A SOVIET DISARMING FIRST STRIKE:

HOW REAL IS THE THREAT?

by

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One of the fundamental security threats faced by the United States is the prospect of a Soviet disarming first strike. The fear is that a nuclear strike by the Soviets could so devastate US strategic forces that the United States could not effectively retaliate. Debates over the nature and validity of such a threat have occurred regularly since 1945, even in the abstract, before the Soviets detonated their first nuclear device. The latest first-strike threat centers on the jeopardy of America's land-based missiles. Some argue that the missiles are vulnerable to Soviet attack and that their destruction might leave the United States with no alternative but surrender. Americans are being challenged to develop policies to meet this threat—although they are uncertain about its credibility—in a period characterized not by American nuclear superiority but, at best, by nuclear parity.

The disarming-first-strike threat is so fundamental to American national security policy (it is, for example, the basis of current arguments over methods of basing ICBMs) and so costly (both in expenditures to defend against it and in potential costs resulting from inadequate preparation) that it warrants the most thorough examination possible. Americans must understand its nature and the underlying assumptions of both the threat and the proposed countermeasures that it evokes.

Military threats are usually assessed in terms of the enemy's military capabilities and his inferred intention to use them. Because intentions are difficult to discern, however, some argue that military capabilities alone are the best indicators of the size, or the extent, or the degree of a military threat. A threat, then, is analyzed and its severity is judged on the basis of the numbers of missiles, planes, tanks, divisions, etc., that an enemy possesses—on hardware that can be counted or measured. Or is it? In reality, threat assessments are much more complex. Capabilities, regardless of size, are often discounted if no hostile intentions are perceived. British nuclear capabilities, for example, are not considered a threat to the United States. Further, capabilities are a function of another factor, the perception of one's own vulnerability. The military capabilities that matter are those believed useful for exploiting some critical weakness. We ignore those to which we believe ourselves invulnerable (or relatively so). Thus, at a very fundamental level, threats are screened—"this development is not a threat, that development is"—not on the basis of capabilities alone, but rather on the basis of conceptions of one's own vulnerabilities and how specific capabilities can be used to exploit them.

The disarming-first-strike threat is subject to such conceptual reasoning. It is

initially the product of analysis of what the United States believes are serious vulnerabilities, and secondarily the result of an assessment of which nation has the potential to exploit those vulnerabilities. Potential for exploitation is measured by estimates of capabilities and intentions.

It is important to note that these three elements—vulnerabilities, capabilities, and intentions—are individually subject to change, that they become preconditions for a disarming first strike only in certain contexts (or combinations), and that there is more than one set of preconditions that might pose a disarming-first-strike threat. Not only are assessments of an opponent's capabilities and intentions and one's own vulnerabilities independently variable, but the degree of threat is highly dependent upon the strategy employed to achieve security objectives, and on one's forecast of the nature of future conflicts. Thus, disputes over the credibility of the threat arise not only from disagreements over the accuracy of estimates of the elements of the threat (vulnerabilities, capabilities, and intentions), but also from disagreements over the fundamental definition of what might constitute a disarming-first-strike threat. Indeed, the problem of definition is the basis for arguments between those who would see a Soviet disarming-first-strike threat in any Soviet ability to destroy land-based US ICBMs with such a strike, and those who would agree with Secretary of Defense Harold Brown's fiscal 1981 statement that the "hypothetical ability of the Soviets to destroy over 90 percent of our ICBM force cannot be equated with . . . a disarming first strike."[1] Here the dispute lies not in different estimates of Soviet capabilities, but over fundamental strategy, that is, which strategy best promotes US national security. While the destruction of land-based missiles is clearly a disarming first strike to those who argue that security is insured only by a strong counterforce capability, it is not considered a disarming first strike by those who believe that US security is assured by a smaller countervalue or a partial counterforce capability.

Disarming-first-strike threats are further defined by beliefs about how disarming might occur. Clausewitz, in his military treatise *On War*, postulated that military victory occurs as the result of either the physical or moral disarming of the enemy ("moral disarming" meaning destroying the enemy's will to fight). This is surely an important distinction. Many battles and wars have ended while the defeated side still retained large numbers of forces. Yet, while physical disarming has come with a higher cost, Americans have tended to view it as the less equivocal and more preferable means of war termination and, in the nuclear era, have argued that the destructiveness of nuclear weapons makes this outcome rapidly possible.

AMERICAN CONCERNS

Although current military analysis often considers the problem of a Soviet first strike under conditions of heightened military alert, the threat that most influences US operational planning and strategic nuclear force acquisition remains that of a physically disarming Soviet "bolt-from-the-blue" attack against US retaliatory delivery systems. It is postulated that such an attack would strike US forces without any strategic warning and thus have great potential for destroying a large percentage of US retaliatory forces. The dominance of this concern can be traced to both cultural and historical factors, and a number of useful

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lessons can be gleaned from a review of past US perceptions of this threat.

Concern over a disarming first strike has usually been prompted by individual advances in Soviet technology: the acquisition of nuclear weapons, of intercontinental aircraft, of intercontinental ballistic missiles, and of other technical capabilities. While such developments are critical, however, they fail to explain fully the American preoccupation with this threat. Additional influences, by no means uniquely American, have been the advancement of a particular theory of war and the employment of a particular method of defense analysis, both of which we will examine in some detail, and an inordinate feeling of vulnerability that gripped Americans after World War II.

Theory of War: The theory of war envisages a conflict commencing with a quickly decisive surprise attack, a country's fate being sealed by an initial violent encounter from which it could not recover. All military planners hope for a short war, but the American lineage for this theory is traced from Mahan to Mitchell and thence to airpower enthusiasts, strategists, and scientists in the postwar period.

After World War II, Americans were convinced that they would be the first target of any future world aggressor. Further, they believed that an aggressor would use nuclear weapons, if available. Such weapons were so destructive that Americans found it difficult to imagine a war lasting more than the time necessary to deliver an initial nuclear attack. Regardless of who "won" such a conflict, it would, of necessity, end quickly. And, Americans believed that it would begin with a surprise attack because both the destructiveness of nuclear weapons and the relative lack of American military preparedness (compared to either the nation's mobilized war potential or to the estimated mobilized strength of the Soviet Union) provided incentives for a surprise attack. Pearl Harbor was a pre-nuclear reminder of the possibilities.

Surprise attack received much attention. In the 1950s the RAND Corporation conducted a number of important studies on US force vulnerability and the possibilities of Soviet disarming first strikes on American nuclear forces. Other groups, such as the Technological Capabilities Panel (a high-level committee appointed in 1954 to study how American technology might be used to meet the threat of surprise attack), focused on the more general question of surprise in nuclear war.[2] But it was not just a surprise in *time*—a "bolt from the blue"—that Americans feared; they also feared a surprise in *technology*. Many feared the development of some new weapon that would suddenly change the military balance and allow the Soviet Union to launch a disarming attack on the United States.

Defense Analysis: In this environment, the disarming first strike became more than a scenario for a possible opening attack; it became the scenario for the war. It was a vision reinforced by the American technique of analyzing nuclear war—an increasingly highly stylized technical approach that concentrated on major weapons and nuclear exchanges, and might best be described as an engineering "test to failure." The "bolt-from-the-blue" surprise disarming first strike was the supposed worst-case contingency, the ultimate test. US nuclear forces had to be designed and deployed to withstand this ultimate catastrophe.

This method of analysis reinforced concentration on a numerical assessment of physically disarming strikes rather than revealing other, more subtle approaches to warfare. Herman Kahn, an alumnus of RAND, revealed much about American thought on, and faith in, such methods in his 1960 book *On Thermonuclear War*. Kahn argued at one point that the analysis or "gaming" of war could be made much more reliable than before, partly because of the new analytical techniques developed to study war, but principally because in nuclear war "the problems that arise are really problems of physics and engineering."[3] What seemed most important to American analysts were the physical characteristics of the weapons. The weapons' method of use was assumed. Some critics noted that the human factor, such an important element in earlier analyses of warfare and absolutely critical to decisions on how military forces were to be used (i.e.,

limited or unlimited application of force), was largely ignored in the quest for increasing rigor in the analysis of a subject that all agreed contained great uncertainties.

Sense of Vulnerability: The concerns of Americans with regard to their vulnerability focused on two interrelated areas, the physical and the social. The country was perceived as being physically vulnerable because the oceans could no longer protect it from direct attack. America's cities and industrial wealth were concentrated and prey to sudden air attack. Additionally, through much of the 1950s, American military forces, particularly those of the Strategic Air Command, were concentrated and, as the RAND studies argued, highly vulnerable to even a small Soviet surprise nuclear attack. Early efforts to reduce this physical vulnerability generally proved unsatisfactory because Soviet weapon and delivery-system developments (hydrogen weapons, jet bombers, and intercontinental ballistic missiles) and Soviet countermeasures negated many of the improvements. The rapid expansion of American nuclear forces in the early 1960s, however, temporarily reduced US concern over military vulnerability, especially with the introduction of improved basing modes that made nuclear forces more difficult to find and destroy (putting ICBMs in hardened underground silos and placing ballistic missiles on submarines at sea). Technological developments in missile accuracies and multiple reentry vehicles then reignited these concerns in the late 1960s. By the 1970s, physical vulnerability concerns were directed specifically toward the land-based ICBM.

It was also widely believed that the political and social differences between the Soviet Union and the United States created asymmetrical possibilities for a surprise disarming first strike. The Soviets were secretive; the Americans open. The Soviets ruthlessly controlled their population; Americans resisted government interference. Many argued that the Soviet leadership could secretly plot a surprise nuclear attack, but that American leaders could not. Further, it was argued that in a nuclear crisis, American leaders' concern for the welfare of their people (in contrast to the Soviet leaders' comparative lack of regard for their citizens) would result in tremendous pressure on the US government to comply with Soviet demands. Many analysts believed that the social structure that made America a great nation created excessive vulnerabilities in the nuclear age.

The American perception of these vulnerabilities became increasingly important as Soviet intercontinental nuclear capabilities increased. The vulnerabilities appeared to provide the Soviets a decided military advantage in a nuclear conflict. And, given the American assessment of both the depth of Soviet hostile intentions and Soviet propensity for aggression, the deterrence of nuclear war seemed an extremely difficult task. Success in deterring such a war, as well as success in that war should deterrence fail, seemed dependent on countering a threat to which America believed itself uniquely vulnerable.

THE VALIDITY OF THE THREAT

The extent to which US theories of war and deterrence, as well as assessments of vulnerability and threat, are determined by ethnocentric analysis is both unclear and too little considered. Certainly, though, men are predisposed to look for threats that conform to their conception of war and to identify vulnerabilities in terms of their experience. They may turn a blind eye to factors that an enemy might see as vulnerabilities; they may ignore capabilities that can exploit such vulnerabilities; and they may fail to understand the significance of contending theories of the nature of future conflict and hence be unprepared for novel applications of existing military technologies. Ken Booth, in a recent book entitled *Strategy and Ethnocentrism*, argues that strategy "is rooted in ethnocentrism and . . . strategists are professional ethnocentrics."[4] Such arguments are not greeted with universal acclaim, but neither are they easily dismissed.

Historically, one can point to the refusal of the French armored knights to view the English longbowman and his incorporation

into the English forces as a proper threat—a lapse that cost the French nobility dearly at both Crecy and Poitiers. In more modern times, the real effect of the machine gun and rapid-firing artillery escaped the notice of most planners on both sides in World War I, and the significance of massed tanks used in combination with tactical air and motorized infantry eluded French and British commanders in 1940. Finally, one can argue that the American leadership's failure to understand the nature of the challenge in Vietnam and America's attempt to apply a high-technology solution to that conflict fit into the pattern of failure based partly on misperception of the threat.

The threat of a disarming nuclear first strike cannot be dismissed. There is some possibility of its occurrence. Wars have been decided in the past in a single battle, and some will undoubtedly be so decided in the future. And given the current structure of US forces, particularly the weakness in command and control, there is reason for concern over first-strike contingencies. Yet there are several reasons to question the validity of the idea of a "bolt-from-the-blue" physically disarming first strike that has most concerned American planners. Its validity is best evaluated not with further argument over Soviet capabilities, but by a reexamination of the fundamental fears and assumptions that Americans hold about such threats. There are at least four major areas of interest here that bear upon our evaluation of the threat to the country: the effect of technology, the nature of nuclear war, defense analysis, and America's vulnerability. The argument (or frequently expressed fear or assumption) associated with each of these areas merits scrutiny:

- *Technological developments have made a surprise disarming first strike possible.* The destructiveness of thermonuclear weapons and the increasing quickness with which they can be delivered have had a profound effect on the possibility of a disarming first strike. Further, the miniaturization of thermonuclear weapons, the increasing accuracy of missiles, and the development of multiple-independently-targeted-reentry-vehicles (MIRVs), providing one missile launcher the capability of delivering 3 to 15 highly accurate thermonuclear warheads on separate targets, have resulted in a situation in which a smaller attacking force might destroy a much larger force on the ground. The "kill ratios" for attacking MIRVs look very good. Weighed against such improvements, however, are technical improvements that increase force survivability. Attack warning has greatly improved (although there is concern over the vulnerability of US warning systems), as has the ability to reduce overall force vulnerability by hardening missile silos and increasing mobility at sea and in the air. Further, although the performance characteristics of today's ICBMs are awesome, the capability to launch and control a large number of them in a coordinated attack is still uncertain.

The resulting complications are perhaps best illustrated by a simple analogy. It has long been possible for an infantry rifleman to kill sequentially several targets at 300 meters, *if* the targets remain in the open and unprotected, *if* the rifleman fires, and numerous other "ifs." The fact that riflemen do not often kill several targets one after another at relatively close range is not the result of inadequate weapons technology, but the result of noncooperative targets and of human mistakes—both excusable and inexcusable—combined with stress, fear, sloth, and all the other factors that interfere with perfection in any human endeavor. Technology involves more than hardware. And the technology necessary to achieve a physically disarming surprise attack remains imperfect. An attacker's ability to track and destroy submarines at sea and planes in the air, and to insure that US land-based ICBMs do not launch on warning of attack—all of which would be essential for the attack to be physically disarming—is extremely questionable. Additionally, beyond the problems an attacker faces in the meticulous coordination of a massive attack is that of the accurate determination of the actual policy of the

United States (as opposed to the declared policy) in the event of a nuclear attack. All in all, the prospect of such an attack is highly dependent on what many would argue is an unlikely scenario for war.

• *Nuclear war will begin with a surprise attack and be rapidly decisive.* Forecasting the nature of a future war excites great interest, but it requires great caution. Such forecasts rest on the assessment of innumerable human and technical factors and are uncertain at best. History is replete with erroneous military forecasts. Yet hesitancy to predict the nature of conflict should neither preclude critique of current forecasts nor curtail future forecasting efforts.

Probably the greatest shortcoming of American nuclear war forecasts that envision a surprise attack and rapid termination is that they ignore the relationship between politics and war. Those who forecast a rapid mutual apocalypse in which both good and evil will be destroyed, as well as those who envisage a more limited nuclear exchange that results in immediate surrender because of perceived inferiority in forces, disregard the dictum that war is started (if not continued) to achieve some political objective.

The connection between politics and war is profoundly important. Discounting Dr. Strangelove scenarios, it means that the use of nuclear weapons in a dispute between the United States and the Soviet Union would not occur out of the blue; there would be warning of conflict, possibly intense political crisis. And it means that the use of nuclear weapons would be unlikely to occasion immediate surrender by either side. Differences so fundamental as to result in the use of nuclear weapons could hardly be immediately ameliorated, especially after the loss of tens of millions of lives. The history of modern warfare provides many examples of escalation in the face of severe losses, and of the refusal of a government to terminate a conflict at a point believed appropriate by its opponent. World War I is an obvious example, with both sides, over much of the course of the conflict, continually "raising the ante." The Russian refusal to quit in the early days of the German invasion in World War II and the North Vietnamese escalation in the face of increased American bombardment some 30 years later provide other examples. Indeed, the destruction of a major portion of the US fleet, an event the Japanese hoped would help shape an American decision to accept Japanese demands and result in an early end to the war, actually provided the galvanizing force for a massive American war effort.

These observations are important in assessing the possible nature of a nuclear war. While we can assume that the Soviets might use nuclear weapons in an attempt to achieve tactical surprise (their military doctrine stresses nuclear preemption), strategic surprise is more difficult to foresee. And without it, a disarming-first-strike threat appears less credible. Further, political commitment reduces the likelihood that national leaders would immediately lose their will to continue the conflict, regardless of severe destruction. In the face of these considerations, the nature of a possible war takes on a different aspect.

If nuclear war looks different when the question of political objective is considered, so too does national security. The United States fears the Soviet Union because it is the only country with the apparent power and will to destroy her. Yet, the reciprocal is equally true. George Kennan and others have argued that this reciprocal Soviet fear acts as a brake on Soviet actions. Such fear does not eliminate competition and potential conflict, but it better defines the nature of that possible conflict. It increases the likelihood that any confrontation would be a long-term political or, at most, a subnuclear military confrontation. And, again, the standard American picture of a nuclear conflict with a surprise initial strategic strike and rapid termination appears less valid.

• *Our analytical model shows that a disarming strike is possible.* Analysis, the ordered examination of facts and lesser information, is extremely useful, if not altogether essential, to military decision-making, but it is imperative that such analysis clarifies the real problems we face. The conclusions of much of the analysis of

nuclear war must be approached with caution for two reasons. First, the real problems in war, even nuclear war, are not problems of physics and engineering (which are, of course, important, but secondary); they are, rather, human problems—how does one influence an opponent's behavior? Knowing the accuracy of a missile or the yield of a warhead may be only marginally helpful in coming to correct conclusions about influencing behavior. Declarations made by both sides and the perceptions of each appear far more important. Second, the models one develops may or may not resemble future realities; indeed, a computer model may reveal more about the model maker than the reality of the issue. In our analysis of war, it is critical that we ask the right questions, for the questions asked largely determine the answers one gets.

John Steinbruner and Thomas Garwin, in a 1976 article making extensive use of the American techniques in vogue for examining nuclear exchanges, argued rather persuasively that the models used were too simple and unrealistic either to warrant the faith placed in them or to justify the fear engendered by them. Indeed, they argued, the American perception of the relative strategic vulnerability of US land-based ICBMs was more a result of the restrictive models used to examine the problem than of either weapons technology or operational capabilities. Further, they rightly pointed out that the

> focus on missile silo vulnerability which the conventional calculations have brought about is increasingly anomalous in technical terms. The most vulnerable elements of modern strategic forces are not the hardened, fixed-site missiles but rather the command channels and communications and information processing systems which service the command structure.[5]

Steinbruner and Garwin concluded that

> it would be more pathological than prudent to undertake major changes in the deployed forces of the United States in order to solve the problems of vulnerability *as defined by conventional analysis.*[6]

Such criticism is difficult to fault. It points out that a successful nuclear attack need not necessarily be the bolt-from-the-blue physically disarming attack usually envisioned and, by implication, that efforts to guard against that particular threat do not necessarily provide adequate protection against the success of other, possibly smaller, nuclear attacks. Conventional analysis is also open to broader criticism. Specifically, one can argue that focus on the physically disarming first strike tends to lock attention on an unlikely threat and to divert attention from the true, politically and economically competitive nature of the Soviet challenge to the United States and the Free World. Further, concentration on the first-strike threat and the type of analysis in vogue may make the Soviet challenge appear easier to deal with, since it reduces that challenge to numbers of missiles, planes, bombs, and other quantifiable factors that the US can hope to address by producing equal or greater numbers of missiles, planes, bombs, etc. The true challenge, however, involves matters that are not so measurable. It involves political ideas and ideals, personal commitment, willingness to sacrifice, qualities of leadership, and other such things equally impossible to quantify.

• *America is far more vulnerable to a nuclear attack than the Soviet Union.* Estimated vulnerability asymmetries between the United States and the Soviet Union must be reexamined. One can argue that the military force vulnerabilities do not greatly differ. The undefended, fixed, land-based ICBMs of both sides are increasingly vulnerable to attack by highly accurate thermonuclear warheads. And asymmetry in target acquisition resulting from an American inability to gain good information on Soviet air bases, atomic energy plants, war industry sites, and other targets, compared to the ease with which the Soviets can get information on similar American targets—a key concern for the United States in the years immediately following World War II—has narrowed considerably with the advent of satellite surveillance. Of course, the existence of Soviet strategic nuclear reserves presents at least a potential problem. The problem is

partly of our own making, however, because the United States has ignored those reserves in force calculations and SALT negotiations (a result of the US view that only immediately available forces are critical). On the other hand, Soviet submarines may be more vulnerable to US countermeasures if they must transit one of the narrows that separate the Soviet Union from the major oceans. Moreover, Soviet bombers share the vulnerabilities of American bombers to missile attack. The critical nature of American bomber vulnerability (because bombers comprise such a significant portion of American retaliatory power) is matched by the increasing vulnerability of Soviet fixed land-based ICBMs, which comprise a significant portion of Soviet thermonuclear power.

American population and industry are concentrated, but the population and industry of the Soviet Union are only slightly less so. Studies by the Department of Defense have repeatedly shown that Soviet industrial capacity and a large percentage of the Soviet population are vulnerable to a rather small (relative to the size of the arsenals) nuclear attack. If the effects of nuclear fallout are included in such calculations, then the vulnerability increases dramatically.

Postulated asymmetries in political and societal vulnerabilities can also be questioned. It is true that the United States, as a free and open society, provides a wealth of useful military information to its more guarded opponent, and that its government must contend with public opinion, and needs popular support for its policies. But Soviet rulers cannot operate totally without regard for popular opinion and support. While control of dissidence may make official threats of force somewhat less obviously controversial, the Soviet experience in World War II shows that the regime requires popular support in any extended conflict and, realizing that need, will work to achieve it. The major social upheavals in Russia in this century occurred in the wake of wartime failures—the 1904 Russo-Japanese War and World War I. The Soviets are well aware of this, and their military writings stress the social and political aspects of war. An excellent example of such discussion is found in Ye. Rybkin's "The Leninist Concept of War and the Present," in *Kommunist Voorzhennykh Sil*. Rybkin, a well-known Soviet military commentator, stresses war's links to social conditions and argues that "the main and determining element in the essence of a war is its political content." He cautions:

> In setting for oneself definite and concrete goals of defeating the enemy and preserving one's forces and placing society in a special situation with the beginning of military action, the opposing sides are frequently and unexpectedly faced with the fact that they have put into action processes which were undesirable. As a result, war has a powerful reverse effect on the social processes long before victory or defeat, frequently counter to the design and plans of the instigator which unleashed the war.[7]

Rybkin notes that in the case of Czarist Russia and the 1904 war "the social and state structure of Russia did not stand the test."[8]

Even if an asymmetry in the need for popular support did exist, it is not clear that it would make any difference in a nuclear war. The large nuclear forces available to both sides raise serious questions concerning the relevance of public opinion once a strategic nuclear strike has been mounted. Population, national wealth, and ideology ("way of life") are certainly factors that national security policy is formulated to protect, but if an international crisis were of a magnitude that prompted the extensive use of nuclear weapons, then it would surely have stemmed from fundamental ideological disagreements that had overridden immediate concern for population and industry. If the disagreements were not of that nature, then nuclear weapons would probably not have been used. The existence of large prewar nuclear forces now allows a relatively small, dedicated elite on either side to wage an extended nuclear campaign with little requirement for support from population or industry. Under these circumstances there is no reason to believe that a dedicated democratic elite would be

any less determined to "prevail" than a dedicated totalitarian elite, especially in the relatively short time that might characterize even a "prolonged" nuclear conflict.

Finally, although the United States operates in an open, pluralistic environment and must tailor its policies to meet many needs, it does have an established form of government with widespread support for its institutions, if not for particular policies. The Soviet Union, on the other hand, faces nationality problems from various major ethnic groups; and while the government probably enjoys widespread support, its rulers' uncertainty of that support is evidenced in large internal security forces and refusal to allow criticism of the regime. There is a continued Soviet worry over the nationality problem and a concerted drive to promote patriotism for national defense.[9] Soviet concern over the control and possible breakup of the Soviet state must be considered a major vulnerability without counterpart in the United States.

DEALING WITH CURRENT AND FUTURE THREATS

In his book *Strategy in the Missile Age*, Bernard Brodie illuminated many of the issues driving American concern over a Soviet disarming-first-strike threat. He argued:

> It seems inescapable that the first and most basic principle of action for the United States in the thermonuclear age is the following: a great nation which has forsworn preventive war *must* devote much of its military energies to cutting down drastically the advantage that the enemy can derive from hitting first by surprise attack. This entails doing a number of things, but it means above all guaranteeing through various forms of protection the survival of the retaliatory force under attack.[10]

The imperatives remain for guarding against surprise attack and for attempting to reduce the relative advantage such an attack might give an aggressor; however, surprise first strikes in a world characterized by large nuclear forces are unlikely to be physically disarming. The massive forces available to both sides make that an unlikely possibility. Moreover, the risks involved in the use of nuclear weapons and the possibility for rapid escalation make a bolt-from-the-blue attack improbable. Further, political conditions that would result in the use of nuclear weapons would surely provide strategic warning of attack.

Such conclusions suggest a requirement to rethink the nature of nuclear war and the conflict models used for planning. The scenario of a physically disarming surprise first strike is clearly an increasingly inadequate guide for developing deterrent forces for the future. Further, the inordinate US focus on such a scenario is wrong and increasingly dangerous, in that it has produced US strategic force deployments with little flexibility and endurance—forces adequate for deterrence in the 1950s but inadequate for deterrence in the 1980s. Until recently, for example, it resulted in a tendency to give insufficient attention to the essential role of command and control, critical to any battle and essential to avoiding a disarming strike. Further, the focus on this particular threat has obscured the fact that the Soviet challenge is one of continuing economic, political, and military competition. Some have been led to inaccurately conclude that the Soviet challenge can be met by simply buying enough weapons to "insure" against a particular nuclear scenario, rather than demanding a constant commitment to a wide range of programs to insure the security of the United States and its allies.

Current concerns about a disarming strike are driven by perceptions that US fixed, land-based ICBMs are vulnerable and that the Soviet capability to exploit that vulnerability is significant and growing. This attack threat remains highly scenario-dependent, however, and addresses only a portion of US delivery forces. We must reassess this focus. Although ICBM force modernization is certainly necessary, ICBM vulnerability is not our most pressing

problem. Far more serious is the vulnerability of our command-and-control elements, which might actually invite attack on the belief that their destruction would limit nuclear retaliation. These command-and-control elements, rather than the now hardened and dispersed delivery forces, are the fragile components of today's strategic nuclear forces. It is therefore essential that concerted efforts be made to develop and deploy command, control, and communications capabilities adequate to insure effective retaliation and continuity of government.

In addition, forces developed to deal with a preemptive attack that occurs after a period of rising tensions could differ significantly from those developed to deal with a bolt from the blue. These differences would be critically important in dealing with the ICBM vulnerability problem. Endurance, a design feature not terribly important if the war is envisioned as a surprise affair that terminates in hours, would become important. Forces would have to be capable of extended pre-attack readiness and post-attack operation. The requirement for high levels of pre-crisis readiness, however, might be relaxed: Not all retaliatory forces would need to be constantly ready for instant retaliation. I believe that this latter point is a particularly important one, critical to maintaining long-term peace and stability. America's determination—and that of the Soviet Union—to insure against surprise attack has resulted in increasingly ready nuclear forces. Such readiness carries high psychological costs usually ignored in strategic calculations. For example, although an analysis of the relative capabilities of American and Soviet forces might lead to a conclusion that we have "strategic stability," the psychological effect of readiness for mass destruction during periods of detente as well as during crises can hardly promote long-term stability. A student of military history might liken the situation to that of a 17th- or 18th-century European battlefield. Two armies, drawn up in long lines 50 paces apart, muskets at their shoulders, await the final command to fire—it makes for a highly unstable situation. Arms control efforts should be directed at this readiness issue rather than at total numbers of weapons.

Finally, while dealing with the current ICBM vulnerability problem, Americans must take a broader view of national security. The American focus on the bolt-from-the-blue, physically disarming first-strike threat has obscured both other disarming possibilities and different threats to the nation. A direct, massive nuclear attack on the United States is possible. But the long-term military and political threat of expanding Soviet influence, and the general instabilities associated with a rapidly changing world economic, social, and political order—instabilities that could draw the United States and the Soviet Union into a crisis that might precipitate the use of nuclear weapons—appear to be matters of greater concern. Viewed in this broader perspective, the physically disarming first-strike threat is only one of a number of military contingencies, all of which must be balanced against the requirements of maintaining a strong economy, positive relations with other nations, and the continued development and protection of our political system.

The current world of nuclear plenty is indeed dangerous. But if we are to improve our security, whether through arms development or arms control, we must evaluate carefully the threats facing our country. More specifically, we need to insure that our perception and evaluation of those threats are the result of open-minded analysis and not of preoccupation with past fears.

NOTES

1. Report of Secretary of Defense Harold Brown to Congress on the FY 1981 Budget, FY 1982 Authorization Request for 1981-1985 Defense Programs (Washington: Department of Defense, 1980), p. 86.

2. The RAND studies include: Albert Wohlstetter et al, *Selection and Uses of Strategic Air Bases* (Santa Monica, Calif.: RAND, April 1954); and A. J. Wohlstetter, F. S. Hoffman, and H. S. Rowen, *Protecting the U.S. Power to Strike Back in the 1950's and 1960's* (Santa Monica, Calif.: RAND, September 1956). Other important studies analyzing surprise attack and the effect of new technology included: Office of Defense Mobilization, *The Report to the President by*

the Technological Capabilities Panel of the Science Advisory Committee (The TCP Report), James R. Killian, Chairman, February 1955; and Security Resources Panel of the Scientific Advisory Board, *Deterrence and Survival in the Nuclear Age*, November 1957.

3. Herman Kahn, *On Thermonuclear War* (Princeton: Princeton Univ. Press, 1960), pp. 331-34.

4. Ken Booth, *Strategy and Ethnocentrism* (New York: Holmes and Meier, 1979), p. 29.

5. John Steinbruner and Thomas Garwin, "Strategic Vulnerability: The Balance Between Prudence and Paranoia," *International Security*, 1 (Summer 1976), 170.

6. Ibid. Emphasis added.

7. Ye. Rybkin, "The Leninist Concept of War and the Present," *Kommunist Voorzhennykh Sil*, trans. by US Joint Publications Research Service, JPRS No. 60667, 30 November 1973, *Translations on US Military Affairs*, No. 987.

8. Ibid.

9. See Harrison E. Salisbury, "The Russia Reagan Faces," *The New York Times Magazine*, 1 February 1981, pp. 30-31, 50-52, 57.

10. Bernard Brodie, *Strategy in the Missile Age* (Princeton: Princeton Univ. Press, 1965), p. 394.