviet programs and capabilities believed to be of greatest interest to policy-makers and defense planners.
- **Volume II** contains:
  - Discussion of the Soviets' strategic policy and doctrine under Gorbachev, including their objectives in the event of a US-Soviet nuclear conflict and how the Soviet national command authority would operate.
  - Descriptions of Soviet programs for the development and deployment of strategic offensive and defensive forces and supporting systems.
  - Projections of future Soviet strategic forces.
  - Description of Soviet command, control, and communications capabilities and discussion of the peacetime posture of Soviet strategic forces.
  - Discussion of Soviet concepts and plans for the operations of strategic forces during the several phases of a global conflict.
  - Trends in the USSR's capabilities to carry out some missions of strategic forces in nuclear conflict.
- **Volume III** contains tables with detailed force projections and weapon characteristics.

~~This information is Secret~~

# Key Judgments

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We have prepared this year's Estimate against the backdrop of considerable ferment in the national security arena in the Soviet Union that could over time result in a change in the Soviets' military outlook. Gorbachev has shown himself willing and able to challenge long-cherished precepts in this as in other policy areas. The evidence presented in this Estimate indicates, however, that, in terms of what the Soviets spend, what they procure, how their strategic forces are deployed, how they plan, and how they exercise, the basic elements of Soviet defense policy and practice thus far have not been changed by Gorbachev's reform campaign.

Given the turmoil that Gorbachev has set in motion over many of these issues, Soviet strategic goals and priorities over the long term have become more difficult for us to predict, and a major change toward a less threatening nuclear doctrine and strategic force structure could occur. However, we believe it is prudent to adopt a wait-and-see attitude toward the prospects for longer term change in the Soviets' fundamental approach to war. Many key doctrinal issues are far from settled among the Soviets themselves. Furthermore, if we are witnessing a transition in Soviet military thinking, substantial tangible evidence of any change in some areas may not be immediately forthcoming.

Ongoing development and deployment efforts indicate that all elements of Soviet intercontinental nuclear forces will be extensively modernized between now and the late 1990s. The Soviets will move from a force that has primarily consisted of fixed, silo-based ICBMs to one in which mobile platforms constitute well over half the deployed forces:

- *ICBMs.* In 1988 the Soviets began to deploy two new silo-based ICBMs that will be increasingly more vulnerable as US countersilo capabilities improve, but will enhance the Soviets' capabilities for prompt attack on hard and soft targets. The Soviets also began to deploy their first rail-mobile ICBM, and continued deploying road-mobile ICBMs, which will significantly improve Soviet force survivability.
- *SLBMs.* The Soviet ballistic missile submarine (SSBN) force of the future will contain fewer submarines but more long-range missiles and more warheads, and will generally be much more survivable. The Soviets have recently deployed their first submarine-launched ballistic missile (SLBM) with some capability to attack hardened targets, 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.* The heavy bomber force will have a greater role with more weapons and greater force diversity. In 1988 the Soviets began to deploy their new supersonic strategic bomber—the Blackjack—capable of carrying long-range, air-launched cruise missiles (ALCMs) and supersonic short-range missiles.

In 1988 the Soviets launched their second Yankee Notch submarine as a dedicated launch platform for long-range, land-attack, sea-launched cruise missiles (SLCMs). In addition, ALCM and SLCM versions of a large, long-range, supersonic cruise missile are likely to become operational in 1989 and 1990, respectively.

The Soviets continue to invest about as heavily in active and passive strategic defenses as they do in offensive forces, and their capabilities are improving in all areas:

- *Air defense.* Soviet capabilities against low-flying bombers and cruise missiles are increasing because of continuing deployments of all-altitude surface-to-air missiles and fighter and support aircraft.
- *Ballistic missile defense.* The new Moscow antiballistic missile (ABM) defenses should be operational in 1989 and will provide an improved intercept capability against small-scale attacks on key targets around Moscow. It is unlikely through at least the mid-1990s that the Soviets would make widespread ABM deployments that would exceed treaty limits, although they have developed a capability to do so. Also, improving technology is blurring the distinction between air defense and ABM systems.
- *Leadership protection.* A primary Soviet objective is to protect and support the leadership from the outset of crisis through a postattack period. The Soviets have had a 40-year program for leadership protection that includes facilities deep below Moscow and elsewhere that would be very difficult to destroy.
- *Laser weapons.* There is strong evidence of Soviet R&D efforts in high-energy laser weapons for air defense, antisatellite (ASAT), and ballistic missile defense (BMD) applications. The Soviets appear to be considering space-based lasers for BMD, but we do not expect them to be able to deploy an operational system until well after the year 2000.
- *Antisubmarine warfare (ASW).* The Soviets currently lack an effective means of locating US SSBNs in the open ocean. We judge that they will not deploy such a capability in the 1990s, and we see no Soviet solution to

the problem on the horizon. On the other hand, the Soviets will increase the threat to US attack submarines attempting to operate in areas close to the Soviet Union. [redacted]

Without START constraints, if the Soviets were to modernize their forces in a manner that generally follows past efforts, in the next 10 years intercontinental nuclear weapons would probably grow from the current level of about 10,000 to between 12,000 and 15,000. 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 expansion in the late 1990s to 16,000 or even 18,000 if, for example, they decided to expand forces in response to a US deployment of strategic defenses. As a result of the assessed operational payloads of Soviet bombers and assumed rules for counting bomber weapons, a Soviet force of 6,000 accountable weapons under a START agreement would in fact probably contain 8,000 weapons. In a crisis or wartime situation, the Soviets might be able to deploy a few thousand additional weapons, by augmenting their force with nondeployed mobile missiles and by uploading some missiles to their maximum potential payloads, higher than the accountable number of warheads on these missiles. We note that efforts to deploy additional warheads in crisis or wartime would involve some operational and planning difficulties. [redacted]

An alternative view holds that, [redacted] deploying additional warheads in crisis or wartime (assuming they were available) would be time consuming, disruptive to force readiness and operations, and potentially detectable.<sup>1</sup> [redacted]

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 and that it is highly unlikely either side could achieve a decisive nuclear superiority in the foreseeable future. Nevertheless, 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. Although we do not have specific evidence on how the Soviets assess their prospects in a 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]

<sup>1</sup> The holder of this view is the Assistant Secretary of State for Intelligence and Research, Department of State. [redacted]

Thus far, we see no convincing evidence that the Soviets under Gorbachev are making basic changes in their approach to actually fighting nuclear war. Our evidence points to continuing Soviet programs to develop and refine options for both conventional and nuclear war, and the Soviets are preparing their forces for the possibility that both conventional and nuclear war could be longer and more complex than they previously assumed. [ ]

There is an ongoing debate among the leadership concerning how much is enough for defense, focused on the concept of "reasonable sufficiency." Although couched in doctrinal terms and aimed in part at Western audiences, the debate at this point appears to be primarily about resource allocations. (See page 15 for an alternative view.) To date, as demonstrated in the strategic force programs and resource commitments we have examined, we have not detected changes under Gorbachev that clearly illustrate that either new security concepts or new resource constraints are taking hold. [ ]

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. Gorbachev might attempt to save resources by deferring some strategic programs, stretching out procurement rates, and placing more emphasis on replacing older systems on a less than 1-for-1 basis. Major savings could be achieved in the next several years only through cutbacks in general purpose forces and programs, which account for the vast majority of Soviet defense spending. Further, for both political as well as military reasons, Gorbachev almost certainly would not authorize unilateral cuts in the size of the strategic forces. Nevertheless, concerns over the economy's performance, as well as perceived foreign policy benefits, heighten Moscow's interest in strategic and conventional arms control agreements, and have contributed to the greater negotiating flexibility evident under Gorbachev's leadership. We judge, however, that Soviet force decisions, including potential arms control agreements, will continue to be more strongly influenced by the requirement to meet military and political objectives than by economic concerns. [ ]

The Soviets' recent positions on strategic arms control should not be taken as an indicator of whether or not they are implementing fundamental change in their approach to nuclear war. The asymmetric reductions and acceptance of intrusive on-site inspections entailed by the INF Treaty and the apparent Soviet willingness to accept deep strategic force reductions in START do reflect a marked change in political attitude on security issues under Gorbachev. Overall, however, we do not see Moscow's recent arms control positions resulting in strategic forces that the Soviets would perceive as less capable of waging a nuclear war. [ ]



# Executive Summary

## A Time of Change in Soviet Strategic Policy?

We have prepared this year's Estimate against the backdrop of considerable ferment in the national security arena in the Soviet Union that could over time significantly alter Soviet strategic programs and policies, and thus the overall strategic threat. We take the possibility of such change seriously because Gorbachev has shown himself willing and able to challenge long-cherished precepts in this as in other policy areas. We conclude that sufficiently compelling evidence is lacking to warrant a judgment in this Estimate that the Soviets already have begun to implement fundamental changes in their approach to warfare under Gorbachev. This year, in our assessments of the various elements of Soviet strategic programs and capabilities traditionally presented in this Estimate, we have paid particular attention to indications from the available evidence of whether major change is in the offing. In terms of what the Soviets spend, what they procure, how their strategic forces are deployed, how they plan, and how they exercise, the basic elements of Soviet defense policy and practice appear thus far not to have been changed by Gorbachev's reform campaign. [redacted]

Given the turmoil that Gorbachev has set in motion over many of these issues, Soviet strategic goals and priorities over the longer term have become more difficult for us to predict, and a major change toward a less threatening nuclear doctrine and strategic force structure could occur. We believe, however, it is prudent to adopt a wait-and-see attitude toward the prospects for longer term change in the Soviets' fundamental approach to war. Many key doctrinal issues are far from settled among the Soviets themselves. Furthermore, if we are witnessing a transition in Soviet military thinking, substantial tangible evidence of any change in some areas may not be immediately forthcoming. [redacted]

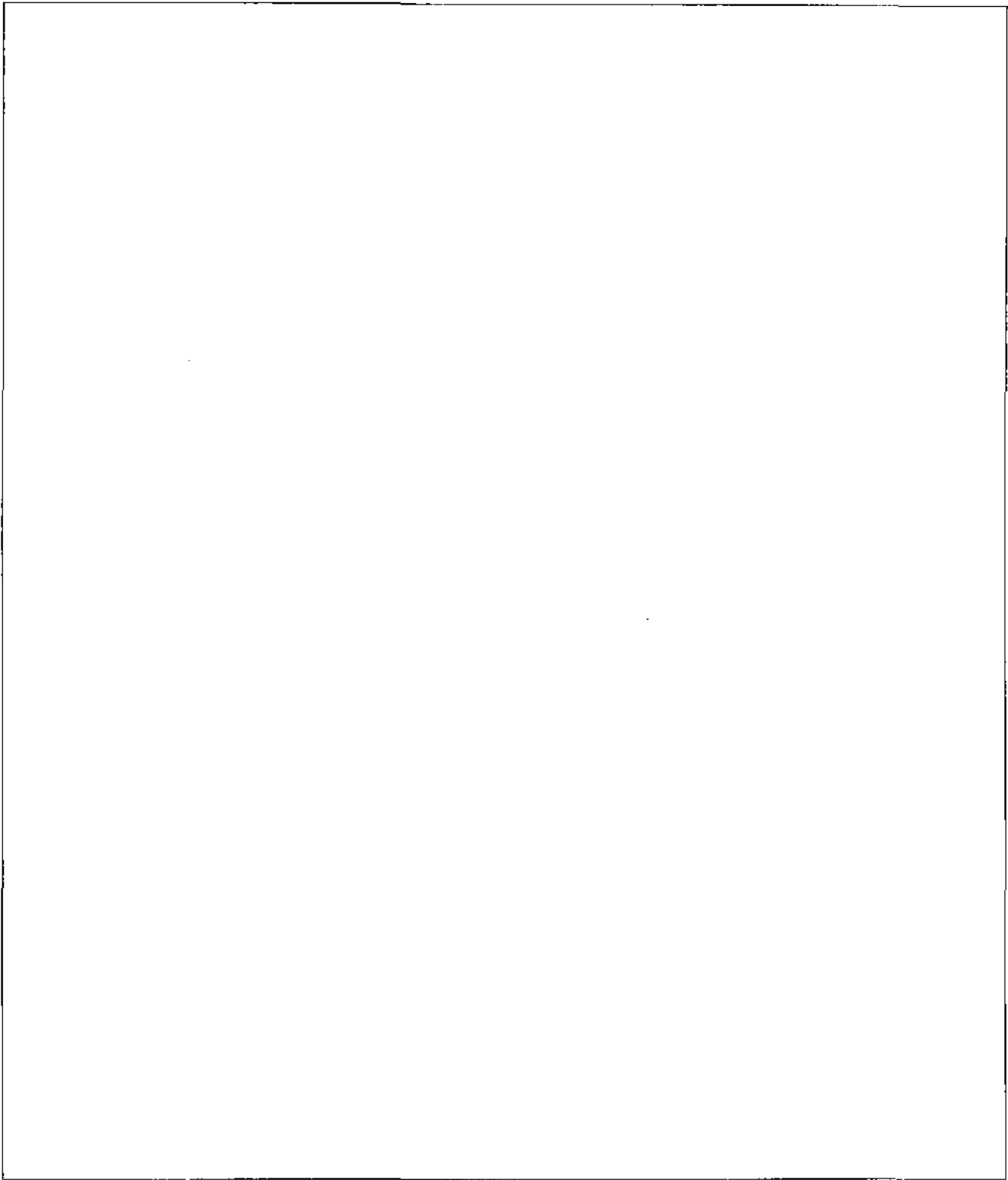
## Strategic Offensive Forces

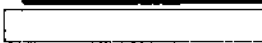
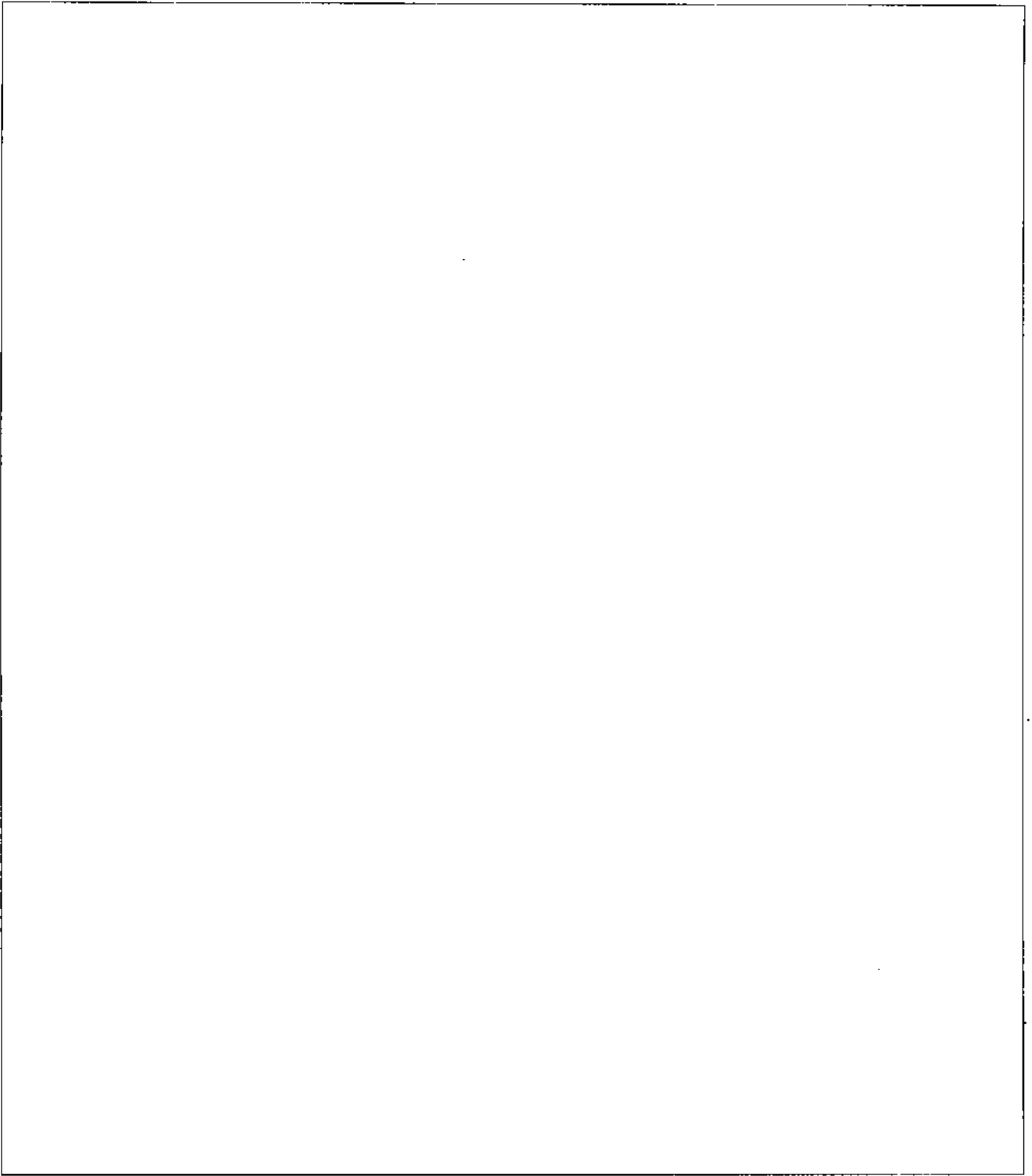
Evidence and analysis of ongoing development and deployment efforts over the past year have reaffirmed

our judgment that all elements of Soviet intercontinental forces will be extensively modernized between now and the late 1990s, and will be more capable, diverse, and generally more survivable. [redacted]

[redacted] The Soviets will move from a force that has primarily consisted of fixed, silo-based ICBMs to a force in which mobile systems (mobile ICBMs, SLBMs, and bombers) constitute well over half the deployed forces. A START agreement could have a significant impact on the size and composition of Soviet strategic offensive forces, although we expect most of these modernization efforts to continue in any case. Major changes in the force include:

- *ICBMs.* The Soviets began deployment in 1988 of two new silo-based ICBMs—the SS-18 Mod 5 heavy ICBM with an improved capability to destroy hardened targets and the SS-24 Mod 2, a medium, solid-propellant ICBM with 10 warheads that is replacing the six-warhead SS-19 liquid-propellant ICBM. The new silo-based systems will be increasingly more vulnerable as US countersilo capabilities improve, but will enhance the Soviets' capabilities for prompt attack on hard and soft targets. Over the past year the Soviets also deployed the SS-24 Mod 1 rail-mobile ICBM. 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 icepack. Equipped with new long-range SLBMs that have many warheads (four to 10), the Soviet SSBN force of the future will contain fewer submarines





but more warheads and will be much more survivable. We expect the Soviets to build additional Typhoon and Delta-IV submarines; we judge they will also introduce at least one and possibly two new SLBMs in the 1990s, and probably a new class of SSBN. The Soviets' recently deployed SS-N-23 Mod 2 on the Delta-IV gives them an emerging sea-based capability to destroy hardened targets. We expect, as the Soviets improve the accuracy and responsiveness of their SLBMs, that they will have greater confidence in their ability to attack US ICBM silos, 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 greater role in intercontinental attack, with more weapons and greater force diversity. Production of the Bear H, which carries AS-15 long-range, subsonic, air-launched cruise missiles (ALCMs), seems to be winding down. A force size of 80 is projected. The new supersonic Blackjack, which can carry ALCMs and short-range air-to-surface missiles, achieved initial operational capability in 1988; the Soviets will likely deploy some 80 to 120 by the late 1990s. The Soviets continue to deploy the Midas—their first modern tanker—in support of the heavy bomber force. We expect up to about 150 Midas to be built by the late 1990s to support both strategic offensive and defensive operations.

[Redacted]

In 1988 the Soviets launched their second Yankee Notch submarine as a dedicated platform for up to 40 SS-N-21 long-range, subsonic, land-attack, sea-launched cruise missiles (SLCMs). In addition, ALCM and SLCM versions of a large, long-range, supersonic cruise missile are likely to become operational in 1989 and 1990, respectively.

[Redacted] we estimate that they may develop low-observable or Stealth cruise missiles for deployment in the mid-to-late 1990s. [Redacted]

### 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 are improving 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 became operational in 1987.

- *Ballistic missile defense.* The new Moscow antiballistic missile (ABM) defenses, eventually with 100 interceptors, should be operational in 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. However, we judge that such a widespread deployment is unlikely through at least the mid-1990s.

[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 early as the late 1990s for Moscow or possibly as part of a widespread system. Also, improving technology is blurring the distinction between air defense and ABM systems—for example, the capabilities of the SA-12 system.

- *Leadership protection.* A primary Soviet objective is to protect and support the leadership from the outset of crisis through a postattack period. The Soviets have had a 40-year program for providing

hardened and dispersed facilities for the survival of their leadership and for wartime management during a nuclear war. This program includes deep underground facilities, many of which are beneath Moscow or nearby, that would be very difficult to destroy [redacted]

- **Laser weapons.** There is strong evidence of Soviet R&D efforts in high-energy lasers for air defense, antisatellite (ASAT), and ballistic missile defense (BMD) applications. There are large uncertainties, however, about how far the Soviets have advanced, the status and goals of any weapon development programs, and the dates for potential prototype or operational capabilities. We expect the Soviets to be able to develop mobile tactical air defense lasers in the 1990s, followed by more powerful strategic systems, although there is a serious question as to whether the Soviets will field many dedicated laser weapons for air defense. Limited capability prototypes for ground-based and space-based ASAT could be available around the year 2000, possibly earlier. If ground-based BMD lasers prove feasible and practical, we expect Soviet technology would allow the Soviets to build a prototype for testing around 2000, maybe a few years earlier, although operational systems probably would not be available for some 10 years after initial prototype testing. The Soviets most likely are considering space-based lasers for BMD. We do not think they will be able to test a feasibility demonstrator before the year 2000, and we estimate that an operational system would not be deployable until much later, perhaps around 2010.

- **Other advanced technologies.** The Soviets are also engaged in extensive research on other technologies that can be applied to ASAT and BMD weapons.

[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 be able to test a ground-based radiofrequency ASAT weapon by the early 1990s. We believe it is possible a space-based, long-range, kinetic-energy BMD weapon could be deployed, but probably no earlier than about 2005.

- **Antisubmarine warfare (ASW).** The Soviets currently lack an effective means of locating in the open ocean either US SSBNs or modern attack submarines (SSNs) carrying land-attack cruise missiles. We see no Soviet solution to this problem on the horizon. We base this judgment on the difficulty we expect the Soviets to encounter in exploiting the basic phenomena of wake detection, and the technological hurdles they face in sensors, high-speed signal processing, and data relay.

- There is a possibility that the Soviets will introduce a space-based submarine detection system during the 1990s that, while it would have little or no ability to detect properly operated SSBNs, might have a very limited capability against US SSNs, under favorable conditions. Missions for such a system would be to detect SSNs operating in Soviet SSBN bastion areas or seeking to launch land-attack cruise missiles near the USSR. Technological and operational difficulties associated with building a complete ASW system would push system operational capabilities well into the first decade of the next century. Surface-towed passive surveillance sonar arrays and low-frequency active sonars will likely be deployed by the mid-1990s for local-area ASW surveillance. We assign a moderate probability to the deployment of an airborne radar by the late 1990s, intended to detect submarine-induced surface phenomena.

- Judgments on future Soviet ASW capabilities must be tempered by the difficulties inherent in forecasting Soviet ASW advances [redacted]

[redacted]

**Projected Offensive Forces**

This year, we have projected five alternative Soviet strategic forces to illustrate possible force postures under various assumptions about the strategic environment the Soviets will perceive over the next 10 years:

- Under a START agreement, as a result of the assessed operational payloads of Soviet bombers and

assumed rules for counting bomber weapons, a Soviet force of 6,000 accountable weapons would in fact probably contain about 8,000 weapons. In a crisis or wartime situation, the Soviets might be able to deploy a few thousand additional weapons, by augmenting their force with nondeployed mobile missiles and by uploading some missiles to their maximum potential payloads, higher than the accountable number of warheads on these missiles. We note that efforts to deploy additional warheads in crisis or wartime would involve some operational and planning difficulties.

- An alternative view holds that, [redacted]

[redacted] deploying additional warheads in crisis or wartime (assuming they were available) would be time consuming, disruptive to force readiness and operations, and potentially detectable.<sup>3</sup>

- Two of the other projected forces are premised on a Soviet belief that relations with the United States are generally satisfactory and, although a START agreement has not been concluded, arms control prospects look good. Intercontinental weapons would probably grow over the next five years from the current number—about 10,000—to between 12,500 and 15,000 depending on modernization and growth rates and military spending levels. (Online weapons, those available after a short generation time, would be about 1,000 to 1,500 fewer, because of submarines in overhaul or empty ICBM silos being modified.) The increase in weapons results from deployment of new systems (SS-24, SS-N-20 follow-on, SS-N-23, Blackjack, Bear H) with more weapons than the systems they replace and not from any increase in launchers. We would expect no additional growth in warheads through the late 1990s.
- 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

<sup>3</sup> The holder of this view is the Assistant Secretary of State for Intelligence and Research, Department of State. [redacted]

relations with the United States as generally poor and arms control prospects bleak, the number of Soviet intercontinental weapons could grow to over 15,000 in the next five years and some 16,000 by 1998. In all of these cases, the introduction of modernized systems will result in a decline in the number of launchers. [redacted]

We have a projection for an SDI response force that features a greater offensive force expansion (over 18,000 weapons by 1998). The projection is based on a postulated US decision in the early 1990s to deploy land-based ABM interceptors and space-based SDI assets, with actual deployments beginning around 2000. The projection depicts Soviet measures aimed primarily at overwhelming US defenses through sheer numbers of warheads. In addition, Soviet responses could include increased ASAT efforts, BMD deployments, and advanced penetration aids. While increasing the sheer size of their offensive forces would be the Soviets' most viable near-term response, advanced technical countermeasures would be critical to dealing with SDI in the long term. The size of the force could be lower than 18,000, depending on the timing of the introduction of technological countermeasures. Given the uncertain nature of the US program and the potential disruption of Soviet efforts, [redacted]

[redacted] we judge that the deployment of significant numbers of countermeasures is unlikely before the year 2000. [redacted]

**Strategic Force Objectives and Operations**

We judge that, in part, the Soviets view their strategic forces as effectively deterring adversaries from starting a nuclear war with the USSR and as underpinning the USSR's superpower status. The Soviets also have been preparing their strategic nuclear forces to meet two basic military objectives:

- To intimidate NATO from escalating to nuclear use in a conventional war, so that Warsaw Pact conventional forces have some prospect to secure NATO's defeat without such escalation.
- If global nuclear war occurs, to wage it as effectively as possible as mandated by their nuclear war-fighting strategy.

Some Soviet public statements now seem to espouse certain longstanding Western strategic theories such as the concept of Mutual Assured Destruction (MAD), which, in part, in order to provide a rationale for emphasizing second-strike nuclear forces and restraining growth in the US strategic force structure, drew sharp distinctions between deterrence and war-fighting requirements for strategic forces. The Soviets, in our view, despite some recent public differences on the matter, are continuing to build their forces on the premise that forces that are better prepared to effectively fight a nuclear war are also better able to deter such a war. [ ]

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. Moreover, the Soviets apparently do not believe that this strategic reality will soon change or that either side could acquire a decisive nuclear superiority in the foreseeable future. Nevertheless, 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. [ ]

In planning for the possibility of actually having to wage a global nuclear war, the Soviets emphasize:

- Massive strikes on enemy forces, passive defenses, and active defenses to limit the damage the enemy can inflict.
- Highly redundant and extensive command, control, and communications (C<sup>3</sup>) 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 after the initial strikes. [ ]

The Soviets have been increasing the realism in their force training to more fully reflect the complexity of both large-scale conventional and nuclear warfare. Since the late 1970s there has been a continuing Soviet appreciation of the extreme difficulties in

prosecuting a nuclear campaign in the European theater. We believe that the Soviets have become more realistic about the problems of conducting military operations in a nuclear environment, but the requirement to carry out nuclear combat operations as effectively as possible is still one of their highest priorities. Indeed, the Soviets continue to prepare their strategic forces to conduct continuing nuclear combat operations for up to a few months following the initial nuclear strikes. [ ]

#### Nuclear War Initiation and Escalation

In peacetime, the Soviets' 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 NATO Allies that could potentially escalate to global nuclear war. [ ]

The Soviets believe that a major nuclear war would be most likely to arise out of a NATO-Warsaw Pact conventional conflict that is 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. [ ]

In a conventional war in which the Soviets were prevailing, they would have strong incentives to keep the war from escalating. Nevertheless, we continue to judge that the Soviets generally assess a NATO-Warsaw Pact war as likely to escalate to the nuclear level; the Soviets recognize, however, that escalation of a NATO-Warsaw Pact conflict would be strongly influenced by the course and perceived outcome of the conventional war in Europe. This Soviet assessment appears to be driven, in large part, by the Soviet expectation that NATO—consistent with official NATO doctrine—is highly likely to resort to nuclear weapons to avoid the defeat of its forces on the continent. [ ]

The Soviets are capable of executing a

preventive/first-strike nuclear option in circumstances where they do not anticipate an imminent NATO nuclear strike. Despite our uncertainties about how this option fits into overall Soviet strike planning, we judge that it would be attractive for the Soviets to consider only if Warsaw Pact forces suffered serious setbacks in a conventional war. The Soviets would not expect, in any case, to be able to forestall a devastating counterstrike by the United States or NATO forces [redacted]

The Soviets apparently also have developed a limited nuclear option that focuses on the brief use of small numbers of battlefield nuclear weapons. However, this option has not substantially evolved since the early 1970s when it was first developed. Also, we lack clear indications of limited nuclear options involving strategic weapons despite the growth and improvements in the entire array of Soviet nuclear forces, from battlefield weapons to intercontinental weapons. In the event NATO launches a few small-scale nuclear strikes in the theater that do not disrupt a Warsaw Pact conventional offensive, the Soviets might be willing to absorb such strikes without a nuclear response. [redacted]

We judge that, if the Soviets had convincing evidence that the United States intended to launch a large-scale strike with its strategic forces (in, for example, an ongoing theater war in Europe), they 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 the United States' intentions to launch its strategic forces. The Soviets have strong incentives to preempt in order to maximize damage to US forces and limit damage to Soviet forces and society. Exercising restraint could jeopardize the Soviets' chances for effectively waging nuclear war. Because preempting on the basis of ambiguous evidence, however, could initiate global nuclear war unnecessarily, the Soviets would also have to consider such factors as: 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 eventual success on the conventional battlefield. We cannot

ultimately judge how the Soviets would actually weigh these difficult trade-offs. [redacted]

**Strategic Force Capabilities**

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 C<sup>3</sup> capabilities—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 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]

The Soviets have enough hard-target-capable ICBM reentry vehicles today to attack all US missile silos and launch control centers with at least two warheads each. The projected accuracy and yield improvements for the SS-18 Mod 5 ICBM now being deployed would result in a substantial increase in the effectiveness of a 2-on-1 attack, [redacted]

[redacted] We judge that heavy ICBMs will continue to be the primary and most effective weapons against US missile silos during the next 10 years, but some SLBMs and probably other ICBMs are expected to acquire a capability to kill hard targets and thus supplement heavy ICBMs in carrying out the overall hard-target mission. [redacted]

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, aircraft in flight, or dispersed mobile ICBMs. However, we judge that, for a comprehensive Soviet attack against North America, the Soviets currently have enough warheads to meet most and probably all of their other targeting objectives in a preemptive strike. This would also be the case if the Soviets could accomplish a reasonably successful launch-on-tactical-warning (LOTW). However, we judge that the Soviets would have insufficient warheads to achieve high damage goals against US ICBM silos if they were to retaliate



after absorbing an initial US attack because of expected Soviet losses in their silo-based ICBMs. On balance, we judge that, even with implementation of the INF Treaty and 50-percent reductions of a START treaty, combined with severe constraints on the deployment of ballistic missile defenses, the Soviets could probably meet their worldwide fixed targeting objectives as effectively as with current forces.




**Strategic Policy Issues Under Gorbachev**

The Soviets claim that they are reorienting their military doctrine to focus more on defensive operations—the concept of “defensive defense”—and are applying a more stringent criterion of “reasonable sufficiency” in determining military force requirements. The Soviet military appears to be reexamining the nature of a future war. In addition, statements by key political and military leaders indicate that they are examining such issues as the winnability of nuclear war, the basis for a credible strategic deterrent, preemption, and how much is enough for defense. Although we have considerable uncertainty about where these matters stand, we make the following judgments:


- *Nature of a future war.* Nuclear warfare remains a dominant factor in the Soviets’ war plans, although they have been devoting more attention over the past several years to the possibility of a prolonged conventional war. Thus far, we see no convincing evidence that the Soviets under Gorbachev are making fundamental changes in their approach to actually fighting nuclear war. Our evidence points to continuing Soviet programs to develop and refine options for both nuclear and conventional war, including longer conventional combat and defensive operations, in order to cope with NATO’s improving conventional capabilities—much as the Soviets have worked since the 1970s on improving their options for more extended strategic nuclear operations.
- *Soviet nuclear warfighting objectives.* Among other actions, Soviet leaders have incorporated a “no nuclear victory” position in the recent party program; some military writings, however, have continued to cite the victory objective. There are differences in the US Intelligence Community over what this means. We judge that, in any case, the Soviets continue to be committed to acquiring capabilities

that could be important in achieving the best possible outcome in any future war. There is no indication that the Soviets were ever sanguine about the consequences they would expect to suffer in a war no matter which side struck first. At the same time, they have continued to believe that nuclear war is possible, and they have consistently pursued a warfighting strategy that goes beyond deterrence and includes the acquisition of both offensive and defensive warfighting capabilities.

- *Superiority, sufficiency, defensive defense.* We judge that the Soviets continue to place high value on combat advantages in nuclear war, but believe it is highly unlikely that decisive nuclear superiority is achievable by either side in the foreseeable future. There is an ongoing debate among the leadership concerning how much is enough for defense, focused on the concept of “reasonable sufficiency.” Although couched in doctrinal terms and aimed in part at Western audiences, the debate at this point appears to be primarily about resource allocations. An alternative view holds that, while Soviet discussions about “reasonable sufficiency” involve, in part, resource allocation issues, they are designed primarily to reduce US/NATO force modernization efforts by proclaiming a less threatening Soviet posture.<sup>1</sup> Much of the Soviet public discussion about “defensive defense” appears aimed at influencing Western opinion, particularly to allay Western concerns about the Soviet conventional threat in the context of nuclear arms reductions. The concept, however, also may be perceived by Soviet military leaders as another device for political leaders to challenge traditional military outlays. To date, as demonstrated in the strategic force programs and resource commitments we have examined, we have not detected changes under Gorbachev that clearly illustrate that either new security concepts or new resource constraints are taking hold. 

**Resources**

Heavy investment in the defense industries since the late 1970s will enable the Soviets to produce the strategic forces projected in this Estimate at least

<sup>1</sup> The holder of this view is the Director, Defense Intelligence Agency. 

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. However, new construction of defense plants and retooling of existing facilities will be required in the late 1980s and early 1990s to produce new weapons for the late 1990s and beyond.

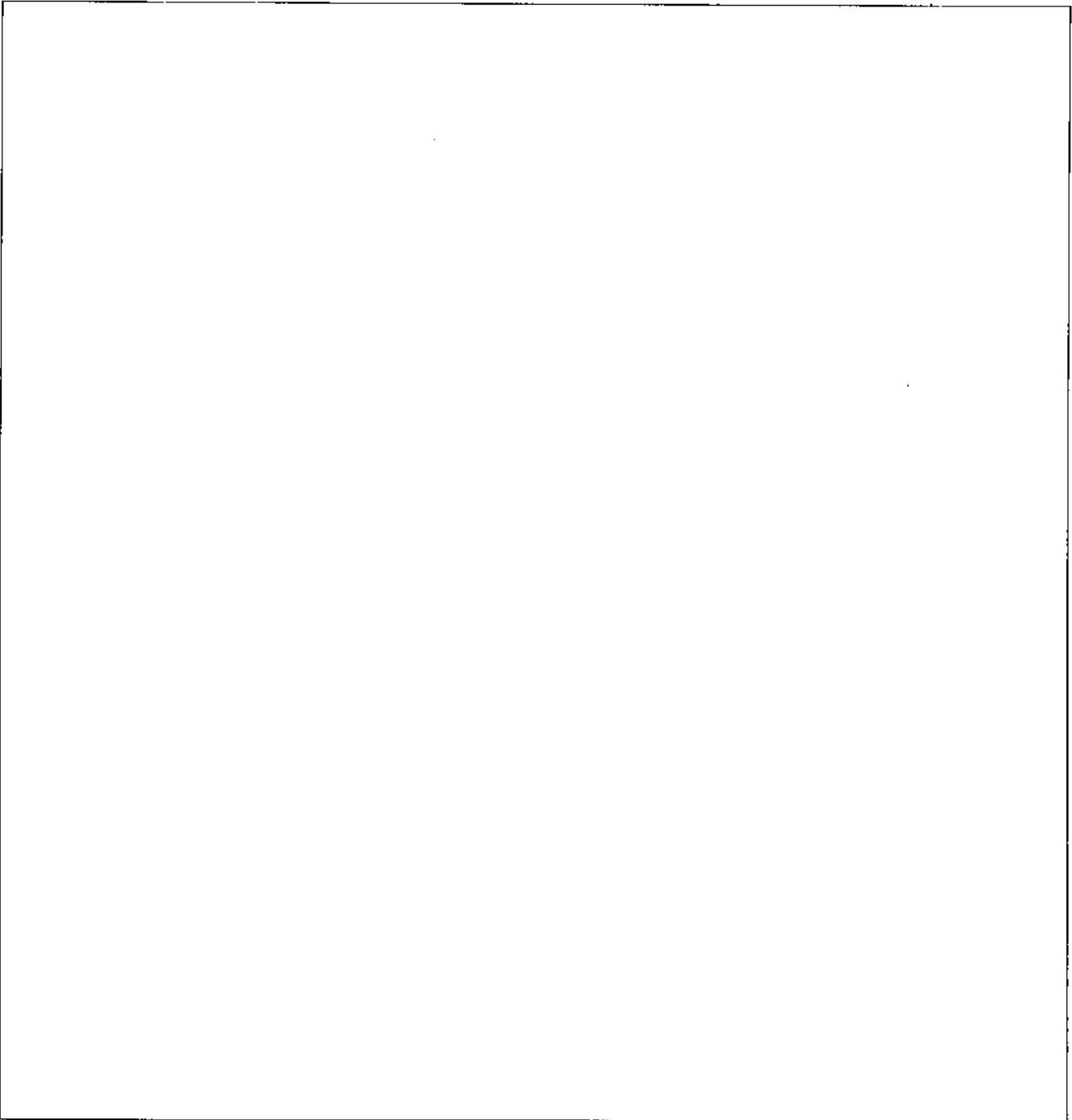
Gorbachev might attempt to save resources by deferring some strategic programs, stretching out procurement rates, and placing more emphasis on replacing older systems on a less than 1-for-1 basis. Major savings could be achieved, in the next several years, only through cutbacks in general purpose forces and programs, which account for the vast majority of Soviet defense spending. Further, for both political as well as military reasons, Gorbachev almost certainly would not authorize unilateral cuts in the size of the strategic forces. We expect, therefore, that Gorbachev will choose to continue his vigorous campaign for deep cuts in both strategic and conventional forces through arms control and for slower growth in defense spending.

Although we do not believe that the Soviets' economic difficulties are the primary reason for their interest in arms control, we believe that concerns over the economy's performance, as well as foreign policy benefits, heighten Moscow's interest in strategic as well as conventional arms control agreements and have contributed to the greater negotiating flexibility evident under Gorbachev's leadership. We judge, however, that Soviet force decisions, including potential arms control agreements, will continue to be more strongly influenced by the requirement to meet military and political objectives than by economic concerns. The Soviets see arms control as a way of avoiding the costs of an escalated military competition with the United

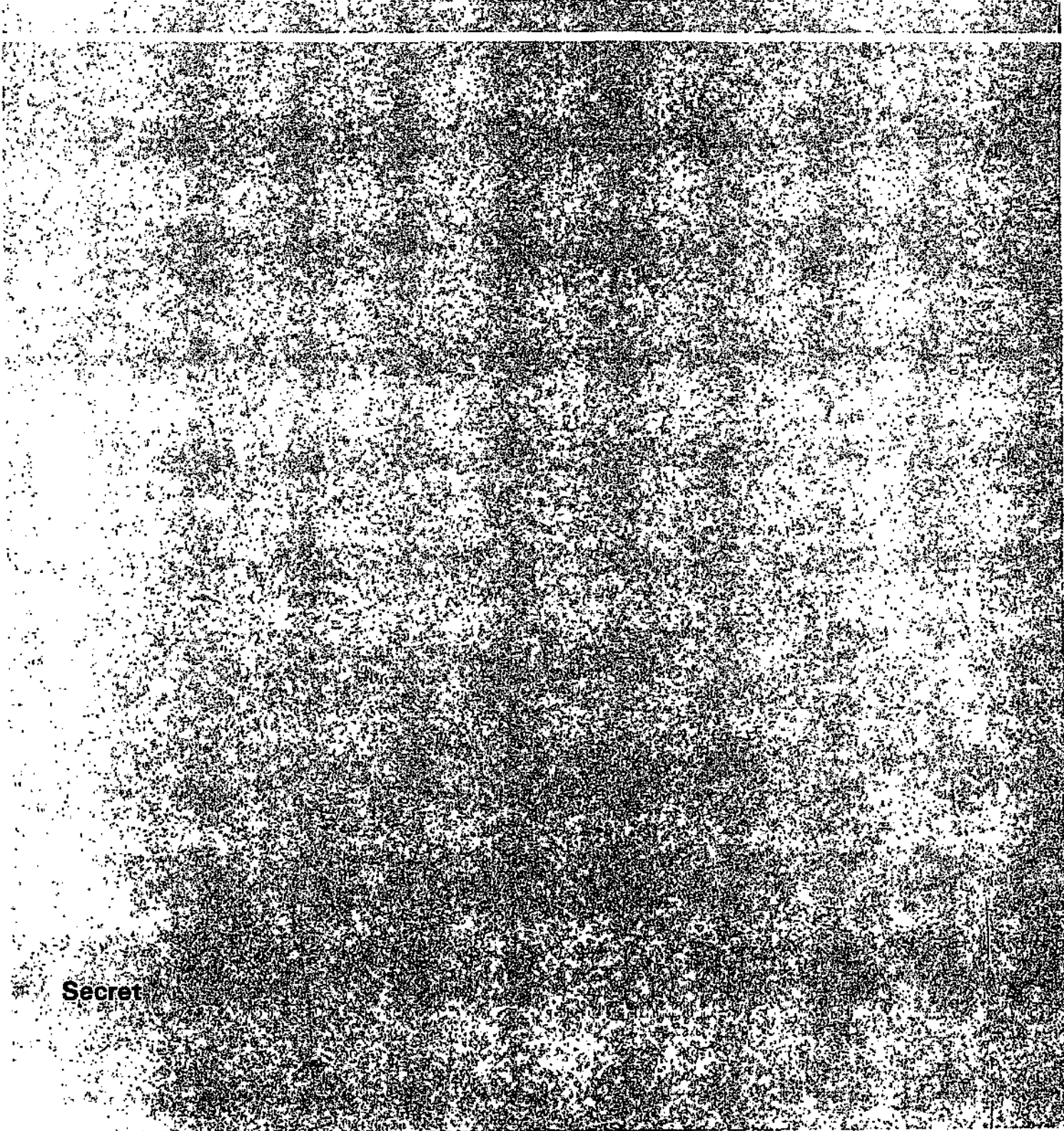
States that would, by requiring increased defense spending, force them to reduce the resources scheduled to go elsewhere in the future. Restraining or eliminating SDI, for example, could free enormous amounts of technical and industrial resources vital to other Soviet military and civilian programs, which would otherwise be spent on countermeasures, and the Soviets could pursue advanced technology efforts at their own pace. In addition, they apparently anticipate savings from strategic arms control agreements, which, while small in comparison with the economy's needs, could be used to help alleviate critical bottlenecks and help advance priority programs such as those for industrial modernization. Some of the potential savings, however, might be used for other military purposes. 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; also, strategic offensive programs account for only about 10 percent of the Soviet military budget.

#### Arms Control

The Soviets' recent positions on strategic arms control should not be taken as an indicator of whether or not they are implementing a fundamental change in their approach to nuclear war. On the one hand, the asymmetric reductions and acceptance of intrusive on-site inspections entailed by the INF Treaty and apparent Soviet willingness to accept deep strategic force reductions in START do reflect a marked change in political attitude on security issues under Gorbachev. On the other hand, the Soviets' stance on arms control thus far allows them to continue to pursue certain combat advantages, while seeking to constrain US and NATO force modernization—especially in such areas as ballistic missile defense, space warfare, and advanced technology conventional weapons—and at the same time seeking to protect the key capabilities of their own forces. Further, the Soviets see the INF Treaty and a potential START agreement as helping to establish a more predictable environment in which to plan strategic force modernization. Overall, we do not see Moscow's recent arms control positions resulting in strategic forces that the Soviets would perceive as less capable of waging a nuclear war.



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