

FATEFUL VISIONS

Avoiding Nuclear Catastrophe

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superpowers and their allies might well increase; and the threat posed by clandestinely delivered nuclear weapons would be much more significant than today.

Any serious policy for deploying defenses must address the dangers that would result from the difficulty of maintaining low vulnerability. Even if defenses greatly reduced U.S. vulnerability, this capability could not be made highly robust. The lack of robustness would be particularly dangerous because BAD would be a highly competitive world in which superpower cooperation was extremely difficult. President Reagan and other proponents of BMD have suggested that effective defenses would eliminate the need for offenses.⁴² This outcome is extremely unlikely. Deploying defenses would probably lead to an intense offensive and defensive nuclear weapons competition and to tense, strained superpower relations. Arms control agreements to limit or reduce offensive nuclear forces would be difficult, if not impossible, to negotiate. Thus the prospects for improving security by shifting to a world of effective defenses seem especially gloomy.

No evidence indicates that the U.S. interest in highly effective defense is based on a complete analysis of a world of near-perfect defense. Unfortunately, a world in which both superpowers deployed effective defense would be far less attractive than its proponents suggest. Even on the most optimistic assumptions, BAD would probably be less secure than MAD; with more realistic assumptions, we find that deploying BMD would reduce U.S. security. Until a convincing argument is presented for this fundamental change in nuclear weapons policy, the United States should give priority to living safely in a world of mutual societal vulnerability, pursuing with renewed determination a prudent policy of offensive weapons acquisition and strategic arms control.

CHAPTER 4

Lengthening the Fuse: No First Use and Disengagement

Daniel J. Arbess and Andrew M. Moravcsik

U.S. foreign policy turns ultimately on the deterrent power of the American nuclear umbrella—the rock on which the renaissance of the West since 1945 was built and the foundation for its security.
—*Eugene V. Rostow*

The U.S. declaratory doctrine of deliberate escalation is a Grand Illusion or a Great Lie, a pretension that we would allow America to be destroyed in an attempt to save Europe.
—*Richard K. Betts*

Few Americans realize that under specific circumstances it is official American policy to initiate nuclear war.¹ Since the creation of the NATO alliance in 1949, the defense of Europe has been backed by an explicit American threat to use nuclear weapons first. If Western conventional defenses in Europe threaten to crumble, the strategy of “flexible response,” officially adopted by NATO in 1967, reserves the option to respond with nuclear weapons. A similar policy underlies the defense of East Asia and the Middle East. On several dozen occasions, the United States government has secretly contemplated or openly threatened the use of nuclear weapons in support of diplomatic goals.²

Most American strategists favor this policy, but few do so because they believe that the use of these weapons would bolster the battlefield position of Western defenders.³ Instead, they believe that the prospect of sudden catastrophic losses, perhaps even the total annihilation of its homeland, will deter a superpower from even contemplating conventional aggression. Nuclear weapons, they contend, not only alter the calculus of costs and benefits facing an aggressor; they render such a

calculation irrelevant. Because the sheer horror of their use changes the way nations think about war, nuclear weapons are, as one strategist describes them, "the ultimate deterrent."⁴

But the policy of first use contains an internal contradiction. As long as it succeeds in keeping the peace, first use appears perfectly rational. But once a conventional war breaks out, a defense based on nuclear retaliation is a potentially catastrophic liability. When facing an opponent with a secure nuclear retaliatory capability, first use would likely be suicidal. American strategists no longer contemplate immediate nuclear attacks on the Soviet homeland, as they did in the 1950s; instead, they speak of flexible response and nuclear options. But General Bernard Rogers, formerly supreme allied commander in Europe, has estimated that if the Soviets attack, NATO will have only a few days to deliberate before turning to nuclear weapons.⁵ In short, if deterrence breaks down, the policy of first use will be exposed either as a bluff or as a doomsday machine.

In recent years, the consensus in favor of a deterrent based on first use has been attacked by a growing number of statesmen and strategists. They question even the modest reliance on nuclear weapons required by flexible response and call on the United States to take steps to make them more difficult to use early in a conflict. Although such proposals have been advanced since the 1950s, they have multiplied since the publication in 1982 of a celebrated article in *Foreign Affairs* by McGeorge Bundy, George Kennan, Robert McNamara, and Gerard Smith. These four distinguished statesmen argue that "the one definable firebreak against the worldwide disaster of general nuclear war is the one which stands between other kinds of conflict and any use whatsoever of nuclear weapons. To keep that firebreak wide and strong is in the deepest interest of mankind."⁶ In their view, defense against aggression should rely more heavily on conventional forces or on the "existential" uncertainty created by the mere presence of nuclear weapons, rather than strategies for actually using nuclear weapons first.

In effect, measures for making nuclear weapons less readily usable "lengthen the nuclear fuse." There is a range of proposals for lengthening the fuse. At one end of the spectrum are slight modifications in existing procedures and deployments that increase control over nuclear weapons and strengthen conventional forces; in the middle are proposals that remove nuclear weapons from the front, place bureaucratic obstacles in the way of their use, and plan for conventional war; and at the far end of the spectrum, the United States would sever some of the defense commitments that might put the American homeland at risk, with

corresponding reductions in both conventional and military forces. All of these measures can be overridden in wartime. Thus, none reduces the risk of first use by either side to zero. But by placing obstacles in the way of first use, each proposal attempts to precommit Western nations, led by the United States, to a more prudent nuclear policy.

While some of these proposals may appear dramatic, their implementation would largely be a matter of aligning military doctrine and deployments with a long-term trend among political leaders against seriously considering the first use of nuclear weapons.⁷ Former secretaries of defense and state have testified that they recommended as a principle against any plan for nuclear first use.⁸ The Soviet Union has already adopted a declaratory policy of no first use. While the requirements of flexible response prevent the United States from making a similar pronouncement, it is clear that some members of the U.S. government have already informally adopted a de facto policy of no first use. There appears to be emerging, between the superpowers, a norm against first use.⁹ In recent years, overt incidents of nuclear diplomacy, as well as high-level consideration of the deliberate use of these weapons, have declined markedly.¹⁰

In the first two sections of this chapter, we present the criticisms of first use and the various proposals to lengthen the fuse. In the third section, we examine various scenarios by which war could break out. In the final two sections, we attempt to specify the conditions under which the various proposals to lengthen the fuse would reduce the likelihood of nuclear war.

Criticism of First Use

Objections to first use fall into three categories. In the eyes of its critics, a defense based on first use is indiscriminate, uncontrollable, and destabilizing. The first criticism is that nuclear weapons cannot be used discriminatingly; the collateral damage is certain to outweigh any reasonable aim. Critics argue that since nuclear first use is such a destructive and irrational step, conventional forces provide a more credible deterrent. This is particularly true in the Third World, where the stakes are relatively low. Most strategists reject the notion that first use favors an undermanned or outgunned defender.¹¹ Indeed, if nuclear weapons are disconnected from the overall military infrastructure, U.S. conventional forces abroad could probably be used more effectively and with less risk.¹² Former Secretary of State Robert McNamara succinctly sums

up the first criticism: "Nuclear weapons serve no military purpose whatsoever. They are totally useless—except only to deter one's opponent from using them."¹³

At the same time—and this is the critics' second objection—nuclear weapons render warfare uncontrollable. Nuclear first use is a dangerous bluff. If deterrence fails and a conventional war breaks out, extensive plans for first use may become a self-fulfilling prophecy. In part, the danger stems from the tendency of decision makers to resort to standard operating procedures in a crisis; even if they perceive the situation correctly and maintain control over operations, they may feel that they have no choice but to cross the nuclear firebreak. An even greater danger, according to many critics of flexible response, is that control over the situation will be lost. The integration of thousands of nuclear weapons into conventional defense strategies increases the likelihood of nuclear war breaking out inadvertently through accidents, unauthorized use, miscalculations, and pre-emption.¹⁴

Advocates of a longer fuse believe the danger of uncontrolled escalation is real. There is an inherent tension, for example, between NATO's political and operational requirements. Nuclear weapons are stored in a limited number of depots throughout Europe and are thus vulnerable to a Soviet pre-emptive strike. To reduce the risk of such a strike, NATO leaders may feel compelled to authorize dispersal of battlefield nuclear weapons while deliberations about their use continue. Yet once nuclear weapons are dispersed, political control would become more difficult to ensure. Unless command and control remains utterly reliable, authority might be delegated to field commanders, increasing the likelihood of unauthorized or accidental use and giving the Soviets incentive to interdict those operations.

"The Western alliance is thus posed with a dilemma," according to a group of ten prominent statesmen and strategists, writing jointly in the *Atlantic Monthly*.

If NATO, during a political crisis in Europe, felt that a conflict in Europe was imminent, it might move to scatter its vulnerable nuclear assets in order to protect them. Soviet leaders, on the other hand, might very well interpret such an action as preparation for a NATO nuclear attack. NATO's alternative would be to allow these weapons to remain concentrated and vulnerable to a preemptive Warsaw Pact strike—nuclear or conventional. In either case Soviet leaders would be under pressure to deploy the weapons quickly—and NATO field commanders would be under pressure to use them quickly.¹⁵

Uncontrolled first use could also be an unintentional by-product of the current tight integration of nuclear and conventional forces. Nuclear

alerts, naval movements, and other deployments of integrated forces might trigger a dangerous process of "action and reaction, [creating] an operational momentum towards first use."¹⁶ Conventional operations might, for example, provoke first use by threatening strategic nuclear systems on land or at sea.¹⁷

Even if Western soldiers and statesmen initiate nuclear war in a deliberate and controlled manner, critics contend that they will inevitably lose control. Once the superpowers cross the firebreak, escalation to an all-out strategic nuclear exchange may well be inevitable. For a nuclear war to remain limited, the two sides would have to agree on specific limits on weapons and targets. As one group of critics observes: "This unprecedented feat of diplomacy would have to be achieved in a state of crisis and uncertainty unknown to history, with each side holding in reserve a nuclear arsenal that could carry the conflict to virtually any level of destruction. . . . It would be reckless to assume that escalation far beyond the battlefield could be averted. . . ."¹⁸

A third objection links the short fuse to destabilizing military doctrines and economic policies. In order for the strategy of extended nuclear deterrence to be credible, critics assert, the United States must adopt a counterforce posture at the strategic level. In other words, American strategic missiles must be deployed in such a way as to threaten Soviet missiles in their silos. According to critics, this posture undermines both crisis stability and arms control. Earl Ravenal argues that such a posture demands that the United States maintain a first-strike capability: "A damage-limiting attack against hard targets is a demanding requirement, in numbers and characteristics of weapons. And, to have its intended effect, it must be preemptive."¹⁹ The consequences, according to Ravenal, are grave: "It is its adherence to alliance commitments that skews the United States strategy toward counterforce targeting and warps American doctrines of response toward first use of nuclear weapons, prejudicing crisis stability and increasing the chance of escalation to nuclear war."²⁰ The trend toward counterforce, some argue, has pushed American policy away from the objectives of arms control, and particularly away from the norms against counterforce and damage limitation established by the Anti-Ballistic Missile and Strategic Arms Limitation Treaty of 1972.

Some supporters of disengagement argue that the United States is economically as well as militarily overextended. The high cost of American military spending in support of current alliance arrangements, Sherle Schwenninger and Jerry Sanders contend, locks the United States into a worsening economic position vis-à-vis its main competitors.²¹ According

to David Calleo, the United States has resorted to a series of destabilizing international economic policies—trade deficits, sudden devaluations, inflation, and now the accumulation of debt—in order to finance an over-extended foreign policy. In the long run, Calleo predicts, superpower war will be less likely and the international system more stable if we deliberately withdraw from commitments now, rather than abandoning them later amidst international economic turmoil brought about by the United States' inability to continue in its role as a hegemonic power.²² Melvyn Krauss predicts that U.S. withdrawal from Europe would reduce the incentive of Europeans to free ride. Once this incentive is removed, increased European defense spending would compensate for American reductions, thereby creating a stronger and more balanced Western defense.²³

Lengthening the Fuse: No Early Use, No First Use, Disengagement

To evaluate specific proposals, it is necessary to distinguish between lengthening the fuse as a *principle* and as a *policy*.²⁴ Declarations alone do not reduce the probability of first use unless they redirect strategic planners "to prepare realistically for conventional defense without contemplating early use of nuclear weapons."²⁵ In their 1982 article, Bundy and his colleagues recommended that the United States issue a declaration of no first use and consider methods of strengthening conventional defense in Europe, but they declined to recommend specific changes in military deployments, tactics, or decision-making procedures. Nor did they draw any implications for areas outside Europe.²⁶ Since then, many more detailed proposals have been advanced. Broadly speaking, these schemes fall into the three categories introduced above: no early use, no first use, and disengagement.

No Early Use

Advocates of no early use support measures to raise the threshold at which nuclear weapons are used and to maintain command and control on the battlefield. Among these measures are stronger conventional forces or a conventional arms control agreement, decreased vulnerability of existing nuclear weapons, deployment of weapons farther from the front, and tighter and more centralized control over the authorization of first use.

In varied forms, no early use has gained wide support even among those who continue to accept flexible response as the basis of Western

defense.²⁷ Four distinguished German critics of the Bundy group's manifesto advocate both a build-up of nonnuclear forces and an arms control treaty establishing conventional parity in Europe.²⁸ General Rogers has called for a conventional build-up requiring annual increases of 4 percent (in real terms) in NATO defense budgets, including the enhancement of capabilities for using conventionally armed missiles to disrupt and interdict forces far behind Warsaw Pact lines.²⁹ Samuel Huntington has proposed the creation of a "conventional retaliation" option in Europe, in which allied forces would launch a retaliatory counteroffensive into East Germany and Czechoslovakia, cutting Warsaw Pact supply lines, undermining the support of Soviet satellites, and improving NATO's position in negotiations to terminate the war.³⁰

All of these proposals implicitly concede that Western defense relies too heavily on nuclear first use. Yet each is conservative in spirit, for each is entirely consistent with the general outlines of flexible response.³¹ None rests on reassessment of the Soviet threat, renegotiation of political agreements between allies, or rearrangement of bureaucracies within national governments. Above all, none requires a definitive renunciation of nuclear first use.

No First Use

A second, far more ambitious form of lengthening the fuse is a policy of no first use. The *Atlantic Monthly* group advocates "military plans, training programs, defense budgets and arms negotiations" based on the assumption that the United States "will not initiate the use of nuclear weapons."³² As first steps in this direction, they propose an immediate policy of no early use in Europe, cessation of weapons modernization programs predicated on first use, elimination of dual-capable systems, the creation of separate command and control procedures for nuclear weapons, a policy of no early second use, eventual no first use outside Europe, firm rejection of strategic first use and counterforce targeting, and abandoning the Strategic Defense Initiative.³³ Johan Holst has enumerated a number of additional measures that may be necessary to transform no first use from principle into policy: withdrawal of nuclear artillery and air defense munitions from Europe, and controls on the introduction of high-technology conventional weapons that could raise the velocity of warfare beyond the current capacity to control it.³⁴

In a recent book, Morton Halperin elaborates a policy of no first use based on the premise that nuclear weapons cannot be used rationally in a military conflict.³⁵ Accordingly, control over all nuclear weapons should

be placed in the hands of an "entirely separate structure . . . totally divorced from the command structure for conducting conventional combat operations." A small force of invulnerable nuclear weapons, numbering several hundred at most, should replace present NATO nuclear forces. These weapons should be used exclusively for "demonstration" shots, never for tactical purposes. In the Third World, including the Korean peninsula and the Persian Gulf, Halperin recommends a policy of unconditional no first use and the eventual withdrawal of all American nuclear forces, whether naval or based on land.

Halperin argues that strategic nuclear weapons should be configured to prevent early first or second use, thereby reducing the chance of accidental or ill-considered firings. First-strike weapons should be eliminated from the arsenal, perhaps by deploying a large percentage of the force in the form of slower, less powerful cruise missiles. The ability of weapons and the centers that command and control them to survive attack should be strengthened, while we move toward an eventual bilateral limitation on the number of warheads. The redeployments should be implemented by a presidential directive "indicating that strategic nuclear forces will not under any circumstances fire first."

Disengagement

Some believe that no early use and no first use do not go far enough. According to Earl Ravenel, "Americans are faced with an increasingly demarcated choice: the salvation of Europe, or their own solvency and safety."³⁶ Ravenel argues that the United States should disengage from the defense of Europe and other allies as part of a broad alternative conception of foreign policy. "Globally," he writes, "we would draw back to a line that has two mutually reinforcing characteristics: credibility and feasibility; a line we *must* hold, as part of the definition of our sovereignty, and that we *can* hold, as a defense perimeter and a strategic force concept that can be maintained with advantage and within constraints over the long haul."³⁷ Advocates of disengagement disagree over which security interests are truly vital, but most foresee a partial or total withdrawal from Europe, with the forces either deployed elsewhere or demobilized.

Assessing Proposals for Reform

The debate over lengthening the fuse is fundamentally a debate over where to strike the balance between assuring that Soviet aggression is

adequately deterred and avoiding crisis instability or loss of control. Advocates of a longer fuse contend that by making nuclear weapons more difficult to use, or by giving civilian leaders more, direct control over the decision, we can reduce the probability of inadvertent, accidental, preemptive, or ill-considered first use without significantly increasing the chances of a deliberate Soviet attack. By diminishing U.S. reliance on nuclear weapons, lengthening the fuse may also reduce demands for the damage-limitation capability associated with first use and counterforce weapons, thereby opening up new opportunities for arms control.

Those who praise the nuclear option as "the rock on which the renaissance of the West" is built question the claim that a longer fuse will promote stability and controllability of crises.³⁸ Drawing an analogy to the failure of the Munich Agreement to deter Hitler, they fear that nuclear war will arise as a result of a failure to deter the Soviets. A longer fuse, they believe, increases the chance of conventional war. Since a major conventional war is the most likely road to nuclear holocaust, they argue, widening the firebreak increases the chance of nuclear war. As Josef Joffe writes: "With nuclear weapons withdrawn, and the risk of immediate escalation set aside, a conventional lunge, stopping well short of the new nuclear perimeter in the West, will look visibly less irrational than under current circumstances . . . if nuclear weapons are the queens of deterrence, their removal from the board will liberate the conventional pawns from the restraints of the game."³⁹ Some supporters of first use go so far as to concede the desirability *in theory* of greater reliance on conventional forces, but note that Western nations are unwilling to commit the resources necessary to achieve decisive conventional superiority over the Soviet Union, while Third World allies lack the means to do so. Thus, the threat of first use remains the most cost-effective and politically expedient form of defense.

Paths to War

How are we to choose between these positions? Ideally, strategists would calculate the probability of nuclear war under the various possible scenarios. But it is impossible to assign reliable quantitative values to the variables needed to assess the probability and costs of war given a certain strategic doctrine or force posture.⁴⁰ We simply do not know enough about the resiliency of conventional defenses, the probability of escalation, and the future intentions and perceptions of the potential antagonists. More importantly, such a calculation must take into account the political context in which first use is considered. Accordingly, in this

chapter our assessment of proposals for lengthening the fuse is largely *qualitative*, relying primarily not on calculations of military might, but on a comparison between three political scenarios by which nuclear war might break out. In order to determine how war is most likely to break out, we examine three scenarios: a Soviet bolt from the blue in Europe, spill-over from Eastern European uprisings, or a catalytic conflict in the Third World.⁴¹

A Bolt from the Blue. Although the foundation scenario for NATO strategy is a Soviet lunge in Central Europe, this is a relatively unlikely path to war. Yalta and Helsinki have, to a certain extent, legitimized the Soviet role in Eastern Europe, and the USSR has difficulty sustaining even its current commitments. On balance, the Soviet Union profits economically, politically, and militarily from the status quo in Europe. Compared to a sudden attack, the Soviet Union could gain a great deal in the way of trade and technology transfers at less cost by opting for continued détente in Europe. And even if Soviet leaders harbor overtly aggressive intentions, traditional geopolitical logic dictates that they eschew the heavily armed Central European front and expand someplace where the risks and costs of conventional advance are lower. Accordingly, Jonathan Dean concludes that "the main contingency for which the NATO alliance was established—to deter or repel deliberate Soviet attack aimed at the conquest of Western Europe—has become increasingly remote, so remote that it has become negligible."⁴²

Eastern European Uprisings. A second scenario, more likely than the first to provoke nuclear war, begins with anti-Soviet uprisings in Eastern Europe, which might provoke the Soviet Union to take desperate measures to avoid losing control over its satellites. But since the conventional superiority of the Warsaw Pact in Europe depends largely on Eastern European troops, the Soviet Union would be unlikely to initiate hostilities unless it faced direct Western provocation in the form of covert intervention or political interference. On the other hand, if the USSR found a real or perceived justification for such fears, and if the crisis were long and violent, even a clear noninterventionist stance, as was taken in Czechoslovakia in 1968, might be inadequate to assure the Kremlin.⁴³

Third World Conflicts. The most likely path to nuclear war between the superpowers has its roots in the Third World, where political conditions are unstable, where both sides' interests are ambiguously defined, and

where the resulting risks of misunderstanding or misjudgment are most acute. Most crises involving the threat of first use have taken place in the Third World. Nuclear war might break out in situations where the West is hopelessly outnumbered, as in some views of Soviet intervention in Iran; through escalation involving forward-based weapons at sea; or through accidental, unauthorized, or pre-emptive use when both sides' integrated forces are alerted.⁴⁴ Conventional conflict in the Third World may also spill over into the European theater. If the Soviets assume that the probability of war is high, pre-emptive strikes against Western nuclear assets in Europe may become a strategic priority. Michael McCwire concludes that the nuclear threshold is less likely to be crossed as the result of an outright Soviet urge to aggression than as a by-product of "the momentous decision that world war was unavoidable."⁴⁵

A Balanced Deterrent

Several lessons can be drawn from this brief analysis. First, crisis stability and controllability, particularly once a conventional crisis is under way, are at least as important as a strong peacetime deterrent. In most of the scenarios by which nuclear war might plausibly break out, misunderstandings, misperceptions, fears of pre-emption, failure to control forces in the field, or simply lack of an alternative play a prominent role. Second, there is in many cases a tradeoff between crisis stability and control on the one hand and deterrence on the other. Doctrines and postures designed to enhance deterrence can undermine crisis stability and control during wartime, or create a situation in which either side may decide to use nuclear weapons first.

It would be unwise to rest Western defense planning solely on the doves' best-case scenario, in which the Soviets are assumed to be over-deterred even without nuclear weapons. The weakness of the hawks' argument, on the other hand, is not (as is often maintained) that it is a worst-case assessment, but that it fails to acknowledge that there are *several* worst-case assessments. By focusing on only one scenario—potential Soviet aggression—hawks promote doctrines and capabilities that make other scenarios more likely. It is an oversimplification to regard first use and the nuclear guarantee as the most likely cause of war or as the primary factor that prevents war. A balance must instead be struck between the objectives of deterrence stability, crisis stability, and controllability. Postures that overemphasize one objective to the detriment of the others may be dangerous. In order to reduce the chance of nuclear

war, the United States and NATO should pursue a strategy of *balanced deterrence*: a posture designed to reduce the overall likelihood of nuclear war by all paths.⁴⁶

Our analysis suggests that the best way to achieve this goal is to adopt measures blocking nonrational paths to war. NATO's current short fuse provides an imbalanced deterrent. While the United States and NATO continue to focus strategic decisions on the danger of sudden attack in Europe, whether a pre-emptive strike during crisis or a premeditated bolt from the blue, the Soviet's primary concern is with the "Sarajevo factor," the fear that an uncontrollable chain of events could lead to world war. Current strategy implicitly concedes the importance of this fear: since the threat of nuclear retaliation is in many ways incredible, its effectiveness must rely heavily on an element of uncertainty—on the possibility that nuclear weapons might be used accidentally, inadvertently, or hastily in a conventional conflict. But in wartime, this uncertainty might lead to catastrophe.

Managing the Tradeoff

Proponents of a longer fuse argue that NATO's present strategy increases the likelihood of general war while attempting to deter the lesser threats of Soviet aggression and blackmail. But would lengthening the fuse tip the scale in the other direction, leaving the Soviet Union inadequately deterred? Would gains in crisis stability and controllability outweigh the potential losses in deterrence?

Most proponents of a longer fuse are sensitive to the deterrence side of the equation, emphasizing the need for it to be coupled with measures to strengthen conventional defense or negotiate conventional arms control. Underlying this view is a basic consensus that under current circumstances NATO's conventional capabilities would be inadequate to resist a sudden concerted Soviet advance (although given adequate time to mobilize, Western conventional defenses in Europe and East Asia are adequate).

Just how far the fuse could safely be lengthened without conventional compensation depends on how the Soviets respond to marginal changes in nuclear deployments. Here there will be critical differences of opinion. Those who feel that Soviet behavior is shaped predominantly by the fear of American missiles will support minimal no early use proposals, but argue strenuously for more reliable conventional defenses to compensate for any move away from first use. Others believe that the

Soviets are highly constrained by the benefits of the status quo, the political and economic costs of aggression, the existence of small French and British nuclear forces, and what McGeorge Bundy has termed "existential" deterrence (the fear and uncertainty induced by the mere existence of nuclear weapons, independent of the precise mode of deployment).⁴⁷ They will be prepared to lengthen the fuse with less compensation.

The latter view is the more plausible. The credibility of a nuclear defense does not rest primarily on the particular mode of deployment. There is little reason to believe that it makes much difference to the Soviets whether nuclear weapons used against them are launched by Americans or Europeans, early or late in the conflict, or from cruise missiles or battlefield launchers. Moreover, if our analysis is correct, and the danger of nonrational use outweighs the danger of deliberate use, *some* lengthening of the fuse would reduce the overall probability of nuclear war, *even without any conventional compensation*.

Each of the three proposals considered here—no early use, no first use, and disengagement—can claim *under certain conditions* to reduce the probability of nuclear war by moving toward a more balanced deterrent. Let us first consider the military conditions under which each proposal would be desirable. Then we will turn to long-term political conditions.

No Early Use. Under almost any conceivable circumstances, adoption of measures to assure that weapons and command and control systems would survive the early stages of an attack—the minimal no early use proposal—would reduce the probability of nuclear war. Steps to ensure that decisions about nuclear weapons would be made in a deliberate and prudent manner would block nonrational paths to nuclear war without diminishing the overall deterrent—thereby satisfying both hawks and doves. Reasoned opposition to these measures could come from but one group: those who believe that the threat of Soviet attack is so immediate that it outweighs all the evident risks of nonrational use, and that the Soviets are restrained from such an attack only by their fear that Western missiles might go off inadvertently. In our view, this is an implausible ground for opposing no early use.

Proposals to increase the ability of weapons to survive conventional and nuclear attack would be one particularly important aspect of this minimal no early use position. Current NATO plans also foresee an improvement in theater command and control.⁴⁸ The problem of unauthorized use might be addressed through further changes in command systems, for example by developing more reliable Permissive Action Linkages

(PALs)—locks on nuclear weapons that require centralized authorization to open. Ground and air-based weapons now require PALs, but many have yet to be upgraded to 1980s standards. Such controls might be extended to naval weapons, many of which can currently be fired without encountering a PAL lock. A new generation of PALs, working by secure radio links, might allow civilian officials even greater control. Withdrawing nuclear weapons farther from the front lines would reduce the risk of early use, controlled or inadvertent. Ideally, the bulk of theater nuclear defense should consist of mobile missiles stationed far behind the front lines.⁴⁹

No First Use. If we accept the assumption that the present first use policy is dangerously imbalanced, some movement toward reduced reliance on nuclear weapons and their replacement with nonprovocative conventional forces is clearly desirable. Many Western officials agree that NATO relies too heavily on nuclear weapons and that the prospects of pre-emptive or inadvertent war are real. Responding to these concerns, current NATO plans foresee reductions in the number of battlefield nuclear weapons from 5,895 in 1985 to 4,082 in 1992.⁵⁰

Exactly how far the trend toward no first use should go depends, as we have seen in the preceding section, on the deterrent value ascribed to conventional forces, the extent to which the mere existence of nuclear weapons provides an existential deterrent to aggression, and assessments of the Soviet threat. In the absence of mutually negotiated reductions, however, it is safe to assume that some minimal nuclear force is required to deter Soviet use of theater weapons in Europe. This requirement places a lower bound on reductions in arsenals.

Paradoxically, proposals for no first use (and no early use) that involve a large build-up of conventional forces tend to be more risky than those that do not. Some such proposals, such as those for deep strikes and conventional retaliation, might move us even further away from a balanced deterrent. To be sure, conventional retaliation offers advantages. It might deflect some of the wartime damage away from the Federal Republic of Germany, lead to gains of territory that could be used to bring the Soviets to the negotiating table, and increase the cost of war to the Eastern Europeans, thereby diminishing their support for the Soviet cause.⁵¹ But the advantages of conventional retaliation may well be outweighed by its liabilities. Insofar as it poses an offensive threat, a strong conventional force undermines the crisis stability side of the equation.

Retaliation may inadvertently threaten Soviet strategic assets, thereby opening up new paths to nuclear war, while encouraging pre-emptive thinking in NATO.⁵² Even though NATO perceives itself as the defender, it will be under pressure to shoot first if the steadfastness of its forward defense depends on the early destruction of enemy rear assets. Moreover, a counteroffensive capability might pose a more realistic threat of conventional intervention in Eastern Europe. The resulting Soviet fears of invasion could be extremely destabilizing, particularly in the case of an Eastern European uprising.

Nonprovocative defense or conventional arms control would permit us to lengthen the fuse without these disadvantages. Such a defense also promises to be less costly than conventional alternatives.⁵² A clearly nonprovocative defense posture could give NATO a more nearly sufficient capacity for defense, while minimizing crisis instability. Because NATO would not possess the structural capacity for strikes deep within Eastern Europe, the Soviet incentive to strike westward would be reduced, as would the likelihood of rapid escalation or spillover from a crisis in Eastern Europe or the Third World. The most desirable way to create a nonprovocative conventional defense would be to include it within the framework of ongoing conventional arms control negotiations, such as the successor to the Mutual Balanced Force Reduction talks. An arms control package combining reductions in shorter range nuclear weapons with negotiated limitations on conventional forces could raise the nuclear threshold while redressing perceived imbalances in the conventional constellation of forces. Even quite conservative analysts support this alternative, although doubts remain about its feasibility.⁵⁴

To a greater extent than no early use, the desirability of no first use depends on assessments of the overall East-West military balance, as well as the current state of military technology. Massive increases in Soviet or regional power vis-à-vis the West or developments in weapons technology radically favoring conventional attackers might upset the conventional balance and require a different balance of policies—one more concerned with deterring deliberate aggression.⁵⁵ With these exceptions, however, proposals for no early use and no first use maintain their desirability across a wide range of situations. Whatever assumptions are made about the structure of the international system—for example, an increase in the number of major actors and the relative decline of the superpowers—a longer fuse remains desirable. Indeed, a long fuse would be most advantageous in a world where nuclear weapons have proliferated.

Similarly, a longer fuse is consistent with many assumptions about the state of military technology. One immediate technological threat, however, should be noted. The recent trend toward the miniaturization of nuclear weapons, if projected into the future, threatens to narrow the firebreak between conventional and nuclear war. New technologies tend to breed new strategies and bureaucratic support. Once introduced, miniaturized weapons may prove difficult to remove.

Disengagement. Disengagement risks significantly weakening the credibility of Western defenses. Thus, advocates of disengagement must rely on a number of highly uncertain assumptions about the underlying military reality. The first of these assumptions is that the Soviet threat of attack is negligible; the second is that allies will compensate for American withdrawal by increasing their own defense efforts; and the third is that American strategic deterrent forces, along with European ground troops, are enough to deter aggression. None of these is utterly implausible, but they introduce a higher level of uncertainty into the analysis than the more conservative no early use and no first use proposals.

Disengagement, for example, runs a higher risk than more moderate proposals of upsetting the military balance. American withdrawal would be aimed at reducing the risk of nuclear war to the United States, but it does not necessarily reduce the chance of nuclear war in Europe or elsewhere. It is unclear how realistic such a policy of isolation is, given the global reach of modern conventional weapons. The security of Europe and Japan—and, through them, Korea and the Middle East—would remain vital interests. Should war break out in any of these areas, an isolationist America would probably be dragged into the conflict under less advantageous circumstances than it would have faced had it remained engaged.

Lengthening the Fuse: The Long Run

The preceding analysis suggests that by lengthening the fuse, American defense policy can move closer to a balanced deterrent and thereby reduce the chance of nuclear war, at least in the short term. But how stable would these proposals be in the long term? Here we consider four long-term factors that constrain policies of lengthening the fuse: domestic politics here and abroad, political relations between the United States and its allies, international economic stability, and the political climate between the superpowers.

Domestic Politics

On both sides of the Atlantic, there is solid public support for the principles behind policies of lengthening the fuse. Since the 1950s, public opinion in both Europe and America has consistently rejected the first use of nuclear weapons.⁵⁶ As Halperin argues: "No one who could be elected president . . . needs to be told that the American people would accept a policy that involved reduced reliance on nuclear weapons. . . . Most Americans believe that their government has been working all along for [their] elimination. . . ." ⁵⁷ Strong public support for arms control should also extend to support for a longer fuse, if the two proposals are linked rhetorically. Reductions in U.S. reliance on nuclear weapons and increases in civilian control, however, may encounter opposition in some branches of the American military.⁵⁸

In comparison with the bold declarations favored by early advocates of no first use, many concrete measures to lengthen the fuse—reforms in command and control procedures, changes in the deployment of conventional forces, moderate reductions or redeployments of nuclear weapons, and altered strategies for their use—have the advantage of being highly technical and outside public scrutiny, and therefore potentially less controversial. Only a few of the specific policies considered in this chapter would be sure to encounter significant opposition abroad. European publics reject increased spending, for example, although they support stronger conventional defense as a concept. Observers of European politics seem to agree that there is little political support for the 4 percent annual increases in military spending needed to fund General Rogers's proposed conventional build-up.⁵⁹ A number of less expensive nonprovocative defense options involve fortifying the intra-German border, which in turn would symbolically underscore the division of Germany, prompting stiff German opposition.⁶⁰ The United States must take care when altering the terms of its nuclear commitment not to create the perception, either in the East or the West, that its broader commitment to its allies has eroded. Thus, although both European and American public opinion may favor a longer fuse, little would be gained by broad public declarations.

Alliance Relations

Allied governments constitute the most serious constraint on the effectiveness of policies to lengthen the fuse. Although there is strong elite

support for conventional arms control, the current policy of flexible response reflects a delicate compromise between the desire of European elites for a firm nuclear guarantee and American fears of escalation. But the prospect that its revision could create deep disharmony within the alliance is often exaggerated. Open disagreements and a lack of coordination between allies are common within NATO and other American security alliances and do not constitute a case against reform. European politicians, for reasons that have more to do with electoral politics than military strategy, routinely oppose changes in the status quo.

Two other threats must be considered as well. First, some contend that without the current U.S. commitment, Europe will be vulnerable to Soviet intimidation. The resulting "Finlandization" of Europe would in the long run weaken the West, encourage further Soviet aggression, and increase the chance of nuclear war—under circumstances highly unfavorable to the West.⁶¹ Fortunately, this commonly heard scenario is probably not very realistic, at least in Europe. The Soviets have attempted to coerce Western European states in the past, but without success. With its superior economic strength and continuing political vitality, Western Europe is unlikely to permit itself to be Finlandized. It is far more likely that in the event of a U.S. withdrawal from Europe, French and German policy would approximate that of Sweden, a hardy neutral that spends a greater percentage of its resources on defense than do most NATO nations. As Jonathan Dean argues, "The concerns of U.S. leaders about the steadfastness of others in the face of Soviet pressures often reflect a supercilious assessment of the superior toughness of Americans and the lesser fiber of foreigners, as well as some exaggeration of Soviet capabilities."⁶² The Finlandization scenario, however, may be somewhat more appropriate to the Third World.

The response of our allies poses a second, more plausible threat of war.⁶³ Rather than capitulating, the allies may well overcompensate for a decreased American commitment with forward deployments of their own nuclear (or chemical and biological) weapons. With greater numbers of front-line states deploying weapons, the chance of catastrophe might increase. The existence of a reliable American nuclear guarantee has helped to restrain a number of U.S. allies, including Korea, Taiwan, and perhaps even Japan and West Germany, from joining the nuclear club. This consideration weighs particularly heavily against proposals for disengagement, but even smaller steps toward lengthening the fuse may trigger an allied reaction. When the United States and the Soviet Union recently began serious negotiations to limit theater nuclear weapons,

for example, the French almost immediately pushed forward with a five-year plan to develop new chemical weapons.⁶⁴ Pakistani and Korean attempts to acquire nuclear technology in the late 1970s were also widely interpreted as a reflection of doubts about the American commitment to its defense.⁶⁵ The nuclearization of such U.S. allies might also be perceived by the Soviet Union or China as a direct threat, thereby triggering a downward spiral in political relations and increasing the danger of war. The constraints imposed by alliance relations suggest that the transition to a world with a longer fuse will have to be managed carefully. The transatlantic and transpacific security bargains are complex, based on a delicate balance of risks, and any attempt to alter the bargain must take into account the response of allies.

International Economic Stability

Those who doubt that the United States can sustain its alliance commitments over the long run without courting international economic disaster deserve more serious attention than they get. The recent accumulation of domestic and international debt by the United States is an epochal event, one that calls into question the enormous cost to the United States of its postwar military deployments. High investments in defense may sap the dynamism of the American economy. In coming years, some U.S. conventional forces will likely be shifted from Europe to the Third World. If an East-West conflict is likely to start in the Third World, as we have argued, this may in fact be optimal for both the United States and its allies. Moreover, there is little doubt that U.S. defense spending will be cut substantially in the next decade. Some moderate withdrawals are inevitable.

Nevertheless, it remains unclear whether, as critics contend, U.S. military spending must lead to international economic instability. Nor is it obvious that disengagement is the only solution. We simply do not know enough about the linkages between defense spending and economic growth to judge. Recent studies demonstrate persuasively that (at least until the Reagan military build-up) the major NATO nations have shouldered roughly equivalent burdens within NATO.⁶⁶ Moreover, the balance of payments effects of U.S. participation are offset by payments from host countries. Any effort by the United States to adjust the burden may simply weigh down other nations, with no net improvement in the world economy. Given the lack of conclusive evidence and the obvious disadvantages of disengagement, it seems most prudent to

wait and see, rather than adopt an extreme policy in expectation of the worst.

Superpower Relations

The success of proposals for lengthening the fuse depends most directly on the state of political relations between the superpowers. Since the primary mission of U.S. nuclear weapons (and most of the world's standing conventional forces) is to deter big-power conventional war, long-term prospects for more ambitious measures reducing reliance on nuclear weapons are directly linked to the stability of the conventional peace between the superpowers. In Europe, where superpower confrontation has been most intense, the trend is favorable. As Jonathan Dean observes, the European confrontation has reached a watershed. Over the next twenty years, there is a possibility of "gradual decline or attrition of the confrontation under the combined impact of arms control, political measures and budgetary shortages."⁶⁷

More radical proposals for lengthening the fuse—including steps toward a partial withdrawal of U.S. troops from foreign commitments—should be seen as a possible benefit of more cordial relations and greater cooperation between the superpowers. The prospect of Soviet military action against Western Europe is likely to arise, as we have seen, only as a result of the escalation of some lesser conflict in Eastern Europe or the Third World, and even then, only if the Soviets are convinced that world war has become inevitable. The key to reducing long-term reliance on nuclear weapons both in Europe and elsewhere may thus lie in limiting political and military confrontation in the Third World. Here the prospects are less favorable. Although superpower intervention in the Third World seems to be becoming more expensive and less effective, there has not yet been any enduring decline in the actual use of force.⁶⁸ If conventional intervention becomes less attractive over the long run, the need for nuclear deterrence should diminish accordingly. Then more radical reductions in the role and size of nuclear arsenals may become possible.

Conclusion

Hawks, concerned that nuclear war might result from deliberate Soviet aggression invited by Western weakness, resist proposals to lengthen the fuse unless they are coupled with much stronger conventional forces. Doves, concerned that nuclear war is most likely to come about inadvertently, pre-emptively, or simply for lack of an alternative, call for a

longer fuse even without compensation. Proposals to lengthen the fuse offer ways of striking a balance between these two concerns. Precisely where the balance should be struck, however, depends on the military and political ramifications of the proposal and on the political and psychological assumptions made about Soviet intentions. Table 1 summarizes the conditions under which the three proposals discussed in the chapter are desirable.

As we move from no early use to disengagement, the desirability of the proposals rests on increasingly uncertain assumptions. No early use proposals promise to reduce the likelihood of nonrational paths to war without significantly degrading the deterrent against deliberate attack. No first use aims to fashion a more balanced deterrent. To the extent that our current posture overemphasizes the threat of a deliberate all-out attack, while neglecting the threats of pre-emptive and inadvertent nuclear use, the substitution of conventional forces for nuclear forces is in principle desirable—even if the reductions in nuclear weapons are not offset by increases in conventional forces. Conventional forces must be deployed in a manner unambiguously nonprovocative. Because of the threat of proliferation and the cost of conventionalization, a conventional arms control agreement offers the optimal precondition (although not a necessary one) for the introduction of a longer fuse. Because their effects are felt indirectly, it is easy to overlook bureaucratic reforms, such as those proposed by Halperin. But doctrinal statements and bureaucratic procedures that reinforce separate procedures and controls for nuclear weapons would be indispensable parts of any policy of lengthening the fuse.

Disengagement is the most radical of the proposals considered here, and the least predictable. It compounds the problems raised by more moderate proposals and is nearly certain to lead to major political and diplomatic upheavals. Proponents of disengagement assume that the Soviet Union is overdeterred, that existential deterrence is strong, and that an American withdrawal from these areas will lead to increased allied defense efforts, a more equitable distribution of burdens, and thus a more stable deterrent. But other, less desirable political alternatives are also possible, including nuclear proliferation and the erosion of political will and military strength in the West. Although the threat of Finlandization has been wildly exaggerated, American disengagement might lead to higher overall levels of military spending in the West, nuclear proliferation, and, nevertheless, weaker defense. Advocates of disengagement are correct to point out that budget constraints will prevent the United States

Table 1. Lengthening the Fuse: Conditions of Desirability

<i>Proposal</i>	<i>Specific Measures</i>	<i>Military Conditions</i>	<i>Political Conditions</i>
No Early Use	More survivability, tighter PAL control, clearer command structure, rearward deployment, stronger nonprovocative conventional forces.	<i>Desirable</i> Increases crisis stability without eroding deterrent significantly. Forces must be nonprovocative.	<i>Desirable</i> Little public or elite reaction; low cost.
No First Use	Reduce nuclear forces; bolster nonprovocative defense or negotiate conventional arms control. Separate conventional and nuclear commands.	Reductions <i>desirable</i> up to a point, even without adding conventional forces; <i>desirable</i> thereafter, at some rate of substitution, down to a minimum needed to deter enemy first use.	<i>Conditionally desirable</i> if Soviet threat moderate, cost affordable and allied reaction moderate.
Disengagement	Withdrawal from nuclear and conventional commitments of extended deterrence.	<i>Conditionally desirable</i> only if there is some compensation for U.S. withdrawal.	<i>Desirable only under highly uncertain conditions:</i> Soviet threat very low; allies increase spending without proliferation; existential deterrence strong.

from maintaining its current commitments to NATO, but it is doubtful that complete withdrawal is the preferred response.

There is long-term political support among Western publics for many no early use and no first use proposals, and perhaps for a limited disengagement of American forces. Increasingly, there is elite support as well. Proposals to lengthen the fuse offer a realistic way of building on the progress of the past four decades and ensuring the continued avoidance of nuclear war.

can occur in highly robust nuclear situations, as has happened in our current world of highly redundant and diversified assured destruction capabilities.

Second, the use of the term *arms race stability* might seem to imply a belief that arms races increase the probability of war. There is substantial disagreement on this question. Nevertheless, one can assert that the probability of war depends on the robustness of the superpowers' nuclear capabilities without believing that, in general, arms races cause war. Robustness is a measure of how sensitive a country's security would be to the adversary's build-up of forces. It does not imply that the process of competitive armament itself leads to war. Rather, assuming the superpowers continue to build up forces, a war is more likely when the initial nuclear capabilities are less robust.

31. This is not to argue that the United States would necessarily be less secure when it is less vulnerable, for if war occurs, it would be less costly. I examine this tradeoff in more detail in the following section.
32. On this point see Carter, *Directed Energy Missile Defense in Space*, pp. 45-46 (note 5).
33. Moreover, when a country's defenses are not diversified, its low vulnerability is susceptible to catastrophic failure, because one offensive breakthrough by the adversary could render the country vulnerable to large attacks.
34. For a discussion of the factors that affect the probability that countries will be able to cooperate, see Jervis, "Cooperation Under the Security Dilemma," pp. 167-214 (note 13).
35. On these points see Glaser, "Do We Want the Missile Defenses We Can Build," pp. 37-40 (note 12); and Albert Carnesale, "Special Supplement: The Strategic Defense Initiative," in George E. Hudson and Joseph Kruzal, eds., *American Defense Annual: 1985-1986* (Lexington, MA: Lexington Books, 1985), p. 220.
36. On disarmament, see Chapter 1. Some argue that the effects of defenses are quite different when the superpowers have agreed to total nuclear disarmament than when they have agreed to very deep cuts, say of 500 weapons. According to this argument, in the former case defenses create fewer problems and complications; because the superpowers have disarmed, defenses do not reduce their ability to inflict damage. In the latter case, however, defenses create incentives to build offenses by reducing the ability to inflict damage. Whether this reaction would occur depends on how the superpowers manage the deployment of defenses. Because defenses might enhance robustness, the superpowers might prefer to achieve a given level of reduced vulnerability by deploying defenses instead of further reducing offenses. On the other hand, in the case of total disarmament defenses could increase uncertainties about the outcome of a rearmament race. Net assessments in each case require considering the risks stemming from a variety of static and dynamic uncertainties, and the related effect of defenses on superpower politics.

There does not appear to be a general answer as to whether the United States would be more secure in the cooperative or the competitive world. Although we tend to focus on the stability of military arrangements, it seems likely that U.S. security in the cooperative world would depend heavily on the continuation of the dramatically improved superpower relations that would probably be necessary for near-disarmament. Thus, this comparison requires

knowledge of the superpower relationship that made extensive cooperation possible in the first place. Certain military comparisons are possible, however. For example, for defenses of a given effectiveness, cooperation could increase robustness, since decreasing the size of offenses would reduce the impact of a breakthrough in the ability of the offense to penetrate defenses. On the other hand, a general conclusion is not possible when comparing worlds that depend on defenses of unequal effectiveness.

37. By definition the costs of countervalue retaliation following pre-emptive attack would be lower in BAD than in MAD. In certain cases, however, the collateral damage from a pre-emptive attack would be higher in BAD than MAD. How the total costs in these wars compare depends on how the superpowers fight following the pre-emptive attack.
38. This analysis also leads to another controversial conclusion: the transition from MAD to low vulnerability might be less dangerous than the endpoint. For a more detailed discussion see Charles L. Glaser, "Managing the Transition," in Samuel F. Wells and Robert S. Litwak, eds., *Strategic Defenses and Soviet-American Relations* (Cambridge, MA: Ballinger, 1987). Glenn A. Kent and Randall J. DeValk have also analyzed the transition in *Strategic Defense and the Transition to Assured Survival*, R-3369-AF (Santa Monica, CA: Rand Corporation, October 1986).
39. For discussions of likely alliance reactions to extensive U.S. homeland defense, see Ivo H. Daalder and Lynn Page Whittaker, "SDI's Implications for Europe: Strategy, Politics, and Technology," in Stephen J. Flanagan and Fen Osler Hampson, eds., *Securing Europe's Future* (London: Croom Helm, 1986), and David S. Yost, "Ballistic Missile Defense and the Atlantic Alliance," *International Security* 7, no. 2 (Fall 1982): 154-58.
40. Dyson, *Weapons and Hope*, p. 284, makes a similar observation (note 22).
41. Kenneth N. Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979), p. 168. See also Waltz, "The Stability of a Bipolar World," *Daedalus* 93, no. 3 (Summer 1964): 881-909.
42. *New York Times*, March 30, 1983, p. 14.

Chapter 4: Lengthening the Fuse

1. In 1984, 81 percent of American citizens believed that it was U.S. policy to use nuclear weapons "if and only if" our adversaries used them against us first. Daniel Yankelovitch and John Doble, "The Public Mood," *Foreign Affairs* (Fall 1984): 45.
2. Morton H. Halperin, *Nuclear Fallacy: Dispelling the Myth of Nuclear Strategy* (Cambridge, MA: Ballinger, 1987), pp. 23-60; McGeorge Bundy, "The Unimpressive Record of Atomic Diplomacy," in Gwyn Pins, ed., *The Nuclear Crisis Reader* (New York: Vintage Books, 1984); Barry M. Blechman and Stephen S. Kaplan, *Force without War: U.S. Armed Forces as a Military Instrument* (Washington, DC: Brookings Institution, 1978).
3. William R. Kaufman, "Nuclear Deterrence in Central Europe," in John Steinbrunner and Leo Sigal, eds., *Alliance Security: NATO and the No-First-Use Question* (Washington, DC: Brookings Institution, 1978).

4. John Mearsheimer, "Nuclear Weapons and Deterrence in Europe," *International Security* (Winter 1984-85): 20.
5. Bernard W. Rogers, "The Atlantic Alliance: Prescriptions for a Difficult Decade," *Foreign Affairs* (Summer 1982): 1151-52.
6. McGeorge Bundy, George F. Kennan, Robert S. McNamara, and Gerard Smith, "Nuclear Weapons and the Atlantic Alliance," *Foreign Affairs* (Spring 1982): 757. Here, as elsewhere in this chapter, a discussion of Europe stands in for all possible situations in which nuclear weapons might be used first.
7. For a detailed history of changing U.S. conceptions toward first use, see Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St. Martin's Press, 1979). In the 1950s, the view that aggression could be met by "massive retaliation" or by small mobile battlefield weapons succumbed to critics who pointed out that it was neither safe nor credible in a world in which the United States itself was vulnerable. In the 1960s, it was replaced, at least within NATO, by "flexible response," which assumed a longer conventional fuse.
8. See, for example, Robert McNamara, "The Military Role of Nuclear Weapons," *Foreign Affairs* (Winter 1983): 79.
9. Joseph S. Nye, Jr., "Nuclear Learning and U.S.-Soviet Security Regimes," *International Organization* (Summer 1987): 371-402.
10. John Lewis Gaddis, "The Long Peace: Elements of Stability in the Postwar International System," *International Security* (Spring 1986): 99-142; Blechman and Kaplan, eds., *Force without War* (note 2).
11. This was the conclusion of a classic debate in the history of nuclear strategy, held between 1957 and 1960 and involving, among others, Henry Kissinger, Robert Osgood, James E. King, Paul Nitze, Morton Halperin, Bernard Brodie, and William Kaufmann. The debate ended when Henry Kissinger acknowledged the "failure . . . to develop a coherent doctrine for tactical nuclear weapons." For a summary of the debate, see Freedman, *Evolution of Nuclear Strategy*, pp. 106-19 (note 7).
12. Bundy et al., "Nuclear Weapons," p. 765 (note 6). See also Halperin, *Nuclear Fallacy*, p. 102 (note 2).
13. Robert McNamara, "Military Role," p. 79 (note 8).
14. On the relative importance of these factors, see Graham Allison, Albert Carnesale, and Joseph S. Nye, Jr., *Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War* (New York: W.W. Norton, 1985); Richard Ned Lebow, *Nuclear Crisis Management: A Dangerous Illusion* (Ithaca: Cornell University Press, 1987); and Daniel Charles, *Nuclear Planning in NATO: Pitfalls of First Use* (Cambridge, MA: Ballinger, 1987).
15. McGeorge Bundy et al., "Back from the Brink," *Atlantic Monthly* (August 1986), p. 37.
16. Charles, *Nuclear Planning*, p. 36 (note 13).
17. Barry Posen, "Inadvertent Nuclear War? Escalation and NATO's Northern Flank," *International Security* (Fall 1982): 28-54.
18. Kurt Gottfried, Henry W. Kendall, and John M. Lee, "'No First Use' of Nuclear Weapons," *Scientific American*, March 1984, p. 34. The preceding two points were also stressed by the critics of the 1950s (note 11).
19. Earl C. Ravenal, "Europe without America: The Erosion of NATO," *Foreign Affairs* (Summer 1985): 1024. See also Bundy et al., "Nuclear Weapons," pp. 761ff (note 6) and Halperin, *Nuclear Fallacy*, chap. 7 (note 2).
20. Earl C. Ravenal, "Counterforce and Alliance: The Ultimate Connection," *International Security* (Spring 1982): 26.
21. Sherle R. Schwenninger and Jerry Sanders, "The Democrats and a New Grand Strategy," *World Policy Journal* (Summer 1986): 387.
22. David Calleo, "Inflation and American Power," *Foreign Affairs* (Spring 1981): 781-812. See also David Calleo, *The Impervious Economy* (Cambridge, MA: Harvard University Press, 1982).
23. Melvyn Krauss, *How NATO Weakens the West* (New York: Simon and Schuster, 1986).
24. This distinction is found in Johan Holst, "Moving toward No First Use in Practice," in Steinbrunner and Sigal, *Alliance Security*, p. 188 (note 3).
25. Leon Sigal, "Political Prospects for No-First-Use," in Steinbrunner and Sigal, *Alliance Security*, p. 188 (note 3). Indeed, a declaration without corresponding changes in deployment and planning may degrade the deterrent without opening up any new defensive possibilities. See Earl Ravenal and Donald Haffner, "Letter," *Foreign Affairs* (Summer 1982): 1175-78.
26. They recommend that the matter should be studied, according to Bundy. McGeorge Bundy, "'No First Use' Needs Careful Study," *Bulletin of the Atomic Scientists* (June/July 1982): 6-8.
27. For example, Henry Kissinger, "Strategy and the Atlantic Alliance," *Survival*, September-October 1982, pp. 194-200.
28. Karl Kaiser, George Leber, Alois Mertes, and Franz-Josef Schulze, "Nuclear Weapons and the Preservation of Peace," *Foreign Affairs* (Summer 1982): 1171-80.
29. Rogers, "Atlantic Alliance" (note 5).
30. Samuel Huntington, "Conventional Deterrence and Conventional Retaliation," *International Security* (Winter 1983/84): 32-56.
31. Huntington's proposal does, however, go beyond the restoration of the status quo ante called for in the NATO official policy statement numbered MC 14/3. We acknowledge Dr. Stephen Flanagan for pointing this out.
32. Bundy et al., "Back from the Brink," p. 35 (note 15).
33. Bundy et al., "Back from the Brink," pp. 40-42 (note 15). For a selection of related proposals in what has become a very large literature, see Lawrence Freedman, "NATO Myths," *Foreign Policy* (Winter 1981-82): 62ff; Union of Concerned Scientists, *No First Use: Preventing Nuclear War* (Cambridge, MA: UCS, 1983); and William Kaufmann, "Nonnuclear Deterrence," in Steinbrunner and Sigal, *Alliance Security* (note 3).
34. Holst, "Moving toward No First Use," pp. 188-94 (note 24).
35. Halperin, *Nuclear Fallacy*, p. 123 (note 2). The summary below draws on pp. 76-123 passim.
36. Ravenal, "Europe without America," pp. 1020, 1035 (note 19).
37. Ravenal, "Europe without America," p. 1031 (note 19).
38. See the epigraphs to this chapter.
39. Josef Joffe, "The Political Role of Nuclear Weapons: No-First-Use and the Stability of the European Order," Institute for East-West Studies, Occasional Paper No. 3, n.d., p. 13.

40. An intriguing attempt to overcome these difficulties was made by Richard Betts in "Compound Deterrence Vs. No-First-Use: What's Wrong with What's Right," *Orbis* (Winter 1985): 695-718. Betts takes the probability of Soviet attack to be a function of (1) the Soviet desire to attack; (2) the probability that NATO conventional defense will fail; (3) the probability of deliberate escalation by the United States, France, or Britain; and (4) the probability of accidental escalation. Problems of scaling aside (e.g., all of the alternative postures he examines may pose unacceptable risks to the Soviets), the major weakness of Betts' analysis is that it ignores the crisis stability or controllability issues, except as inputs into the Soviet deterrent calculation.
41. We treat hypothetical scenarios with the methods recommended by Alexander George for examining real-world cases. See Alexander George, "Case Studies and Theory Development: The Method of Structured, Focused Comparison," in Paul Lauren, ed., *Diplomacy: New Approaches in History, Theory and Policy* (New York: Free Press, 1981). For the use of case studies in this context, see Allison et al., *Hawks, Doves, and Owls* (note 14).
42. Jonathan Dean, *Watershed in Europe* (Lexington, MA: Lexington Books, 1987), p. xiv.
43. Fen Osler Hampson, "Escalation in Europe," in Allison et al., *Hawks, Doves, and Owls*, pp. 80-114 (note 14).
44. Francis Fukuyama, "Escalation in the Middle East and the Persian Gulf," and Henry S. Rowen, "Catalytic Nuclear War," in Allison, et al., *Hawks, Doves, and Owls*, pp. 115-47, 148-63.
45. Michael McCgwire, *Military Objectives in Soviet Foreign Policy* (Washington, DC: Brookings Institution, 1987), p. 369.
46. The concept of a balanced deterrent, which lies at the heart of this analysis, deserves closer examination that it received in Allison et al., *Hawks, Doves, and Owls* (note 14). Marc Trachtenberg states the problem clearly: "We are talking here about a trade-off: we can drive down the probability that we might escalate . . . but in so doing we lose a bit of the deterrent effect. Is there anything that can be said about the terms of this trade-off?" Trachtenberg suggests that we employ the "general principle of diminishing marginal utility," by which he means that as the credibility of the deterrent decreases, the value of each increment increases. We diverge from Trachtenberg by arguing that the likelihood of a nonrational path to nuclear war, which he inexplicably ignores, is greater than that of a rational path, and that this ought to be viewed as a disadvantage of a first use defense. If we accept the metaphor of marginal utility, it follows that the safest place to be is at an equilibrium point between the two dangers, a point where any change would increase the overall probability of nuclear war. Since a longer fuse would reduce the probability of inadvertent first use while leaving the deterrent substantially intact, we conclude that lengthening the fuse would move us closer to equilibrium. Thus, whereas Trachtenberg finds more deterrence and less stability the safest policy, we propose the opposite. See Marc Trachtenberg, "The Question of No-First-Use," *Orbis* (Winter 1986): 753.
47. McGeorge Bundy, "Existential Deterrence and its Consequences," in Douglas MacLean, ed., *The Security Gamble* (Totowa, NJ: Rowman and Allanhead, 1984).
48. The following analysis draws heavily on Catherine Kelleher, "NATO Nuclear Operations," in Ashton B. Carter, John D. Steinbrunner, and Charles A. Zraket, eds., *Managing Nuclear Operations* (Washington, DC: Brookings Institution, 1987). See also J. Michael Legge, *Theater Nuclear Weapons and the NATO Strategy of Flexible Response* (Santa Monica, CA: Rand Corporation, 1983), p. 74.
49. Thus, as Representative Les Aspin points out, the removal of short- and medium-range weapons from Europe would "have us eliminate the weapons we should keep and keep the weapons we should eliminate." While less than ideal, it might still be argued that the zero-option and the momentum it creates toward further reductions are worth the risk. For a discussion, including the quotation above, see Graham Allison and Albert Carnesale, "Can the West Accept *Da* for an Answer?" *Daedalus* (Summer 1987): 69-94.
50. Kelleher, "NATO Nuclear Operations," (note 48).
51. See Huntington, "Conventional Deterrence" (note 30).
52. See Posen, "Inadvertent Nuclear War?" (note 17).
53. For the savings possible from even modest moves in the direction of a fully defensive posture, see Kaufmann, "Non-Nuclear Deterrence" (note 3).
54. To the extent that the avoidance of nuclear war has supplanted victory as the primary Soviet concern, there may be room for accommodation. See McCgwire, *Military Objectives*, pp. 88-89, 372-73 (note 45). The reasons for the fourteen-year stalemate at the conventional arms control talks in Vienna are complex, but recent breakthroughs at the negotiations on intermediate-range nuclear systems offer grounds for optimism.
55. There are good reasons to believe that situations in which the offense is perceived to have an advantage are extremely unstable. Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics* 30, no. 2 (1978): 167-214. The paradigmatic case is World War I. See Steven Miller, ed., *Military Strategy and the Origins of World War I* (Princeton, NJ: Princeton University Press, 1984).
56. Thomas W. Graham, "Future Fission? Use of Nuclear Weapons, Extended Deterrence and American Public Opinion." Occasional Paper, Center for Science and International Affairs, Harvard University, forthcoming.
57. Halperin, *Nuclear Fallacy*, p. 147 (note 2).
58. Halperin, *Nuclear Fallacy*, p. 150 (note 2).
59. Stephen Flanagan, "NATO's Conventional Defense Choices in the 1960s," in Stephen Flanagan and Fen Osler Hampson, eds., *Securing Europe's Future* (London: Croom & Helm, 1986).
60. See Chapter 5, "Nonprovocative and Civilian-Based Defenses."
61. Henry Kissinger has voiced this fear with respect to no first use policies as well. The argument is more compelling in this context. See his "Strategy," p. 197 (note 27).
62. Dean, *Watershed in Europe*, p. 82 (note 42).
63. International relations theory contrasts these two responses to a shift in the balance of power. Finlandization and alliance disintegration constitute "bandwagoning," in which smaller nations ally with the stronger nation, while proliferation and stronger West European cooperation constitute "balancing," in which they strengthen themselves against it. The general evidence on alliance behavior suggests that states prefer to balance. This lends further support to our scepticism of Finlandization scenarios. See Stephen Walt,

- "Alliance Formation and the Balance of World Power," *International Security* (Spring 1985): 3-43.
64. See "French Press Plan for Chemical Arms," *New York Times*, March 12, 1987, p. A15.
 65. Joseph A. Yager, "Nuclear Supplies and the Policies of South Korea and Taiwan toward Nuclear Weapons," in Rodney Jones et al., eds., *The Nuclear Suppliers and Nonproliferation* (Lexington, MA: Lexington Books, 1985).
 66. The most comprehensive literature review and the most sophisticated analysis can be found in Loretta De Luca, "Free-Riding in NATO: Reality or... Myth?" (Ph.D. Dissertation, Cornell University, August 1986).
 67. Dean, *Watershed*, p. xiv (note 42).
 68. For an overly sanguine view, see Randall Forsberg, "The Case for a Third-World Non-Intervention Regime," paper presented to the Third Sarnia Symposium, Guernsey, March 18-21, 1987.

Chapter 5: Nonprovocative and Civilian-Based Defenses

1. See Robert Jervis, *Perception and Misperception in International Politics* (Princeton, NJ: Princeton University Press, 1976), chap. 3, and "Cooperation Under the Security Dilemma," *World Politics* 30, no. 1 (January 1978): 167-214; and George Quester, *Offense and Defense in the International System* (New York: Wiley, 1977).
2. Social Democratic party of Germany, "Peace and Security," Motion for the Party Conference, Nuremberg, August 25-29, 1986, p. 5.
3. Randall Forsberg, "Nonprovocative Defense: A New Approach to Arms Control," unpublished paper, Institute for Defense and Disarmament Studies, October 1986. See also the revised version of this paper, "A Global Approach to Non-Provocative Defense," Alternative Defense Working Paper no. 6 (Brookline, MA: Institute for Defense and Disarmament Studies, June 1987).
4. Gene Sharp, *Making Europe Unconquerable* (Cambridge, MA: Ballinger, 1986). Other major works on these concepts include Anders Boserup, *War Without Weapons: Non-Violence in National Defense* (New York: Schocken, 1975), and Stephen King Hall, *Defense in the Nuclear Age* (London: Victor Gallancz, 1958). For an assessment of some of these concepts, see Adam Roberts, "Civilian Defense Twenty Years On," *Bulletin of Peace Proposals* 9, no. 4 (1978): 293-300.
5. Sharp, *Making Europe Unconquerable*, p. 15 (note 4).
6. For more recent scholarly analysis on the instability of offensive postures, see Jack Snyder, *The Ideology of the Offensive* (Ithaca, NY: Cornell University Press, 1984), and Stephen Van Evera, "The Cult of the Offensive and the Origins of the First World War," *International Security* 9, no. 1 (Summer 1984): 58-107.
7. Lutz Unterseher, "Emphasizing Defense: An Ongoing Non-Debate in the Federal Republic," in Frank Barnaby and Marlies ter Borg, eds., *Emerging Technologies and Military Doctrine* (New York: St. Martin's, 1986), pp. 116-18.
8. Quoted in Adam Roberts, *Nations in Arms*, 2d ed. (New York: St. Martin's, 1986), p. 258.
9. "Report of the Fourth Workshop of the Pugwash Study Group on Conventional Forces," *Pugwash Newsletter* 23, no. 4 (April 1986): 113.
10. "Peace and Security," p. 7 (note 2).
11. *Arms Control Reporter*, Section 402 (Brookline, MA: Institute for Defense and Disarmament Studies, 1986, 1987).
12. Karsten Voigt, "Interim Report of the Sub-Committee on Conventional Defence: New Strategies and Concepts," North Atlantic Assembly, November 1986, pp. 20-27.
13. Egbert Boecker and Lutz Unterseher, "Emphasizing Defense," in Barnaby and ter Borg, p. 89 (note 7).
14. Carl von Clausewitz, *On War*, Book 6, trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), p. 358.
15. Dr. Albrecht A.C. von Müller of the Max Planck Institute, Starnberg, West Germany, has provided a lucid exposition of this argument in his unpublished paper, "Integrated Forward Defense: Outlines of a Modified Conventional Defense for Central Europe," 1985, p. 8, and *Pugwash Newsletter*, p. 114 (note 9).
16. Von Müller, "Integrated Forward Defense" (note 15).
17. Boecker and Unterseher, "Emphasizing Defense," p. 91 (note 14).
18. Hew Strachan, "Conventional Defence in Europe," *International Affairs* (London) 61, no. 1 (Winter 1984/85): 31. See also Horst Afheldt, *Verteidigung und Frieden* (Munich: Deutsche Taschenbuch Verlag, 1979).
19. Jochen Loser, "The Security Policy Options for Non-Communist Europe," *Armada International* 2 (March/April 1982): 66-75.
20. Von Müller, "Integrated Forward Defense," pp. 19-25 (note 15), and Norbet Hannig, "Can Western Europe Be Defended By Conventional Means?" *International Defense Review* 1 (1979): 27-34.
21. Boecker and Unterseher, "Emphasizing Defense," pp. 102-3 (note 14).
22. Frank Barnaby and Stan Windass, *What Is Just Defence?* (Oxford: Just Defence, 1983).
23. Report of the Alternative Defence Commission, *Defence Without the Bomb* (New York: Taylor & Francis, 1983), pp. 8-11, 249-79.
24. Richard Smoke, "For a NATO Defensive Deterrent," unpublished manuscript, Brown University.
25. Forsberg, "Non-Provocative Defense" (note 3).
26. *Ibid.*, pp. 32-33.
27. *Ibid.*, pp. 33-34.
28. Sharp, *Making Europe Unconquerable*, p. 11 (note 4).
29. King-Hall, *Defense in the Nuclear Age*, pp. 145-59 (note 4).
30. Gene Sharp, *The Politics of Non-Violent Action* (Boston: Porter Sargent, 1973), pt. 2.
31. Sharp, *Making Europe Unconquerable*, chap. 3 (note 4).
32. Government of the Netherlands, Ministry of Defense, Memorandum by the Minister of Defence, Jacob de Ruiter, "Reinforcement of the Conventional Defense and Emerging Technologies," June 26, 1985, paragraph 26.
33. H.W. Hofmann, R.K. Huber, and K. Steiger, "On Reactive Defense Options," in R.K. Huber, ed., *Modeling and Analysis of Conventional Defense in Europe* (New York: Plenum Press, 1986), pp. 92-140.
34. Wilhelm Nolte, "Cofunction of Civilian Resistance and Military Defence?" Paper presented at Consultation on Non-Nuclear Alternatives in Europe, University of Bradford, England, July 1986.