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A TIMETABLE FOR DEPLOYING A STRATEGIC DEFENSE

INTRODUCTION

With the signing of the Intermediate Range Nuclear Forces (INF) Agreement at last week's Washington summit meeting, attention inevitably will turn now to strategic nuclear arms. A key issue in U.S.-Soviet discussions will be the proper role of defenses in the U.S.-Soviet strategic relationship. The U.S. should seize the opportunity to outline a phased transition which links strategic defense to arms reductions and deploys defenses while gradually reducing nuclear forces.

Ronald Reagan and other U.S. officials and policy makers should point out that the U.S., the Soviet Union, and the world would be safer if the U.S. and USSR established a military balance based on defenses as well as the offensive arms that are today the sole component of the superpower arsenals. To move toward this goal, the U.S. and USSR should begin working on how to make the transition to a defense-dominant U.S.-Soviet strategic relationship. This should be part of any strategic arms agreement.

Negotiating a Transition. The Reagan Administration believes that deployment of strategic defense would enhance U.S. national security and usher in a more stable international environment, and further, that deploying strategic defense is consistent with genuine arms control. Accordingly, the U.S. has placed strategic defense issues on the agenda at the U.S.-Soviet arms talks in Geneva. Now is the time, therefore, for the Reagan Administration to explain to Congress, the American public, U.S. allies, and Moscow the potentially synergistic relationship between strategic defense and arms control objectives. The Administration should develop and offer a series of conceptual proposals that demonstrate how a transition to a defense-dominant U.S.-Soviet strategic relationship could occur and then should seek Moscow's response. Given U.S. technological capabilities and the Kremlin's own longstanding interest in strategic defense, there is a real possibility that Moscow eventually may agree to a negotiated transition to a defense-oriented strategic relationship.

Detailed proposals on what defense systems are to be deployed, and at what pace, must await further testing and development of SDI systems. The principles

that should guide a sound agreement and transition, however, can be stated even now and include:

◆◆ Early deployment of first phase ground- and space-based defenses. These can be valuable in their own right because by protecting U.S. ICBMs they will increase Moscow's uncertainty that a successful Soviet first strike could be launched against the U.S.

◆◆ Assurance that U.S. retaliatory nuclear forces are able to penetrate Soviet defenses during the transition and destroy the targets that Moscow values most.

◆◆ Improvement in NATO's capabilities. In the transition, the U.S. should encourage NATO to strengthen its conventional defenses and deploy anti-tactical ballistic missile (ATBM) systems in order to address allied strategic concerns and assure that the U.S. can continue to protect its allies.

◆◆ Meeting requirements as tough as those in any acceptable arms treaty. This means that U.S. concerns about the pattern of Soviet violations of existing agreements must be dealt with and provisions for effective verification included.

The U.S. should present a conceptual blueprint for a negotiated transition to a defense-dominant U.S.-Soviet strategic relationship. Such an outline should suggest stages for a gradual reduction of first-strike capable ballistic missiles, combined with the strengthening of bomber and cruise missile retaliatory forces, along with phased deployment of defenses. By pursuing this approach, the U.S. can help establish a framework for a more secure America and a more stable U.S.-Soviet strategic relationship.

SDI AND ARMS CONTROL INCENTIVES

By the late 1970s, it had become apparent that U.S.-Soviet arms control efforts were not achieving their professed objectives. The U.S. had begun strategic arms negotiations in 1969 with the specific goal of convincing Moscow not to develop weapons that could threaten U.S. intercontinental ballistic missiles (ICBMs) in a first strike. American strategists believed that stable deterrence depended on U.S. land-based nuclear forces remaining largely invulnerable to Soviet attack.

Arms control, however, failed to arrest the Soviet offensive buildup. Instead, Moscow proceeded with what has become a relentless buildup of heavy ICBMs with multiple warheads--technically known as Multiple Independently Targeted Reentry Vehicles or MIRVs--which could destroy much of the U.S. nuclear retaliatory capability in a preemptive attack. Moscow also devoted, as Gorbachev recently has admitted, considerable resources to secret research, development, and deployment of active defenses capable of absorbing much of what would remain of the U.S. retaliatory capability after a Soviet attack. In addition, the Soviets have constructed an extensive civil defense system to protect the Soviet elite and industrial infrastructure. All these measures weaken the U.S. deterrent because they reduce substantially the potential damage from a U.S. counterattack.

Vulnerable America. By contrast, the U.S. remains fully vulnerable to a Soviet attack. SDI seeks to change this. If Moscow becomes convinced that the prospects for a successful nuclear first strike against the U.S. are highly uncertain, its huge offensive arsenal will lose much of its value. Moscow then might be willing to restructure the superpower strategic relationship by reducing strategic offensive forces while increasing defensive forces.¹

Strengthened defenses, moreover, could allow very deep reductions in strategic offensive nuclear forces. As matters now stand, such reductions are extremely risky. The reason: the smaller the arsenal, the greater the advantage from cheating. With the thousands of warheads each side currently possesses, small numbers of hidden nuclear weapons would not affect the strategic balance significantly. But if both sides were to reduce their forces substantially to, say, 200 ballistic missile warheads, then even a relatively small number of successfully hidden weapons could provide a significant advantage when suddenly revealed or used in time of crisis or conflict. This incentive to cheat is a key reason why both superpowers are likely to balk at deep reductions. Strategic defenses would mean that each superpower could be confident that hidden missiles would not suddenly and significantly change the strategic relationship or provide sufficient capabilities for a successful first strike. This is because defenses would protect the missiles each side needed for credible retaliation.

Soviet Views of Defense

Now that the Soviets admit that they have long been working on their own strategic defense system, it may be possible to convince Moscow to integrate defense into an arms control agreement. For one thing, the Kremlin consistently has allocated substantial resources to strategic defense activities. Until the recent increase in U.S. strategic defense expenditures, Moscow devoted about four times more than the U.S. to such programs; and it has spent as much on defensive as on offensive capabilities ever since the 1972 Anti-Ballistic Missile (ABM) pact; this amounts to some \$150 billion in the past decade alone. The USSR has deployed the full 100 interceptors permitted under the ABM Treaty, has many key elements of a nationwide defensive system in place, and is working intensively on the remaining system requirements.

For another thing, the logic of deploying defenses should be compelling to a society whose civilian population was so badly depleted by massive enemy destruction in both world wars, and to a leadership clique that, above all else, values its own survival. Moreover, there are some preliminary indications that Moscow is becoming concerned about the increasing uncertainties inherent in offensive nuclear operations. This concern has been prompted largely by growth in

1. For background, see W. Bruce Weinrod, "Strategic Defense: Implications for Arms Control," Heritage Foundation *Background* No. 463, October 1985. For further discussion of the defensive transition, see Loren Thompson, "Managing the Transition from Nuclear Offense to Strategic Defense," Heritage Foundation *Background* No. 459, September 30, 1985; and W. Bruce Weinrod, ed., *Assessing Strategic Defense: Six Roundtable Discussions*, Heritage Lectures Series No. 38, April 1985. For a discussion of Soviet views, see David B. Rivkin, "What Does Moscow Think?" *Foreign Policy*, Summer 1985; and "SDI: Strategic Reality or Never-Never Land," *Strategic Review*, Summer 1987.

third country nuclear forces, U.S. nuclear force diversification, and other trends that may diminish Soviet first-strike capability.

Saving Millions of Soviet Lives. Soviet officials in the past have indicated willingness to accept a strategic regime featuring both offensive and defensive forces. In 1962, for example, in an arms control proposal presented at the United Nations, Foreign Minister Andrei Gromyko suggested that Moscow would accept limited defenses against ICBMs. Three years later, Soviet General Nikolai Talensky wrote that "from the standpoint of strategy, powerful deterrent [offensive] forces and an effective anti-missile system, when taken together, substantially increase the stability of mutual deterrence."² And in 1967, Soviet Prime Minister Alexei Kosygin commented that "Defensive systems which prevent attack are not the cause of the arms race, but constitute a factor preventing the death of people."³

The U.S.-Soviet ABM Treaty of 1972 has not cooled Soviet interest in strategic defenses. In 1976, Marshal of Aviation G.V. Zimin, then head of the Academy of the Soviet National Air Defense Forces, wrote that offensive nuclear strikes alone could not protect the Soviet Union or result in victory. He then explicitly stated that "it is necessary to create...means" capable of intercepting ballistic missiles in flight.⁴ As recently as 1984, a Soviet statement suggested that strategic defense efforts were necessary "to show concern about millions of Soviet lives. To save just 1 percent of the Soviet population would mean to save 3 million people. No one in this country [USSR] would understand the government if it failed to strive for this."⁵

All that may be lacking to prompt Moscow to discuss defensive weapons as part of a general strategic arms agreement is for Moscow to acknowledge that the U.S. has the political will to deploy SDI. Until Moscow concludes that such a consensus exists, it probably will not consider any negotiated transition.

NEGOTIATED TRANSITION TO STRATEGIC DEFENSES

The U.S. could embark on a transition to defense without ascertaining in advance the final dimensions of a fully deployed system or the precise relationship between offense and defense in the post-transition world. It may yet be impossible to resolve definitively all SDI-related issues, especially since many technologies are still being researched. Discussions about a negotiated transition thus should focus on three possible scenarios.

2. Nikolai Talensky, "Anti-Missile Systems and Disarmament," *Bulletin of the Atomic Scientists*, February 1965, p. 28.

3. "ABM Treaty May be Headed for Scrap Heap," *Air Force Times*, July 16, 1985, p. 26.

4. *Razvitie Protivovozdushnoi Oborony*, Moscow, Voenizdat, 1976, p. 2. See also A. Altunin, "The Goals Are Human and the Tasks Important," *Agitator Armi i Flota*, No. 3, 1980.

5. Lev Semeyko, Moscow World Service, April 24, 1984, in FBIS, Daily Report, Soviet Union, April 25, 1984, p. VI, quoted in Stanley Kober, "Strategic Defense Deterrence and Arms Control," *Washington Quarterly*, Winter 1987, p. 125.

Scenario One: A Defense-Dominant World

The U.S. long-term objective should be the creation of a defense-dominant strategic regime in which neither the U.S. nor USSR could inflict more than "token" levels of nuclear destruction on the territory of the other party and its allies. This would require both sides to deploy effective and numerous defense systems--space- and ground-based--capable of destroying missiles by means of direct impact, directed energy, or explosion. This strategic regime would be reinforced by dramatic, verified reductions of central strategic nuclear weapons. Given the overwhelming tilt in favor of defenses, neither side would be able to inflict significant damage on the other.

Scenario Two: Offense-Defense Mix

In the near term, the U.S. objective should be a strategic regime in which the emphasis at least is on defense. In contrast to a defense-dominant relationship, this would involve varying levels of defenses and the retention of a sizable offensive arsenal. Under one option, as both sides deployed ballistic missile defenses, they would phase out long-range ballistic missiles. Each would retain modest numbers of such "air-breathing" delivery systems as cruise missiles and bombers. This remnant offensive arsenal would insure that the U.S. could still deter aggression by the USSR or other nations. A second option would see high levels of defenses coexisting with high levels of offensive nuclear forces. The new defensive systems would increase uncertainty about what actually would happen in a nuclear exchange; this might bolster deterrence and make the strategic relationship more stable.

Scenario Three: Partial Joint U.S.-Soviet Action

Instead of agreeing on the final shape of a defense-based balance, the two superpowers might agree on interim or limited joint steps. For example, an agreement to build up defenses against ballistic missiles and to phase out ballistic missiles might not require U.S.-Soviet agreement on the ultimate strategic relationship.

A TRANSITION BLUEPRINT

Objectives and Problems

A major problem in devising a transition toward defense dominance or defense emphasis is the disparate level of offensive forces of the U.S. and USSR and their vastly different nuclear weapons policies. Most important is the Soviet Union's first strike capability, which allows Moscow to target most U.S. ICBM and other military sites. Important, too, is the Soviet Union's considerable advantage over the U.S. in the capability of fighting a nuclear war. Adding to the problem are the dissimilarities in the U.S. and Soviet defensive programs, which are unlikely to result in identical defensive deployments.

Any cooperative transition has to satisfy certain criteria: it should not exacerbate strategic instability, weaken deterrence, or provide Moscow with incentives

to cheat or break out of the transition. In general, the Soviets are unlikely to break out of an arms control regime dramatically, since it would alarm the West. Unless they planned to attack the U.S. immediately, any sudden Soviet breakout might prompt an arms race that they might lose.

Timing of Offensive Reductions

Offensive forces should not be reduced substantially until defensive deployments have begun. To do otherwise could: 1) increase U.S. vulnerability to a Soviet first strike because Soviet missiles could not attack as many U.S. targets; 2) make Soviet strategic defense even more capable of intercepting the smaller U.S. retaliatory force remaining after a Soviet first strike; and 3) reduce significantly U.S. ability to deter Soviet attack through the threat of nuclear retaliation.

Appropriate Force Mix

Determining what mix of offensive and defensive forces should be deployed during each phase of the transition requires a decision on what the offensive forces are supposed to accomplish. U.S. forces are generally retaliatory in nature; there is no U.S. doctrine calling for a first strike against Soviet targets. As such, the U.S. does not need massive strategic offensive forces. It does need enough survivable forces during the transition, however, to convince Moscow that an attack would bring significant nuclear retaliation. And during the initial transition phases, this would mean continued U.S. ability to hit a wide range of Soviet military, administrative, and economic assets.

Strategic Ballistic Missile Warheads Reductions

The objective in the initial phase of offensive reductions would be to reduce substantially the Soviet first strike capability while allowing each side to retain sufficient nuclear ballistic missiles to be confident of deterring attack. Of necessity, this would require substantial reductions in the Soviet ICBM force, which alone poses a first strike threat.

In the current Strategic Arms Reduction Talks (START), both the U.S. and the USSR have called for strategic ballistic missile warhead reductions to around 4,800 total ICBM and submarine-launched ballistic missile (SLBM) warheads--or roughly half of current levels. On the crucial issue of setting subceilings on highly accurate first strike capable ICBM warheads, however, the two sides differ significantly. The U.S. seeks a sublimit of around 1,600 first strike capable ICBM warheads. Moscow thus far has implicitly rejected such a sublimit without taking a firm position.

First phase offensive reductions as part of a transition to defense dominance should reduce U.S. and Soviet total strategic ballistic missile warheads to 4,800 with a sublimit for all ICBMs of 2,800. Most important, a sublimit of 1,500 warheads within this total should be set for first strike capable ICBMs. At this limit, Moscow could deploy at most 150 of its ten warhead SS-18 ICBMs, and the U.S. could deploy the same total number of ten warhead MX ICBMs. Either side could also

deploy 1,300 warheads of lesser accuracy such as the Soviet SS-11 and SS-17 and early models of the U.S. Minuteman III.

Lowering the Chances of Success. This first phase reduction alone would substantially eliminate Moscow's current first strike threat. It is widely accepted that in a first strike the attacker must have at least two warheads for each ICBM target. Currently, the ratio of Soviet first strike capable warheads to U.S. ICBM targets is around four to one. Limiting these warheads to 1,500 would reduce the ratio of such Soviet warheads to U.S. ICBMs to less than two to one. As important, if Moscow attempted a first strike attack against the U.S. under these circumstances, Moscow could have no highly accurate warheads left to attack other important military targets; nor would Moscow have any first strike capable warheads remaining in reserve after such an attack. At the same time, of course, first phase U.S. defensive deployments would mean a much lower chance of success for such a Soviet attack.

In addition to the limit of 2,800 ICBM warheads, the strategic ballistic missiles limit of 4,000 would also include a submarine-launched ballistic missile sublimit of 1,800 (of the 4,000 total). The U.S. has needed a substantial number of SLBM warheads, which would be used to retaliate against a Soviet nuclear attack, because of the Soviet first strike capability. As Soviet first strike capable ICBMs were significantly reduced, the U.S. could accept lower SLBM warhead limits.

Submarines in Port. There is another important factor in considering SLBM warhead limits: U.S. policy has been to deploy large numbers of SLBM warheads on a relatively small number of submarines. Around half of U.S. submarines are in port at any given time and the others are vulnerable to Soviet anti-submarine weapons. Thus, SLBM warhead limits must allow enough SLBM warheads to survive a Soviet attack and to assure retaliation during the transition.

During this initial transition phase, the U.S. should continue to build and deploy the new Trident D-5 submarine, which for the first time will provide the U.S. with first strike capable ICBMs. This is to assure that this new important weapon is not abandoned before the Soviet first strike capable ICBMs are dismantled. As these new SLBM warheads are deployed, an equivalent number of U.S. Minuteman III ICBM warheads could be removed until the SLBM warheads constitute one-third of the total U.S. first strike capable warheads.

Ancillary Restrictions

The effectiveness of defenses could be enhanced by placing limits on ancillary capabilities of offensive systems, especially "penetration aids," which help ballistic missile warheads penetrate enemy defenses by using such devices as decoys to fool defenses or maneuverable warheads (MARVs) to evade defenses. A verifiable ban on testing or deploying such systems would make defenses more effective.

Intercontinental Bombers

In any SDI transition scheme, bombers would play a crucial role. Because bombers are slow to reach their targets, they threaten no surprises and are essentially a retaliatory weapon. Thus, rather than reducing their numbers initially,

a transition might require more bombers in the short term, especially if defenses against aircraft--which are already well developed technologically--were being strengthened.

Verifying Bombs. Aircraft can deliver nuclear payloads via gravity bombs (bomber weapons) or air-launched cruise missiles (ALCMs). Separate limits should be established for each category. Limits could be imposed either on the number of bombers or on the number of bomber weapons. Because the total number of bombs on individual airplanes is almost impossible to verify, it would be more prudent to limit intercontinental bombers.

There is no magic number for a limit on bombers carrying gravity bombs during the transition. In particular, the existence of heavy Soviet anti-aircraft defenses must be considered. The best that can be suggested now is that the total number of bombers allowed should be higher than the 350 the U.S. deploys today. This is because, if the U.S. reduces its force of retaliatory strategic ballistic missile warheads, it must compensate with more slower flying bombers to assure adequate retaliatory nuclear forces during the transition. A reasonable bomber ceiling for the first transition phase should be around 400. Since each bomber carries an average of twelve gravity bombs, this would result in around 4,800 gravity bombs allowed. This number would in fact allow the U.S. to increase its total bomber force from the current levels and to deploy more new B-1 bombers as well as the even newer Stealth strategic bomber.

Cruise Missiles

Being slow flying systems, cruise missiles are not a first strike attack weapon. Along with gravity bombs, cruise missiles would be essential to preserving the U.S. nuclear deterrent and retaliatory capability during a transition period. Thus, as ballistic missiles are reduced, cruise missile deployments should be moderately increased.

There are three types: ground-launched cruise missiles or GLCM (pronounced *glick-um*), air-launched cruise missiles or ALCM (*al-cum*), and sea-launched cruise missiles or SLCM (*slick-um*). The current U.S. START proposal would limit ALCMs to 1,500 and would set no ceiling on SLCMs. This would be reasonable in the first transition phase. (GLCMs would essentially have been banned in the proposed INF Treaty.) The 1,500 level would allow as many SLCMs as the U.S. deemed necessary to assure deterrence and an adequate retaliatory force.

FIRST PHASE DEFENSIVE DEPLOYMENTS

The central issue concerning defensive deployments is whether they should be initiated before, during, or after the completion of the offensive reductions and force realignments, since any of these times might protect U.S. security and encourage a stable transition. The best policy is to begin with defensive deployments and then require large Soviet offensive reductions before progressing to the next stage of the transition.

Some critics argue that deployment of defenses makes no sense until Moscow agrees to offensive weapons reductions. To be sure, there are advantages to reducing offenses first. For example: 1) it would reduce the Soviet first strike threat even before defenses were deployed; 2) the effectiveness of even limited U.S. defenses would be increased against reduced Soviet offenses; and 3) it would simplify the transition process.

Mature Defensive System. The U.S., however, should not be tied exclusively to this approach. For one thing, it could give the Kremlin a *de facto* veto over any U.S. SDI deployments. For another, it could delay the deployment date for U.S. strategic defenses, thus leaving the U.S. defenseless against Soviet cheating on the agreed offensive force reductions. The optimum scenario thus would begin phasing in defenses after the initial reductions and restructuring of offensive forces had taken place, but before deep offensive cuts had begun.

A mature defensive system would consist of three or four layers of defenses: 1) a space-based boost-phase defense; 2) a space-based or land-based defense that intercepts missiles and warheads passing through space; 3) a terminal defense that protects land area of several hundred miles in radius; and 4) a point defense of specific high priority military and civilian assets.

U.S. defense systems would be deployed in phases as technologies matured. The first phase should provide a base for the deployment of a larger comprehensive system and should maintain or strengthen U.S. security and strategic stability. Initial defenses should be deployed to protect not only ICBMs but also key strategic nuclear command, communication, and control facilities and the central nuclear command posts. The mix of targets to be defended might change as the transition proceeded. Once all or nearly all Soviet and U.S. ballistic missile warheads had been retired, for example, it would make little sense to defend former U.S. ICBM silos. At that point, strategic defenses could be reallocated to defend administrative and industrial sites that were likely to become primary targets for remaining Soviet nuclear weapons.

Kill Interceptors. Primary technology for first phase defenses would be based on kinetic energy (which destroys by direct impact), along with appropriate space- and ground-based sensor systems. Space-based kinetic kill interceptors, which orbit the USSR, combined with surveillance and targeting sensors deployed in satellites in orbits that place them continually over fixed locations on earth ("geosynchronous orbits"), could be deployed to intercept Soviet missiles and warheads in their boost and post-boost phases. For example, each side could be permitted to deploy from 80 to 100 satellites each armed with space-based kinetic-kill vehicles (SBKKVs) for interception of nuclear warheads.

Ground-launched interceptors combined with space-based surveillance systems also are appropriate for first phase defenses and should be deployed by the U.S. as early as possible. Such systems would protect important military sites and even population centers and eventually could destroy warheads that had evaded the space-based interceptors. The 1972 ABM Treaty already permits the deployment of 100 interceptors around a single site. The USSR has deployed 100 interceptors around Moscow; the U.S. has deployed none. The first phase transition agreement should

allow both the U.S. and the USSR to deploy up to 500 such ground-based systems at whatever sites they chose. Such deployments when combined with relatively rudimentary space-based systems should provide substantial protection against a first strike from the reduced Soviet ICBM force during the first phase of the transition and could also defend population centers.

Limited defenses against bombers currently exist. Future systems could improve these defenses through such devices as mobile interceptors and launchers that are reloadable. Later, directed energy weapons in space such as high energy lasers or on land and sea might be able to attack aircraft and cruise missiles. Over the much longer run, improved NATO air and cruise missile defenses might strengthen deterrence of a Soviet attack on Western Europe.

SECOND PHASE TRANSITION

Transition Review Period

It is conceivable that disagreement over whether the ultimate shape of the strategic environment should be defense dominance or defense emphasis would prevent arriving at an agreement on the second phase of the transition at the same time the first phase agreement is concluded.

A second phase deployment should begin only after assessment by both sides of how the first phase is functioning. The U.S. should have the right to withdraw at this point if: 1) Moscow has cheated on the agreement; 2) Moscow has impeded or refused to comply fully with verification measures; or 3) vital U.S. security interests have been jeopardized.

Strategic Ballistic Missile Warhead Reductions

The increased defensive deployments of the second phase should eliminate entirely the military rationale for a first strike. As such, first strike capable ICBMs would become unnecessary. In the second phase of transition, therefore, the sublimit for first strike capable ICBMs should be reduced from 1,500 to 250 warheads. With increased defensive deployments in phase two, the need for relatively inaccurate ballistic missile warheads would also lessen, which would permit a reduction in the ceiling for less accurate ICBM warheads from 1,200 to 750. For the same reason, SLBM warheads could be reduced but in order to maintain an assured retaliatory force, the reduction should be more modest, from 2,000 to 1,000 warheads.

Intercontinental Bombers and Cruise Missiles

The U.S. bomber and cruise missile force at this point would become the major nuclear retaliatory deterrent. Thus, the bomber and cruise missile ceilings should be maintained at around the phase one level of 400 bomb-carrying bombers and 1,500 air-launched cruise missiles with no sea-launched cruise missile sublimits. The precise force levels would depend on Soviet air defense capabilities.

Second Phase Defensive Deployments

Significant new defensive deployments would be an integral part of the second phase. Suggestions for the second phase would allow for deployment of systems which could intercept Soviet ICBMs and SLBMs as they were launched (boost and post-boost phases). Advanced directed energy technologies, such as lasers and particle beams, as well as kinetic-kill interceptors might be deployed. In addition, improved space-based surveillance sensors and battle-management communications systems would increase the U.S. ability to discriminate between nuclear warheads and decoys.

THIRD PHASE TRANSITION

Offensive Force Reductions

In the third phase, first strike capable strategic ballistic missile warheads essentially would be eliminated. Non-first strike capable warheads would be reduced to around 250 as a residual deterrent against other nations, for example, Libya if it were to acquire nuclear weapons. The U.S. also should retain an ability to rebuild its offensive forces rapidly should this be necessary. Negotiations would begin on mutually strengthening defenses against air and cruise missiles to preclude either the U.S. or USSR from damaging each other significantly with such weapons. In the interim, both sides could retain the aircraft and cruise missiles permitted under phase two provisions or perhaps modestly reduce their numbers.

Defensive Deployments

The third phase of defensive deployments is the most speculative. If technology allowed, substantial numbers of space- and ground-based directed energy weapons, possibly including x-ray lasers, would be deployed to destroy ballistic missiles in their boost phase utilizing highly advanced boost phase sensors and improved space-based kinetic-kill vehicles (SBKKVs). This phase would eventually include the deployment of a fully layered strategic defense, which could intercept missiles and warheads in a coordinated manner.

OTHER TRANSITION ISSUES

Status of the ABM Treaty

The ABM Treaty need not be completely abandoned during the initial part of the transition, if 1) the broad and legally correct interpretation of the ABM Treaty articulated by the Administration in 1985 would be followed; 2) the restrictions against deployment of defenses would be modified to permit phased defense deployments of multiple systems, both ground- and space-based, using agreed upon technologies; and 3) the treaty were amended to cover all of the transition requirements.

Additional Transition Measures

Along with offensive force reductions and defensive deployments, other measures could help assure a relatively smooth transition to a defense-dominant strategic relationship. These provisions would be analogous to the "confidence-building measures" currently being negotiated in the conventional arms area. For example, advance notification of all missile launches would avoid unnecessary military alerts or actual use of defensive systems, and establishment of agreed upon "keep-out" zones around space-based defensive systems would prohibit space vehicles from closely approaching satellites that are a part of a strategic defense system. Other arrangements to protect defensive components from surprise attack could include "rules of the road" designating where U.S. and Soviet space systems could be located.

Allied Nuclear Forces

The transition may also eventually affect the nuclear forces of U.S. allies, particularly Great Britain and France. During the first phase of a transition, those forces that provide an independent nuclear deterrent should remain essentially intact. But at some stage on an overall transition, these nuclear systems, as well as those of the People's Republic of China, would have to be a subject for discussion. In any event, as part of an overall transition to a defense-dominant strategic environment, it would make sense for U.S. allies to deploy their own defensive systems which, depending upon technological developments, could protect military sites and populations against all classes of nuclear forces. Inevitably, a defense-dominant strategic posture would mean the end of the current NATO reliance on offensive nuclear deterrence and a heightened importance for the East-West conventional balance.

Verification and Break-out

Verification would be essential during the transition and in a post-transition environment. Very strict verification through on-site inspection and other verification measures, going far beyond anything in the proposed Intermediate Nuclear Forces (INF) agreement, would be necessary to assure U.S. security during the initial phases of the transition. In the final phases, as ballistic missiles were reduced to very low levels, the fully deployed strategic defenses would serve as an additional layer of security beyond verification.

Verification of defensive deployments presents different challenges than verifying offensive force reductions. Separate but related matters are the enforcement of compliance and the compensatory measures when compliance fails. A specific program of compliance will be needed. Ronald Reagan should commission a study to review and make recommendations on these key matters.

In addition to technical verification, the U.S. must be ready to respond to possible Soviet violations. For this it is essential that the U.S. maintain capabilities to produce offensive nuclear forces and additional defense systems to offset Soviet noncompliant behavior.

CONCLUSION

At the moment, Moscow expresses no interest in pursuing a formalized transition from a superpower strategic balance based solely on offensive weapons of mass destruction to one based mainly on defense. The Kremlin apparently prefers to continue expanding both its offensive and its defensive arsenals while pressing the U.S. to restrict its defensive programs unilaterally.

Moscow's reluctance should not prevent development and deployment of U.S. defenses against nuclear attack. Strategic defense can serve two important purposes. At a minimum, deployed defenses would strengthen deterrence against a Soviet nuclear attack by protecting currently vulnerable U.S. military sites. This is because such defenses would increase Soviet military planners' uncertainty as to whether or not they could execute a successful first strike. Second, a robust U.S. strategic defense program eventually may convince Moscow that its best interests lie in a negotiated transition to a defense-dominant balance that protects both sides from a first strike attack. As important, of course, these strategic defenses could prevent the nightmare of a total nuclear catastrophe.

Failing to Make the Case. The Reagan Administration so far has failed to explain fully the case for transition to a defensive strategy. Soviet efforts to block SDI, of course, must be rejected. But beyond this, the U.S. should develop and publicize a conceptual blueprint of how a transition toward a defense-dominant U.S.-Soviet strategic relationship could be managed.

In the first stage, the strategic relationship would be stabilized as retaliatory nuclear forces were protected. Later phases could reduce offensive strategic forces deeply and deploy comprehensive strategic defenses to protect U.S. and Soviet population centers.

SDI critics argue that defensive deployments are inherently destabilizing and that they would inevitably create great uncertainty. But the current strategic relationship is already unstable, and it has been becoming more so as Moscow has built up its first strike capabilities against an essentially defenseless U.S. Deploying defenses that made the prospects for a successful Soviet first strike less certain would actually strengthen deterrence and strategic stability, as would reliance on essentially retaliatory systems such as bombers and cruise missiles. No change is without some risk, but a blueprint as suggested here would minimize those risks and should be considerably safer than the present situation.

Why Moscow Will Shift Position. Starting with the January 1988 resumption of the Geneva arms negotiations, the U.S. should introduce its draft transition scenarios and propose a transition, not limitations on SDI, as the main issue for negotiation. The Administration should be more explicit about the link between strategic defense and arms control objectives, particularly the fact that very deep nuclear reductions make defenses even more important as a hedge against cheating. If the U.S. maintains a consistent position, Moscow may shift its position as it has done already on Intermediate Nuclear Force and START treaty issues.

The transition to strategic defense cannot occur overnight. Carefully thought-out strategic guidelines are necessary to direct the transition to a defense-dominant strategic relationship with the Soviet Union. Eventually, this new approach to arms control might help bring about a world free of the threat of nuclear devastation, and accordingly, should be promptly initiated.

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