Deterrence and Nuclear Strategy

From the beginning of the nuclear age, the United States has treated nuclear weapons as inherently different from other weapons. The overwhelming destructive capability of nuclear weapons, combined with the near-impossibility of mounting an adequate defense against them, have left deterrence of attack as the primary mission of these weapons. Bernard Brodie articulated this in 1946: "If [a nation that proposes to launch an attack] must fear retaliation, the fact that it destroys its opponent's cities some hours or even days before its own are destroyed may avail it little. Thus far, the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them."1

The role of deterrence in military strategy did not emerge with the advent of nuclear weapons. It has always been understood that by maintaining a strong war-fighting capability, a nation deters potential aggressors. But the deterrent effect of nuclear weapons is based only partially on their war-fighting capability. Nuclear weapons deter attack also through their unique capability to destroy the attacker's entire society in retaliation. Since no conceivable objective is worth such a loss, the risk of a nuclear response is a powerful deterrent to the use of these weapons.

Through the 1950s “massive retaliation” was the U.S. strategy for dealing with the Soviet military threat. Given the nuclear superiority of the United States at the time, the threat of nuclear retaliation was credible enough to deter not only any Soviet attack on the U.S. mainland, but in Europe as well. In Europe it was not necessary to strike Soviet cities and risk loss of our own cities to counter an invasion; we could retaliate with nuclear weapons against the invasion itself.

It is notable that during these years, when the United States possessed a clear nuclear superiority over the Soviet Union, America never pursued the option of striking first in a preventive war. To use nuclear weapons to carry out an offensive military operation, even with clear superiority, was largely unthinkable. In Korea, despite the political and military setbacks our strategy of limited conventional war bought about, the United States still chose not to use nuclear weapons.

By the beginning of the 1960s, U.S. ability to stop a Soviet invasion of Europe by targeting Soviet forces was no longer clear-cut. The Soviets had developed enough nuclear capability to match the threatened use of nuclear weapons.
against their forces in a European war. The United States could still threaten to stop a Soviet attack with nuclear weapons, but the Soviets could now respond in kind. A U.S. threat to escalate immediately to an all-out strategic attack on the Soviet Union had lost much of its credibility, since any such attack would result in the destruction of American cities. This situation led to the doctrine of "flexible response" and a consequent buildup in our deployment of smaller "battlefield" nuclear weapons.

The doctrine of flexible response pushed nuclear strategy closer to the traditional military thinking—that maintaining a superior overall military capability provides the best possible deterrent. Through flexible response, deterrence was now tied to war-fighting capability. Flexible response added another important aspect to U.S. strategy: the requirement that the West maintain an adequate conventional defense capability against Soviet conventional attacks. Soviet nuclear capability had made our threat to respond to conventional attacks with nuclear weapons less credible.

The 1960s also saw the advent of "damage limiting" as a part of U.S. nuclear strategy. The emerging technical feasibility of an antiballistic missile defense (ABM), combined with an increased capability to destroy Soviet forces before they could be launched, led to the doctrine that we ought to maintain a capability to limit to the greatest extent possible the damage to the United States that would follow if a nuclear war did occur.

Unfortunately, damage limiting proved to be largely impossible technologically, and the doctrine quickly gave way to "mutual assured destruction." By the mid-1960s, the Soviets had obtained their own assured destruction capability: they could destroy U.S. society even after absorbing an all-out counterforce attack on their forces and penetrating our strategic defenses. A counterforce attack might destroy many Soviet weapons, but it could not reduce significantly the Soviet capability to destroy U.S. forces or cities. This was particularly true if the Soviets struck first.

Counterforce capabilities, as well as active and passive defense, came to be seen by many as not only ineffective, but even possibly harmful. In a crisis the Soviets might believe that their assured destruction capability was threatened by U.S. counterforce; this might lead them to launch an attack preemptively rather than risk losing their forces as the consequence of an American first strike. Thus, counterforce and defenses, it was argued, might actually increase the risk of nuclear war rather than help deter it.

This view, however, did not predominate. Although counterforce ceased to be pursued actively in its own right, the total counterforce capability of U.S. forces increased steadily, principally through improved missile accuracy. Counterforce strikes remained an essential element in strategic war operations plans, and have always figured as the only planned use of America's numerous "tactical" nuclear weapons.

In his most recent annual report to the Congress, Secretary of Defense Harold Brown described current U.S. nuclear strategy. He called his policy "Deterrence—The Countervailing Strategy," and said: "We need first of all, survivable and enduring retaliatory capability to devastate the industry and cities of the Soviet Union. . . . What has come to be known as assured destruction is the bedrock of nuclear deterrence, and we will retain such capability in the future."
But assured destruction is not "sufficient in itself as a strategic doctrine. . . . If deterrence is to be fully effective, the United States must be able to respond at a level appropriate to the type and scale of a Soviet attack."2

Secretary Brown's statement confirmed that a flexible response capability remained a key element of U.S. strategy. Insisting that his statement did not indicate a change, he said:

In certain respects, the name is newer than the strategy. The need for flexibility in calibrating U.S. retaliation to the provocation is not, of course, a new discovery, whatever interpretation may have been placed on general statements of prior doctrines. It has never been U.S. policy to limit ourselves to massive counter-city options in retaliation, nor have our plans been so circumscribed. For nearly 20 years, we have explicitly included a range of employment options—against military as well as nonmilitary targets—in our strategic employment planning.3

The Need for Strategic Revision

The nuclear strategy of the United States remains to this day essentially the same as the one worked out during the Kennedy Administration, and, indeed, is not very different from that adopted at the very beginning of the nuclear age. Its basic postulate is simple: the threat of retaliation must be on a scale adequate to deter potential Soviet attack.

One might imagine that a strategy that has changed so little after so many years would need little revision. Yet, the calls for revision are in fact growing all the time and becoming increasingly insistent. Only recently Henry Kissinger wrote: "Achieving a more discriminating nuclear strategy, preserving at least some hope for civilized life, remains to this day one of the most difficult tasks to implement, requiring a substantial recasting of our military establishment. If unsolved, the problem will sooner or later paralyze our strategy and our foreign policy."4 That Kissinger could have made such a statement—given the positions he held for eight years, and the influence he exercised during that time—suggests how difficult and frustrating a problem it is.

Mr. Kissinger is arguing a theme that is becoming increasingly common in numerous of the current criticisms of U.S. strategic policy; he is saying quite boldly that the doctrine of assured destruction, which Harold Brown says "is the bedrock of nuclear deterrence," lacks credibility. These criticisms are being heard because there have been two fundamental changes in the environment in which U.S. nuclear strategy is required to operate. First, the invulnerability of U.S. strategic forces to Soviet attack is being seriously challenged precisely because the Soviet ability to attack our Minuteman missile forces is growing. This new vulnerability threatens the American ability to launch an effective retaliatory strike and, hence, to deter a direct attack on the United States. Second, "extended deterrence" (the existence of a nuclear umbrella deterring a Soviet attack on Western Europe or other areas of strategic interest to the United States) has lost much of its strength. The Soviet achievement of nuclear parity has reduced the credibility of Western threats to use nuclear weapons first, while the buildup in Soviet conventional capabilities has led to a greater demand on extended deterrence than ever before. The Soviets now have conventional forces in Europe adequate to mount an effective conventional attack, and their
expanded force projection capabilities give them conventional attack options in other theaters as well.

The growing vulnerability of U.S. land-based missile forces has been the most directly visible cause of calls to reassess our strategy. Four years ago, Paul Nitze set the framework for this debate. Nitze's argument was not that land-based missile vulnerability eliminated America's capability to retaliate against Soviet cities; rather, that this vulnerability presented a target of opportunity to the Soviets in a crisis. They could destroy U.S. land-based missiles, eliminating a significant portion of our strategic force while retaining a massive force of their own, and leaving us with little option other than attacking their cities—a step we were not likely to take if it simply meant that our own cities were destroyed in return.

Those who have argued the importance of this military situation have generally proposed one of two responses. The first would be to eliminate the vulnerability of our land-based missiles by deploying them in a mobile mode (or, alternatively, moving them out to sea). The other would be to deploy large land-based missiles that would be able to threaten the Soviet land-based force in much the same way they threaten ours. The merits of each approach is a proper subject of debate; neither, however, responds fully to the combination of political, military, and diplomatic problems that confront this country today. Furthermore, for the time being, the argument over which approach is best is moot. The MX system being deployed achieves both objectives—survival through mobility, together with a major increase in U.S. antisilo counterforce capability.

The erosion of "extended deterrence" has brought out equally strong calls for strategic revision. The United States and its NATO allies have maintained a significant conventional defense capability for twenty years, so the need for extended deterrence has never been acute. Yet, because Western conventional defenses have major weaknesses, the ability to threaten nuclear war contributes importantly to Western security. But the critics say that in the face of Soviet nuclear parity, for the West to use nuclear weapons to retaliate against a Soviet conventional invasion would simply lead to its own destruction by Soviet nuclear forces. This being the situation, the argument continues, it is clear that an American president would be unwilling to take the risk; the deterrent value of the threat of retaliation is thereby greatly reduced.

As with land-based missile vulnerability, critics have suggested alternative approaches for coping with the problems of eroding extended deterrence. The first would involve a major change in strategy, with the West improving its conventional forces so substantially as no longer to be dependent on nuclear deterrence. The second would be to continue a significant reliance on nuclear deterrence, improving the nuclear war-fighting capability of our forces in order to enhance the credibility of our threat to use them.

Some critics who have called for a revision of strategy have offered political rather than military arguments. Their concern has been overwhelmingly with the way in which American power is perceived in the world. In the aftermath of Watergate and Vietnam, and in the context of continuous and growing Soviet force deployments with falling Western deployments, American guarantees to defend its allies and its vital interests seem to have lost much of their credibility throughout the world.
Certain arguments about the importance of perceptions of relative strength focus principally on numerical indicators. They suggest that the Soviets will gain geopolitical advantages with their numerically superior strategic forces, irrespective of whether the United States retains its ability to withstand a Soviet attack and retaliate, and irrespective of whether the American people are prepared to fight a nuclear war forced upon them. These critics insist that our strategy ought to change to one that involves maintaining forces equal in overall size and military capability to those of the Soviets.

In my view, a much more telling critique of the West's inattention to the political aspects of nuclear strategy is given by Michael Howard in his brilliant article “The Forgotten Dimensions of Strategy.” In this article, Howard argues that the West has treated nuclear war almost exclusively as a technological phenomenon, largely ignoring the societal dimension of strategy. Any effective strategy must incorporate four key aspects—operational, logistical, technological, and social—the latter being the attitude, social cohesion, and popular passions of the people whose commitment and readiness to sacrifice often determine the successful outcome of war. “The maintenance of adequate armed forces in peacetime, and the will to deploy and support them operationally in war, is in fact a symbol of that social unity and political resolve which is as essential an element in nuclear deterrence as any invulnerable second-strike capability.”

The West has paid little attention to the operational and logistical dimensions of nuclear war, in sharp contrast to the Soviets, whose interest in these matters, Howard says, is “no more than common sense. If such a war does occur, the operational and logistical problems it will pose will need to have been thoroughly thought through. . . . The belief that technology has somehow eliminated the need for operational effectiveness is, in short, no more likely to be valid in the nuclear age than it was in the second world war.”

In the end, Howard argues that no nuclear strategy alone can be fully effective; it must be supplemented by commitment to a strong conventional capability.

If we do take account of the social dimension of strategy in the nuclear age, we are likely to conclude that Western leaders might find it much more difficult to initiate nuclear war than would their Soviet counterparts and, more important, would be perceived by their adversaries as finding it more difficult. If this is the case, and if on their side the conventional strength of the Soviet armed forces makes it unnecessary for their leaders to take such an initiative, the operational effectiveness of the armed forces of the West once more becomes a matter of major strategic importance, both in deterrence and in defense.

Howard, in arguing that perceptions of power matter in deterrence, insists that these perceptions are based on something more than a comparison of military establishments.

Such credibility depends not simply on a perceived balance, or imbalance, of weapons systems, but on perceptions of the nature of the society whose leaders are threatening such retaliation. Peoples who are not prepared to make the effort necessary for operational defense are even less likely to support a decision to initiate a nuclear exchange from which they will themselves suffer almost inconceivable de-
struction, even if that decision is taken at the lowest possible level of nuclear escalation.9

Is it instructive to contrast Howard's criticisms with those of Henry Kissinger. Both argue strongly that our present inattention to the operational aspects of warfare reduce significantly the effectiveness of our deterrent force. Kissinger, however, leaves himself with an almost impossible dilemma. He insists that it is essential to develop a nuclear strategy and doctrine that will permit our nuclear forces to play a major role in deterring Soviet conventional attack, because of "the political impossibility of raising adequate conventional forces." He states that while he was in office "it was a counsel of defeat to abjure both strategic and tactical nuclear forces, for no NATO country—including ours—was prepared to undertake the massive buildup in conventional forces that was the sole alternative."10 But he suggests no way in which the threat to use nuclear weapons first, against an adversary who can respond in kind, can be made credible enough to reduce the need for the conventional defense he says is politically impossible. This is especially true in Europe where civilian fatalities would be massive.

Kissinger and Howard perform a considerable service in reminding us of the ultimate Clausewitzian truth that all military activities are driven by political objectives. It is well to remember that the principal threat of Soviet foreign policy—to fragment the Western alliance, thereby threatening our liberties—is a much more plausible threat than that of a direct Soviet military attack. Much of our nuclear strategy ought to be focused on maintaining the political unity of the West.

This is not to suggest that military considerations should be ignored. The rational answer to the question of how to restore deterrence is clear: the West faces serious danger if it cannot summon the resolve to mount an adequate conventional defense. No amount of nuclear war preparation, whether it be restructuring limited nuclear options, planning for the survival of troops on a nuclear battlefield, or developing more precise tactical nuclear command and control, can change the fundamental fact that nuclear war, especially in Europe, would be a catastrophe for the societies involved. It would be difficult for any president to initiate such a war, no matter how well "prepared" the West appeared to be. Because the Soviet leaders know this, it remains exceedingly dangerous to rely on the threat of nuclear retaliation to deter attacks other than the most unlikely one—a large direct Soviet nuclear attack.

But Kissinger points to the true dilemma by asserting, correctly, in my view, that a fully adequate conventional defense is simply not feasible politically. The West today has large and capable conventional forces and will undoubtedly seek to improve them. Nuclear weapons, however, will have to continue to carry a significant share of the burden of deterring Soviet attack. If we are to maintain the credibility of our nuclear deterrent, we must devise a strategy that provides for the worst possible scenario—to fight and survive a nuclear war, no matter how grim the prospects.

The Alternative of Arms Control

One solution to the shortcomings of our present strategy would be to negotiate an accommodation between the Soviet Union and the West that would re-
duce the danger of nuclear war to an acceptable level. It ought to be in the interest of both sides to reach such an agreement.

Arms control has played a major role in U.S. strategic thinking since the inception of the nuclear age. A year before Hiroshima, Vannevar Bush and James Conant, scientists associated with the Manhattan Project, suggested to Secretary of War Henry Stimson that after the war's end atomic weapons should be placed in the hands of an international agency.11 Two years later the Baruch Plan, calling for the placement of all atomic weapon production capability in the hands of a United Nations agency, became official U.S. policy. Both efforts failed, but the attempt to control arms continued. The focus in the 1950s and early 1960s was on nuclear testing—efforts that culminated in the first truly successful arms control agreement, the Limited Test Ban Treaty of 1963.

Serious arms control efforts resumed in 1968 at the Glassboro Summit between President Johnson and Prime Minister Kosygin. By this time each side had considerable nuclear arsenals; the elimination of nuclear weapons became at best a distant objective. Even the prospect of eliminating all nuclear weapons testing seemed less important; the two sides seemed comfortable with the limited test ban treaty, restricting testing to underground detonations. The objective of arms control had changed once again, becoming principally an effort to negotiate stable mutual deterrence between the two superpowers.

At Glassboro, the United States introduced the idea of a mutual ban on antiballistic missile defense; defenses were seen as the greatest potential threat to mutual assured destruction. The invasion of Czechoslovakia intervened, however, and formal talks did not get underway again until Richard Nixon took office.

In November 1969 these negotiations began in Helsinki. The objective remained essentially what it had been in Glassboro: to negotiate a permanent mutual assured destruction regime with the Soviet Union. Each side was to be permitted adequate offensive forces capable of destroying the other's society in retaliation, even following an all-out attack on its own nuclear arsenal. Antiballistic missile defenses were to be severely limited or prohibited, ensuring that there would be no effective defense against a retaliatory blow.

Many in the United States believed that if this objective could be achieved through negotiation, the nuclear arms race could be halted. With the two sides holding each other hostage, stability would be achieved, and the risk of nuclear war would become minimal.

U.S. arms control efforts have always been intertwined with the theory of deterrence. The creation of a stable mutual assured destruction regime remains to this day a major U.S. arms control objective. The only SALT agreement remaining officially in force today is the ABM treaty, which effectively prohibits ABMs on both sides. The unratified SALT II treaty represents a further American attempt to codify mutual assured destruction by putting a ceiling on Soviet capability to threaten U.S. retaliatory forces.

While the codification of mutual assured destruction has been the most visible objective of the SALT process, SALT has had a broader objective as well—"to create the conditions for political restraint without which escalating crises were inevitable."12 SALT, inherently a political exercise, was inextricably woven into a larger policy of reaching détente with the Soviet Union. Thus, a successful SALT agreement was expected to play an important role in enhancing
extended deterrence as well as in controlling the threat to assured destruction. A SALT treaty that facilitated a détente relationship, leading to Soviet restraint in building up its conventional force capabilities, was intended to reduce the need to rely on nuclear weapons to deter conventional Soviet attacks.

It is precisely in the area of conventional forces that détente has been most obviously a failure. The ABM treaty went a long way toward codifying a mutual assured destruction relationship between the two sides. What was not achieved, however, was restraint in the buildup of Soviet conventional forces or any meaningful control of Soviet geopolitical adventurism.

In the wake of the Soviets' Afghanistan invasion, the ratification of SALT II now seems remote; the early completion of major new agreements would appear to be almost inconceivable. We must begin to look beyond arms control for solutions to the problems of ensuring a credible deterrence during the 1980s.

The failure of SALT to stabilize the military balance between the West and the Soviet Union is indicative of a larger breakdown in the political structure that has supported our security posture. Some of this breakdown has been inevitable as the rest of the world recovered from World War II, and some has certainly resulted from mistakes made by successive U.S. leaders. Regardless of who is to blame, the fact is that U.S. assurances to its allies are no longer enough to secure political solidarity. We must devise new doctrines and programs around which the Western nations can rally. These doctrines and programs must be new because existing approaches, while not necessarily flawed, are inadequate. They have not succeeded in generating either the internal social cohesion or the alliance solidarity required to ensure our security.

Enhancing the Role of Nuclear War-fighting

One alternative is to rely more heavily on the traditional deterrence associated with maintaining a superior war-fighting force. The precise role of war-fighting capabilities in our strategic doctrine could range from the use of battlefield weapons, through planned launching of a limited attack with strategic forces, to an extreme of maintaining "escalation dominance"—the ability to respond in kind to any enemy escalation and to maintain a superior position after the response. To date, the United States has never articulated a detailed policy with respect to war-fighting capabilities. What it has done is to insist that it retains a capability to respond with less than all-out attacks, while making no clear effort to develop a full-fledged "escalation dominance" posture.

In my view, there is little reason to abandon the inherent ambiguity of this policy. Moving to either extreme—a doctrine that excludes all limited war options or one of complete escalation dominance—makes little sense. The absence of a limited strategic option would leave us only a strategy of massive retaliation—rejected in 1961 for reasons that if correct then, are ten times more convincing today. At the other extreme, it is difficult to see the advantage of escalation dominance. To begin with, the Soviets would certainly not permit this to occur. But even if they failed to respond, it is not clear what such a capability would add to the deterrent effect of our forces. Our present doctrine permits us to respond in kind to any Soviet attack up to a very high level of
violence. The revised doctrine would be relevant only for massive attacks, which would undoubtedly involve such a large scale of damage, that an all-out nuclear exchange would be inevitable. Small wars may not be credibly deterred by assured destruction. But it is difficult to find any rationale for fine distinctions about the doctrine associated with large-scale nuclear exchanges; in all cases, the damage would be immense and the deterrent credible.

Forces designed for escalation dominance are unlikely to differ greatly from forces designed for counterforce attacks. But the two operational capabilities differ nonetheless. Thus, the role of counterforce in our strategic doctrine deserves separate consideration.

U.S. forces contain a significant counterforce capability even today, particularly if we consider U.S. capability against Soviet submarines and bombers in addition to the more frequently discussed attacks against land-based missiles. But much of our counterforce capability is essentially incidental to other objectives. Bomber and submarine bases are soft and easy to target, and anti-submarine warfare (ASW) against ballistic missile submarines is not different from ASW against attack submarines. The only U.S. weapon designed explicitly for counterforce is the Mark 12-A warhead on the Minuteman III, and a new warhead on an existing missile can hardly be seen as a major commitment to counterforce. Nevertheless, given the counterforce capability inherent in our present force, the only serious question is whether we should obtain an ability to destroy the Soviets' land-based missile force, since it is only here that we could materially increase our capabilities.

There are several arguments in favor of developing an all-out counterforce capability against land-based missile silos. First, such a capability would eliminate any potential advantage, no matter how small, the Soviets might obtain from the unilateral antisilo capability they are now deploying. Second, a U.S. antisilo capability might well induce the Soviets to negotiate mutual reductions in counterforce weapons, since the Soviets are much more heavily dependent upon land-based ICBMs than is the United States: if the United States had a major counterforce capability against these ICBMs, perhaps the Soviets would see the advantage of avoiding all-out counterforce capabilities on both sides. Third, a U.S. counterforce capability comparable to that of the Soviets would ensure against possible adverse political perceptions other nations might have if we allow the Soviets to have a unilateral counterforce capability. No matter how cogent the argument that Soviet counterforce weapons confer no real military advantage, political leaders throughout the world are unlikely to agree. Rather, they will react in more traditional military terms, concluding that the Soviet preponderance of raw military force would eventually prevail. A U.S. move to deploy new counterforce weapons would eliminate this reaction. It would be seen as an indication of improved social cohesion and national will, demonstrating a healthy and growing attention to these aspects of strategy.

Of the few technological obstacles to U.S. development of an antisilo counterforce capability, a major one is not often discussed: the inability to fully test antisilo attacks in operational conditions. There is great uncertainty concerning the actual operational reliability of counterforce systems owing to the large number of interfaces among the systems and the many physical effects that
might affect the operations of the systems. But it is possible to deploy weapons with the necessary combination of accuracy and yield to permit the destruction of ICBM silos, at least on paper.

It is important that any U.S. weapons system intended to provide an antisilo capability be able to survive Soviet attack. Nonsurvivable counterforce weapons would increase the incentive for the Soviets to strike preemptively. This "crisis stability" problem is heightened by the Soviet dependence on land-based missiles; they might be faced with the threat of losing the majority of their forces unless they opted to preempt.

While a careful analysis requires an increase in survivable counterforce capability, it does not require a change in U.S. strategic programs. Current U.S. doctrine is not explicit concerning antisilo counterforce capabilities, but our force structure decision is clear: we intend to deploy a survivable counterforce capability in the form of the MX missile based in a multiple-aimpoint mobile mode. The same conclusion holds with respect to other aspects of nuclear warfighting, such as the development of war plans for limited use of nuclear forces. Brown's statement (quoted earlier) that such options are already a part of U.S. war plans could not be clearer. Furthermore, it is often forgotten that the majority of America's nuclear weapons, the tactical battlefield weapons, have as their only mission "war-fighting."

Nuclear war-fighting thus is not likely to be a fruitful area to find major initiatives that would enhance deterrence. A much more important practical alternative to present nuclear doctrine and deployments is the pursuit of strategic defense, both active (ABM and air defense) and passive (civil defense).

The Absence of Defense in U.S. Nuclear Strategy

Strategic defense is completely absent from U.S. nuclear strategy. There is no reference to defense in published statements of strategy, and the United States maintains no effective defense against Soviet attack. Our air defenses are limited, and the single Safeguard site permitted by the ABM treaty is mothballed. Nor do we have a significant civil defense program.

More than any other reason, the technical difficulty of constructing an airtight strategic defense has led to the absence of defenses in U.S. strategy. The overwhelmingly destructive capacity of nuclear weapons makes it almost impossible to defend against them. No defense in the history of warfare has been impenetrable. A few men or a few weapons could always get through, but the defender could usually survive such infiltration. Nuclear weapons change this. Any penetrating weapons at all, if aimed at cities, would lead to unacceptable damage.

To be fully effective in defending American cities, U.S. strategic defense must be able to:

- Prevent penetration of six thousand Soviet missile warheads
- Stop massed attacks against the defense components themselves
- Stop attacks from almost any aximuth, since Soviet long-range SLBMs could attack from any ocean
- Stop Soviet bombers, whether high-altitude, low-flying, subsonic, or supersonic
• Work against a variety of countermeasures, including penetration aids, maneuvering reentry vehicles, air-to-surface missiles, and so forth.

The difficulty of mounting an airtight defense is exacerbated by the fact that penetration of only a few weapons aimed at the defenses themselves would destroy the defense, allowing the remaining Soviet weapons to penetrate freely. Furthermore, the impossibility of testing a strategic defense in an operational situation means that a high degree of confidence in its reliability is unlikely, even if all the technology appeared to be perfect. Thus the United States has rejected deployment of a full-scale city-protection strategic defense capability. The technological difficulties will not be overcome in this century.

This fundamental technological fact led Secretary of Defense Robert McNamara to resist pressures to deploy a full-scale NIKE X defense throughout the 1960s. But McNamara had a second reason: he believed strongly that the deployment of ABMs by the two countries would lead to an action-reaction arms race as each side increased its offensive forces to ensure penetration of the other's defense. Even though many technical problems made construction of an airtight defense impossible, neither side would accept any significant risk that the defense might work. McNamara felt this action-reaction effect was so nearly inevitable that it was crucial for the two sides to agree through negotiation to forgo large ABM systems.

An impenetrable shield was impossible, but a limited defense was clearly seen to have some utility, even by McNamara. It would provide a hedge against accidental attacks, and it could be used effectively against the relatively small nuclear capability then emerging in China. At the same time, a light defense would not effectively threaten the deterrent capability of either side, since the existing large strategic forces could penetrate easily.

Of course, the situation wasn’t quite this simple, because a limited defense could be expanded fairly rapidly. Given the long lead times of strategic weapons deployment, one worry was that the deployment of a light defense would lead to an excessive buildup in the other side’s offensive weapons, because the defender could not be relied on to stop his deployments at low levels. By 1967 this phenomenon had already begun, with the United States developing MIRV as a response to the very small Soviet Galosh ABM and the slight chance that the SA-5 Tallin system might have some ABM capability.

Mr. McNamara and President Johnson resolved the dilemma by announcing in 1967 deployment of the Sentinel ABM system, using the rationale of defending against a Chinese attack. Upon entering office President Nixon ordered a thorough review of this decision, but ratified it with few changes. The name was changed to Safeguard, and the mission was eventually restated to focus not on defense against Chinese attack, since no real Chinese threat was apparent, but rather toward defense of U.S. strategic forces—particularly our Minuteman missiles, which were beginning to be threatened by the Soviet SS-9 missile: Safeguard radars were also reoriented toward the sea to permit some protection of U.S. bomber bases against Soviet SLBM attacks.

In the anti-Pentagon atmosphere of 1969 the Safeguard system was almost defeated by Congress; it survived by one vote. But two and one-half years later the effort was effectively abandoned after all, as a result of the SALT I ABM treaty with the Soviet Union.
In the end, the U.S. agreement to limit ABMs reflected a belief that by institutionalizing assured destruction through the SALT process, deterrence would be stabilized and the world made relatively safe from nuclear war. Before MIRVs, ABM defenses were the greatest potential threat to assured destruction. However, it is important to remember that the U.S. government did not believe that Safeguard, and before it Sentinel, were destabilizing threats to mutual assured destruction, although some nongovernment critics certainly did. The low ABM limits agreed to in SALT I reflected not so much a belief that larger deployments would upset the superpower balance, but rather the assumption that with successful negotiation mutual deterrence would be assured and defenses would be unnecessary.

The Alternative of a Limited Active Defense

Although an effective antiballistic missile defense of American cities against a large-scale Soviet attack will not be technically feasible in the foreseeable future, this does not mean that a more limited active defense would be ineffective. In the thirteen years since the Sentinel decision was made, a great deal has changed in ABM technology. The technology on which Sentinel was based has been improved considerably; new technologies and approaches have also emerged. Thus, any defense that the United States might deploy today would differ substantially in its design from both Sentinel and Safeguard.

In discussing limited defense, it is important to distinguish between two major categories of active defenses: hardpoint and area. Hardpoint defenses are designed exclusively to defend hardened military sites, such as missile silos; area defenses are intended to defend unprotected large areas, such as cities. Hardpoint defenses are easier to construct technologically because it is not necessary to intercept an incoming warhead at any great distance from the target. Since a warhead must detonate within a few thousand feet of a missile silo to destroy it, a hardpoint defense has the option of ignoring warheads falling outside the lethal radius, waiting until the atmosphere has burned off deceptive penetration aids before attacking the remaining warheads. A city, on the other hand, will be destroyed if the warhead lands anywhere near it. An area defense, by definition, must intercept attacking warheads some distance away. Also, a few warheads leaking through a hardpoint defense will destroy only a small part of a dispersed military target such as an ICBM field. A small number of warheads hitting cities and other soft targets (such as bomber bases) will destroy them completely. It is because of this latter phenomenon that airtight area defenses of cities remain unfeasible. But a hardpoint defense could be particularly effective.

Even a light hardpoint defense would be effective if combined with a multiple aimpoint ICBM-basing scheme such as that envisioned for MX. The defensive capability in such circumstances is multiplied through the technique of preferential defense—defending only the shelters actually containing missiles. For example, if each missile is associated with ten shelters, a single ABM interceptor requires ten incoming warheads to overcome it. The Soviets must aim at each of the ten shelters, since the interceptor will be used only against the warhead heading toward the shelter that actually contains the missile.
While an airtight heavy area defense of cities could not be deployed, a limited area defense could still be of considerable military use. It would add to the effectiveness of a hardpoint defense of land-based missiles, help protect other strategic forces by providing added warning time for bombers on the ground and submarines in port to disperse, give some defense against accidental or "third country" attack, and protect national command authorities for at least the initial few minutes of a war. Thus, both hardpoint and limited area defenses could have clear and immediate military usefulness. Such defenses would increase deterrence both by improving the war-fighting capability of our force and its assured destruction capability.

American deployment of a limited active defense could also restore a measure of credibility for extended deterrence. Such an action would serve well to reinforce both the social and the operational dimensions of Western strategy discussed earlier. A society must demonstrate a willingness to carry out the threat it relies on for its security; the deployment of an active defense would indicate a greatly increased level of preparation for the unlikely event of nuclear war. More important, perhaps, the deployment of defenses might appear considerably more sensible to many Americans than restoring the draft or continuing to build yet more offensive nuclear systems. The advantages of even limited defenses would be obvious to American citizens. Finding military programs that attract broad political support is vitally important in demonstrating and creating social cohesion; these results, quite as much as the military and diplomatic consequences of such policies, need to be taken into account.

In an operational sense, an active defense would eliminate any Soviet incentive to carry out "limited" nuclear attacks against U.S. territory, even if the United States had used tactical nuclear weapons to stop a Soviet invasion. The defense would be capable of intercepting a small-scale attack; a Soviet leader would have to launch a large attack (several thousand warheads) to penetrate these defenses. A rational Soviet leader ought to be deterred from launching such an attack, realizing that an assured destruction response is a much more credible reaction to an attack of several thousand warheads than to an attack of a few warheads.

By eliminating the usefulness of limited offensive attacks, a U.S. defense would effectively establish a second "firebreak" in the ladder of escalation. The United States has, for some time now, emphasized the firebreak between conventional and nuclear forces, pointing out that crossing the firebreak would in all likelihood eventuate in an all-out nuclear exchange. This "firebreak effect" helps deter a Soviet first use of nuclear weapons, but it is directly contradictory to NATO's threatened first use of nuclear weapons to stop a Soviet conventional invasion. The firebreak established by a limited nuclear defense would be of a different character. It would make the West's first use of tactical nuclear weapons more credible, since the possibility of a limited Soviet attack on the United States would be virtually eliminated.

Before turning to the major difficulties likely to arise out of a U.S. deployment of ABMS (the effect on SALT and the possible Soviet response), I will touch briefly on the role of civil defense and the composition of a limited ABM system. Any attempt to defend civilian populations against nuclear attack requires at least some civil defense effort to protect against fallout. Furthermore, up to a
point, civil defense is a much less expensive way than active defense to save lives. Thus it makes sense to increase our civil defense program. But there may well be intense public opposition to civil defense, as there has been in the past. Should it in the end prove desirable to proceed with a limited ABM defense, the political difficulty of mounting an increased civil defense effort should not be allowed to hinder its deployment.

I have left the architecture of this defense system intentionally vague, specifying only that it have some capability to defend land-based missiles and a limited capability to defend U.S. cities and "soft" military installations. Such a defense could be similar in design and size to the original twelve-site Safeguard system, with perhaps an expansion of the number of interceptors up to two to three thousand. But it is not at all clear that, given today's technology, the Safeguard architecture remains the most effective one. In any case, as I suggest in the next section, the detailed architecture of the defense ought to await the results of negotiations with the Soviets.

**Soviet Response and the Effect on SALT**

When the Sentinel Program was announced in 1967, it generated great concern that the Soviets might see the deployment of a U.S. ABM defense as a threat to their assured destruction capability. Such a threat, it was argued, could be highly destabilizing to the strategic balance, leading even perhaps to a Soviet preemptive strike or, at the very least, to an accelerated arms race.

In 1967 the Soviets were several years from a capability to deploy multiple weapons (MIRVs) on their missiles; thus even the relatively small Sentinel defense would require using their entire ICBM force to exhaust its interceptors. In these circumstances, a strong Soviet reaction to a U.S. deployment could be unexpected.16

The Soviets have now deployed several thousand land-based MIRVs and are in the process of deploying MIRVs on their SLBMs as well. Even should the Soviets have to exhaust fully a limited defense to mount an effective assured destruction attack, doing so would use only a fraction of their total force. In no sense would a limited ABM deployed in the 1980s threaten Soviet assured destruction capability.

A closely related issue is the concern that the Soviets might respond to a U.S. ABM with the deployment of a "heavy" defense that would threaten the U.S. assured destruction capability. As recently as 1972, in the debate over the SALT I ABM treaty, a major debate raged concerning the possible ABM capabilities of the rudimentary Tallin air defense system. Current Soviet ABM technology has been improved dramatically over that deployed in Tallin. Thus a Soviet deployment of even a limited defense (say three thousand interceptors) could lead to a major demand for increased U.S. offensive forces. The worry is not so much that these interceptors could not be penetrated—existing MIRVs, even without additional penetration aids, could do so. Rather, the concern would be that the radars and command and control systems associated with the limited defense might permit a "breakout" into a heavy defense through the rapid deployment of additional interceptors.
I find such a scenario implausible. First, any breakout would take a matter of many months and possibly even years to accomplish. During this time a variety of short-term actions could be taken to increase greatly our retaliatory capability, such as putting more strategic bombers on alert or keeping more SLBMs at sea. Additional penetration aids could be deployed rapidly on existing missiles, and some missiles are capable of accepting additional warheads without modification. The Soviets know that these responses are available and would negate their efforts. In the longer term, the cost to the Soviets of deploying additional interceptors to counter a heavy U.S. retaliatory attack would be much greater than the cost to the United States of responding with additional warheads and penetration aids. The Soviets simply could not sustain the economic burden required for such an effort. But, even if they could, the defense would not be effective. It is simply outside the realm of present technology to create a defense that is airtight against simultaneous attack from bombers, cruise missiles, forward-based systems, SLBMs, and land-based ICBMs.

The Soviets would be more likely to respond by deploying only a limited defense that did not threaten America's assured destruction capability. One might still worry that such a deployment would effectively negate the American defense by providing the Soviets with a symmetric capability, making it easier for them also to cross the firebreak and use nuclear weapons first in Europe. But the effect is not symmetric. U.S. strategy is based on defending Europe against a Soviet invasion, while the Soviets face no comparable threat of invasion from the West. Their attack would be offensive, and the Soviets would be foolish to use nuclear weapons first in an offensive operation. To do so would devastate the territory they were attempting to conquer and eliminate any possible political gain from having gone to war. Even if the invasion were stopped by Western conventional forces, the Soviets always have the option of withdrawal, an option they would almost certainly take before resorting to nuclear weapons and all the risk such a move would entail. If the Soviet attack began to succeed, the options for the West would be more stark: either to surrender or to use nuclear weapons.

Whether or not the Soviets responded with a new ABM of their own, the U.S. deployment of active defenses would have a profound effect on the future of arms control. Any significant ABM defense would require either renegotiation of the 1972 ABM treaty or its abrogation under the "Supreme National Interest" clause. In either case, the Soviet Union would protest that the United States is once again violating established agreements and demonstrating an inability to pursue a consistent policy.

But the history of this issue should not be forgotten. During the SALT I negotiations and in the subsequent ratification debate, the United States stated strongly that failure to obtain a permanent treaty limiting offensive weapons would be considered adequate grounds for abrogating the ABM treaty. Not even the temporary SALT II treaty is likely to survive, and no permanent treaty is in prospect. Thus the United States would be on firm procedural ground to re-open the ABM question. This is not to minimize the effect—abrogation of the most significant arms control treaty ever concluded could well change the entire character of future arms control negotiations.
No immediate change in the ABM treaty is necessary to begin the research and development efforts necessary to prepare for a U.S. ABM deployment. Clearly, it serves no purpose to tamper with the treaty while there remains any possibility of restoring an effective SALT process. But should a deployment decision prove necessary, it would not be unreasonable to expect the Soviets eventually to negotiate seriously on modification of the ABM treaty, agreeing to terms that would permit the carrying out of the type of deployment suggested here. The Soviets would have strong incentives to retain certain limits on ABM deployment levels. While their ABM technology has advanced dramatically in the last decade, they almost certainly realize that the United States is likely to stay ahead of them in this technology. One ought not to assume that a decision by the United States to deploy a limited ABM automatically spells the end of SALT, or even the end of the ABM treaty.

A second arms control consideration relates to the verification of a renegotiated treaty. Once the relatively large radar networks are in place for even a small nationwide ABM, verifying that the system is in fact limited becomes more difficult. This was an issue even with Tallin in 1972. Our verification capabilities have improved somewhat in the interim, but any new Soviet ABM program would include a more capable and larger radar network than those in existence in 1972. Any future attempts to limit defenses severely would clearly be hampered by verification problems.

An indirect arms control effect of developing an active defense capability would be the increased difficulty in negotiating lower limits on the sizes of both sides' missile forces. If ABMs were in place, relatively large MIRVed missile forces would be required to ensure penetration of the defense system. Since there are no foreseeable circumstances in which either side will feel secure without maintaining an assured destruction capability, the ABM would make it unlikely that either side would be interested in negotiating reductions to low levels.

If we are to accept an increased role for active defense in our nuclear strategy, we must be prepared to live with the probability of no more than modest strategic arms control measures throughout the 1980s. But such a result is likely no matter what actions we take. The greatest potential short-term loss would be the existing SALT process itself. But the SALT process, at least as it has been pursued since its inception in 1969, is now effectively ended in any case. There is very little left of a SALT process to lose—even if SALT II is ratified.

The effect of U.S. ABMs on the longer-run possibilities for successful arms control is not so clearly negative. No arms control process will be effective unless a stable political relationship exists between the United States and the Soviet Union. No such relationship exists today, and it cannot exist unless the United States reasserts its strength through development of a credible strategic doctrine, a strong defense program, and a consistent foreign policy. To take no further actions with respect to our strategic forces would demonstrate to the Soviets and the rest of the world our lack of will to maintain a sound defense against an expansionary Soviet regime. We could, of course, respond by adding strategic offensive forces. Yet the continued development of more offensive nuclear weapons serves little demonstrable military or strategic purpose. The change in strategy I have suggested—returning to the development of active defenses—would not suffer this defect. It might set back arms control in the
short run; but the United States would find itself ultimately in a stronger position to negotiate effective limits on nuclear deployment.

European Reaction to American Defenses

Initially, our European allies would understand the benefit of deploying defenses for U.S. retaliatory forces, since this would increase the strength of America's assured destruction capability and increase the credibility of our threat to use our strategic forces in defense of Europe. They would also probably see some advantage in increasing the credibility of our threat to use battlefield nuclear forces in Europe to defend against Soviet attack. But eventually they would be likely to object strongly to the move.

First, the U.S. move would be seen as a further step away from SALT, arms control, and détente. Even President Carter's limited moves in response to the invasion of Afghanistan have met a mixed response in Europe. To the Europeans, and particularly to the West Germans who live next door to Soviet troops and a Soviet-dominated regime, the benefits of détente seem considerably more concrete than they do to most Americans.

Second, they would object to the "decoupling" of the American strategic nuclear guarantee that would probably result. What the Europeans have always truly desired from the United States is a willingness to respond immediately to a Soviet attack with a U.S. strategic nuclear attack on the Soviet Union, leading to an exchange between the United States and the Soviet Union fought outside Europe. That such an exchange would leave Europe intact while the United States and the Soviet Union devastated each other, despite the fact that the war began in Europe, is incomprehensible. But in European eyes, a U.S. defense would make it relatively more likely that a war could be fought in Europe alone, without involving U.S. territory—a result that would be decried as decoupling.

Third, an objection that would come certainly from the French, and quite possibly from the British as well, is that reopening the issue of antiballistic missile defenses would eventually lead to Soviet deployment of such defenses. Such a move would significantly reduce the effectiveness of the British and French independent nuclear forces. British deployment of the MIRVed Trident I missile would alleviate this to a considerable extent, and French technology is advanced enough to ensure that at least some of their missiles would penetrate a Soviet defense. Nonetheless, the effect would be real, and it would be significant.

Despite these inevitable European objections, the deployment of a limited American defense would be healthy for the alliance. No possible strategy can fully satisfy the European countries. Even more than the United States, our European allies continue to look for an easy solution where none exists. An adequate conventional defense is not acceptable because of its cost. Thus all agree that nuclear deterrence must remain the backbone of European defense. But a credible nuclear threat requires undertaking war preparations that European governments do not wish to sustain politically, since these would be seen as placing additional stress on détente and on increasing the chance of war.

Our European allies will also complain that they would be completely unprotected should a war actually occur, while even a limited U.S. defense would
provide some protection for Americans. This is of course true, but once again, it is unfortunately a fact of life that cannot be overcome. No strategic defense can protect Western Europe from Soviet nuclear attack. Soviet tactical forces carry with them battlefield nuclear weapons that could not be stopped by a strategic defense. The only way to keep Soviet nuclear weapons out of Western Europe is to stop the invasion itself without resorting to nuclear weapons to do so. Of course, the Europeans' refusal to make the sacrifices necessary to ensure this is why there is need for a U.S. defense in the first place.

The Soviet Union has chosen not to exercise restraint in its military build-up, either nuclear or conventional, and they have chosen to push the expansion of their geopolitical influence and control to the limit. Western society, and our European allies most specifically, must choose among difficult alternatives. American offensive nuclear forces can be increased, and if present programs are implemented, this will occur. But such an increase provides little military gain. The same is true with respect to an increase in offensive theater nuclear forces, whether long-range or battlefield. An American defense is a more efficient way to ensure the survival of the U.S. strategic retaliatory capability, and it would significantly enhance the credibility of our threat to use nuclear weapons to defend Europe. The best alternative would be to field an adequate nonnuclear defense, which could be done for a modest 4 to 5 percent of NATO's GNP. But in the absence of that, some action must be taken. The worst possible alternative would be to do nothing at all.

Conclusions and Policy Implications

The basic characteristics of nuclear warfare that set these weapons apart from all others at the beginning of the nuclear age—their overwhelming destructive capability and the impossibility of mounting an effective defense against them—remain unchanged. Any nuclear war between the United States and the Soviet Union would inevitably lead to levels of death and destruction that would have to be seen, in McGeorge Bundy's words, "as an unexampled failure of statesmanship." This is not even to consider secondary effects such as genetic and environmental damage. Deterring the use of nuclear weapons must remain the predominant objective of our own nuclear force, even as we attempt to fashion a national strategy to ensure our economic and political strength and to contain Soviet expansion.

The continued Soviet buildup of offensive nuclear forces, particularly when combined with their buildup of conventional forces, has made the maintenance of stable deterrence more difficult. The Soviet capability to respond in kind to any possible use of nuclear weapons by the United States, and perhaps even to achieve momentary military advantages, makes the U.S. threat to use nuclear weapons in defense less credible. Since World War II we have relied on the credibility of this threat to deter Soviet nuclear aggression. We have also relied on the "extended deterrence" of nuclear weapons to supplement the deterrent effect of our conventional forces. To keep each of these aspects of deterrence credible will require increased attention to the operational and social aspects of nuclear strategy. We must accept the fact that the social aspects of an effective deterrence policy are no less important than its technological aspects. Programs
and policies must be put in place that enhance social cohesion, that demonstrate
the will to carry through on the strategy that we in the Western world subscribe
to. It is the challenge of this political objective that most demands our attention.

If we are to remain secure, we must restore not only political cohesion to the
Western alliance, but a sensible political relationship between the United States
and the Soviet Union as well. Such a relationship will of necessity provide for
arms control. If we are able to maintain the arms control agreements reached to
date, including the ABM treaty and SALT II, we will be a step ahead. We can
only hope that the administration that takes office in January of 1981 can restore
order to our political relationships and avoid the necessity of a major defense
program change such as the one suggested here.

Unfortunately, the risk of this not happening is very real. Therefore the
conceptualizing of concrete policies to improve our strategic nuclear posture
becomes imperative. Adding limited defenses to our traditional doctrine is sim-
ply the best of a set of difficult choices. Such defenses would make our threaten-
ied use of battlefield nuclear weapons more credible, and they would restore a
measure of extended deterrence; battlefield weapons could be used with the
knowledge that only a massive Soviet attack would harm the U.S. homeland.
Thus, the defense would create a second firebreak in the ladder of escalation.

In contrast, taking no action now will certainly contribute to a further weak-
ening of the Western alliance. We could continue to deploy strategic offensive
weapons. But adding more offensive programs to those already undertaken
serves no ascertainable strategic purpose. Even the MX (which faces serious
technical and environmental challenges and may therefore never be deployed)
will not fundamentally affect our strategic nuclear posture. At best, it will stabi-
lize the existing structure of the strategic nuclear balance. But it would have
only a limited effect on the calculus of risks an American president would have
to face in deciding to use battlefield nuclear weapons to stop a Soviet invasion.

A strategic policy that includes at least a modest effort to actively defend our
population is much more likely to receive strong political support than a strate-
gy based on either a large increase in conventional forces or a continued buildup
of nuclear offensive forces. The Safeguard ABM system barely passed Congress
in 1970. Vice President Agnew broke a tied vote in favor of the system, but the
context of that vote should be recalled. We were in the midst of a desperately
unpopular war, with sentiment against the Pentagon running high. The Con-
gress was largely hostile to the defense and national security policies of Richard
Nixon. The prospects for arms control were bright, and many policymakers
saw the U.S. continuation of ABM deployments as a useless waste of money or,
at worst, as the death blow to arms control.

Today the domestic political climate differs dramatically. Congress seems
determined to exempt defense programs from budget-cutting proposals and,
indeed, seems bent on maintaining a significant real increase in defense spend-
ing. The military and technological situation has also changed. As a result of the
combination of the increased size of offensive forces (10,000 warheads) and bet-
ter ABMs, it is now possible to build a "light" ABM that would work while not
threatening assured destruction capabilities.

One factor that has not changed since 1970 is the difficulty in reconciling
fundamental American values and beliefs with the seemingly inhuman strategy
of maintaining our security through the threat to kill millions of Soviet citizens. I believe that there would be considerable support for a movement of our strategy toward greater reliance on an active defense and away from a primary reliance on offensive retaliation.

It is important to recognize that the only immediate action required to implement this revised strategy is to increase ABM R&D significantly. There is no possibility of the United States being ready to start the deployment of new defensive systems before the middle 1980s. Thus, there is no need at this time to open a renegotiation of the ABM treaty. Nor would there be any inconsistency between the ratification of SALT II and the initiating of a program that would lead eventually to deployment of limited defense. Rather, SALT II would help with several military problems, and ratification would increase public support for our defense posture.

Announcing a return to a partial dependence on active defenses in U.S. strategy, accompanied by a serious ABM development program aimed at early deployment of a limited system (1985-87), would in many ways provide the best possible "bargaining chip." Defense programs undertaken for no purpose other than to create a concession for later negotiations simply undercut both the credibility of our negotiating position and the public's support for our defense program. But, as I have argued throughout this paper, we have a legitimate strategic need for a limited defense. Our deployment of such a defense should remain open to negotiation; our policy objective should be a successful negotiation that, when combined with a successful foreign policy, might eliminate the need for its deployment. If the negotiations fail, however, the program is the best response we are likely to have.

Much of the deterrent effect of our nuclear force is, in the final analysis, the result of forcing the Soviet Union to live with uncertainty. A light defense would make Soviet leaders even more uncertain than they are today about their ability to avoid a U.S. nuclear response to any aggression against vital Western interests. Should nuclear weapons be used, the Soviets would have to remain uncertain that escalation could be stopped, despite the second firebreak created by a limited defense. And even if they build a defense of their own and expand their civil defense programs, they could never be confident that their society would survive an all-out exchange.

Ultimately, the Soviet Union will see the wisdom of accepting serious restraints in their military efforts, both in force deployments (nuclear and conventional) and in geopolitical expansionism. Their acceptance of such restraint is a necessary condition to achieving a stable détente and a reduction of the risks inherent in the mutual balance of terror upon which we now rely so heavily for our security. But for the 1980s we must be prepared to rely on that balance of terror to deter the use of nuclear weapons, whose destructive powers could lead to an unimaginable tragedy for mankind.

REFERENCES

DETERRENCE AND NUCLEAR STRATEGY


3Ibid.


7Ibid.

8Howard, "The Forgotten Dimensions of Strategy," p. 984. Throughout his article Mr. Howard is less than completely clear when he speaks of the "operational" aspects of war. Most frequently, he seems to be concerned with nonnuclear war, but he also uses the term to connote nuclear operations.


10Kissinger, White House Years, pp. 210, 218.


12Kissinger, White House Years, p. 350.

13As this article goes to press, Secretary of Defense Harold Brown has made public the outlines of a revised nuclear strategy ("PD-59"). But its details remain unclear, and it is alleged to differ little from previous strategy.


15The one area in which the West could make a major improvement in its nuclear war-fighting capability is that of nuclear protection for troops in the field. Soviet forces are considerably better prepared to operate in areas of radioactive contamination, despite the fact that it is the West that threatens to use nuclear weapons first to stop a Soviet attack in Europe.

16Lodal, "Assuring Strategic Stability." I have argued elsewhere that just such a reaction explains at least part of the very large Soviet MIRV program that first emerged in 1972.