

**Is There a Purpose for Deterrence
After the Cold War?**

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Let me answer this question tonight – to the extent I can—by reviewing the specifics of how United States thinking about nuclear deterrence has developed over the years: our present conception of its purpose in the new security environment we are likely to face going forward.

“Hardly anyone died in the Cold War, but we lived on a daily basis with the risk that everyone might. Our strategy...was managed successfully by a small number of dedicated officials, scientists, submariners and other members of the Armed Forces, operating necessarily in conditions of utmost secrecy even within their own organizations...As a young man I saw them work. These were not Dr. Strangeloves.” - Sir Kevin Tebbit (Permanent Secretary of the Ministry of Defence, United Kingdom)

Let me note that I have had a career approaching forty years – first, as a scientist, then as a diplomat and arms control negotiator, then as an official of the United States nuclear weapons establishment as a director of a nuclear weapons lab, and also as an advisor on nuclear policy to the United States defense establishment.

History records that the principal nations who emerged as victors of World War II—both in Europe against wartime Germany and in the Pacific in the war against Japan—were not immediately focused on either “learning to live with the bomb” or preventing its further use; indeed, the military planners were not as shocked as we might have wished they had been by this “war to end all wars.” Rather the major post-war nations were scrambling to seek advantage, particularly as the uneasy alliance of the Soviet Union with the West soon began to unravel.

Thus, the now romantic notion that the two Japanese explosions, with their devastating losses of life, had “irrevocably changed the world” was not at all clear in the immediate actions of most of the nations of the world at that time.

As the Soviet Union and western nations each accelerated their efforts to achieve larger arsenals of even more powerful nuclear weapons – with each side underestimating the speed with which the other side was making leaps in military technology – only slowly did the deep sense of fear arise that the destructive power of nuclear weapons had become so great as to have unarguably catastrophic consequences. One reflection by an intelligence officer at that time was that “Neither side would allow themselves to believe the other side was as frightened as they were.”

It was in that intellectual cauldron that the ideas first began to emerge —intellectually, brick by brick—that in a world of perpetual vulnerability against such potential catastrophe, the best one might be able to hope for is to find ways that could restrain any nation state from ever again contemplating deliberate and major war. Thus, the idea of deterrence of aggression emerged slowly, as a “derived truth” rather than from any thesis, writings, or doctrine.

During this period there was little direct intelligence available to any of the major decision makers within any nation that could be relied upon to understand any rival nation’s nuclear intentions, and thus nuclear weapons policies developed in great secrecy within the inner circles of governments, in large measure through self-perceptions of what the impact of a nuclear-armed world might mean for their own strategic interests. Each nation, independently and in turn, had to speculate as to whether and how those perceptions of fear and vulnerability

were affecting the strategic plans of others. I believe that when the history of the Cold War is written, it will show that—on the whole—the thinkers and planners of that day should be commended by all of us who came afterwards, for their accomplishment in developing a strategic deterrence formulation which has endured remarkably well to usher us to today. Moreover, the Cold War never became “hot”—at least not with “nuclear heat.”

A number of years ago, as it finally seemed clear that we could place the Cold War into history and begin facing whatever was to come next, the Commander in Chief of the United States Strategic Command—then Admiral Hank Chiles—tasked the Policy Committee of the Strategic Advisory Group (which I led) to examine the fundamentals of the deterrence that had served us so well during the Cold War and try to sort out what lessons or principles might be used going forward. We delivered a White Paper titled “Essentials of Post-Cold War Deterrence” (although it was initially held within the Command, it was later released. I can make it available for all of you.)

As we examined how deterrence had emerged and how it matured in its effectiveness during the Cold War, we began to see deterrence not as a theory, a concept, a doctrine, or even just a strategy, but as an active and dynamic process. By “process” we meant that it requires inputs in order to provide output—a factor desired to be so basic it must never be forgotten. Use of the terms “active” and “dynamic” as modifiers for the deterrence process is meant to capture the thought that, just like human history, deterrence has no end point. Each generation must try to understand, adapt, and apply it to the unique circumstance and the world actors of their times.

Deterrence is an active and dynamic process. It was Mike Wheeler, a member of that SAG group, who examined the etymology of the word. Deterrence comes from the Latin root word *terre* (to frighten, particularly with an overwhelming fear as in the English derivative - terror) that, with the prefix *de*, means “to frighten from.” To deter, thus, literally means to discourage or prevent an action by instilling overwhelming fear (and/or doubt) about the consequences. General Larry Welch, also a SAG colleague, has given a definition for deterrence based on a value judgment by the opponent. “To prevent aggression by nations, we must maintain an

ability to 'hold at risk' assets within that nation which they value more than they value the actions we are trying to deter."

We should avoid the misleading view that "deterrence was simple when seen in the Cold War context." It was not, nor was deterrence theory static. Individual United States presidents and their principal advisors held greatly differing views about the nature of deterrence and how it could be used as a tool of national leadership to best preserve the peace at an acceptable price.

The concept of deterrence has been applied for millennia, and although it cannot strictly be proven, deterrence does appear to have "worked" during the Cold War—but whether it can be successfully used in any particular future circumstance is not predictable. Thus, it is important to understand what has worked in the past and to be adept at tailoring the principles for future conditions and cases.

In the modern perspective through which we now view processes, deterrence can likely be continuously improved. Like all other human work, it also may have to be "reengineered" from time to time to restore, and radically improve, its effectiveness.

One of the conclusions our group reached was that we must tailor the past lessons of deterrence to fit the "psyche" of a specific nation whom we view as an opponent in order for the process to be grounded in reality. Its clarity suffers whenever one tries to speak of deterrence in generalities. We must consider each specific adversary's values, governance and the specific characteristics of its leaders.

We noted that deterrence must extend "beyond rationality." Deterrence of the Soviets never depended on having "rational" leaders. Stalin was in charge when the Soviets first began a build-up of nuclear arms, and I believe few would suggest him as an example of a rational leader. The very framework of a concept that depends on instilling fear and uncertainty in the minds of opponents was never, nor can it be, strictly rational. Nor has it ever strictly required rational adversaries in order to function.

As a part of our study of deterrence, we examined the works of analysts, historians, and even neuroscientists. What emerges is a quite complicated picture—one not likely or easily reduced to a simple predictive formula, but rather a still evolving concept—more like watching human history unfold than a static set of prescriptive principles that, if carefully applied, could be used to ensure peace and freedom. We concluded that it is important for deterrence to affect the emotions, and not just the rational mind, of an adversary.

The ways in which humans process and react to information is doubtless one of the most complicated and least understood processes. Yet, scholars working in a number of disparate disciplines —philosophy, neurobiology, cultural anthropology, and social psychology—suggest that this complexity of human behavior can be studied and understood. This is especially true for the issue of self-preservation.

Since fear is not the possession of the rational mind alone, instilling the fear that one's existence might hang in the balance is essential. Deterrence is thus a process that forces adversaries to carry out self-bargaining about the worth of taking certain actions." Although we desire any rational calculations about a future state to caution against aggressive actions; to be most effective, deterrence must create real fear in the mind of the adversary—fear that he will not achieve his objectives, fear that his losses and pain will far outweigh any potential gains, fear that he will be punished. It should ultimately create the fear of extinction—extinction of either the adversary's leaders themselves or their national independence, or both. Yet, there must always appear to be a "door to salvation" open to him should he reverse course.

The emotional fears that we are seeking to invoke in an adversary should be compelling, but not paralyzing. He must be free to make choices, specifically, the choice to abandon the behaviors or actions we are seeking to deter. A deterrence threat is most compelling when an enemy cannot rationalize away the destruction, pain, suffering and chaos you are threatening to unleash. We could find no single general method to determine how best to induce terror in the mind of an adversary. Likewise, deterrence must accommodate the personal characteristics of individual United States leaders as well. These are variables that can affect

how, or whether, adversary leaders are apt to believe our stated deterrent threat. Different leaders will be motivated in different ways.

Examining how leaders in the past have reacted when faced with deterrence choices is one of the best means of demonstrating its value for the future. For example, Hitler possessed chemical weapons, and certainly nothing in his value system contradicted their use against soldiers or civilians. Such use might well have salvaged a losing campaign. But he knew that both Roosevelt and Churchill had stated categorically that any use of chemical weapons by German armed forces would be met with retaliation in kind, and that the retaliation could well be directed against all German industrial and population centers.

In a similar vein, the warning by George Bush to Saddam Hussein, in January of 1991 prior to Desert Storm, states that "the United States will not tolerate the use of chemical or biological weapons" and further: "The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable acts of this sort."

Members of the United Nations Special Commission on Iraq, who made inspections throughout the country after the war, speculated that this message had been effective since everywhere they went individuals had copies of the Bush letter, even though there was almost no other document in common. We also got unprecedented insights into how deterrence worked through debriefings of Hussein Kamil (Saddam's son-in-law), who verified their fear of such consequences as the reason they abandoned the use of chemical and biological weapons in that conflict.

We thus concluded that communication with an adversary is central to deterrence. Just as it is said that a "voodoo hex" will not work unless the target of the hex knows of the enmity plotted against them, so in deterrence we must communicate in a convincing manner to adversaries our capability to hold at risk what they value. These communications must anticipate the enemy's biases and be crafted accordingly. For example, many of the early Soviet leaders refused to acknowledge the existence of the concept of deterrence that the United States put forward, choosing to translate our word with a Russian work that meant simply "intimidation."

It will be important to frequently communicate with the adversary so that there is little room for doubt as to what the United States holds of sufficient value that we seek to deter attack against it, or for which we are willing to greatly escalate the level of conflict. The communications should be delivered in a timely fashion, in terms that can be easily understood, leaving no doubt of its seriousness, nor the authority of the communicator. While it is crucial to explicitly define and communicate the acts or damages that we would find unacceptable and, hence, what it is that we are specifically seeking to deter. We should not be very specific as to exactly what our response would be.

It is crucial, however, that the level of our commitment to the things we value be unfaltering, and that the adversary has little doubt of this. Without saying exactly what the consequences will be if the United States has to respond, or whether the reaction would either be responsive or preemptive, we must communicate in the strongest ways possible the unbreakable link between our vital interests and the potential harm that will be directly attributable to anyone who damages (or even credibly threatens to damage) that which we value.

In addition to being sure just what we value, we must also understand what an adversary values. Determining what a nation's leadership values are complex, since, to a considerable extent, it is rooted in a nation's culture. One is almost certain to err if "mirror-imaging" is used as a surrogate for understanding an adversary's values. But, there is clearly great benefit if we can insightfully tailor our deterrent message to what is valued within the culture. Thus, our deterrence plan must always be country-specific and leadership-specific.

We must be ambiguous about details of our likely actions if what we value is threatened, but it must always be made clear that our actions would have terrible consequences. Because of the value that comes from the ambiguity of what the United States may do to an adversary if the acts we seek to deter are carried out, it hurts deterrence if we portray ourselves as too fully rational and cool-headed. The fact that some elements may appear to be potentially "out of control" can be beneficial to creating and reinforcing fears and doubts within the minds of an adversary's decision makers. This essential sense of fear is the working force of deterrence. That the United States may become irrational and vindictive if its vital interests are attacked should be a part of the national persona we project to all adversaries.

Finally, we pointed out, that without perceived national will, and actual military capability, none of the above steps work. An adversary must always perceive that we have the national will to carry out decisive responses.

We must always be prepared to make good on our deterrence statement—to deny an opponent's war aims and to mete out unacceptable punishment for his actions. Therefore, in preparing our plans to carry out attacks against what an adversary values, it is important that United States decision makers believe that these attack options are credible as well, lest we ever be self-deterred.

Deterrence is not a panacea but, as its history over the period of the Cold War shows, it can be effective. Note that deterrence is not a final solution, but that it only buys time to find permanent solutions. It does not address the underlying factors that which led to the crisis in the first place; for that, other strategies are required. In fact, as deterrence succeeds in preventing crises from escalating to hostilities or war—it will leave behind a frustrated enemy, for which we should be prepared to take subsequent corrective steps in crisis resolution accordingly. Thus, we should combine our deterrence threats with reassurances that his base problems will be considered, but only if there are no hostilities on his part.

We should consider the history of United States/Soviet nuclear deterrence as a prototype—almost the “textbook solution”—and proceed to take up the problems of the emerging multilateral world, in which other actors possess Weapons of Mass Destruction. We will undoubtedly find these situations to be of equal or greater complexity. Yet with the lessons of history as our guide, we find cause for optimism about the enduring nature of deterrence processes to prevent major wars. We appear to have gotten it about right, and have subsequently gained some understanding that the Soviet Union had begun to think about deterrence in a somewhat similar way. Thus, we have reason to believe that we can do as well in adapting the process of deterrence to serve us in deterring future conflict.

Let's put it all together: Deterrence is an overwhelming fear that we try to make sure arises in anyone who considers committing major acts of aggression. Thus it becomes our antidote to

war. If we create and communicate deterrence correctly, it becomes an antidote that is administered prior to an attack, unlike most medical antidotes. Of course we must be ready to administer it any time: pre-war or intra-war. We frequently speak of nuclear deterrence for (1) preventing war, (2) keeping it from escalating, or (3) war termination. This deterrence has served as "a sobering force," and it cannot only serve to prevent wars from starting, but it can cap the level of military destruction that might otherwise result. Deterrence can force all sides to "come to their senses." Thus, I have come to believe that the world would become more dangerous, not less dangerous, were nuclear weapons—certainly United States weapons, to be absent from the scene.

Of course the world has changed significantly, and we must constantly adapt our policies to that changing world. I believe that nuclear deterrence must remain as a cornerstone of our defense posture for many, many years to come, at least until such time as nations cease stockpiling major weapons systems for use against others.

To adjust our deterrence policy I believe the "traditional" four categories of targets we focused on during the Cold War should be changed somewhat to the following four general target sets that we should "hold at risk" in order to deter: (1) weapons of mass destruction, (2) the leadership that is fomenting aggression, (3) military forces capable of exporting aggression, and (4) war supporting infrastructure and industry.

I have never supported the arguments of those who advocate a "no first-use policy" for nuclear weapons—not because I ever believed that the United States was likely to pre-empt in using nuclear weapons. In fact I would think we are least likely to use them first. But, by its very nature, "no first-use" policies (or worse, a treaty on such) tends to undercut the very basis of deterrence and allow a potential aggressor to hope they might get by with their aggressions. Our policy foundations should always favor those who keep the peace, and never those who would break it through acts of aggression.

I believe we can improve our deterrence message by declaring and meaning the following: (1) The United States will never directly target civilians or non-war-fighting populations. (2) We do not maintain nuclear weapons for war-fighting purposes, but as "weapons of last-resort." (3)

We keep our nuclear arsenal only to ensure any potential adversary that our capability to destroy those four essential categories of their military power is so certain, that it will restrain them from committing aggressions in the first place. It is in this prior restraint that we want them to have no doubts about as they contemplate our deterrent message.

I can accept this strategy, and I believe there is much we can do in that respect. While doubtless any of the new regional powers we have referred to as "rogue states" do cause us the most concern at present, and are the ones we must deter from acts of aggression, we should take comfort that these concerns are greatly muted to those we faced during the Cold War. While admittedly such regional states could cause enormous damage to those around them, and could potentially cause serious harm to the United States should they directly attack us, I believe we can feel secure because the likelihood that they would not be deterred from major aggression is small. In fact, I believe the threat of significant war is smaller than at any time in my life or yours. We should all rejoice for that.

But where do we go from here?

I believe we have a chance to create a peaceful and free world where the human spirit can create opportunities for all inhabitants of our earth to prosper and fulfill individual hopes and dreams. We perhaps have one of the greatest chances in history to do so. I have never put much faith in the notion that "complete and total disarmament" is a realizable goal in any near-term. The nature of man as a species is sufficiently complicated, and we have repeatedly shown our inability to organize ourselves as world-citizens, to put much hope in being able to truly "outlaw" war and aggression any time soon. I see the path to peace as one of creating greater and greater alliances—not just in the NATO countries, but also in every corner of the globe. I would suggest the priorities ought to be in Southeast Asia, then all of Europe and Asia, South America, then the Middle East, and Africa. I believe the collective security that NATO provides its members has done more for the citizens of those realms than anything else in their histories.

I believe the United States was quite serious in putting forward the Baruch Plan, to share the responsibility for nuclear weapons among nations, as well as the burden of maintaining a

common arsenal. I would wish that international institutions would gain the level of competency to earn the level of trust that might allow such a proposal to again be seriously considered. Meanwhile, I do not believe we have lost our way, but that we have developed a formula, which can maintain the peace in the interim. Spreading collective security alliances steadily around the world—until all nations are allied—with the benefit of standing under the nuclear deterrence umbrella, just as the NATO partners have stood together for over 50 years, is the route to bringing a Baruch Plan into being. Until that day, when all governments align for peace with a commitment to end aggression forever, we can take great pride in our nation and its continuing efforts not just to keep others from attacking the United States, but to be the most potent force for preserving peace around the globe. Ronald Reagan—whose approach to issues was based on uncommon common sense—said these words in his most famous speech to the American people on March 23, 1983: “The defense policy of the United States is based on a simple premise.... We will never be an aggressor. We maintain our strength to deter and defend against aggression—to preserve freedom and peace.”

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There will be those in the audience who will notice that I did not mention terrorists groups and other non-state actors. While the concepts in this talk apply to nation-states, who have defined territories and physical assets that can be held at risk by our deterrent forces, the threat to retaliate for violent acts of aggression is a potent force to preserve the peace. But if there is no “return address” or lands or sanctuaries with physical assets to be targeted, the deterrent becomes hollow. Acts by terrorists apparently cannot be directly deterred with nuclear (or other) weapons.

However, we can substantially cap the level of violence by ensuring that any nation-state who gives either assistance or sanctuary to terrorists will be held directly responsible should major aggression occur. The threat of retaliation to any state regimes that support terrorists can be a powerful disincentive to such adventurism, and we should not rule out any weapons in order to give maximum effectiveness to our deterrent message.

As a final comment in that regard, those of us who watch these rogue states have noted that, for several decades, they have been seeking ways to escape the otherwise sure United States

deterrent by either hiding their valuable targets or burying them so deeply underground that they are out of reach to attack by United States weapons. Uninformed (or uncaring) critics have falsely attributed United States motives in developing new nuclear weapons as a desire to build new "tactical or battlefield weapons." That is not the case. Our interest is clear: We need to have some of these weapons available that could strike strategic targets to make sure that no aggressor can escape our deterrent and its effects in securing peaceful behaviors. Earth penetrators prevent anyone from breaking the deterrent equation—thus they are needed to preserve the peace.