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# ALTERNATIVES TO ASSURED DESTRUCTION

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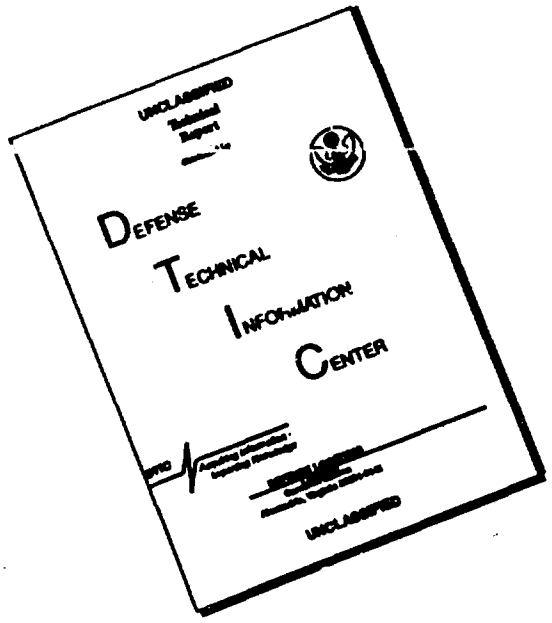


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By

E. S. Boylan, D. G. Brennan and H. Kahn

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13. ABSTRACT

A previous paper, "An Analysis of Assured Destruction", presented arguments for and against basing U.S. strategic policy upon retention of an assured destruction capability. This paper presents a number of alternative strategic postures and presents the arguments for and against each of them. As in the earlier paper, a large number of quotations from relevant sources are given.

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# ALTERNATIVES TO ASSURED DESTRUCTION

Underlying many, if not indeed most of the recent decisions regarding development and deployment of American strategic weaponry has been the belief that the highest mission of the strategic force was to insure possession by the United States of an "Assured Destruction" (AD) capability vis-a-vis the Soviet Union. In essence, great reliance has been placed on AD as a deterrent to a nuclear attack on the United States (and, to a lesser extent, on its allies) by the Soviet Union. This reliance has been the object of much criticism by a number of civilian strategists and military officers. Although critics have offered a variety of alternative deployments,one can group most of the criticism as urging one of two (in some sense complementary) new emphases for the strategic forces: defensive emphasis or a war-fighting emphasis.

The key difference between the proposed emphases and the current doctrine of AD may be expressed in the following manner: Under the current doctrine, possession of an AD capability is believed to make the likelihood of a nuclear exchange virtually nil, and thus there is little stress placed on designing weapons which will be militarily effective in the event that they are used. Critics of the current doctrine believe that AD has a number of shortcomings and that more stress must be placed on deploying weapon systems which will be militarily effective if they must be used.

Despite the emphasis which critics feel should be placed on having "usable" weapons, it would be a mistake to infer that these critics are less interested in

deterrence and more interested in fighting a nuclear war successfully. Rather, the debate focuses on what constitutes the most effective deterrence of undesirable Soviet military actions. The advocates of emphasizing war-fighting ability or defense argue, in essence, that the Soviet Union (or any other country, for that matter) will be deterred most effectively not by any absolute level of damage they might incur but by the clear knowledge that the Soviet Union will be in an unfavorable military and political situation in the aftermath of any nuclear exchange. The emphasis thus is not any level of casualties but on potential relative war outcomes.

Advocates of defensive emphasis urge the United States to strive to develop and deploy strategic defensive systems which would hopefully limit the damage the United States would suffer in any nuclear exchange with the Soviet Union and allow it to remain a viable nation even after any such exchange. If its prospects for recovery were to seem significantly greater than those of the Soviet Union, America would possess a strong deterrent against any Soviet desire to launch a nuclear attack.

Advocates of a war-fighting emphasis urge the deployment of weapon systems that can be used not only to attack civilian population centers but military targets as well. Despite the damage that undoubtedly results from any major exchange there is, in their view, a meaningful concept of a military "victory", and deterrence will be strongest when the United States will clearly have the ability to gain such a victory. "...it is true that, in an all-out nuclear exchange, both sides would suffer such heavy losses that neither side has the prospect of 'winning' anything in

the commonly accepted sense. But if one side manages to retain sufficient military strength after the nuclear exchange to terminate hostilities on its terms and to force the surrender of the other side, it has gained what is called a 'military victory'. This is the kind of victory we must always be able to achieve if we want to deter aggression successfully." (Gen. Thomas Power, Design for Survival, Coward-McCann.)

One of the crucial differences in philosophy between adherents and critics of AD is on what mission strategic weapons should have in the event that a nuclear war does result. It would appear (at least according to their published statements) that proponents of AD would target Soviet cities in the event of Soviet attack. Critics of AD, however, believe that whatever the declaratory policy of the United States, in the event of a war American missiles should be aimed at counterforce, rather than countervalue targets. To attack Soviet cities, in their view, would only risk further (or perhaps even the initial) Soviet attacks on American cities, reduce the number of "hostages" the United States could threaten in an attempt to coerce Russia to sue for peace on American terms, and limit the ability of the Soviet Union to aid in the rebuilding process after conclusion of the war even if America had "won" the war. Targeting Soviet counterforce targets, however, would reduce to some extent the further damage they could inflict on the United States and keep open the option of "blackmailing" the Soviets by threatening their cities. Authoritative Government spokesmen have voiced similar views.

"[the objective of a U.S. retaliatory strike is] to do the greatest possible damage to the Soviet Union as a whole with attention to applying that destruction in

such a way as to do as much damage as possible to their residual military striking force." (General Thomas D. White, Chief of Staff of the Air Force, House Committee on Appropriations, "Department of Defense Appropriations for 1960", Hearings, pt. 1, 86th Congress, 1st Session, p. 929.) "If deterrence fails and we are involved in a general war, I can see no reasonable aim for our military strategy other than substantially to disarm the enemy while preserving our essential core as a nation capable of exercising policy and thereby leaving the enemy no practical choice but to accomodate himself to our political will." (Paul Nitze, "Political Aspects of a National Strategy", Armed Forces Management, September 1961.)

Let us now examine each of these proposed alternatives in some detail. A war-fighting posture, as was explained above, is a strategic posture where the emphasis is placed on deploying weapon systems which will allow the United States to be in a militarily and politically advantageous situation after any possible nuclear conflict. Such weapon systems would, of course, be counterforce weapons. It would be a mistake, however, to infer that the goal is what is usually referred to as a first strike counterforce position. A first strike counterforce position is one in which one country can, by striking first "counterforce", reduce the damage an opponent might inflict to "tolerable" or even "negligible" levels. In the late 50's and early 60's such a position was still feasible for the United States. In recent years it would have been very difficult for the United States to attain such a position. A position of military "superiority" is still feasible however, even with the new Soviet deployments. "The term strategic superiority is difficult to define in precise terms. Obviously it implies both offensive and defensive capabilities

that will allow us to come out of any war in better shape than our adversary. One measure might be the ability to strike second and still come out better--or less badly--than the adversary did striking first. The unspoken leverage of such deterrent strength is likely to be very important in deciding the confrontations short of nuclear war, <u>even though losses in a nuclear war would be so great on both sides</u> that escalation to that level is unlikely to take place." [italics added] (Harold Brown, Secretary of the Air Force, Supplement to the "Air Force Policy Letter for Commanders", Number 4-1966, April 1966.) Advocates of a war-fighting posture make the following basic arguments:

1) A war fighting posture provides the most credible and most effective deterrent.
2) A war fighting posture provides much more deterrence of a Soviet attack on our allies than an AD posture.
3) A war fighting posture provides more insurance against any Soviet "breakthroughs" than an AD posture.
4) A war fighting posture need not cause an arms race if U.S. superiority can be decisively demonstrated.
5) In the event that deterrence does fail a war fighting posture is more flexible, can aid in survival of the United States much more than an AD posture.

One of the key concepts discussed above is one of "credibility". That is to say, to be an effective deterrent it must appear credible that the United States will use its weapons if provoked. Especially with regard to deterrence of attacks on our allies the credibility of a U.S. nuclear response is low if there is an AD posture, while it is much higher with a war fighting posture. In essence, an

incredible threat, mutual destruction, does not make a very credible deterrent. "Today, a full-scale nuclear war might mean one hundred million fatalities on each side. This looks like a good deterrent balance, but is it? Would we use it to defend Taiwan? Or Berlin? Or West Germany? Would we use it even if the Soviets initiated nuclear use and as a result conquered Western Europe, or helped the Arabs defeat Israel? On the other hand if we had offensive and defensive forces that looked equal or superior to the Soviet forces, and if expected fatalities on both sides were more likely twenty to forty million instead of one hundred million, would not the Soviets be just as deterred? Many would judge deterrence would be stronger...An American policy oriented to competitive American advantage or at least survival would be more likely to discourage crisis generation and nuclear blackmail by, instead of against, an aggressor." (R. Gastil, "Missile Defense and Strategic Doctrine", in Why ABM, Holst and Schneider (Eds.), Pergamon Press.)

Perhaps the clearest exposition of the arguments for a war fighting posture was given by General T. Power in his book Design for Survival, Coward-McCann.

"Actually, the reason why there has been no general nuclear war so far is a very simple one--we have not been merely as strong as or a little stronger than the Soviets; we have had overwhelming military superiority."

..."There are, in particular, two primary principles essential to our deterrent posture...The first and, in my opinion, foremost principle is to maintain a credible capability to achieve a military victory under any set of conditions and circumstances. The second basic principle is to make certain that the Soviets and any other potential aggressors know at all times that we have that capability."

..."The requirement for such a'war-winning' capability is very much contested by the advocates of most deterrent philosophies and is one of the most controversial subjects among students of military strategy in the Free World. The main argument against the principle of war-winning capability is the proposition that no one can 'win' a nuclear war and that, for this reason, it is senseless to waste money, men and materiel in trying to achieve that impossible objective."

..."In my opinion, this rationale misses a crucial point. If the Soviets should ever decide to force general nuclear war upon us, they would do so only if they were certain of winning it. And the very fact that they are preparing themselves to wage such a war is clear indication that, in their estimation, it is not at all impossible to achieve a decisive military victory. Hence, our only hope of deterring them from initiating a general nuclear war lies in convincing them that no matter when and how they might start it, we would win, not they."

..."Another popular misconception is the assumption that there is a 'nuclear stalemate' and that, as a result, we cannot maintain a sufficient degree of military superiority to give us a credible war-winning capability."

..."The term 'nuclear stalemate' is misleading---It is true that we are in a neck-and-neck race with the Soviets for military supremacy and that both of us now have more than enough nuclear capability to theoretically destroy each other, as in the often quoted analogy of two scorpions locked in a bottle. But the facts of the matter are that we have had an unquestionable war-winning capability ever since World War II, and what is more, we still have it today despite the alleged nuclear stalemate. For we are still ahead of the Soviets in strategic strike

capability which, with all other things being equal, is the decisive factor in gaining a military victory."

..."our strategic strike superiority must always be kept large and obvious enough to be credible. Finally, the strength and posture of our strategic forces must always remain such that they can accomplish their mission under any set of conditions and circumstances, ...I have no doubt that if we meet these requirements we can ensure a lasting and decisive superiority in strategic strike capability, and thereby, a credible war-winning capability."

..."There is one other misconception regarding the principle of maintaining a war-winning capability which I believe needs some clarification. It has been claimed that even if it were possible to sustain such a capability, it would be too expensive from the standpoint of 'cost effectiveness' to make it practical. This is not at all the case; in fact, the opposite is true, especially if 'cost' is measured in terms of American lives. Let us examine this particular aspect briefly."

..."If we want to compare the cost effectiveness of the different deterrent methods proposed, we should apply the same basic principle used by commercial ventures, namely, an analysis of expected costs vs. desired profits. In the case of deterrence, 'desired profits' should be primarily the number of American lives and those of our allies we expect to save, not the number of Russians we expect to kill if we were forced to retaliate a nuclear attack."

..."On that basis, strategic strike forces possessing a war-winning capability promise both the safest and largest 'profits', for several reasons. First, they provide the most potent and reliable deterrent that can be devised,

since they are designed for the most unfavorable case--the threat of a massive Soviet surprise attack and ensuing general nuclear war. Second, the very fact that they represent such a powerful deterrent to general nuclear war makes them equally effective in discouraging the escalation of limited conflicts and even in resolving such conflicts at a minimum loss of life."

..."Last but by no means least, we must take into account the possibility that deterrence may fail for any number of reasons, no matter how potent our deterrent might be. In such a case, strategic strike forces designed to achieve a military victory under any conditions are the only ones that would have the residual strength, facilities and flexibility to seek out and destroy those enemy targets which pose a continuing threat to the lives of our citizens and allies." [italics in original]

One of the chief arguments against a war fighting posture has been the claim that to attempt to adopt such a posture would only cause an arms race in which no country could be a victor. "What nowadays is euphemistically called national 'defense' in fact always includes preparations for attack and thus constitutes a threat to some other group of people. This type of 'defense' is based on the assumption that threats directed toward other people will produce in them either submission or negotiation, or avoidance, and it neglects the possibility that contempt or retaliation may be produced instead. Yet, in fact, the usual effect between comparable nations is retaliation by counterpreparations, thus leading on by way of an arms race toward another war." (Lewis F. Richardson, "Mathematics of War and Foreign Politics" in The World of Mathematics, J.R. Newman (ed.),

Simon and Schuster.) The validity of this viewpoint is open to question, however. "Those arms races of the past that did not precede a war ended because neither side saw much point in them...[which is] particularly true when a challenging state that is trying to catch up or go ahead cannot see any chance of surpassing the wealthier or more technologically advanced state. In the nineteenth century France tried several times to race British naval procurement, but each time it quit when its efforts merely encouraged the British to greater efforts. Thus, not procuring weapons at a level consistently higher than a poorer opponent may encourage that opponent to an effort it would not otherwise make. It may be that our declining strategic budgets in the mid-1960's have incited the Russians to try harder. It may be that if in the future we show willingness to allow the Soviets to build defenses without competing with them, we may inspire the Russians to procure more rather than less in the strategic area." (R. Gastil, "Missile Defense and Strategic Doctrine", op. cit.)

With regard to the specific case of the US-USSR interactions, Kintner makes the same argument somewhat more forcefully. "...there has emerged in the Soviet Union a 'reformist' element that is presumably opposed to the doctrine of Communist expansion through war. An opposing faction of radical 'adventurists' is said to advocate world revolution even at the risk of nuclear war...The issue is whether the United States can or should try to influence these Soviet groups. If we should, the ability of the United States to manipulate Communist means might ultimately influence Communist ends. Substantial Western superiority might strengthen the hand of the reformists, whereas the unwillingness of the West to maintain superiority might abet the radicals. The converse might also occur. Substantial Western

superiority might provide the radicals with an argument for augmented Soviet force levels. Sustained U.S. superiority, however, would likely render futile any attempt by either a reformist or a radical Soviet faction to expand the Communist world. In sum, U.S. military superiority in support of sound policies and backed by an adroit ideological offensive would be one realistic circumstance for inducing fundamental transformations in Communist-controlled societies." (William R. Kintner, Peace and the Strategy Conflict, Praeger.)

Hand in hand with the view that an arms race is undesirable and increases the likelihood of conflict is the view that "parity" is desirable, that when both sides have reached a state of rough equality in military strength the prospect of war decreases. This latter view is as open to question as the former. "The relationship between peace and the balance of power appears to be exactly the opposite of what has been claimed. The periods of balance, real or imagined, are periods of warfare, while the periods of known preponderance are periods of peace." (A.F.K. Organski, World Politics, Knopf.) "[A] potential aggressor is likely to be deterred more effectively by a confrontation with preponderant rather than merely equal power." (Inis Claude Jr., Power and International Relations, Random House.)

One of the charges frequently raised by critics against the current number of American strategic weapons deployed, and even more forcefully raised with regard to proposed new strategic weapon systems, is that both the United States and the Soviet Union have reached a state of nuclear "overkill", that each major power has enough weapons deployed to kill all of humanity many times over. Neglecting for the moment whether this assessment of the lethality of the current

stockpile is correct, this criticism can only be valid from an AD perspective, where the emphasis is on killing large numbers of human beings. From a war-fighting perspective, where the emphasis is on destruction of military targets, and on military effectiveness, the notion of overkill does not, at present, seem applicable. There may very well be military utility in having large numbers of missiles deployed. "No doubt there is, and will continue to be, an advantage in striking first at the tactical nuclear level. ...The side which absorbed the first blow would have its battlefield nuclear capabilities sharply reduced in relation to those of the opponent. However, it could redress the balance of forces in the combat zone by bringing its long-range strategic forces into play against the enemy's tactical nuclear weapons and ground forces. This would require, if the Soviets struck first tactically, that the United States have at least enough strategic forces beyond those necessary to deter a strategic attack on itself, to re-establish symmetry on the local battlefield. To accomplish this might drain away a substantial part of our strategic capability especially if this capability consisted largely of missiles, since we would have to fire at long-range with a consequent depreciation of accuracy. This may be one of the best arguments for having a substantial first-strike counterforce capability--to deter the enemy from a tactical nuclear surprise attack, not by a threat of an all-out response on the enemy's homeland, but by having a capability to redress the tactical battle field balance should the enemy upset that balance by a surprise first strike at the tactical level." (Glenn Snyder, Deterrence and Defence, Princeton University Press.)

A strong civil defense program is usually considered one element in a strategic posture featuring defensive emphasis. It also plays a significant part

in a war-fighting posture as well. This should not be surprising, for the war-fighting posture stresses the ability to survive nuclear warfare relatively better than the Soviets, and any steps taken to limit the possible damage the Soviets can inflict and to hasten recovery from any damage inflicted help to provide this ability. "...civil defense has two vital functions. First, it impresses on potential aggressors that our deterrent is not a hollow threat and that we are both prepared and determined to fight back if we are attacked. Thus, instead of being 'provocative', civil defense actually adds to the credibility of our deterrent."

"Second, there is always the possibility that...we may get involved in a nuclear war. ...If this threat should ever materialize, a timely and well-planned civil defense program would accomplish two objectives--it may save tens of millions of lives, and it would expedite our recovery, thereby ensuring the preservation of our national integrity."

"...the quality and scope of [our civil defense]...efforts have a direct bearing on our deterrent strategy which should be pointed out. I mentioned earlier the role of civil defense in strengthening the <u>credibility</u> of our deterrent. Another aspect is the potential effect of a comprehensive civil recovery plan in preventing the Soviets from reaching the decision that a surprise attack on this country will achieve the desired results. If we can convince the Soviets that such an attack would not render us helpless and that we could recover from its effects faster and better than they could recover from <u>our</u> retaliatory strike, they would be further discouraged from risking costly aggression." (General Thomas Power, <u>op. cit.</u>) [Italics in original]

In the course of discussing the arguments for a war fighting posture many arguments against adopting such a posture were discussed, either implicitly or explicitly. For greater clarity, it may be worthwhile to examine these arguments in more detail. Opposition to such a posture has many roots. Perhaps the most powerful is the belief that no one can "win" a nuclear war. To a great degree there is more emotion than rationality behind this argument, and in some sense it is a question of semantics. Nonetheless this can be a highly persuasive argument. There is little sense in spending large amounts of money to develop and deploy weapons to win a war if no nation can be the winner. General Power provides one answer to this argument, as quoted above. Another answer would be that limited, essentially counterforce wars can be won or lost, and if the United States is to deter such wars from occuring it must have a strong war-fighting posture. This response, however, leads to another argument against a war-fighting posture, that such a posture makes nuclear war more "thinkable", and thus more likely to occur. While in some sense it may be more "thinkable", this does not by any means imply that it would be more likely. Given the grave dangers of escalation, and the possibility of large scale civilian casualties and industrial damage after even small scale exchanges, one does not see any American President or Soviet Premier lightly pushing the nuclear button. Regardless of the basic posture, nuclear war seems likely to occur only as a last desparate action following some deteriorating international political (or conventional military) crisis. Moreover, as was seen above, one can argue that a war fighting posture provides more deterrence of small as well as large nuclear exchanges than an AD posture.

The Soviets have not, as far as one can judge from published military articles, adopted the position that war is unthinkable or unwinnable. "[One] feature [in Soviet military writing] is the emphasis on the war-waging, as well as the war-deterring, elements in military strategy...[There] seems to [be] ...a genuine conviction that nuclear war with the United States is a real possibility, and it is this possibility that forms the central focus of Soviet strategic thinking..."

"The emphasis on the possibility of nuclear war in Soviet strategic thinking has clear implications for Soviet understanding of the purposes of strategic nuclear forces. Their purpose is to deter war, and wage it if deterrence fails. Nuclear war would be a catastrophe for both sides, but damage could be limited, and to speak of victory is not necessarily meaningless. ...[D]eterrence is not viewed in the Soviet Union as an eternal principle of Soviet-American strategic relations. Mutual deterrence is not regarded as an exclusive mechanism for regulating the balance of power, since deterrence is not viewed as the sole purpose of strategic capabilities; nor is mutual deterrence seen as a reliable device for preventing nuclear war--hence the need to prepare to wage such a war." (David Holloway, "Strategic Concepts and Soviet Policy", Survival, Nov. 1971.)

It should be noted, however, that an argument can be made that a war-fighting posture by one side creates preemptive pressures on the other side in the event of a nuclear war. According to this argument, Soviet strategic planners will feel pressure in an intense crisis to use most, if not all, of their land-based missiles, for example, if they feel they are seriously vulnerable to attack by American strategic weapons. Thus, rather than provide more deterrence of a

large-scale exchange, a war-fighting posture may increase the likelihood of such an exchange. In a sense, this criticism complements another argument of a war-fighting posture, that money spent to give American weapons significant counter-force capability will be essentially wasted, because most of the truly significant military targets, such as the land-based missile force, will be "empty holes" by the time they are attacked. It cannot be denied that there is some validity to this two-pronged argument. A war-fighting posture by the United States will provide some pressure for pre-emption by the Soviet Union. But just how much pressure is not clear. Much depends upon what type of nuclear war is being fought. Is it a large-scale countercity exchange or a limited "tit-for-tat" exchange? Will the conflict be centered around some local political crisis in Central Europe (or the Middle East) or will it be a global strategic conflict between the two superpowers? The actual attack followed by the Soviet Union is likely to depend upon the scope and nature of the actual conflict. One would expect that "vulnerable" weapons would be used first with "invulnerable" weapons held in reserve. Even here, however, much will depend on the actual development of the conflict. For example, if it is desired that as little advance warning as possible be given of an attack, then SLBM's may be preferred to ICBM's for that attack even though the former are more vulnerable to attack than the latter.

Moreover, one does not "use" missiles (or any other weapons, for that matter) merely because they would otherwise be destroyed. A Soviet decision to launch a large scale attack of any type against the United States is likely to be made only after a careful assessment of all the potential outcomes of the available alternatives. While the vulnerability of their missiles to attack might well be a factor in deciding

on a course of action, it does not appear likely to be a major or deciding factor. It would be an important factor only if there seemed to be a genuine threat of a large American first strike. (Once hostilities have begun a launch-on-warning policy has few of the undesirable qualities present when no nuclear exchange has occurred.)

Even in this situation preemptive pressure would decrease to the extent that U.S. forces were "invulnerable" because under such circumstances there would be little to be gained by preemption. (If ballistic missile defense could limit the damage the U.S. could inflict in a retaliatory strike then, presumably, such defense would also be available to the strategic forces as well and there would be little pressure to preempt.) It should also be noted that the current U.S. force posture does have some war-fighting capability, and thus these pressures for preemption exist even now, especially if Soviet planners use a "worst-case" estimate of American missile accuracy.

The existence of such a war-fighting capability has been used as an argument against a change in strategic posture; i.e., that no change in the direction of a greater war-fighting capability is really needed because we presently have significant war fighting capability vis-a-vis the Soviet Union. To a degree this is certainly true. Many of our strategic weapons are capable of attacking military targets such as airfields, power and production plants, etc. And a nontrivial yet clearly attainable gain in missile accuracy could make it possible to attack almost all potential military targets. All this is true, but somewhat beside the point. The worlds of war fighting and assured destruction, after all, are not disjoint. Our current nuclear stockpile does have considerable

war fighting capability, just as high-accuracy weapons designed for counterforce attacks will have significant assured destruction capability. Another cause for the dual capabilities of the current American strategic posture stems from the changing nature of the strategic doctrine underlying the American force posture. For many years there was significant interest in counterforce capability in high Pentagon circles. It was then Secretary of Defense McNamara who gave the most clearcut exposition of the doctrine of counterforce in his Ann Arbor address in June 1961. Where strategic philosophy does play an important role is in decisions regarding which weapon systems should be developed and/or deployed. Will the improved guidance system referred to above ever be deployed on operational U.S. missiles? It is one thing to delay deployment because of financial considerations, or because an even more promising system appears attainable in the nearby future. It is another to rule out all deployment of improved guidance systems because they are not needed to improve American AD capability. Similarly, a heavy city-oriented ABM system would be desirable from a war-fighting perspective but undesirable from an AD perspective.

One of the main arguments against a warfighting posture is that if both sides adopt such a posture a self-defeating arms race would ensue and, moreover, that no meaningful arms control agreements would be possible. Such an arms race, it is argued, would be very expensive and a misuse of America's wealth and resources; in contrast, a mutual AD posture by both sides would allow meaningful arms control agreements, an end to the arms race, and would be very much less expensive.

Whether a warfighting posture does or does not lead to an unending arms race is discussed in more detail above. The relative cost of a warfighting posture as opposed to an AD posture depends, to a great deal, on what arms control agreements are possible under each posture. Either can be quite costly. The warfighting posture may well cost more than the AD posture but it need not be inordinately more expensive. For example, placing an improved guidance system in the Poseidon missile might increase that weapon's counterforce capability significantly and might not increase the cost significantly (though it would, presumably, be more expensive than the guidance system currently installed). Contrary to the argument given above, arms control agreements are possible under a warfighting posture. Let us not forget that until the nuclear era the strategic postures of the major powers were all, essentially, warfighting postures, and this did not prevent arms control agreements between the nations from being reached. (The agreements, for the most part, were not too successful, but that is a separate issue.) In a warfighting posture one can still envisage limits being placed on numbers and types of weapons as well as understandings being reached as to what were admissible weapons and targets, e.g., an agreement on a "no-cities" or "no national command-and-control center" targeting doctrine. Many agreements, to be sure, would be different from what they would be if both sides were following an AD policy. Accuracy would not be limited (or certainly less surely limited than would be the case under AD) and ABM systems might well be allowed to be deployed in significant numbers.

As the discussion above indicates, advocates of a war-fighting posture and advocates of a defensive-emphasis posture have much in common. Both see strong

disadvantages in relying upon an AD strategic posture. Both believe it is not the absolute level of destruction but rather the relative war outcomes which are important for deterrence. Where they differ is on what posture is best suited to insure a relative war outcome favorable to the United States in any foreseeable nuclear exchange. The advocate of a war-fighting posture places primary emphasis on a militarily effective offensive strategic force,with defensive measures against an opponent's strategic forces important, but secondary in nature. The advocate of a defensive emphasis posture places primary emphasis (as the name implies) on strategic defensive forces capable of limiting the damage an opponent can inflict on the United States,with improvements in American offensive forces important, yet secondary in nature, provided at least that always the U.S. should be able to threaten the Soviets with about as much damage as the Soviets could inflict on the U.S., allowing for American active and passive defenses.

Despite the clearly established fact that extensive passive (civil) defense measures could significantly reduce American civilian casualties in the event of even an extensive nuclear strike, it has only been in recent years that significant numbers of analysts have advocated an American defensive emphasis posture. Though there are undoubtedly many complex reasons why few analysts advocated a defensive emphasis posture in the late 1950s and early 1960s, one primary reason was that an effective defense against an attack by ballistic missiles was considered unattainable. Thus, even though lives might be saved, the industrial damage would have been catastrophic in an extensive nuclear exchange and many believed that the answer to the question "Will the survivors envy the dead?" would be yes. With

recent technological advances, such as phased-array radar, an effective defense against ICBM attacks became at least a theoretical possibility, and interest in a defensive emphasis posture rose accordingly. Just how effective an active defense of cities and industrial targets is feasible (with current or anticipated technology) was (and remains) a subject of intense debate between advocates and opponents of ABM deployment. (There seems little argument, at present, regarding the effectiveness of passive defense to reduce casualties.) Many of the arguments raised against deployment of ABM, however, were not technological in nature (e.g., ABM would cause an arms race) and would appear to be equally true or not true regardless of the effectiveness of ABM.

It should be noted in this regard that many people supporting deployment of the Sentinel and now the Safeguard ABM system are not advocates of a defensive emphasis posture. Some adherents of AD, such as former Secretary of Defense McNamara, were in favor of ABM primarily as a defense against any possible Chinese attack. Other adherents of AD supported Safeguard because a defense of American land-based missiles helps to preserve an American AD capability. Some analysts, such as Charles Herzfeld, favored a "thin" ABM defense, which would provide protection against small nuclear attacks, whether accidental, unauthorized, etc., but which could not limit damage significantly in the event of a large Soviet nuclear attack on the United States. This should not be interpreted, however, as meaning that all advocates of a thin system were opposed to providing an effective defense against major attack by ballistic missiles on cities. For some, their judgement was that at least at this particular juncture in time and technology a large-scale system was undesirable. Indeed, one of the perceived benefits of a thin system (especially the Sentinel version)

vas that it would keep the United States in the ABM "business" and provide a ›ase for an extensive deployment if, at some future time, an extensive system vas desired. Advocates of defensive emphasis, such as Donald Brennan, while :learly prefering a "thick" system, have in the main supported deployment of hin systems, such as Sentinel, because a thin system seemed preferable to ıo system and as a limited first step toward deployment of an effective hick system.

One of the crucial differences in outlook between proponents and opponents ıf defensive emphasis is in whether defense is worthwhile if significant damage will till occur after an extensive nuclear exchange. Brennan, an advocate of ıefensive emphasis, has one perspective: "The most common 'ay of characterizing the effect of a BMD system is to estimate the number of .ves it might save in various specified circumstances. In a table of...estimates iven [by then Secretary of Defense McNamara]...it was indicated that there ɔuld be 120 million American fatalities in certain possible wars of the mid-1970's, no significant BMD were deployed. Assuming opposing forces and attacks of ıe same strength, it was indicated that BMD systems costing from $10 to $20 illion, could reduce American fatalities to between 10 and 40 million, depending ɔon the level of the defense and the details of the war. Damage to production and ansportation resources would, of course, be similarly reduced, a result that ›uld not be achieved with economically feasible civil defense shelter programs. ıus, such a defense might change the postwar situation from one in which over ılf the U.S. population was gone, and in which recovery in any time period would : problematical, to one in which perhaps 90 percent survived and economic

ɔvery might be achieved within five to ten years. This difference would be rmous." (D.G. Brennan, "The Case for Missile Defense", Foreign Affairs, ll 1969.)

Bundy, an opponent of defensive emphasis, has another: "In the real ld of real political leaders--whether here or in the Soviet Union--a decision ch would bring even one hydrogen bomb on one city of one's own country ıld be recognized in advance as a catastrophic blunder; ten bombs on ten es would be a disaster beyond history; and a hundred bombs on a hundred cities unthinkable." (McGeorge Bundy, "To Cap the Volcano", Foreign Affairs, ɔber 1969.)

While Brennan and Bundy might well agree that a hundred bombs on a ired cities would be unthinkable, they clearly would disagree about whether it ld be worthwhile to spend large amounts of money to bring the damage inflicted n to the level of ten bombs on ten cities. Brennan, and other supporters of nsive emphasis, thus share the view quoted above by Power that even after xtensive nuclear exchange there is a meaningful sense in which one side or her can "wi.., can survive.

Early in his stay as Secretary of Defense, Robert McNamara discussed this issue in a 1962 interview with Stewart Alsop which appeared in the Saturday ing Post: "Some people seem to feel that even to think about the fatalities h result from nuclear war is immoral. But you have to think about it. You have k yourself whether there are no situations in which one side or the other might ıuclear weapons. Your answer has to be that there are such situations. Then

you have to realize there is a tremendous difference, a vital difference, between, say, thirty percent fatalities and sixty percent." (Italics in original) One should note, of course, that McNamara's views on many strategic issues changed with the passage of time. There seems no clear evidence, however, of any change of position on this issue.

Advocates of defensive emphasis see such a posture as a realistic response to the question raised by President Nixon in a report to the Congress: "Should a President, in the event of a nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians, in the fact of the certainty that it would be followed by the mass slaughter of Americans? Should...assured destruction...be the only measure of our ability to deter the variety of threats we may face?" (Richard Nixon, U.S. Foreign Policy for the 1970's--A New Strategy for Peace, report to the Congress, February 18, 1970.) In place of mass destruction of Soviet civilians, a Russian nuclear attack would be met by an American defensive response to nullify or at least blunt the attack. A defensive emphasis posture thus offers an alternative to the nuclear Sword of Damocles which now hangs over the globe. Perhaps the most basic arguments used by advocates in favor of a defensive emphasis posture are ones of morality and philosophy. On the moral level, an attack on the United States by the rulers in the Kremlin does not justify an American attack killing millions of Soviet citizens who played no role in the decision by the Soviet leaders. On a matter of philosophy, one basic function of the United States government in general and of the Department of Defense in particular is to provide to its citizens protection against attack by any foreign power, not merely to be able to

retaliate in kind in the event of an attack. "[One] fundamental difficulty [with an AD posture] is, in essence political: The body politic of the United States did not create a Department of Defense for the purpose of deliberately making us all hostages to enemy weapons. The Government is supposed, according to the Constitution, to 'provide for the common defense', and plainly most citizens would revolt at the idea that a mined-city system [where each superpower allowed the other to plant nuclear mines under its major cities, a system comparable in many ways to an AD posture] is a sensible way to provide for the common defense"...

"[Another] fundamental difficulty [with an AD posture] is moral. We should not deliberately create a permanent system in which millions of innocent civilians would, by intention, be exterminated in the event of the failure of the system...If we accept such a posture as an interim solution, we should be seeking ways out of it, not ways to enshrine it." (Donald G. Brennan, "Some Fundamental Problems of Arms Control and National Security", Orbis, Spring 1971.)

Proponents of AD have not directly responded to these arguments. In essence, they hold that an AD capability guarantees that no nuclear attack will occur (and that minor attacks such as accidents are so unlikely to occur as to not warrant incurring significant costs) and thus there is no moral question regarding destroying millions of innocent Russians because the United States will never be required to do launch such an attack.

Many of the arguments and perspectives of advocates of a defensive emphasis posture, as was indicated above, are similar if not indeed identical to those held by supporters of a war-fighting posture. To the extent that they have been discussed

above, we will limit the discussion here, concentrating on the differences which result from the United States having a defensive emphasis rather than a war-fighting posture. A defensive emphasis posture provides a more credible deterrent, and hence a more effective deterrent, than an AD posture because a nuclear exchange would then result in much less damage being inflicted on the United States. With regard to deterrence of nuclear (and perhaps even nonnuclear) attacks on countries allied with the United States, a defensive emphasis posture would appear to offer even more deterrence than a war-fighting posture. In essence, the lower the amount of damage the United States would have to suffer, for a given level of hostilities, the more credible it would appear that the United States would actively come to the aid of an attacked ally.

One of the benefits of adopting a defensive emphasis posture is that such a posture would, ipso facto, provide for a heavy defense of Washington. There are many reasons why a heavy defense of Washington is desirable. In the minds of some, the benefits would justify a heavy defense of Washington regardless of whether such defense were extended to the rest of the country. (It is interesting to note, in this regard, that according to the press reports the Soviet Union has indicated that under any SALT agreement it will deploy whatever defensive missiles are permitted under the agreement around Moscow.) For a complete discussion of the value of a heavy defense of Washington the reader is referred to "Some Arguments for Active Defense of Washington" by D.G. Brennan, HI-1411-D. For the purposes of this discussion, it would be valuable to elaborate, if briefly, on some of the key benefits of such a deployment.

Washington is important not merely because it is the nation's capital but because it is the center of national command. As such, key decisions regarding whether and to what extent the United States will engage in a nuclear exchange will likely be made, in the first instance, in Washington. As such it will be a natural target for any potential attacker. Such an attacker might be some secondary power or an unauthorized individual, hoping to provoke a US-USSR nuclear way by launching an anonymous catalytic attack on the United States, perhaps during some severe international crisis between the United States and the Soviet Union. Or the attacker might be the Soviet Union itself, hoping to destroy the American retaliatory capability by destroying its command nerve center. The benefits of a heavy defense would vary according to the circumstances behind any potential attack. A Soviet planner might conclude that the probability of a successful "knockout blow" at Washington was too low for such action to be undertaken. Someone planning a catalytic attack might also conclude that he could not be successful. Or, if he launched a few missiles in the hope that he might be "lucky", the successful defense of Washington would markedly reduce the pressure on an immediate U.S. response and there would be time to discover the true origin (or, at least, some true non-origins) of the attack.

In the event of a war the presence of a heavy defense of Washington would increase the likelihood that the President, rather than some military figure significantly lower on the chain of command, would survive to take charge of the direction of the war and of any negotiations aimed at ending the conflict. The President would perhaps be more likely than the military staff to terminate the war

in a flexible manner before each side had followed reflex plans and exhausted all its weapons. And regardless of who is in charge of the negotiations, there seems no satisfactory substitute for the "hot line" between Moscow and Washington through which peace negotiations could be conducted.

Washington would be of immense value even after the end of hostilities. No alternative center would have the personnel or facilities necessary to direct recovery operations, nor would any alternative center be readily acceptable as the capital. In the absence of any recognized and accepted central government the entire nation might become fragmented with regional power centers and attempts by radical elements of the left and the right to take power.

Finally, even prior to any hostilities a defense of Washington would be of value. In the course of any crisis negotiations with the Soviet Union, the presence of a defense of Moscow and the absence of a defense of Washington might be interpreted by the Soviets as a sign of weakness. Moreover, in the course of a severe crisis, the absence of a heavy defense might create pressure on the President to relocate to "secure" quarters. This action, however, would tend to heighten the crisis. The President, moreover, is likely to be reluctant to relocate in the course of any crisis. An active defense of Washington would permit the President to continue in his accustomed working environment.

One of the key arguments against a defensive emphasis posture is that to adopt such a posture would lead to another fruitless expensive arms race. There are many responses that an advocate of defensive emphasis can make to this argument. As we have seen above, there are historical precedents for an arms race being "won", and thus a defensive emphasis posture need not lead to an unlimited arms race. Moreover, considering the destructive capability in each superpower's current nuclear arsenal, if an arms race did occur in which defensive systems were to play a significant role, the final outcome of such a race might well see the potential level of destruction lowered significantly.

In some ways a defensive-emphasis posture provides arms control benefits beyond those given by a war-fighting posture. A situation where both nations have significant defensive systems is one in which there are fewer pressures on either side to launch a preemptive attack because there is less of an advantage in striking first than would be the case if both sides had very accurate militarily effective yet basically undefended missiles. A heavy defense of both missile forces and cities may allow meaningful arms control agreements regarding limitations on and even perhaps reduction of strategic offensive forces because the significance of cheating is considerably reduced. In some sense, a heavy defense plus limitations on offensive forces is equivalent to no defense but a much sharper

reduction of offensive forces. Though the latter is much less expensive than the former, the former is more likely to be acceptable to both sides. "One may ask: If BMD deployed by both superpowers would have roughly the same effect on possible war outcomes as direct reductions in offensive forces would have, why not reduce the latter, and save the money and the trouble of BMD? The answer is that in some circumstances one might, but the circumstances are not those currently prevailing. To reduce U.S. and Soviet offensive forces to a level where the possible casualties on each side (without defenses) would not exceed, say, 20 million, is likely to be acceptable to the United States only with a degree of inspection that is most likely to be unacceptable to the Soviets. In other words, offensive-force cuts on such a scale do not now seem politically feasible, whereas BMD deployment is entirely feasible and, rather than increasing U.S. needs for inspection of Soviet offensive forces, might actually reduce our dependence on such information. This effect, indeed, would facilitate later direct reductions in offensive forces." (Donald Brennan, op cit., Foreign Affairs.)

A defensive emphasis posture would also help, to some extent, reduce pressures for proliferation of nuclear weapons. Under an AD posture almost any nation can rise to the level of a superpower once it has deployed some relatively small number of missiles. If we are to take Mr. Bundy at his word the number may be as low as 10 but need be no higher than 100. Once this minimal number is deployed a nation could well have a significant AD capability vis-a-vis the United States and the Soviet Union (especially if it adopted a launch-on-warning policy). With heavy defense, however, the AD capability of an "n-th power"

vis-a-vis the United States would drop markedly. Whether or not a nation deploys any nuclear weapons will most likely basically depend on other grounds, but the ability to rise quickly to "parity" with the superpowers may contribute to an affirmative decision to deploy nuclear weapons, and is practically certain to influence the force level achieved once nuclear virginity is lost.

A posture of defensive emphasis, as with a war-fighting posture, provides significantly more insurance against any Soviet "breakthroughs" than an AD posture. In the event of any small nuclear attacks, e.g., accidental launch, unauthorized or anonymous attack, the presence of a heavy defense would undoubtedly save millions of lives. (To be sure, such contingencies are somewhat unlikely and a thin defense may be adequate for these situations.)

There is also a breader issue related to whether a defensive emphasis posture will cause an arms race, namely what are the forces underlying any arms race. One common view is that it is the deployments of the major powers which creates pressures for counterdeployments in the classic action-reaction cycle. "...if, as they maintain, the best way to preserve peace is to prepare for war, it is not altogether clear why all nations should regard the armaments of other nations as a menace to peace. However, they do so regard them and are accordingly stimulated to increase their armaments to overlap the armaments by which they conceive themselves to be threatened...These yet greater armaments are in their turn interpreted by neighboring nations as constituting a menace to themselves and so on..." (C.E.M. Joad, Why War, Penguin Special, 1939.) However, military deployments are not often the cause of a counterdeployment unless there are other, usually political, tensions between the countries concerned. Canada has not

seen fit to respond to America's military might, nor has Great Britain increased its defense spending because of the French "force de frappe". It is political tensions, such as those between the United States and the Soviet Union, which cause military deployments to be viewed in a hostile manner requiring counter military deployments. In some sense increased military deployment is an effect, not a cause of an arms race. From this perspective it is not clear that any strategic posture will see any abatement of the high defense budgets of either of the superpowers. To be sure, the United States and the Soviet Union may reach a state of truly "peaceful coexistence", just as Moslems and Christians reached an accomodation so many years ago. But such an accomodation does not seem likely to occur in the near future.

Indeed, to some extent the issue at hand is what strategic posture is most likely to help such an accomodation to occur. Advocates of defensive emphasis consider peaceful coexistence more likely to occur when each superpower has a certain measure of confidence in being able to rely on its own resources to defend itself from attack. To be sure, such confidence may well be expensive to obtain. But, as was just noted, even with an AD posture significant expenditures are likely to be made in strategic areas. Even if ABM were highly limited (or even proscribed) and a successful SALT agreement saw a limit on the numbers of ICBM's and SLBM's there would still be a large number of new American weapons likely to be funded. "Explicit or implicit in many arms-control discussions is the assumption that such agreements will actually produce considerable financial savings...But the systems needed to implement an acceptable arms-control agreement

generate additional costs that could reduce or perhaps even eliminate any savings. For the foreseeable future, arms-control measures are not likely to produce great reductions in overall spending."

"...Let's look at some more specific reasons for the cost and complexity of an acceptable arms-control environment....We must be confident that we can verify whether any agreements we enter are adhered to by the other side. ...The means of verification--observation satellites, electronic sensing, and other monitoring systems--are themselves extremely complex and costly. And we will have to keep these systems abreast of a rapidly advancing technology." (Raymond J. Barrett, "The Hard Realities of Arms Control", Air Force Magazine, February 1972, p. 48.)

One key issue, to be sure, is how well any such system of heavy defense would work. To some extent this is a technological issue beyond the scope of this paper and the competence of these authors. There are, however, a number of nontechnical comments which can be made and are highly relevant to the issue. On the one hand, if current technology is deficient, then this is the area in which much R&D money should be spent. There are a few who oppose ABM (and certainly heavy defense) on purely technological grounds. An effective ABM system would be desirable, it is argued, but no sufficiently effective system is available. The bulk of the opposition is based on other grounds. For example, in a debate one of the co-authors of this paper had some years ago, when deployment of the Sentinel system was being hotly disputed, the ABM opponent stated his opposition not only to Sentinel but to any system, no matter how effective. An invisible invincible shield would be a catastrophe, he declared, because then American generals would

ousily press all the buttons and devastate Russia and China. Secondly, there are many ways in which even an ineffective defensive system can "work". Consider this statement by an opponent of ABM: "ABM...to protect us from a third power's attack--Red China--is useless...Would it protect Hawaii or Puerto Rico? If China...were... intent upon destroying at least a small part of the United States, do we actually expect them to strike where our defenses are strongest?" (Peter Ognibene, "The ABC's of ABM", Commonweal, March 19, 1971.) What Ognibene fails to realize is that if the presence of ABM motivates the Chinese to strike Hawaii rather than New York or Washington then, in effect, ABM has "worked" and has "saved" New York or Washington. If a defended target is attacked, it will necessarily be attacked by more missiles than would have been sent if there were no ABM. For an attack of fixed size, this increase in the number of missiles sent at selected targets results in a reduction (or the total elimination) in the number of missiles sent at other targets. If the presence of BMD so complicates the military planning of an attack that the contemplated action does not occur, then the BMD would be completely successful without ever being used.*

Even in the purely technical sense of a defense which can physically destroy incoming ballistic missiles, there is one basic situation in which ABM can be successful. It is generally conceded that if the offensive forces are suitably limited while the defensive forces are allowed to grow appropriately, then the defense can be quite effective. Indeed, even such a staunch

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*Freeman Dyson has summarized these considerations with the neat observation that BMD is very good at protecting cities that are not attacked.

opponent of ABM deployment as Jerome Wiesner has conceded this fact. "There are people who say that it is better to spend your money on ABM defenses than on more destructive power. If one could do this--that is, freeze the offensive power on both sides and build only defensive systems--this might make ABM a good thing. If Congress, the military, and the manufacturers were happy to build only defenses, and did not press us to add to the offensive forces, maybe ABM would be a good buy".

"But I do not believe that this is a tenable situation, and this is the reason for one basic disagreement on the ABM. I think we would reach a point in the growth of the ABM defensive system where people would argue that improved defenses mean that the offenses no longer can guarantee deterrence and that we must therefore increase our offensive capability even more." (J. Wiesner, in ABM: Yes or No, Center for the Study of Democratic Institutions, February 1969.)

It may be, as Wiesner and others believe, that such a posture--limited offensive force and unlimited (or much less severely limited) defensive forces--would be politically unacceptable in the United States. No attempt, however, has been made in this direction and such a belief may be no more than a self-fulfilling assumption. To proponents of a defensive emphasis posture this is the direction in which arms control discussions, such as SALT, should be moving.

Many of the arguments against a defensive emphasis posture are similar or identical with those made against a war-fighting posture. By making a nuclear war more "survivable" a defensive emphasis posture is deemed to make nuclear war more "thinkable", and thus more likely to occur. The comments made above with regard to a war-fighting posture remain as applicable with regard to a defensive

emphasis posture. In the debate regarding ABM deployment it was repeatedly charged by opponents that such an action would instigate an arms race and make an arms control agreement with the Soviet Union more difficult if not impossible to achieve. The issue regarding an arms race was discussed above. Possible arms control agreements under a defensive emphasis posture were also discussed above. Because of the importance of this issue, in light of the on-going SALT negotiations, it is worthwhile examining this issue again. With a defensive-emphasis posture arms control agreements not only are possible, but may even complement the entire posture.

An agreement which limited offensive deployments much more stringently than defensive deployments could significantly increase the effectiveness of the defensive systems. Under appropriate conditions reductions in the offensive deployments of both superpowers could be achieved without the requirement of "intrusive" on-site inspection. By reducing the damage nuclear weapons could inflict, a defensive emphasis posture by both superpowers could result in the closest approximation to a non-nuclear world short of total nuclear disarmament, which does not appear to be politically achievable. (And many would argue that total nuclear disarmament would not even be desirable.) As a consequence, the

One argument against a war-fighting posture is not valid for a defensive emphasis posture. In a war-fighting posture there was the possibility that much money would be spent developing weapons which might only destroy "empty holes".

a defensive emphasis posture this is not so because the weapons are used only ainst payload actually launched. There are, however, a number of disadvantages to lefensive emphasis posture. Because there are no extensive defensive systems rrently deployed initial costs would be very high in most systems. Whether the benefits a defensive emphasis posture justify the costs of such a posture is a policy cision which is beyond the scope of this paper. It should be pointed out, wever, that the cost of such systems will be spaced over a number of years, and nce, while substantial, need not be of the magnitude it would appear from first ınce. For example, since World War II the United States has spent over 50 lion dollars in air defense (most of it pre-inflation dollars) and the nation did t go bankrupt. (Indeed, there were several years in the late 50's in which annual defense expenditures were in the neighborhood of 1% of the GNP.) It is not ar that the Defense Department budget will be reduced significantly if a ensive emphasis posture is not adopted. Thus, rather than being a question of iorities" between military and civilian needs, whether or not a defensive emphasis ture is adopted is in part a question of priorities between competing military ds.

Another valid point is that to a great extent strategic defensive systems have er been tested under battle conditions, and thus may be ineffective in actual tice. This is true, but is in some sense misleading. It is equally true that Ms and SLBMs have not been used under battle conditions. There is a wide-ad feeling that offensive systems are "simpler" than defensive systems, in icular with regard to reliance on computers and the attendant software, and thus ess likely to be ineffective. If heavy defensive systems are deployed, however,

one would expect that the changes made in the offensive systems to counter the defensive systems will make them also more complicated. To some extent, moreover, defensive systems can be tested. The open questions are much more regarding the ability of the radars to distinguish missiles from decoys than the ability of the defensive missile to be at the right place at the right time if the tracking and discrimination are done properly. By proper simulation of input materials to the data processors, or by actual launches on the Pacific Range, the software, tracking and discrimination can be tested.

There is also the possibility that heavy defensive deployment may result in a "Fortress America" perspective developing among the American people, or, on the other extreme, an active policy of intervention in foreign affairs occurring, with the belief that the territory of the United States was "safe" from attack behind its defenses. Neither possibility can be completely discounted, though neither seems likely to occur. Some would see one or the other development to be an improvement in the conduct of American foreign policy, while others would disapprove. The desirability of each approach is beyond the scope of this article, but among the "costs" of a defensive emphasis posture must be included some assessment of the likelihood of each outlook occurring.

In a similar vein, a defensive emphasis posture by the United States may be interpreted by our allies as a turning inward, as a lessening of interest in keeping the non-Communist countries non-Communist. This possibility cannot be wholly discounted, but very nearly so. Similar arguments were raised against the NPT, but our alliance problems do not seem significantly worse because of the NPT than they were before the NPT was adopted.

Considering the dominant role that AD has played, to date, in molding the strategic posture of the United States, it might appear a futile exercise to investigate alternatives to AD. But many analysts still have doubts regarding the efficacy of AD to banish the possibility of nuclear war. One day the leaders of the Government and the populace at large may begin to share these doubts. If and when this occurs, it will be important that alternative postures be available for examination and consideration. It may be fitting, in closing, to recall a historical example from the not too distant past when something close to AD did not deter.

"In one respect the 1941 arrangement seems painfully pertinent to today's deterrence calculus. Current American strategy is based on the expectation that a nuclear attack on the United States will be deterred because the American nuclear force is so large and invulnerable that it can survive a surprise attack with enough retaliatory power left over to deal a devastating counterblow to the attacker. This was basically the threat that confronted the Japanese in 1941 for they seemed to know that even if they were completely successful at Pearl Harbor the Americans had easily enough remaining power eventually to devastate the Japanese homeland. Yet they attacked, hoping vaguely for luck and American spinelessness. Weapons today of course are utterly unsubtle and the visitation of them on the attacker can be almost immediate and without loss of life to the Americans--unless, however, the attacker himself has a reserve strong and invulnerable enough to be able to threaten retaliation for retaliation. Yet weapons development alone does not seem to have rendered entirely irrelevant the 1941 experience." (John E. Mueller, Deterrence, Numbers and History, Security Studies Project, UCLA, 1968.)