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IN MY VIEW..



SDI and the Objectives of Arms Control

Sir:

Arms control advocates have bombarded the media with attacks on the President's Strategic Defense Initiative (SDI) on the grounds that SDI contradicts proven policy, or that it is incompatible with the arms control process. It is our view that a great many critics of SDI have either gone beyond their areas of established expertise and erred foolishly or have failed to raise their sights beyond simplistic objections which could be overcome by collateral steps. In response, advocates of SDI either blindly assert that technology can solve problems which have long eluded diplomacy, or focus on refuting narrow aspects of the critics' arguments at the expense of the more basic objections being raised. Absent is rational analysis of how SDI and arms control, or technology and diplomacy, could be facilitory. Intellectual honesty demands we go beyond casting aspersion, from either direction, and examine whether and how these programs might be integrated to achieve our overall national security objectives.

Contemporary nuclear theorists Thomas Schelling and Morton Halperin suggest the objectives of arms negotiations are to: (1) reduce the risk of war—especially nuclear war; (2) reduce the damage done by war, should it occur; and, (3) reduce the cost of preparing for war. On an abstract scale, these objectives seem consistent and attainable. However, upon application, we find the medium for negotiations is permeated by a real-world nuclear strategy whose foundation is mutual vulnerability. This premise of vulnerability, which is internally inconsistent with Schelling's and Halperin's objectives, surrounds the arms control process and impedes progress.

Nuclear strategy begins with the assumption that supporting forces will be designed for retaliatory use only. Their use in retaliation will be such that any adversary will bear the consequences of aggression well beyond any potential gain. The greater the potential loss due to retaliation (the consequences), the less likely a rational actor will initiate aggression (the risk). It follows that reducing the consequences of war (retaliation) increases the risk that a war (aggression) will occur. As long as nuclear retaliation remains our basic strategy, only increasing the damage

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associated with war will reduce the risk of war. The first two objectives of arms control, then, work at cross-purposes within the nuclear arena.

Technological advances in nuclear weapons, to increase delivery accuracy in particular, further exacerbate the issue. Highly accurate weapons support damage limitation (objective two) by either: (1) limiting collateral damage, due to lower yields and greater accuracy; or (2) by destroying opposition forces, thus denying their use. However, this latter capability, referred to as counterforce, is diametrically opposed to attempts to reduce the cost of preparing for war (objective three). Presence of counterforce capability dictates that each superpower possess excess, or "insurance," nuclear forces in proportion to those which could be destroyed in a first strike. As one side moves toward its own satisfactory retaliatory position, the increased "insurance" capability pressures the other side to increase forces in response. Hence the dynamics of the current situation lead inexorably to a continuing arms race, providing unremitting pressure for increased numbers and types of nuclear weapons.

Counterforce capability, as the seed of the arms race, is often attributed to military planners' fascination with newer, more advanced technology; while this observation is valid, the web of complexity is much more sophisticated. The Geneva Protocols dictate weapons design to minimize civilian casualties and collateral damage, which effectively specifies the increased accuracy leading to counterforce capability. This is not intended to attach a moral justification to development of more accurate nuclear delivery systems. But, to reduce accuracy is to contravene the mores of civilization, even beyond the level usually associated with nuclear weaponry; at the same time, to increase accuracy is to fuel the arms race. These separate criteria seem to paint nuclear relations into a corner from which there is no escape.

The arms control process has offered no relief. Although confidence-building measures have contributed to reducing the risk or war, the process has failed miserably when directly measured against either of the last two objectives. Attempts to cap specific types of weapons in SALT I and II (Launchers and MIRVed launchers respectively) have been countered by breakouts in non-addressed systems (MIRVs, then cruise missiles respectively). Negotiations, for all of the noteworthy accomplishments in reducing tensions and aiding in crisis management, has neither reduced the cost of preparing for war nor the damage incurred should war occur. Are we to accept this situation, or should we turn our attention to a deeper examination of the problem with our minds open to innovative new approaches?

Since counterforce capability eventually dominates all discussions of the arms race, stability, or warfighting, further focus on that variable is in order. A capability to destroy an opponent's forces is not necessarily undesirable; the difficulty arises when one side possesses a potential to destroy the other's forces in a disarming or decapitating first strike. This involves more than just accuracy. It demands an attack sequence which approaches or exceeds an opponent's ability to first recognize and confirm an attack, and then retaliate. Systems which have these characteristics of counterforce accuracy and delivery time-line create an "unstable" situation and force a "use or lose" predicament. Existence of either a disarming first-strike vulnerability or a disarming first-strike capability, on either side, creates instability and, potentially, increases the risk of war.

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Restoring stability, and hence lessening the risk of war, is a matter of reducing vulnerabilities and/or counterforce offensive capabilities. The former tack, reducing vulnerability, is usually taken through *passive* defensive measures (dispersal, hard-ening, etc.). Limits on offensive weapons are pursued through arms control measures. Historically offensive capabilities have outpaced passive defensive measures and arms negotiations, and as discussed ahove, have not stemmed the advance of offensive counterforce capability.

The remaining approach, *active* defense, has not been pursued, or has been formally eschewed, for reasons usually involving technical infeasibility or incompatibility with previously established principles of superpower relations. However, with rapidly emerging technologies, it may be possible to overcome the "feasibility" aspect of active defense; whether the political obstacles can be overcome remains to be seen.

Before exploring the possibilities of an active defense, it is useful to examine the rationale for both sides deploying these unstable weapons when the stated objective has been to create a stable condition of mutual deterrence based on assured retaliation. It would seem that stability is enhanced when hoth sides possess slow systems (almost regardless of accuracy) so that each is guaranteed ample time to detect an attack and respond. But, if this definition of stability is the objective, and the unstable systems are identifiable, then why do hoth sides retain, or even increase the arsenals of unstable weapons? Or, even given the requirement for "insurance" forces derived earlier, why do both sides choose these additional forces in a manner which further increases instability?

It is because those forces which induce the greatest instahility also have the greatest utility in providing retaliatory firepower. These unstable systems (presently accurate MIRVed ballistic missiles) allow the possessor to make the most dramatic, most economical, and immediate improvement in retaliatory capability of any alternative system available; but they also serve as a catalyst for the other side to make a similar, further destahilizing, move. Unstable forces thus leverage hoth retaliatory and first-strike capability. Because of the retaliatory characteristic, they are perceived as having high, immediate utility and are therefore selected over more stable alternatives.

Given this high utility, there is little tendency, and no incentive, to abandon the unstable systems; in fact, there is a propensity to acquire more, which is exactly what has occurred. In this environment, negotiation for arms control or reduction is, predictably, futile. If we cannot negotiate away such systems, because they are seen as having necessary utility in the current environment, then perhaps steps could be taken to drive their utility to zero. It is in this context that the Strategic Defense Initiative offers unique promise. If a defense against ballistic missiles could be created, perhaps the chain of events necessary to achieve both crisis and arms race stability will be set in place.

From a nuclear strategy point of view, if it were possible to change the premise from "use it or lose it" to "if you use it, then you lose it," even if only for the most "unstable" systems, the intellectual inconsistencies between nuclear forces, superpower strategy and the objectives of arms control might dissolve. If retaliatory capability were guaranteed under all first-strike scenarios, rationale for massive nuclear inventories would erode. If the supporting rationale erodes, it might be possible to cap or even reduce offensive force levels. If this environment is created, it might be conceivable to achieve the objectives attributed earlier to the arms control process.

But the concept is far more sophisticated than simple defense against a particular offensive capability. Opponents of SDI predictably point to the further destabilizing characteristics of unilateral possession of a strategic defensive system. While entirely correct, this critique ignores the more stable situation which could be created by other, complementary actions. If the unilateral possessor of a defensive system concurrently lowered his offensive counterforce capability, he could enforce stability. He could guarantee stability without regard to an opponent's response. The dynamic is: SDI lowers an opponent's threat to his own forces, while reducing his own counterforce offensive capability lessens the decapitating first strike threat to his opponent. Both sides retain credible retaliatory capacity with more stable delivery systems. If the opponent responds with increased offensive forces, the balance can he maintained by either taking no action or by increasing the defensive capability. If the opponent responds with a similar defensive system (and the opponent's objective is stability) both sides are well on the way to elimination of the threat of nuclear warfare.

The Strategic Defense Initiative, *in conjunction with arms negotiations*, has the potential for lowering the absolute number of offensive counterforce, destabilizing weapons, by negating their utility. By focusing on the most destabilizing of these weapons (presently ballistic missiles) as first priority, and by providing "insurance" through defending strategic retaliatory forces in lieu of populations, the United States can achieve an approximation of the premise of national vulnerability while negating the rationale mentioned previously for an arms race. Survivable retaliatory forces are thus ensured by defending existing offensive forces rather than expanding the offensive base; vulnerability is retained by continuing to expose the non-threatening US population and industrial base. Conceivably, this could even be accomplished without influencing Soviet force structure if unstable US systems were reduced as this defensive insurance policy is placed in effect. The SDI, if rigorously integrated with force structure programs and arms control initiatives, could lead us away from the present atmosphere of mutual fear toward a more beneficial environment of "mutual comfort."

Knowledgeable and prolific critiques have raised numerous additional, and quite legitimate objections to the SDI. However, arguments pertaining to technical feasibility lack credibility or persuasion. No critique thus far has demonstrated that SDI concepts violate rules of physics or laws of nature; however, far reaching, projected SDI capabilities can eventually be achieved. Related technical presentations lead to conclusions concerning arms race stability or SDI conntermeasure techniques which would easily overcome a costly defense. While these critiques appear to have validity, they are equally premature and narrowly focused. There is insufficient data available on these emerging technologies to make affirmative statements concerning potential utility, let alone to provide evidence of how the technology might be overcome. It is conceptually sound to specify that a new weapon system not be vulnerable to relatively inexpensive countermeasures; without detailed specifications of the weapon system it is impossible to evaluate whether this criterion is being satisfied.

Several recent articles have suggested SDI would substantially damage our alliance structure, with the focus being Nato. Whether or not the US remains "coupled" to Nato depends largely on the credibility of a US nuclear response to Soviet/Warsaw Pact aggression in Europe.

Adding a US defense should increase that credibility because it assures survival of US nuclear forces. On the other hand, establishing a fortress America beneath the "Astrodome" could adversely influence the alliance. However, expanding SDI to cover European, or other allies, should diminish the Soviet threat to these partners. Conversely, a Soviet SDI could be intimidating to the alliance by negating *present* alliance nuclear delivery systems. (Perhaps these alliance members would follow the US lead to more stable nuclear systems). There are many facets to the alliance question, some even contradictory. We hear most about the negative aspects. What we really need from our alliance experts is how SDI concepts could be used to strengthen the structure.

Other anti-SDI arguments abound, ranging from a redirected arms race to expanding warfare to the depths of space. All of these arguments have a legitimate basis and all must be explicitly considered in the analysis of SDI. But, as with the earlier issues, even a peripheral examination yields several feasible alternatives to avoid the problems raised by the critics. However, it is by no means guaranteed that this transition can be successful, no more than it is guaranteed to fail. The path is fraught with political, economic and technical obstacles. But difficult does not mean impossible; we owe it to ourselves to forgo the glamour of publicly ridiculing the current Administration and undertake the more demanding task of innovative strategic thought.

In summary, the Strategic Defense Initiative may offer the only hope to unravel the intellectual inconsistencies which currently confound the objectives of arms control or of national security in general. Offered not as a panacea but as an alternative path, the SDI deserves more than the sophomoric examination it has been afforded in open literature to this point. The intellectual community should abandon its current version of the "Flat Earth Society" and use its prowess to guide this nation toward the objectives established by Schelling and Halperin. We challenge the rock throwers to lay down their weapons and construct some markers along the road to mutual assured survival.

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