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SDI AND ARMS CONTROL

By HOWARD G. DEWOLF

THE INSTITUTE FOR NATIONAL STRATEGIC STUDIES

A popular Government, without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or, perhaps both. Knowledge will forever govern ignorance; And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives [James Madison to W. T. Barry, August 4, 1822]

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SDI AND ARMS CONTROL

By HOWARD G. DEWOLF

PRESIDENT REAGAN'S Strategic Defense Initiative, or SDI, and the pursuit of defenses to protect against ballistic missile attack are issues of significant debate. Some praise the proposal, first made in a presidential address to the nation on 23 March 1983, as a grand vision that will abolish nuclear blackmail by adopting a totally defensive posture. Others condemn it as being destabilizing, a Pandora's box of strategic transition that could precipitate armed conflict.

To date, the focus primarily has been on questions of technology. Are defenses feasible? Will they work? How effective can they be? In addition, many have addressed the impact of defenses on US-Soviet stability. Will SDI defenses seem threatening? Will they destabilize the strategic equation? Is a shift toward defense necessarily away from offense? Perhaps the real questions to ask concern the strategic direction currently being pursued, how strategic defense will or should interact with strategic offense, and the relationship of strategic defense to arms control.

The vision of SDI originally portrayed in March 1983—ultimately eliminating the threat of strategic nuclear missiles—is now a longer-term goal. Now deterrence is, as before, the byword; perfect defenses are recognized as being unattainable, and continued dependence on offensive ballistic missiles is envisioned. These considerations, once accepted, may precipitate further nuclear arms control agreements—with SDI as the catalyst.

Earlier arms control agreements, although they placed modest limitations on nuclear forces, generally did not achieve significant reductions. The major exception was the Anti-Ballistic Missile Treaty, which essentially eliminated a class of weapons by regulating the development, testing, and deployment of ABM systems. In more recent years, however—since the SDI program has been in place—progress on arms control has improved.

I. The Strategic Defense Initiative

In the crescendo to his 1983 announcement, President Reagan touched on some major themes relating to US strategy:

> Since the advent of nuclear weapons, those steps [steps taken to counter the Soviet threat] have been directed toward deterrence of aggression through the promise of retaliation—the notion that no rational nation would launch an attack that would inevitably result in unacceptable losses to themselves.... Up until now we have increasingly based our strategy of deterrence upon the threat of retaliation. But what if...we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?[1]

Was the President proposing a major shift in US national strategy or policy? Exactly how did the President envision this proposal fitting into the national strategy of the United States? Was it a modification of the concept of deterrence—signaling a shift from offensive deterrence to defensive deterrence? Or was he proposing no more than a new weapon system to be added to the inventory of existing systems?

In addition to raising such questions, the speech also alluded to the notion of eventually refuting traditional offensive deterrence. The President noted the importance of ongoing arms control efforts to achieve major arms reductions, but went on to say, "Nevertheless it will still be necessary to rely on the specter of retaliation...and that is a sad commentary." He continued by acknowledging, "Defensive systems have limitations.... [I]f paired with offensive systems, they can be viewed as fostering an aggressive policy and no one wants that."[2]

Statements such as these did not suggest a long-term commitment to current offensive systems. In fact, the President's call to "render these nuclear weapons impotent and obsolete" and to "eliminate the weapons themselves"[3] exhibited his frustration with continuing a strategy that ultimately threatened mutual annihilation. It would appear that the President was calling for a new strategy based on defenses, refuting nuclear retaliation.

President Reagan had provided "top down guidance" by directing the SDI program. But after the initial shock of the announcement, literature produced within the Department of Defense began to change the concept subtly. Those responsible for coming to grips with the policy implications and developing the technology, for example, became more and more involved and asserted their influence. The President's "vision" had been sprung on an unsuspecting bureaucracy—it was necessary for the bureaucracy to translate that vision into reality.

The Office of the Under Secretary of Defense for Policy requested a Future Security Strategy Study to help assess the policy, strategy, and arms control implications of SDI. A team of outside experts, under the leadership of Fred S. Hoffman, published its report in October 1983.[4] Of interest is the fact that while it recognized the President's "ultimate objective of a full, multilayered system that offers nearly leakproof defenses against very large offensive forces,"[5] the report still acknowledged a continued reliance on offensive forces:

> A satisfactory deterrent requires a combination of more discriminating and effective offensive systems to respond to enemy attacks plus defensive systems to deny the achievement of enemy attack objectives.[6]

Additionally, the study talked in terms of deterrence rather than espousing a new defense-oriented strategy. As it addressed intermediate levels of capability, the study noted,

> Even U.S. defenses of limited capability can deny Soviet planners confidence in their ability to destroy a sufficient set of military targets to satisfy enemy attack objectives, thereby strengthening deterrence.[7]

So some of the early seeds were sown to link SDI to previously established thinking on deterrent philosophy and to acknowledge some level of continued offense. From a strategic perspective, the study strongly suggests that deterrence was to be the continued byword and that defensive strategists were already considering retention of some level of offensive capability to support nuclear retaliation.

These themes were continued in a March 1984 overview of SDI provided in Department of Defense information guidance:

> Strategic defenses, when combined with stabilizing offensive force modernization and mutual overall nuclear arms reductions, hold the promise of substantially lowering the utility of nuclear missiles.[8]

Such guidance thus perpetuated the idea of continuing the offensive force modernization effort while lowering, but not eliminating, the usefulness of strategic missiles. In terms of deterrent thinking, the guidance stated, "Our efforts do not seek to replace our proven policies for maintaining peace."[9]

A Department of Defense publication entitled "Defense Against Ballistic Missiles: An Assessment of Technologies and Policy Implications" was published in April 1984. This document appeared to reinforce the findings of the Future Security Strategy Study. It addressed the link of both "intermediate" and "fully deployed" defenses to deterrence and reiterated the common theme found in earlier arguments:

> Effective defenses strengthen deterrence by increasing the attacker's uncertainty and undermining his confidence in his ability to achieve a predictable, successful outcome.[10]

Perhaps even more interesting was the subtle way in which this document acknowledged the potential for some continued level of offensive force structure. Although the President had called for a program to "eliminate the threat posed by strategic nuclear missiles," this was widely interpreted to mean elimination of the entire class of weapons itself. However, eliminating the threat and eliminating all strategic missiles are two different objectives.

Certainly, some level of ballistic missile defense could lessen, or eventually eliminate, the *threat* posed by Soviet strategic missiles. But this does not automatically equate to the elimination of the *missiles* themselves—either side might, for instance, want to retain some level of its missile forces to hedge against a breakthrough in anti-defense technology, as a complement to follow up an initial attack in order to defeat the enemy's warfighting means, or as a means of coercion to be used against third parties not having defenses. The "truths"

of the 1940s through the 1970s were still persuasive—ultimately, the offense could always find a way to overcome the defense.

The policy implications did not directly address "eliminating" ballistic missiles. In fact, the wording implied some continued level of offensive force structure:

> Advanced ballistic missile defenses have the potential for *reducing* the military value of ballistic missiles and *lessening* the importance of their role in the strategic balance.[11] [emphasis added]

The theme of lessened but continued levels of strategic missile forces was reinforced by a concluding thought indicating that defenses could also provide "greater safety against accidental use of nuclear weapons or unintended nuclear escalation."[12] If strategic missiles were totally eliminated there would be no need to be concerned with "accidental use" or "unintended escalation." Thus, the thought of some level of remaining force structure seemed to be firmly embedded.

January 1985 saw the publication of a pamphlet entitled "The President's Strategic Defense Initiative." In his foreword, President Reagan reiterated his aim to "move away from...the prospect of rapid and massive nuclear retaliation and toward greater reliance on defensive systems," with the goal of "eventually eliminating the threat posed by nuclear armed ballistic missiles." Interestingly enough, the body of the document acknowledged,

> The Strategic Defense Initiative, by itself, cannot fully realize this vision nor solve all the security challenges we and our allies will face in the future; for this we will need to seek many solutions—political as well as technological. ... The Strategic Defense Initiative takes a crucial first step.[13]

By 1985 the image that defenses alone could shift our nation's security away from the threat of massive retaliation was apparently no longer sacred. Nevertheless, this document provided the first and most direct public acknowledgment that SDI might not suffice as the sole solution.

The "National Security Strategy of the United States" published in January 1987 discussed strategic defenses in the context of a section entitled "Maintenance of a Strategic Deterrent." The ensuing discussion indicated,

> The U.S. Strategic Defense Initiative offers an opportunity to shift deterrence to a safer and more stable basis through greater reliance on strategic defenses.[14]

As was the case in the 1985 pamphlet, less than perfect defenses were acknowledged as a possibility and described as being supportive of deterrence and increased stability. Additionally, the 1987 document recognized, perhaps more directly than previous writings, that not all strategic ballistic missiles would be eliminated. The same section on deterrence only professed that strategic defense, coupled with arms control agreements, could provide "a world with fewer ballistic missiles."[15] These themes were reiterated in the January 1988 version of the document.

The US nuclear strategy of offensive-based deterrence evolved from the national strategy of containment developed in the late 1940s and early 1950s. Although defensive systems were considered, they were discounted because of two basic concerns. First, the technology was not available to produce truly effective defensive systems and many observers believed the nuclear offense would always be able to dominate. Second, the deployment of defensive systems would fuel a spiraling defense-offense arms race that would lead to a destabilizing situation.

With the advent of the Strategic Defense Initiative, President Reagan appeared to be creating a new order. This new order required the total elimination of ballistic missiles and the creation of a new strategy based on defenses alone. As we have seen, however, since the President's speech of 1983, a number of subtle changes have occurred.

First, rationale for SDI has been based on its ability to *enhance deterrence,* rather than on an innovative defense-oriented strategy. Second, the total elimination of strategic ballistic missiles is no longer addressed; instead, a significant reduction in the utility of these missiles is the immediate goal. Third, in arguing SDI's deterrent value, it is acknowledged that perfect defenses are not necessary—and an SDI deterrent is now accepted as providing some level of defense that disrupts the enemy's attack planning.

In sum, the current shape of the Strategic Defense Initiative does not provide a new national strategy as, perhaps, President Reagan had envisioned. It does, however, propose to modify our existing deterrent posture to make it become more—but not totally—defense-oriented. Strategic ballistic missiles will not be eliminated and perfectly effective defenses of the national population are no longer required. In describing SDI's role in deterrence, a continued, although lesser, role for ballistic missiles is now being advocated. Similarly, because defenses primarily deter aggression, they do not require 100 percent effectiveness.

II. Early Arms Control Agreements

Of the various elements of national strategy, the one now most closely linked with military strategy and SDI is arms control. The arms control process has been difficult and tedious. The Strategic Arms Limitations Talks, or SALT, resulted in 1972 and 1979 agreements only after exhausting discussions. They essentially established a framework for further meetings and set limits to the size of the US and Soviet nuclear arsenals. But, with the exception of the Anti-Ballistic Missile (ABM) Treaty, no major steps were taken to significantly reduce either side's inventory of nuclear weapons.

During the late 1960s, both the United States and the Soviet Union concluded that constraints on ABM deployments would help make possible reductions in strategic offensive forces.[16] Unable to reach agreement over offensive systems during SALT, the Soviets focused on restricting negotiations to ABM systems. Although the United States wasn't opposed to discussing ABM restrictions, its position was that efforts to limit offensive systems should begin as well.

On 20 May 1971, the two governments announced that they would concentrate on a permanent treaty to limit ABM systems while still working on offensive limitations. A year later, on 26 May 1972, President Nixon and General Secretary Brezhnev signed the ABM Treaty and the Interim Agreement on Strategic Offensive arms at a summit meeting in Moscow.[17]

The ABM Treaty. Initially, the ABM Treaty restricted the United States and Soviet Union to two deployment areas each—one ABM site to defend the national capital and the other to protect an ICBM launch area. According to the agreement, the two defended areas had to be at least 1,300 kilometers (about 800 miles) apart in order to prevent the creation of a regional defense zone.[18] Each ABM area was limited to a radius of 150 kilometers (about 90 miles) and could have no more than 100 interceptor missiles and 100 launchers. The number of radars was limited to no more than 6 ABM radar complexes in the national capital area and no more than 2 large phased-array ABM radars and 18 smaller ones in the area protecting ICBM launchers.[19]

Besides the quantitative limits, qualitative limits also applied. Both sides agreed not to develop, test, or deploy ABM launchers capable of multiple launch or rapid reload. The Agreed Statements accompanying the treaty specified that interceptors with more than one independently guided warhead were also prohibited. Additionally, restrictions were outlined in the treaty to ensure that other types of missiles and radars could not be used or converted to support the ABM mission.[20]

The treaty also limited the deployed ABM systems of each side to fixed, land-based types. It specifically prohibited development, testing, or deployment of sea-based, air-based, space-based, or mobile land-based systems or their components. However, an Agreed Statement accompanying the treaty noted that newly developed systems based on "other physical principles" capable of substituting for existing systems would be discussed in accordance with the treaty's provisions for consultation and amendment.[21]

The ABM Treaty was modified by a protocol signed by President Nixon and General Secretary Brezhnev on 3 July 1974. The two sides agreed to further limit the number of ABM deployment areas to one each. The Soviet Union chose a site near Moscow—to protect its national capital—and the United States chose a site near Grand Forks, North Dakota—to protect an ICBM launch area. The protocol permits each side to reverse this choice once, but only with advance notice and

during a review year for the treaty itself. (Reviews occur every five years, the first having been in 1977.)[22]

Militarily, the significance of the ABM Treaty stems from two related factors. First, it limits deployment of newly developed defensive systems. Second, it virtually eliminates an entire class of weapons by regulating their deployment to a token number. Although deployed Soviet ABM systems must be dealt with in US attack planning today, they aren't considered a substantial threat to offensive success. Similarly, the Soviets are not faced with any defenses when planning a potential attack. The US ABM system near Grand Forks was dismantled almost as soon as it was completed, perhaps when the futility of deploying a lone, limited site was realized.

In essence, the treaty could be viewed as a milestone because of its success in bringing the two Cold War superpowers to agreement. Some analysts also argued that it lowered the potential level of confrontation by eliminating defensive competition, both in the preconflict arms race and in offensive-defensive interaction if deterrence should fail.

SALT I: The Interim Offensive Arms Agreement. The 1972 Interim Agreement on Strategic Offensive Arms was intended to complement the ABM Treaty by limiting strategic offensive arms competition and providing time for further negotiations. It froze the number of strategic ballistic missile *launchers,* both operational and under construction, at 1,054 for the United States and 1,618 for the Soviet Union, although launchers under construction could be completed. It barred construction of additional launchers and the replacement of older (pre-1964), lighter missiles with newer, heavier versions. Modernization and replacement were permitted as long as silo dimensions were not significantly increased. Mobile ICBMs were not covered.[23]

The agreement and its protocol also permitted an increase in the number of submarine-launched ballistic missile (SLBM) launchers for each side. The United States was permitted to reach a ceiling of 710 SLBM launchers on 44 modern ballistic missile submarines; the Soviet Union's ceiling was 950

launchers on 62 submarines (see table 1). However, both sides worked from established base levels above which any increases toward the ceilings had to be as replacements for older launchers, such as newer submarines with more missile tubes replacing older versions with fewer tubes. The US base level was 656 SLBM launchers and the Soviet Union's was 740. The older launchers being replaced had to be dismantled or destroyed.[24]

Table 1. SALT I Limits

Category	United States	Soviet Union
ICBM Launchers	1,054	1,618
SLBM Launchers	710	950

Essentially, then, this agreement served as a holding action that controlled escalation. It did not address the numbers of strategic nuclear delivery *vehicles,* which were fixed later in SALT II. Also, unlike the ABM Treaty, it didn't lower inventories or severely limit systems. It simply set upper bounds for *launchers.* Although it froze ICBM launcher levels, it permitted submarine missile (SLBM) levels to grow. As its formal name indicates, the interim agreement succeeded partially in limiting nuclear arsenals, but the numbers of nuclear warheads and delivery vehicles, and the magnitude of a potential nuclear conflict, were allowed to increase.

SALT II. Both the United States and the Soviet Union sought to continue negotiations on strategic offensive arms and agreed to begin the second phase of Strategic Arms Limitations Talks, SALT II, in November 1972. The primary goal was to agree on a long-term, comprehensive replacement of the interim agreement. The US objectives were threefold: first, to provide for equal numbers of strategic nuclear delivery vehicles; second, to begin the process of reducing delivery vehicles; and third, to impose restraints on qualitative improvements.[25]

The completed SALT II agreement was signed on 18 June 1979 by President Carter and General Secretary Brezhnev in Vienna. President Carter forwarded it to the Senate on 22 June for ratification.[26] Although the Senate never gave its consent to the treaty, the two sides have generally abided by it.

In general, the treaty calls for equal aggregate limits of 2,250 *strategic nuclear delivery vehicles,* or SNDVs, which include ICBM and SLBM launchers, heavy bombers, and air-to-surface ballistic missiles. It also established aggregate sublimits, including 1,320 missile launchers equipped with multiple independently targetable reentry vehicles, or MIRVs, and long-range bombers carrying cruise missiles, with further sublimits of 1,200 MIRVed ballistic missile launchers and 820 MIRVed ICBM launchers. (See table 2.) The two sides also agreed not to increase the number of their warheads and cruise missiles above established limits.

In addition to those quantitative limits, the treaty included bans on a number of potential qualitative improvements such as construction of new fixed launchers or heavy mobile ICBM launchers, flight testing of more than one new type of light ICBM, and development of rapid reload ICBM systems. Other provisions were included to address verification, consultation, and constraints on specific systems.[27]

Table 2. SALT II Limits (equal for US and USSR)

Category	Limit
Total SNDVs	2,250
MIRVed ballistic missile launchers and heavy bombers	1,320
MIRVed ballistic missile launchers	1,200
MIRVed ICBM launchers	820

The SALT II Treaty did progress a step beyond SALT I, not only by including limits on ICBM and SLBM launchers, but also by including heavy bombers under its limits. The treaty also began to focus on limiting the nuclear weapons themselves by imposing limits on the number of *warheads* deployed on each ballistic missile and on the number of cruise missiles deployed on bombers. By establishing sublimits on MIRVed ballistic missiles and bombers, the treaty further controlled the number of deployed weapons. Thus, the treaty attempted to avoid a situation in which the number of weapons carried and the number of carriers would be increased.

Basically, the stated objectives going into the talks had been fulfilled—equal limits on numbers of delivery vehicles, restraints on qualitative improvements, and a process to reduce delivery vehicles. However, the treaty still permitted substantial growth in the inventory of *deployed weapons.* SALT II had not restrained the continuing offensive arms buildup.

III. INF and START, 1980-83

The Soviet Union began deploying SS-20 intermediate range nuclear missiles in its western region in 1977. In the summer of 1979, NATO policy called for complementary programs of force modernization and arms control.[28] In December, NATO members unanimously adopted the "dual track" strategy to counter Soviet SS-20 deployments. Under this strategy, the first track called for arms control negotiations with the Soviet Union to restore the balance of intermediate range nuclear forces, or INF, to the lowest possible level. In the absence of an arms control agreement, the second track would then redress the INF imbalance through deployment of 464 ground-launched cruise missiles, or GLCMs, and 108 Pershing II ballistic missiles in Western Europe starting in 1983.[29]

New INF Talks. Throughout 1980, the Soviets refused to negotiate, claiming that a balance existed in INF missiles. That "balance" equated to 200 Soviet SS-20s with 600 deployed

warheads and *no* US INF missiles. But by the end of 1981, formal negotiations began.

The United States proposed the "zero option,"[30] offering to cancel Pershing II and GLCM deployment if the Soviets would eliminate their SS-20, SS-4, and SS-5 INF missiles. In essence, the zero option would have both the United States and the Soviet Union eliminate an entire class of nuclear weapons—long-range INF missiles.[31] This proposal marked a shift away from the limitations sought during SALT I and SALT II negotiations. Whereas those treaties envisioned limitations to serve as stepping-stones toward a future proposal that would address reductions, the zero option proposed to leap forward without the intervening steps.

Both 1982 and 1983 were marked primarily by disagreement over three basic issues: (1) to what levels INF missiles should be lowered, (2) whether third country forces should be counted, and (3) whether an agreement should apply globally or only to forces in Europe. In the first issue, various force level proposals included a limit of 75 GLCM and SS-20 launchers in Europe (as part of the so-called walk in the woods proposal), 140 SS-20s in Western Europe to match French and British forces, and a global ceiling of 420 warheads on INF missiles. None of these could be agreed on.[32] In the second issue, the United States would not agree to the Soviets' insistence on including British and French forces or allowing remaining Soviet levels to equal British and French levels. Those forces were considered sovereign, independent, and of a different character than US and Soviet forces. Finally, limiting restrictions to Europe alone, as the Soviets proposed, allowing deployment in other geographical areas, was unacceptable to the United States because it would permit INF missiles to be used as a threat against other regions and also to be redeployed within range of Europe.[33]

In November of 1983, the first components of US ground-launched missiles were delivered to Great Britain and West Germany.[34] Parliamentary votes in Great Britain, Germany, and Italy had reaffirmed this dual track approach. As a result, the Soviets walked out of the negotiations.[35]

START. During the same period of the early 1980s, Strategic Arms Reduction Talks (START) also were bogged down. START negotiations had begun in June 1982. The announced goals of the talks were to achieve substantial reductions in strategic offensive nuclear systems, to focus on the most destabilizing systems—land-based ICBMs—and their warheads and throw-weight, to ensure a verifiable agreement, and to provide "equality" between the United States and the Soviet Union.[36] SALT II had failed to ensure reductions in strategic weapons. Its focus on delivery vehicles had actually permitted arsenals to grow. Thus, the START approach would address constraints on the number of ballistic missile warheads.

The initial US proposal included reductions of ballistic missile warheads to 5,000 per side, additional limits on ballistic missile throw-weight, equal ceilings on heavy bombers below the US level in SALT II, and constraints on other strategic systems.[37] On the other hand, the Soviet approach, as in SALT II negotiations, focused on delivery vehicles and also called for an immediate freeze on launchers with a reduction to 1,800 by the year 1990, a ban on all new types of strategic weapons, and a limit of four to six Trident or Typhoon submarines per side.[38]

During the course of 1983, both sides added new proposals but they could not agree. The Soviets proposed a three-phased plan to reduce forces incrementally in order to arrive at an 1,800-launcher goal by 1990.[39] However, this formula focused again on *launchers* and did not address *warhead limits.* Similarly, the United States presented a formula for reduction, but its focus was on warheads. This "build down" approach proposed to destroy greater numbers of old warheads as new ones were deployed and to ensure regular annual warhead reductions of at least 5 percent. This proposal also would reduce all nuclear weapons (including ballistic missile warheads) on each side to 8,500 by 1996.[40]

By the end of the fifth round of negotiations, in December 1983, the Soviets had refused to set a resumption date for the talks. They claimed "a change in the strategic situation" had occurred because of the US INF missile deployments in Europe.[41]

Thus, the end of 1983 marked stalemates in both the INF and START negotiations. Although both the United States and the Soviet Union had made proposals, they could not come to agreement within either set of negotiations. NATO resolve to deploy INF missiles had been misjudged by the Soviets. With missile deployment beginning, the Soviets saw themselves facing a newly developing threat that eventually led to their walk-out from both sets of negotiations. Disagreements over the counting of missile *warheads* rather than *delivery vehicles,* whether or not to include cruise missiles, loading limits for bombers, and throw-weight imbalances were additional factors that may have influenced the Soviet walk-out from START. But another issue influencing both sets of talks may have been the Strategic Defense Initiative.

SDI's Effect. The months immediately following President Reagan's 23 March 1983 speech did not produce any changes in Soviet behavior in the two major ongoing negotiations, INF and START. Perhaps the period between Reagan's SDI speech and Soviet withdrawal from negotiations in December 1983 was short enough that no effect could have been noticed or would have been expected. Perhaps during this six-month period the Soviets were attempting to discern both US public reactions and government commitment to SDI.

In either case, plans for the US INF missile deployment in Europe served as an irritant. Soviet negotiators reacted by walking out of both sets of talks. Their walk-out provided them with breathing room to reassess their next step in each set of talks, and an opportunity to assess the potential impact of the new variable in the strategic equation—SDI.

Neither INF nor START negotiations were held during 1984. To the Soviets it was apparent that President Reagan was firmly committed to pursuing SDI research. Although debate was lively in both the United States and Europe, the program was gaining momentum. In fact, an office was established under the Secretary of Defense solely for the purpose of directing SDI efforts. Related research activities within the Department of Defense were consolidated under the new office, and funding specifically earmarked for SDI was approved in the Defense budget.

If the US commitment held and newly developed, effective defensive systems could be deployed, the Soviets would face a serious challenge. Could they afford to accept the SDI program? If they did, it would threaten their concept of military equivalence. Additionally, it could place the United States in a position to accomplish a first strike without fear of retaliation. This situation would pose an unacceptable threat to the Soviet homeland.

If the Soviets decided to compete with the program by deploying a similar system, they had to be concerned with a number of questions. Could they match US technological capabilities and develop a similarly effective system? What effect would these expenditures have on other facets of their economy? These concerns, among others, were now facing the Soviet leadership as they agreed to enter into new negotiations.

Soviet Tactics. By initially taking a long-term perspective on arms control in the 1970s and early 1980s, perhaps the Soviets thought they could demonstrate at least some movement in order to influence international issues of more significant concern. After 1983, for example, they decided that if they exhibited good faith in dealing with the elimination of INF missiles and reducing strategic force inventories, they might ultimately forestall or limit the US SDI effort.

What did the Soviets have to lose? If they agreed to the total elimination of INF missiles, they could rid themselves of the Pershing II and ground-launched cruise missile threat that they had brought upon themselves through SS-20 deployment. Also, by removing US long-range INF missiles, they would partially dismantle a rung in NATO's escalation ladder. Although nuclear escalation by NATO would still be possible through shorter-range weapons, the Alliance's ability to strike the Soviet homeland would be lessened. If, on the other hand, INF missiles remained in Europe and were used to attack the Soviet Union, the Soviets would not have adequate defenses available and deployed to protect all the potential target areas.

Without INF missiles, NATO would be forced to move to the next step—attack by strategic nuclear forces. Thus,

the benefit of eliminating INF missiles would be twofold: it would reduce the nearby threat to the Soviet homeland, and it would force the United States to contemplate an undesirable escalation to intercontinental systems. The elimination of SS-20s could be rationalized as an insignificant loss; if US INF missiles were comparably reduced, Soviet conventional forces would still predominate. The elastic linkage between the United States and NATO might be further stretched as well because fewer nuclear weapons would be available for European defense.

Movement in the START negotiations also could prove beneficial. Admittedly, both the Soviet Union and the United States had extremely large inventories of nuclear weapons. If both sides reduced their inventories, their respective threats would be lessened. But balanced strategic force reductions would still leave sufficient long-range nuclear forces to accomplish strategic nuclear objectives. It was well worth the gamble of reducing strategic forces if SDI deployment—with its accompanying technological and economic challenges—could be eliminated or restricted.

When considering key issues such as the US position on SDI, potential Soviet concerns over the SDI program, and the progress of INF and START negotiations after they were reconvened, a curious relationship becomes apparent: The SDI program was the major motivation for the Soviets' return to the bargaining table. By showing their willingness to limit or eliminate INF missiles and reduce strategic forces, the Soviets might compel the United States to show some reciprocal SDI movement.

IV. A New Round of Talks, 1985-87

In January 1985, Secretary of State Shultz and Foreign Minister Gromyko met in Geneva to set an agenda for a new, comprehensive series of negotiations known as the Nuclear and Space Arms Talks (NST). Under the NST umbrella were included

INF, START, and Defense and Space negotiations.[42] The two sides now appeared ready to resume INF and START talks. As far as Defense and Space Talks were concerned, SDI would be the central issue.

The US position on SDI during Defense and Space talks had been emphatic since the talks began in March 1985: SDI was not negotiable and not available as a so-called bargaining chip.[43] However, if technology proved feasible, the United States would seek a cooperative transition to defenses with the Soviets. This has remained the US position throughout the Defense and Space Talks and during INF and START negotiations.[44]

INF. The new Intermediate Range Nuclear Forces negotiations began in early 1985 where they left off in late 1983. The United States reaffirmed its desire to eliminate INF missiles globally, with the willingness to accept an interim agreement on equal limits at the lowest possible number. In considering any reductions, the Soviets maintained their position, opposing US INF deployment and insisting on the linkage of British and French forces in the INF balance.[45] By the third round of talks in the Fall of 1985, some movement had begun. General Secretary Gorbachev called for a freeze on US and Soviet INF missile deployments. He announced that Soviet SS-4s were being phased out and that some SS-20s were being removed from combat status. The United States responded by proposing that each side be limited to 140 intermediate range missile launchers in Europe, and that Soviet SS-20s in Asia be reduced proportionately. The Soviets responded in turn by proposing that, over the following 18 months, the United States reduce its number of ground-launched cruise missiles to 100-120 and remove its Pershing IIs. Additionally, the Soviets proposed that they would reduce their SS-20 force to equal the number of US, British, and French warheads in Europe.[46]

In actuality, both sides maintained their former basic positions. The United States was driving for its zero option, and the Soviets were looking to limit US INF deployment and maintain linkage to French and British systems. But the Soviets' intent to show movement was now motivated by their concern not only over ongoing US INF deployment, but also over continuing SDI research.

In the Geneva summit of November 1985, President Reagan and General Secretary Gorbachev agreed to consider the "idea of an interim INF agreement." Mr. Gorbachev followed up, in January 1986, by proposing that all nuclear weapons be eliminated over a 15-year period—by the year 2000. As part of this proposal, US and Soviet INF missiles in Europe would be eliminated over a 5-8 year period. Although SS-20s in Asia would remain at existing levels, they too would be eliminated later in the process. This constituted the first Soviet offer that would not count British and French forces and did not require more remaining Soviet missiles than US missiles as compensation for allied weapons. However, the proposal did require freezing British and French levels and barring US transfers of nuclear systems to third parties.[47]

Until October 1986, proposals and counterproposals focused on launcher and warhead limits. The United States proposed 140 launchers in Europe for each side and the complete elimination of all INF missiles within three years. The Soviets offered a 100-warhead limit in Europe with token reductions in Asia. The United States then agreed to a 100-warhead limit in Europe with the Soviet right to retain 100 more warheads in Asia—if the United States had the right to match that number.[48]

START. As was the case in INF talks, new START sessions began again in early 1985. However, the two sides had problems reaching agreement. During the first round in April 1985, the United States proposed a reduction to 5,000 ballistic missile warheads each, a limit of 850 or more ballistic missile launchers each, and a limit of 400 heavy bombers for the United States. The Soviets talked of 25 percent reductions on strategic arms and a ban on cruise missiles with ranges of more than 600 kilometers.[49] Throughout the year, both sides exchanged proposals varying the limits on delivery vehicles, warheads, and bombers. Not until the Geneva summit in November 1985 did they reach a basic agreement. As a result of the summit, the United States and the Soviet Union agreed to focus on the principle of 50 percent reductions as a common ground on which to build future proposals.[50]

A major issue during the summit focused on space-based defense. A US draft of a joint statement called for a joint

program on space-based defense, whereas the Soviet proposal called for preventing an arms race in space and ruled out SDI type research. The two sides could not come to agreement on space-based defenses or SDI and ultimately avoided addressing the issues.[51] The final joint statement did, however, acknowledge "preventing an arms race in space."[52] It was apparent that the Soviets were serious about limiting the US SDI effort. They decided to avoid the issue at the Geneva summit, but would raise it again at Reykjavik.

Until the Reykjavik summit, 1986 saw little progress. The General Secretary's 15-year plan to eliminate all nuclear weapons was proposed in January. The strategic portion proposed to reduce inventories by 50 percent within the first five to eight years, to continue with reductions in the next five to seven years, and to eliminate all remaining nuclear weapons in the last five years.[53]

But the ensuing negotiations continued to focus on launcher and warhead limits, not total elimination. During the Summer, the Soviets proposed a limit of 1,600 on delivery vehicles (down from 2,250 under SALT II), an 8,000 limit on weapons, and limitations on ballistic missile submarines and sea-launched cruise missiles.[54] The United States countered with a limit of 7,500 ballistic missile and air-launched cruise missile weapons, 5,500 ballistic missile warheads, 3,300 ICBM warheads, 1,650 heavy ICBMs, and 350 heavy bombers.[55]

Reykjavik and After. The Reykjavik summit of 11-12 October 1986 allowed the United States and Soviet Union to break away from their deadlocks over INF and START. However, it also more clearly showed the Soviets' hand on strategic defenses. Their concerns over SDI were such that they wanted to link limitations on SDI to *both* the INF and START negotiations.

As they discussed INF and START at the summit, the two sides continually focused on SDI. The United States wanted to pursue SDI research and, if a program were practical, eliminate offensive missiles as the two sides deployed advanced defenses. The Soviets, on the other hand, wanted strict adherence to the ABM Treaty with a no-withdrawal pledge for ten years. The two could not come to full agreement, eventually agreeing not to agree on the specific nowithdrawal period.

General Secretary Gorbachev wanted to strengthen the ABM Treaty by confining all SDI research to the laboratory (the treaty allows field testing) and agreeing not to develop or test space weapons. President Reagan strongly objected, insisting that the United States had the right to test SDI technologies as required. After a final afternoon of talks, unable to agree on SDI, the two leaders broke off their discussions.[56]

Although the two sides could not reach agreement on SDI, they did establish limitations on both INF and START weapons. Within INF, they agreed to eliminate *all* of their INF missiles in Europe and maintain a global ceiling of 100 warheads elsewhere.[57] In START, they agreed to reduce the total of ballistic missile and air-launched cruise missile warheads to 6,000 for each side and limit ballistic missiles and bombers to 1,600 for each side. Within this agreement, each bomber with bombs and short-range missiles would only count as *one* warhead.[58] However, the Soviets continued to insist that both agreements be linked to US constraints on SDI. Specifically, they insisted that research and testing be permitted only in the laboratory.[59]

As a result of Reykjavik, an apparent dichotomy existed. On one hand, the Soviets wanted to limit SDI research to the laboratory and link this limitation to both the INF and START agreements. On the other hand, the deadlock over specifics within INF and START had apparently been broken and the two sides appeared ready to address serious reductions.

A major point to be made about the Reykjavik summit is that the INF and START proposals that evolved from the meeting actually eliminated some nuclear weapons. The earlier SALT treaties had merely placed upper limits on strategic forces. If the Reykjavik positions could be agreed upon, the precedent established by the ABM Treaty in eliminating or significantly reducing weapons could be repeated. The US commitment to SDI and Soviet fears of its potential were starting to have an effect on Soviet bargaining positions.

Debates over SDI continued during the ensuing weeks. Immediately following the summit, President Reagan reemphasized his position in a television address on 13 October: "SDI is America's insurance policy...the key to a world without weapons." During a similar address on 14 October,

General Secretary Gorbachev tacitly acknowledged Soviet concern over the potential adverse economic impact of SDI when he stated, "The United States wants to economically tire the Soviet Union."[60]

When the United States presented its Reykjavik-based INF and START proposals in late October, the Soviets insisted that SDI remained the obstacle, noting, "This is a very serious and fundamental problem."[61] As would be expected, when the Soviets countered with their new proposals in November, based on their understanding at Reykjavik, they continued to link INF and START with constraints on SDI.[62] These positions did not change significantly until February 1987. At that point, General Secretary Gorbachev announced that the Soviet Union was ready for a separate INF treaty not linked to START or antimissile defense.[63]

Perhaps Gorbachev's announcement marked a Soviet realization that it was time to begin the final steps of its strategy. It was apparent that attempts to change US thinking and derail SDI had not succeeded. Despite Soviet offers to eliminate all INF missiles in Europe, to fall back from their position on linking European reductions to British and French forces, and to agree on a global limit, the United States had stood firm on SDI. It was time for the Soviets to sacrifice their SS-20s, reach an INF agreement, and put pressure on the United States to respond with sacrifices of its own.

By the end of July, the Soviets had agreed to a "global double zero" position. Details on treaty verification were worked out, and, on 30 October, both sides announced that Gorbachev would visit the United States in December to sign an INF treaty.[64]

On 8 December 1987, President Reagan and General Secretary Gorbachev signed the INF Treaty to eliminate *all* US and Soviet INF missiles. Not since the ABM Treaty was signed in 1972 had an agreement been consummated to significantly reduce or eliminate an entire class of weapons. The fear of SDI deployment had played a significant role in leading the Soviets to their position.

A Stop to START. Meanwhile, START negotiations were moving at a slower pace. Although some accommodation could be made to US proposals, the Soviets had to be careful not

to acquiesce in the critical area of strategic forces. They had toiled long and hard to match US capabilities and wanted to ensure any reductions didn't threaten their relative position.

When the US and Soviet positions were presented in Geneva after Reykjavik, SDI remained the stumbling block. In addition to the Reykjavik 6,000/1,600 agreement, the US proposal established sublimits of 4,800 ballistic missile warheads, 3,300 ICBM warheads, and 1,650 warheads on "permitted" ICBMs; moreover, all ballistic missiles would be eliminated after ten years. By contrast, the Soviet proposal called for 50 percent cuts in all strategic forces over a five-year period.[65]

During the following year, negotiations dealt with sub-limit variations, the possibility of constraining other systems such as sea-launched cruise missiles and heavy ICBMs, and, of course, defining the limits on strategic defense. The United States modified its post-Reykjavik position in May 1987 by offering to change the ICBM *warhead* limit from 3,300 to 3,600 and to achieve the 50 percent cuts over a seven-year period. It also proposed that both sides agree not to withdraw from the ABM Treaty through 1994, at which time either side could deploy defensive systems unless mutually agreed otherwise. Although no breakthrough had occurred so far in 1987, the two sides seemed to be making progress in working out detailed common language.[66]

The Soviets didn't respond until July. When they did, their positions were similar to those previously forwarded. Other than reconfirming the 6,000 warhead and 1,600 delivery vehicle limits, they addressed no other sub-limits. Nevertheless, they did propose to reduce their heavy ICBMs by 50 percent as the United States had suggested. Additionally, they proposed a limit of 400 sea-launched cruise missiles. Their strongest statement, however, came with regard to strategic defenses, when Soviet delegation head Aleksei Obukhov stated at a news conference, "the Soviet draft treaty. . . can be achieved only if there is an accord that places a barrier against spreading the arms race into outer space and guaranteeing effective reinforcement of the regime of the ABM Treaty."[67]

Although differences still existed between the two positions, much common language actually existed between the

US draft of May and the Soviet draft of July.[68] Research on SDI remained a stumbling block. President Reagan was committed to not limiting SDI technology programs, while the Soviets were committed to establishing limits. Statements supporting these views continued from each side right up until the December 1987 summit to sign the INF Treaty. After the treaty was signed, discussions focused on START and produced the same conflicting results: agreements on strategic offense, disagreement over strategic defense.

The Soviets had made their major concession by agreeing to the INF Treaty. Although they certainly could benefit from eliminating the Pershing II and ground-launched cruise missile threats, they, too, had given up their INF missiles. But more importantly, they had fulfilled the first step of their strategy. Their major concession to eliminate an entire class of weapons should now provide them with greater leverage in accomplishing their second step—obtaining concessions from the United States to limit its Strategic Defense Initiative.

During the summit, both sides reached agreements on strategic offensive arms. Within the framework of a 6,000 warhead limit for each side, limits of 4,900 ballistic missile warheads, 1,540 warheads on heavy ICBMs, and 1,600 strategic offensive delivery systems were established (see table 3). Additionally, the aggregate throw-weight of Soviet ICBMs and SLBMs would be reduced 50 percent below existing levels. Each heavy bomber would count as one strategic nuclear delivery vehicle and count as only one warhead if equipped with gravity bombs and short-range attack missiles. Also, air-launched cruise missile counting rules were established, as was commitment to limit sea-launched cruise missiles in the future.[69]

Table 3. Proposed START Limits (equal for US and USSR)

Category	Limit
Total warheads	6,000
Ballistic missile warheads	4,900
ICBM warheads	3,000-3,300
Warheads on 154 heavy ICBMs	1,540
Strategic offensive delivery systems	1,600

General Secretary Gorbachev and President Reagan could not agree, however, on the future of SDI. Neither could those attempting to draft the final joint communique. The United States had proposed language permitting SDI work to proceed. The Soviets proposed that each side observe the ABM Treaty "as signed and ratified." Concerned that these words would force too restrictive an interpretation, the United States negotiators insisted they be changed to simply say "as signed." But they did not obtain direct reference to testing in space; instead, each side could conduct testing as "required" under the terms of the ABM Treaty. Essentially, the public wording was left vague, left almost to the interpretation of the reader. The SDI issue was far from settled and was left for future discussions over treaty interpretation.[70]

The since-reported private negotiating record portrays a different story. The chief US negotiator at the Defense and Space Talks, Dr. Henry P. Cooper, has indicated that the Soviets "accepted U.S. language that they had previously rejected because it meant the sides could test, but not deploy, all ABM systems and components based on 'other physical principles.'" However, he continued by noting, "the Soviets have publicly denied the clear meaning of the private negotiating record." So despite apparent private agreement, the two sides continued to publicly disagree.[71]

Statements and other reports after the summit highlighted the two sides' differing opinions. In his press conference immediately following the summit, Gorbachev said, "If the U.S. builds up SDI...strategic stability will be undermined and a new sphere will be opened up in the arms race with unpredictable consequences." Reagan responded in his television speech after the summit, "I made it clear that our SDI program will continue, and that when we have a defense ready to deploy, we will do so."[72]

A few days later, while addressing his own nation, Gorbachev indicated that important differences over SDI divided the United States and Soviet Union, and warned that they could derail the nuclear disarmament process. He emphasized that differences still existed between the two sides and noted, "We have reaffirmed our readiness for a 50 percent cut in the

strategic offensive weapons on condition the ABM Treaty be preserved in the form it was adopted in 1972."[73] The next day, Reagan acknowledged, "we are in disagreement" over strategic defense programs. He went on to explain, "It was a simple thing. He took his position, we took ours and it was put that way in the communique." Basically, President Reagan acknowledged that he and General Secretary Gorbachev had agreed to disagree.[74]

Despite having attempted to whet the United States' appetite for more arms control agreements by way of signing an INF Treaty, the Soviets had not yet succeeded in restricting SDI. But it was obvious that the line had been drawn. Having granted concessions for various ICBM sub-limits, the Soviets had compromised enough. Final strategic arms reductions would be agreed upon only if the United States followed a more restrictive interpretation of the ABM Treaty and SDI deployment were forestalled.

After the INF Summit. Disagreement between the two sides over the limits of SDI testing continued after the December 1987 summit. The United States began 1988 by proposing a new draft treaty on ballistic missile defenses that incorporated language from the summit communique and sought a cooperative transition to SDI defense.[75] In response, however, the Soviets expresssed chagrin that the treaty language showed "disrespect for the summit agreement" to leave the issue for later.[76] Although the two sides continued to work details on START treaty specifics, SDI and strategic defense testing limitations continued to block progress on a final agreement.

Four areas of substantive disagreement remained between the two sides. The first related directly to SDI. The United States did not want a link between SDI research, development, and testing, whereas the Soviets wanted an agreement that would permit suspension of START reductions if the United States moved toward deploying strategic defenses. Second, the two sides disagreed about what research, development, and testing rights are permitted during the ABM Treaty nonwithdrawal period. Third, the Soviets favored a blanket nonwithdrawal commitment for the ABM Treaty, whereas the

United States insisted on internationally recognized withdrawal rights. Finally, the two sides could not agree on what occurs at the end of the nonwithdrawal period.[77]

V. SDI Issues

As we continue to seek arms control agreements with the Soviets and also pursue SDI research, we need to ask, should our advocacy of making a transition to SDI-type defenses lead our arms control positions? Or should our arms control objectives drive the limitations we place on SDI testing and deployment?

The approach taken by the United States during the post-Reykjavik period serves as an example of how a positive answer to the first question would work. The United States placed primary emphasis on being able to attain SDI test objectives and, therefore, made arms control secondary. As a result, the hard-line US position not to permit limits on SDI testing was, until recently, claimed by the Soviets to be an obstacle to reaching an arms control agreement. If, on the other hand, arms control agreements are paramount, SDI testing would have to be limited or prohibited because of Soviet insistence. In either case, if the two parties negotiating have firmly opposite views of which should lead, the goals of the first side will pull against those of the other. In such a situation, can a final agreement ever be reached?

Besides these primary differences, there are secondary motivations. In the case of the ongoing arms control-SDI debate, both the United States and the Soviet Union have similar views on arms control. They desire strategic offensive arms control to lessen the threat against themselves and reduce the risk of nuclear war. The Soviet Union, however, now has another motive. It desires arms control to inhibit the United States from developing effective defenses.

The Soviets' main concern is to prohibit SDI deployment so they can avoid entering into a technological race with the United States that could derail their economic and military programs. The US goal is to deploy defenses to better deter attack and provide some level of protection to the nation should

deterrence fail. It is important to understand these underlying motivations. The United States places SDI first, but not at the expense of arms control. Its intent is to achieve offensive reductions as defensive systems are deployed. The Soviet Union, on the other hand, places arms control first, but explicitly at the expense of future US defenses.

Which should drive? Although there is no "right" answer, extremes may be counterproductive. Certainly, arms control for arms control's sake can jeopardize national security by permitting imbalances that favor one's adversary or by forfeiting opportunities that would enhance one's own security. Similarly, pursuing technology, or new weapons systems, for technology's sake can lead to spiralling arms races or cause one side to perceive a serious threat from the other. The answer to the dilemma, then, should be moderation. Successful negotiations result in each side perceiving benefits, yet also having to forfeit something to gain those benefits.

Bargaining Chip or Leverage? The question that keeps coming up in discussions about SDI is, should SDI be a "bargaining chip" or should it provide "leverage"? By definition, a bargaining chip is something to be given up to obtain concessions from the other side, while leverage is something you can use to convince or coerce the other side to move toward your position, either totally or in part.

So, is SDI a bargaining chip? Not really. To give up SDI totally, as the Soviets desire, would not only forfeit an important arms control tool but also eliminate the potential for increased deterrence and protection. The Soviets' concern over SDI has motivated them to take significant steps in the arms control arena. The INF Treaty eliminated an entire class of weapons, and now the basics for a START treaty are generally agreed upon. To give up SDI or recognize it as a bargaining chip discards its future potential.

We should continue to use SDI to provide leverage to produce agreement on other issues. This might mean not maintaining the hard-line position of the past, and perhaps permitting some limitations on SDI in order to reach a compromise in other areas. Admittedly, such an approach might lengthen the time to reach an agreement. But, as our experience in INF

negotiations shows us, pursuing a dual-track approach could prove beneficial.

In the situation involving SDI, this approach would call for arms control to bridge between the defensive and offensive regimes. The intent would not be to continue with defenses in hope of reaching an agreement to eliminate them totally, as was the case with INF. Rather, the intent would be to continue with defenses in hope of reducing the level of offensive forces.

This combination would provide two benefits for the survival of the nation. First, significant reductions of offensive warheads through arms control would reduce the intensity of an overall attack. Second, deployment of a defensive capability would complicate and lessen the effectiveness of the attack. Thus, continued development and testing of defensive systems would apply leverage to achieve reductions in offensive force levels.

Militarizing Space. Defense and Space Talks have focused on the ABM Treaty and discussions of how much testing is permitted. Disagreement centers on how restrictively the ABM Treaty should be interpreted. Obviously, the United States' interpretation is less restrictive than the Soviets'. The United States wants to pursue SDI, the Soviets want to prevent deployment of defenses. We should address this issue in an even-handed manner and be careful to avoid the impression that we are "breaking out" of the ABM Treaty.

An approach taken by the United States that assists in this area is the Predictability Protocol proposed during 1988. This protocol calls for an annual exchange of programmatic data on planned strategic defense activities, reciprocal briefings on respective strategic defense efforts, reciprocal visits to associated research facilities, and reciprocal observation of strategic defense tests. Although the Soviets have agreed in principle to some of these measures, disagreements remain. The two sides continue to work on a joint draft text of a protocol addressing these matters.[78]

As we require additional testing to support SDI development, every attempt should be made to negotiate the easing of testing restrictions with the Soviets. As a minimum, we should provide the Soviets specifics on the nature and scope

of planned tests. We should also make it clear where we are in development in order not to cause the Soviets to over-react. Our intent should be to gradually broaden ABM Treaty interpretation to be supportive of a wider range of tests. We would not want to threaten the Soviets into "breaking out" of the treaty in fear that we are about to do the same. In short, we would want to develop confidence-building measures that attempt to assure the Soviets that we are not seeking a first strike capability or a posture that would give us a strategic advantage.

As we cooperatively develop and test using agreed upon predictability measures, the United States and the Soviet Union would announce each test series and indicate exactly what it will test and how the test will extend beyond the ABM Treaty's traditional interpretation. By openly keeping the other side informed of progress, perhaps confidence could be built that a first-strike capability and ABM "breakout" aren't being attempted. Essentially, this approach would detail the planned and orderly steps to be taken to widen, or in fact abrogate, the treaty over time. The intent would be to avoid surprise.

By observing systems being tested and interpreting capabilities, each side could assess what level of deployment might provide enough capability to threaten a first strike. If both sides were developing defenses concurrently, they could pace system deployment to parallel one another so as not to be threatening. If only one side were to deploy defenses, perhaps it would want to keep to levels that weren't threatening to the other side. The so-called transition phase will need close coordination and cooperation to avoid a perceived imbalance or create an unstable situation.

As deployment times arrive, weapons will have to be emplaced. The final design of the system will dictate their location. One very real future possibility is space deployment. This has long been a contentious issue and has fueled concerns over an arms race in space. Both the United States and the Soviet Union are actively researching SDI-type systems. Additionally, the Soviets already have a limited anti-satellite capability that, when employed, places weapons in space. It could also be argued that the use of communications, navigation, and

weather satellites to support our forces has already militarized space. The key is not to claim we can keep space demilitarized but to limit deployment to defensive systems only.

Admittedly, a limitation to permit the deployment of only defensive weapons in space would be extremely difficult to verify. But the confidence building measures previously described could assist. As individual weapon systems were deployed, their purpose and intent would be explained. Each side would have its own observers to assess how much of a defensive system the other side would require to stay within agreed bounds. Once the necessary assets were deployed, any additional deployment would be viewed as excess and a potential offensive threat that would have to be removed.

If cheating had mixed offensive systems within the defensive architecture, then the overall effectiveness of the defense would be impaired by not having the required defensive assets deployed. Also, since offensive systems would be prohibited, no testing would have been permitted. Offensive planners would have little confidence in systems that had never been tested in their operational environment.

New Direction of Negotiations. The arms control agreements of the 1960s and 1970s succeeded primarily in establishing limits beyond which nuclear arsenals couldn't grow. But in the case of the SALT I Interim Agreement and SALT II, those limits had not yet been reached and each side's arsenal was permitted to expand. The ABM Treaty (and its protocol) was the significant exception. It essentially eliminated an entire class of weapons and avoided a potential arms race by limiting each side to one ABM deployment area. A similar feat was not accomplished until the INF Treaty was signed, eliminating an entire class of nuclear weapons.

The announcement to pursue strategic defenses, through SDI, played a significant part in breaking the logjam in INF and START negotiations. By trying to show responsiveness in arms control, the Soviets agreed to an INF Treaty in hopes of obtaining a trade-off with regard to SDI. They similarly reached many agreements over the details of a START treaty. In showing movement in these areas, they hoped to stop SDI.

Until recently, the Soviets had drawn the line by absolutely linking a final START accord to SDI.

Accordingly, the United States should use SDI defenses as leverage to pressure Soviet arms control negotiators to obtain agreements in the offensive arena. In using this approach, SDI should not be considered a bargaining chip. Instead, we should maintain our commitment to deploy it in order to obtain other concessions. In doing so, our plan would be to methodically extend the interpretation of the ABM Treaty and, essentially, abrogate it over time. As we reach system deployment, only those weapons systems directly related to the defense would be permitted. The Strategic Defense Initiative thus has provided the basis for taking great strides in arms control. We would be foolish to forfeit its potential.

VI. A Revised Approach to Arms Control

What direction should we take with the Strategic Defense Initiative and how far should we go with strategic defenses? For one thing, we need to acknowledge that the research program, and SDI's potential system deployment, must not be an end unto itself. Although President Reagan originally proposed a vision of a world without nuclear weapons, the direction of the program has changed. SDI is only one piece of the overall strategic puzzle.

If SDI were an end unto itself, intended to create a new order or develop a strategy to replace containment, we would be pursuing geopolitical and strategic changes even more drastic than we are now observing. Essentially, we would be creating a world order in which nations didn't threaten one another, with defenses deployed merely as insurance in case some renegade slipped away from the new order.

Strategic Direction. Perhaps we are not yet ready, given the differing cultural and historical influences of East and West, for such a radical revision of relationships. As a result, we still contain and we still deter. In this context, SDI has merely the potential of enhancing our deterrent posture. No longer does

the SDI system promise perfect defenses of our population, nor the complete withdrawal of all strategic ballistic missile forces.

In fact, offenses and defenses are now seen to be complementary. Defenses only provide the ability to complicate enemy attack planning and raise uncertainties about the success of his assault. The attack planner confronting SDI must consider how his offensive forces will contend with new defensive systems and evaluate the confidence he has in overwhelming them. Additionally, he cannot be assured of which segments of his attack will succeed and, more importantly, which will fail. Also, the defender has the capability to protect critical assets that have no defense today. Whether the final decision is to protect offensive forces, critical command and control elements, or designated population centers, the fact of the matter is that the defender with SDI will be better off militarily than he is today.

Despite these advantages, conflicting views remain over what SDI and the future role of defenses are all about. Some believe that a perfect shield is the goal; others oppose the program because they criticize such expectations as being incredibly naive and unattainable. Some speak of defending our population; others of defending military forces. The original goal of rendering ballistic missiles obsolete has been modified realistically, in that we now acknowledge reduction of such weapons, but not their complete elimination.

It is time to stop sending conflicting signals and clearly articulate the true direction of the Strategic Defense program. All levels of government must understand and pursue the same strategic goals to ensure that the effort is properly understood and supported by the Congress and the American public. Basically, our overall stance on strategic defense should be as follows:

- The role of strategic defense is to enhance deterrence, not to create a new strategic order.
- Strategic defenses will significantly complicate enemy attack planning and provide some level of protection for the United States that is nonexistent today.

- Strategic defenses are not an end in themselves but are meant to complement our other deterrent forces.

Military Strategy. President Reagan's original vision could lead eventually to a shift in our military strategy. Assuming that the Soviets would respond in kind to US deployment of defensive systems, we might actually undermine our oversea deterrent and the strategy of Flexible Response. Traditional deterrence has been based on the threat of credible retaliation. Our ability to retaliate not only has deterred nuclear attack against the United States, but also has provided the threat of escalation to deter conventional attack in Europe and elsewhere. If we were to deploy a highly effective defensive system, we might significantly, perhaps detrimentally, erode our overall deterrent capability because similar Soviet defenses would reduce our offensive retaliatory capability. Certainly, we would be able to defend against nuclear attack, but we might have narrowed our deterrent to focus solely on protection against nuclear attack on the United States and, as a result of Soviet defenses, lost the capability to escalate in support of conventional forces overseas.

This narrowed deterrent posture would be invaluable in limiting nuclear destruction at home but without value in deterring expanded conventional conflict abroad. Although one segment of deterrence would be enhanced, the overall concept of extended deterrence would be weakened. As a result, our military strategy would have to shift significantly toward a greater reliance on conventional force deployment and employment.

Both the United States and the Soviet Union have ongoing strategic defense programs, and space has been militarized already through the deployment of communications, navigation, and weather satellites that directly support our military forces. We aren't about to disinvent these subsidiary defensive aids. To further complicate the enemy's planning and lessen his probability of success, some level of strategic defense also should be deployed. The question is, how much?

The answer is to deploy that level of defense which deters, but not a level so effective that it forces a Soviet reaction and

a significant shift toward a further reliance on conventional forces. A system that is 20-30 percent effective probably would suffice. It's possible that an effectiveness of 50 percent or more might actually precipitate a strategic shift. By remaining at a relatively modest level, enough defense would be available to disrupt an attack, while remaining strategic offensive and conventional forces, though somewhat reduced, would provide both the real deterrent against attack and the credible warfighting capability should deterrence fail.

Thus, I propose the following force posture:

- Deploy strategic defenses, consciously limited to that level of capability which deters.
- Reduce strategic offensive force levels.
- Maintain existing, or balanced, deployed conventional force levels.

Our military strategy would be similar to today's but would accommodate the addition of strategic defenses. Our approach in each area would be as follows:

- Conventional: Forward defense with rapid reinforcement.
- Strategic defense: Preferential defense of high-value assets or areas; attrition of enemy attacking forces to complicate his attack.
- Strategic offense: Early attack against enemy defensive capabilities, with follow-on attack against redefined objectives.

SDI's Role. To fulfill SDI deployment objectives and achieve reductions in offensive forces, SDI should be used as leverage to obtain arms control concessions. The United States should continue to commit itself to pursuing SDI technology that leads to deployment to make certain that our commitment is made well known. The Soviets' concern over SDI, and the costs associated with it for them, could pressure them into further agreements to reduce their offensive forces.

The Soviets have long been trying to derail SDI. They still hope to stop the program. The United States, however, has expressed the desire to develop it and deploy a defensive

capability. The two sides have opposing motives. Despite recent movement in START, we may again reach an impasse. Realizing that the United States is committed to deployment, perhaps the Soviets would agree to compromises that could at least limit or avoid a defensive deployment race. The United States could then agree not to pursue full deployment of defenses, while the Soviets could agree to offensive arms reductions. Each side would have something to gain, each something to lose.

Pragmatically, the United States would limit development of its defenses in order to achieve Soviet offensive force reductions, while the Soviet Union would agree to offensive reductions in order to limit the US defenses. From the standpoint of the defenses alone, the United States would be forfeiting its goal of full deployment, but would be gaining some level of deployment above the Soviets' desire for none at all. In turn, the Soviet Union would be forfeiting its goal of halting SDI deployment by gaining some lessened level of deployment below the US desire for a full defensive capability.

Through a "controlled abrogation" of the ABM Treaty, defensive systems in space would be tested and deployed over time in an orderly manner and with a carefully managed and monitored transition. When coupled with offensive arms reductions, the concerns arising in the ABM debate of the 1960s and 1970s could be avoided. A major argument used against ABM deployment was that the offense could be built up to overpower the defense. In the current context, SDI defensive deployment and offensive arms control would be integrated. Similarly, cooperation and monitoring of system development could lead to confidence building measures and avoid the danger of a potential arms race in space.

Thus, the proposed arms control approach for strategic defense would do the following:

- Increase defenses to apply pressure on arms control to achieve offensive force reductions.
- Accept compromises that limit SDI deployment.
- Limit weapons deployment in space to defensive systems only.

- Rely on a balanced deterrent consisting of limited strategic defenses, reduced offensive forces, and existing or balanced conventional force levels.

The Strategic Defense Initiative has evolved from the vision of perfect defense to the reality of support for deterrence. Although its effect is not widely acknowledged, SDI has exerted considerable influence on the arms control process. The influence can continue if the United States pursues the policies and arms control strategies outlined here. Commitment to a limited defense that enhances deterrence will provide the leverage necessary to achieve the nation's arms control and security objectives.

NOTES

1. Ronald Reagan, Address to the Nation, 23 March 1983.
2. Ibid.
3. Ibid.
4. Fred S. Hoffman, *Ballistic Missile Defenses and U.S. National Security*, Report prepared for the Under Secretary of Defense for Policy, October 1983, p. iv.
5. Ibid., p. 7.
6. Ibid., p. 1.
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