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NUCLEAR DETERRENCE:

A LOOK AT THE PAST AND FUTURE THROUGH THE EYES OF A BEHOLDER

M.P. MCGAHAN/CLASS OF 1996

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Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 1996		2. REPORT TYPE		3. DATES COVERED -	
4. TITLE AND SUBTITLE Nuclear Deterrence: A Look at the Past and Future Through the Eyes of a Beholder				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) National War College, 300 5th Avenue, Fort Lesley J. McNair, Washington, DC, 20319-6000				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT see report					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 14	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

NUCLEAR DETERRENCE: A LOOK AT THE PAST AND FUTURE THROUGH THE EYES OF A BEHOLDER

INTRODUCTION

The purpose of this paper is to analyze United States' strategic nuclear deterrence policy and discuss its relevance and applicability following the end of the Cold War. This paper will look at the definition, theory and strategy of nuclear deterrence as it served the United States throughout the Cold War, and will discuss its viability for the future.

Although chemical and biological weapons are now generally linked together with nuclear weapons into the category of "Weapons of Mass Destruction", this paper addresses only the nuclear weapons issue. It is certainly conceivable that chemical and biological weapons and their delivery systems will soon provide their potential users with the destructive capability equivalent to nuclear weapons. It is also true that their acquisition and use provide many advantages over nuclear weapons. Nuclear weapons, however, are distinct from these other weapons because of their demonstrated capability to produce instantaneous destruction on a massive scale and the mystique which has grown around them as a result of the central and unique role they played in the last 45 years of superpower competition known as the Cold War. Because we have been living with nuclear weapons as legitimate instruments of war we have developed definitive attitudes, policies and prejudices concerning them. Therefore, this discussion will be limited to nuclear weapons. The exclusion of chemical and biological weapons from this discussion does not imply they are less of a threat or less worthy of our concern.

NUCLEAR DETERRENCE DEFINED

To begin a discussion of deterrence and, more specifically, nuclear deterrence, it is helpful to provide a workable definition. Although there are many available, the following two definitions are useful.

"If the enemy is to be coerced you must put him in a situation that is even more unpleasant than the sacrifice you call on him to make" (Clausewitz p 77)

“Deterrence The prevention from action by fear of the consequences Deterrence is a state of mind brought about by the existence of a credible threat of unacceptable counter action ” (Joint Pub 1-02)

Deterrence, of course, is not a new concept, it was not invented as an outgrowth of the development of nuclear weapons Military forces have long had a coercive function Whether or not Clausewitz’ formulation of coercion precisely fits the logic of war in the nuclear age, deterrence is in fact a form of coercion What distinguishes nuclear deterrence from its conventional predecessors is the astronomical inflation of the cost of war which was introduced with the first use of nuclear weapons on August 6, 1945

“ The release of atomic energy constitutes a new force too revolutionary to consider in the framework of old ideas ” - President Truman in an address to Congress, 3 October, 1945 (Bechhoefer p 30)

Whether or not you believe that the introduction of nuclear weapons was a true “Revolution in Military Affairs”, the fact is that the introduction of nuclear weapons into the arsenal of warfare radically transformed not only the cost of war, but also necessitated a transformation in man’s thinking about war, and how to avoid it

Nuclear weapons have produced an immense disparity between the costs and gains associated with aggression They have also altered the very concept of military victory The ability to annihilate the enemy has now evolved into the ability to annihilate the planet as well The concentrated power of nuclear weapons and the lack of an effective defense against them dominated relations between the two superpowers since at least the 1960’s For the last three decades of the Cold War, neither the United States nor the Soviet Union had any realistic expectation of being able to physically deprive the other of the ability to annihilate any opponent through the use of nuclear weapons

Another definition of deterrence is the ability to dissuade an adversary from initiating action by convincing him that the cost of such action would exceed the gain How does the possession of nuclear weapons modify this definition? As David Fisher wrote, for two nuclear powers to be mutually deterred, the following two conditions must exist

- (1) Each side has the ability , if attacked by the other, to inflict on the attacker sufficient harm to outweigh any conceivable gain to be secured by the attack
- (2) Neither side can rule out that the other might use this ability, if attacked

(Fisher p 6)

If and only if these two conditions are met, neither country, acting in a rational manner, will initiate a nuclear war. Fisher's definition necessitates a balance of military power sufficient to meet condition (1), and the belief by each side that the opponent could have the will to use those weapons (condition (2)). Unlike conventional deterrence, for nuclear weapons to meet condition (1), they need not be matched in quantity and quality on each side. Rather, nuclear weapons are sufficiently destructive that the only balance of forces required is the assured ability to inflict unacceptably costly damage on the other side, regardless of the actions of the opponent. This is a critical distinction, as evidenced by the great emphasis the United States placed in the Soviet Union's capability to retaliate in the early part of the Cold War, even though our nuclear arsenal was clearly superior in both quantity and quality before the mid 1960's. As Fisher points out, "the balance of power in the nuclear era is inherently more stable and less prone to disturbance by arms racing to achieve quantitative superiority than is a conventional balance" (Fisher p 10).

The second part of Fisher's definition, which applies to any type of deterrence, is an extremely crucial aspect, one which requires a more detailed look beyond a mere definition of deterrence, into the theory behind the principle.

NUCLEAR DETERRENCE THEORY

‘Deterrence, like beauty, is in the eye of the beholder’

- Harvard Nuclear Study Group, 1983 (Carnesale p 33)

Deterrence is concerned as much with perceptions as with capabilities. Thus the second part of Fisher's definition leads to a discussion of the general theory of deterrence. Deterrence theory, like so many other things in which mankind is involved, is relative in time and situation. In addition to the military power necessary to meet Fisher's first condition, his second ingredient, perception, is also extremely important. However, unlike military power, perception is quite difficult to measure. As Henry Kissinger¹⁹⁶⁹ said, "What the potential aggressor believes is more important than what is objectively true. Deterrence occurs above all in the minds of men" (Kissinger p 15).

Thus it is the psychological criteria of perception associated with deterrence which makes it so difficult and so precarious a theory. The accuracy of these perceptions is most important in the nuclear policymaking process and, therefore, it is not reality itself which determines our behavior in regards to deterrence, but the image of reality. This therefore makes us susceptible to our culturally-biased

perceptions of reality and not necessarily those of our adversaries. Perhaps the most dangerous aspect of this perception problem is what we perceive to be “rational” behavior of others.

The most basic notion underlying deterrence theory is that of rationality. We assume, as does Fisher’s definition, that the behavior of leaders will be motivated by a set of objectives derived from the rational interests of their nation. As explained by Graham T. Allison of Harvard University, government heads are viewed in this context as if they were “unitary actors faced with the relatively simple problem of devising the most cost effective method of realizing the desired effect” (Catudal p 56).

The theory of deterrence therefore assumes that government decisionmakers, even in a period of great stress, will act in a rational manner. Critics of strategic nuclear deterrence theory point out the paradox of this assumption. Rational leaders must threaten to perform an irrational action, that is, the mutual annihilation of not only their adversary’s country, but also their own. (Catudal p 57)

There are several other key aspects of the theory of deterrence which must be understood. Both parts of Fisher’s definition require a great deal of credibility, the force available and the potential will to employ that force must be perceived as credible by the potential adversary. Credibility involves the technological capability to employ nuclear weapons and, more importantly, an appreciation of the vital interests of a nation. A nuclear power is most likely to go to war with nuclear weapons if its national survival is at stake. This was understood by both superpowers during the Cold War, and is still applicable in today’s proliferated world, as will be discussed later. Credibility is also achieved by the making of commitments, of treaties which one’s adversary has a reasonable presumption of believing will be honored. Thus the United States extended a “nuclear umbrella” over its allies in Western Europe and Northeast Asia which those both under the umbrella and our adversaries believed to be a credible and firm commitment. As defense specialist Colin Gray stated “a credible determination to fight might avail little if the quantity and quality of combat power threatened falls short of some critical threshold of effect as seen by the intended deterrees” (Gray p 15).

Another fundamental of deterrence theory and, according to its critics, another major weakness, is its ambiguity. This applies to both the conventional and tactical nuclear battlefield. During the Cold War, it could never really be ascertained just what the response to the use of theater nuclear weapons would be. The NATO strategy of relying upon tactical nuclear weapons to initially counter, or slow down, a Warsaw Pact invasion of Western Europe could be argued to have thwarted the Soviets, since they could not be certain if we would in fact employ them or if we would resort to strategic weapons if they failed. Conversely, we were never certain that our use of tactical nuclear weapons would not lead to an escalation to the strategic level by the Soviets. Also, throughout the Cold War, from the Cuban

Missile crisis to Vietnam, the uncertainty as to whether confrontation/conflict would escalate to the strategic nuclear level was a major unknown which dramatically influenced and constrained the behavior of both superpowers

As a final aspect of deterrence theory, it is instructive to look at the two basic schools of thought into which Cori Dauber has placed the debate over the employment of nuclear weapons. Dauber states that there were two highly developed and exclusive theoretical structures governing nuclear strategic doctrine up through the end of the Cold War. These two categories are the "MAD" group and the "warfighting", or counterforce dominance, group. According to the MAD (Mutual Assured Destruction) group, nuclear weapons were to be used solely for the very narrow mission of deterring the use of nuclear weapons against American territory. Thus, a "Crisis Stability" condition was created when both sides knew that either side could absorb a nuclear attack on its territory and still retain the capability to inflict unacceptable damage on the aggressor. The "warfighting" group of theorists held that nuclear weapons could be used to deter the Soviet Union from a range of actions. To this group it was necessary to have nuclear superiority at every stage in a potential escalation situation (Dauber p 8). To the extent that these are all rhetorical arguments, it is instructive that the actual strategy the United States and NATO employed was a combination of the two, one at the strategic and the other at the tactical level.

There are many theorists and scholars who, like Honore Catudal, argue that strategic nuclear deterrence was a poorly formulated, weak and vague concept which only provided an illusion of security during the Cold War. However, as then-US Ambassador Martin J. Hillenbrand wrote to Catudal in 1984

"Whatever one may think about how deterrence has operated in the post-world war-II period, it is a fact that since we dropped our two fission bombs on Hiroshima and Nagasaki, no nuclear weapons have been used in anger for nearly 39 years. This is an overriding fact. Whether some rough sort of deterrence is primarily responsible, or other causal factors have been operative in a decisive sense, one cannot dismiss the reality of deterrence as an operating factor in the minds of decision-makers during times of crisis and confrontation."

(Catudal p 80)

The bottom line, as the Ambassador stated, is that we did not go to nuclear war. We could debate forever whether war with the Soviet Union was avoided because or in spite of nuclear deterrence theory. From a military perspective, the theory worked. It worked because we possessed the capability to deter, and our adversary believed us willing to use that capability. That willingness was manifested in the various strategies we employed.

NUCLEAR DETERRENCE STRATEGY

Strategic theorists have identified three basic types of deterrence

- (1) deterrence by denial,
- (2) deterrence by punishment, and
- (3) deterrence by defeat

(Catudal p 50)

Denial refers to the “conceivable gain” discussed in the first part of Fisher’s definition of deterrence. A potential aggressor would be deterred from initiating a conflict because he would not be able to accomplish his goal, his war objective. Punishment is the “sufficient harm”, the unacceptable damage which the potential victim of aggression must be capable of inflicting upon the aggressor for there to be a credible deterrent. Deterrence by defeat is the prevention of war by the certainty of the potential aggressor that his aggression would be unsuccessful. The distinction between denial and punishment was made quite clear by former US Secretary of State Dean Acheson. “We mean that the only deterrent to the imposition of Russian will in Western Europe is the belief that from the outset of any such attempt American power would be employed in stopping it, and if necessary, would inflict on the Soviet Union injury which the Moscow regime would not wish to suffer” (Mearsheimer p 15)

The United States relied primarily on the strategy of deterrence by punishment at the strategic level, wherein we maintained the ability to destroy large portions of the civilian population and industry of our potential opponent, even after absorbing a first strike. At the theater or tactical level, we employed a strategy of deterrence by denial, whereby we would deny the numerically superior conventional Warsaw Pact forces their objectives in Western Europe by the threat of tactical nuclear weapons (the great NATO equalizer)

US Strategic Nuclear policy was not just created overnight in response to the perceived Soviet threat to our existence. Our deterrent strategy developed through several phases, gradually evolving as the political rivalry and military/ nuclear capabilities of the two superpowers grew into the Cold War following World War II. The initial strategy of deterrence grew out of the larger strategy for opposing worldwide Soviet ambitions, which was the “containment” policy developed by George Kennan.

At the start of the Cold War, the conventional military capability of the United States was distinctly inferior to that of the Soviet Union, particularly regarding protection of our allies in Europe. This vulnerability could only be countered by the important fact that the United States was the sole

possessor of the atomic bomb. The B-29 bombers deployed to bases in Europe were intended to deliver nuclear weapons to Soviet cities and industrial centers in the event of war. This capability was thus the first drastic threat of retaliation which the US used as deterrence. This "City Busting" strategy was improvised as the only feasible deterrent available to us at that time. This strategy led to one of "Extended Deterrence" as we first opened our "nuclear umbrella" to protect our non-nuclear allies. The first Soviet explosion of a nuclear device, along with the takeover of China by the communists in 1949 led to a complete reassessment of the world situation by the Truman administration. This eventually resulted in our production of a large stockpile of nuclear weapons to support a deterrence policy of Massive Retaliation.

Following the Korean War a policy of Graduated Deterrence was developed, but not officially adopted, as a means of deterring future "Koreas" by the threat of conducting "limited" nuclear war. The Flexible Response strategy that was adopted by the early 1960's was designed to provide more options as the US and NATO conventional capability grew. The next major shift in deterrence policy occurred as a result of our dramatic improvements in accuracy, numerical superiority and survivability of our nuclear capability. This Assured Destruction, later to be known as the now famous MAD strategy, enabled us to avoid targeting cities and focus on "counterforce" attack capability. This strategy was possible because of the first strike survivability which our silos and submarines now provided. First strike survivability diminished the incentive for a first strike and consequently provided a basis for mutual restraint. Various deterrent strategies and targeting policies were developed through the 1970's and '80's, including Sufficiency, Flexible Targeting, and Countervailing Force, all of which relied on US nuclear superiority and survivability. All were attempts to provide viable options to counter Soviet aggressive behavior.

Particularly remarkable about the evolution of these strategies was the apparent presumption that a nuclear war could be fought and won on a massive scale, despite the devastation which would result from such a war. (It is fitting that the unofficial name given to this strategy in the 1980's was Nuclear Utilization Target Selection, or "NUTS") We finished up the Cold War with two variations of the MAD strategy, that of Horizontal Escalation and Simultaneity, both products of the Reagan/Weinberger Administration (Catudal pp 14-20)

This was essentially the strategic nuclear deterrence policy which we retained through the fall of the Berlin Wall, the breakup of the Soviet Union, and into the Post Cold War Era. Despite the drastic changes in the overall global balance of power which these monumental events signaled, no major change was proposed until after the 1994 Nuclear Policy Review was completed. By this time change was definitely in order.

POST COLD WAR STRATEGIC DETERRENCE

As part of the introduction to the first post-Cold War nuclear policy review, Secretary of Defense Perry announced “The new posture is no longer based on Mutual Assured Destruction. We have coined a new word for our new posture which we call Mutual Assured Safety, or MAS” (Boldrick p 80). This policy drastically reduced the operational tempo and the size of our nuclear arsenal, in keeping with the START II Treaty limitations.

With the end of the Cold War, the dissolution of the Soviet Union and the elimination of the Warsaw Pact threat to Western Europe, there is certainly less of a risk of strategic nuclear warfare between the United States and the former Soviet Union (FSU). However, are nuclear weapons now “obsolete”, as so many people believe, including former Commander of the US Space Command, General Charles Horner, who said exactly that in 1994 shortly before he retired? (Boldrick p 81)

While there is certainly room for optimism concerning world, and particularly, US-FSU relations, there is no justification for eliminating nuclear weapons as long as the need for a credible deterrent exists. As long as nuclear weapons exist, and they can't be disinvented, the United States needs to retain more than just the “virtual reality” of nuclear weapons which some people are advocating. Whether or not you believe open markets and democracy are capable of transforming the FSU into just another trading partner, the fact is, that as we discussed in the context of deterrence, intentions are extremely difficult to analyze. Capabilities, on the other hand are not. Russia still possesses a great arsenal of nuclear weapons, which, if nothing else, gives it perhaps its last remaining justification for superpower status.

Russia is going through an extremely turbulent period in its struggle for a new identity. This struggle is not likely to resolve itself for many years, regardless of the outcome of the upcoming 1996 presidential elections. Even more critical than these elections is the overall Russian mindset. Is this period merely just one of “peredyska”, or breathing spell, as perhaps was the USSR's strategy prior to its demise? Certainly there is historical evidence of a long-term Russian understanding of its own weaknesses and an appreciation of the strategies necessary to deal with an adversary of overwhelming technological capability and economic might. (Kass p 185)

Whether the Russian people will utilize this period to create a true democratic tradition out of the ashes of the FSU, or if this becomes a breathing spell to catch up to the West, we must maintain an alert awareness of both the “known” of capabilities and the “unknown” of intentions, especially given our

vulnerabilities Right now and for the foreseeable future, the strategic nuclear arsenal of the FSU is the only real military threat to our preeminent vital interest national survival Until such time as that threat no longer exists, we need to maintain the nuclear military might required to deter the potential - if remote - threat of nuclear aggression We cannot allow our security and survival to rely solely upon the hope that war between us and Russia will never take place

In our rush to arms reductions and "New World Order", we must not allow ourselves to believe that everyone will act as we do, if we only give them the chance Perhaps Secretary Perry realized this when shortly after his "MAS" proclamation, he modified his description of our policy to one of "leading and hedging" We must take the lead in forming a more tranquil relationship with the FSU, while hedging against a possible resurgence of a definite nuclear threat (Boldrick p 82) Unfortunately, for the foreseeable future, the level of risk will always be greater than zero, and we must be prepared to respond to capabilities, not intent

TACTICAL NUCLEAR WEAPONS AS A DETERRENT

As discussed earlier, tactical nuclear weapons systems (TNWS) served as a deterrent to Warsaw Pact aggression in Central Europe during the Cold War, where they were deployed as part of NATO's holding strategy Obviously the mere presence of nuclear weapons did not prevent other conflicts during the Cold War, from Vietnam to Afghanistan The fact remains, however, that they were available but not used to influence the outcomes of any of these conflicts, even when the possibility existed that they could Whenever vital interests of the other opposing superpower was either directly or peripherally involved the very real potential for escalation to a strategic nuclear exchange was sufficient to deter the superpowers from using nuclear weapons to influence the outcome of a conventional conflict

The world is now a very different place, and the Post Cold War "World Order" is complicated by many factors Without the "stabilizing" influence of the bipolar world, without the ever-present potential for nuclear devastation, large and small states alike are more free to pursue their own ambitions Likewise, "rogue" states, held in check while clients of the superpowers, are now more willing to pursue their ambitions and the weaponry necessary to accomplish those ambitions Thus, the threat of weapons of mass destruction (WMD), of which nuclear is only one, has in many ways increased To this must be added the threat from non-state actors, such as militant extremists, who are also pursuing their own agendas and capabilities

Should nuclear weapons be used as a deterrent against such non-traditional opponents? Can such deterrence be successful? Under what circumstances would we be justified in using nuclear weapons in a situation other than what we faced during the Cold War, the threat of total annihilation?

During the Cold War, nuclear weapons were relatively easy for most Americans to justify. As a weapon of last resort, if one's back is against the wall, it is easy to rationalize the awesome destructiveness which nuclear weapons will produce. However, can we justify their use in a situation other than one in which our very survival is threatened? Can we use them to settle a regional conflict? Can we employ them to prevent or contain a nuclear or other WMD conflict?

Because of their immense destructive potential and the long "tradition of non-use" which has evolved around nuclear weapons, several very important ethical and strategic problems must be considered before we answer such questions. Contemplation of any use of force must always include an evaluation of the proportionality and discrimination criteria which the Just War Tradition requires. The nature of nuclear weapons dictates special caution in these areas. Would the harmful effects of the weapons' use be in proportion to the evil either perpetrated or contemplated by an aggressor? Could non-combatant casualties, either by the immediate destructive force of the weapon, or as a result of radioactive contamination of the environment, be minimized with an application of nuclear weapons? Strategically, could we keep any such use of nuclear weapons from escalating into a broader employment of WMD, either in immediate response to our use, or at some later point in time? Once we break the tradition of non-use for a situation we determine to be of sufficient gravity to warrant such action, could we ever again reasonably hope to deter other nuclear states from using WMD when they are faced with a crisis they determine to be equally grave?

The short answer is: We don't know. However, as long as there are potential aggressors who either possess or can be reasonably expected to someday possess such destructively powerful weapons, we must keep our options open. We must retain the capability to deter such aggression by possessing a credible means of exacting a cost too high for the aggressor to bear. This capability must be able to discriminate to the maximum extent between the regime which is perpetrating the aggression and those who morally and ethically we determine to be non-combatants. We must utilize our technological resources to produce weapons both sufficiently destructive and discriminate to make our actions both effective and ethically justifiable. With weapons we currently possess, such issues cannot be resolved before the exact nature of the crisis is fully known. It is vitally important to maintain the option to utilize any weapon, even nuclear, if the nature and the circumstances of the crisis dictate its use and our technology enables us to meet the dual criteria of proportionality and discrimination. All options must be

kept available in order to provide a credible threat of deterrence, and they must be exhaustively investigated before we actually commit to a course of action. Nuclear weapons, like war itself, must be a last resort.

In addition to resolving these ethical issues, the strategic problems must also be considered. It is not clear that deterrence will even work against these new, non traditional opponents. Remember, one of the most critical aspects of deterrence theory is the presumption of rationality. Our definition of rationality, and that of the Soviet Union for the entire Cold War, may not at all be equivalent to the motivational inspiration of various players in this New World Order. We must therefore have the ability to consider the motivation of a future aggressor from his concept of rationality, not ours. Our concept of deterrence must be tailored to the potential aggressor's "center of gravity." He must be made to realize that we possess both the capability and the will to exact unacceptable cost from that which he holds most precious. When the players we desire to deter are rogue states or non-state extremists, this will not always be readily apparent, and could be much less easy to accomplish.

Further, in the event such deterrence fails, we must be capable and willing to exact the price we threatened. Just as strategic deterrence could not have been credible on a foundation of bluffing, failure to carry out our threats would only open the door to the potential escalation of terror and a disastrous slide into impotence as a nation.

CONCLUSION

Nuclear deterrence was a necessary and invaluable foundation of our National Security Strategy during the Cold War. The world has changed in many significant ways in the past few years, and we have perhaps stepped back a bit from the precipice of nuclear annihilation to which we were so near. However, the need for strategic deterrence has not changed. Nuclear weapons will be required as long as nations who have such weapons do not trust each other. We need to continue our efforts to create a world environment where such lack of trust no longer exists. Until such an environment can be attained, we must retain the ability to deter nuclear world war. We also must retain the capability to deter if possible, and punish if necessary, potential regional and transnational aggressors whose ambitions or hatreds could cause them to employ nuclear or other weapons of mass destruction. Until such time as more precisely destructive, yet more proportional and discriminating weapons can be devised, we will unfortunately need our nuclear capability to provide a measure of assurance that we can accomplish this task. Therefore the need for non-strategic deterrence will also remain, but the nature of this deterrence must be modified to fit the mindset of the intended "deterree".

We must possess the moral and ethical restraint to refrain from resorting to nuclear weapons until we have exhausted all other options. We must also possess the moral and ethical strength of character to convince ourselves and the world community that this option must remain available to us as long as the threat is present.

What we also urgently need is worldwide consensus that an aggressor's use of weapons of mass destruction will not be tolerated and that any such use will result in his catastrophic downfall. We must realize we alone are capable of providing the leadership and courage necessary to forge such a consensus. For this to happen, we must first ensure we understand our responsibilities to the moral and ethical values upon which our nation, and our concept of civilization are based.

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