STRATEGY RESEARCH PROJECT

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NUCLEAR DETERRENCE IN THE THIRD MILLENNIUM

BY

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ABSTRACT

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More than a decade after victory in Cold War, the U.S. continues to grapple with how best to structure its strategic nuclear forces and to reorient its deterrence policy in the post Cold War era. A complex multi-polar international structure replaced a much simpler bipolar structure that was dominated by a well-understood monolithic threat. The resultant uncertainty drives the U.S. to adjust its deterrence strategy to the changed strategic environment. The Bush Administration proposed a new strategic plan with significant adjustments to force structure and deterrence policy. I propose to assess the Bush Administration's plan for strategic nuclear deterrence in the Third Millennium. I will first examine the concept of deterrence strategy and then review the strategies used in the Cold War and post-Cold War eras. I will then assess the existing and emerging strategic threats. I will then review the emerging strategy of the Bush Administration and provide alternative strategies in comparison to the Bush Plan for U.S. strategic nuclear deterrence.

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NUCLEAR DETERRENCE IN THE THIRD MILLENNIUM

> The major deterrent [to war] is in a man's mind. The major deterrent in the future is going to be not only what we have, but what we do, what we are willing to do, what they think we will do. Stamina, guts, standing up for the things we say - those are deterrents.
>
> —Admiral Arleigh Burke, 3 October 1960[1]

In this new millennium, the United States stands at a crossroads regarding its nuclear deterrence posture – how best to adjust the composition of its strategic nuclear forces and the structure of its nuclear deterrence policy. After nearly half a century of nuclear standoff, the U.S emerged from the Cold War as the sole superpower. As the world's "benevolent hegemon," the U.S. continues to adapt to a changed multi-polar world and to transform itself to an uncertain future. The Bush Administration has charted a course forward - a plan that leaves the Cold War and post-Cold War periods behind and that postures the U.S. for the uncertainties of "The Third Millennium."

The tragic events of the 11 September ushered in profound geopolitical change and helped galvanize U.S. resolve to root out the scourges of international terrorism and weapons of mass destruction (WMD). In this unprecedented time, President Bush aggressively moved forward to redefine the nature of nuclear deterrence. He forged remarkable alliances and engaged his sole nuclear peer, Russia. He initiated a plan to fundamentally change the calculus of nuclear stockpiles, strategic alliances, arms control, and ballistic missile defense (BMD). His rhetoric announced fundamental change in U.S. nuclear deterrent strategy – drastic cuts to nuclear force structure, abrogation of the Anti-Ballistic Missile (ABM) Treaty, and a commitment to deploy a BMD System. The year 2002 appears to be the beginning of a new era; one marked by a unique set of conditions and a cast of characters on a mission of fundamental change to nuclear deterrent strategy.

This paper will assess the Bush Administration's plan for strategic deterrence in the third millennium. It will examine the concept of deterrence and review the strategies used in the Cold War and post-Cold War eras. It will assess the current and emerging strategic threats posed by rogue state and non-state actors. It will examine the emerging nuclear deterrent strategy espoused by the Bush Administration in the 2001 Quadrennial Defense Review (QDR) and 2002 Nuclear Posture Review (NPR). It will discuss recent changes to the ABM Treaty and the development of BMD. And finally, this paper will assess the Bush plan using a framework for strategic objectives - Deterrence, Dissuasion, Defense and Denial – and then provide alternative strategies in comparison to the Bush Plan.

DETERRENCE THEORY

The fundamentals of nuclear deterrence theory have changed little since the creation of nuclear weapons during the Second World War. The most important aspect of deterrence remains its purpose - how to influence what an enemy thinks and does. Deterrence is a state of mind that prevents a deterree from acting in a way the deterrer considers harmful. Deterrence works only if the intended deterree chooses to be deterred. Its components are both physical and psychological. First, a series of military instruments are required that are sufficient to threaten an opponent in certain ways. Second, he must be convinced to not even think of attacking. Deterrence is successful only if the deterring nation has the political will to use its weapons and deterrence is credible only if the deterring nation is able to convey to the deterree that it is both capable and willing. [2]

Many historians argue that the absence of a large-scale war in Europe after the Second World War proved that nuclear deterrence worked. British Prime Minister Margaret Thatcher argued this point in remarks she made to the Soviet General Secretary Mikhail Gorbachev in 1987, "Both our countries know from bitter experience that conventional weapons do not deter war in Europe whereas nuclear weapons have done so over 40 years.[3] Though her statement is most likely true, the effectiveness of deterrence is hard to measure. When it works, the effects of deterrence are almost invisible. It is assumed to be successful when deterrence prevents actions by adversaries. During the Cold War, nuclear weapons and their potentially catastrophic destructive capabilities created a unique security environment whereby rational statesmen never went to the brink due to the unimaginable consequences. Creating a secure environment with the right mix of nuclear weapons remains the challenge for today.[4]

James Schlesinger, former Secretary of Defense for President Ford, explained the critical elements of deterrence. He maintained that the goal of the military might of the U.S. and its allies during the late forties was to create an effective structure of deterrence that precluded outright military assault by the Soviet Union. He remarked that the heart of deterrence laid in the credibility of strategies and forces to response in the event of a direct military assault. He contended that in the absence of a credible response, deterrence is nothing but a façade. The capacity to threaten with a credible response made deterrence effective and thereby making credibility a key component of deterrence. [5]

Nuclear weapons provide the credible response capability of the U.S. military. The purpose of these weapons is to deter the use of WMD - nuclear, chemical, and biological - in crisis or conflict. Nuclear deterrence prevents other possessors of nuclear weapons from using them by the threat of nuclear retaliation. The nuclear force may also be used to threaten and to

discourage biological, chemical or large-scale conventional aggression. During the Cold war, the U.S. threatened the use of nuclear weapons to deter a massive conventional attack by the Soviet Union against NATO. Additionally, the U.S. did not rule out the first use of nuclear weapons in such an event.[6]

COLD WAR NUCLEAR STRATEGY

Since the advent of nuclear weapons, strategic deterrence has been the central military theme that framed the U.S. military strategy of the post Second World War era. It was formulated and implemented in a bipolar environment dominated by the hostility between the Western powers and the Soviet Union. The communist aggression of the 1950s in Czechoslovakia, Berlin and Korea created immense tension that caused many Western leaders to think that unless the Soviet Union could be deterred, the Soviets would likely attack and seize Western Europe. U.S. nuclear weapons became the main instrument of the deterring strategy. They alone offered the threat of catastrophic punishment.[7]

Nuclear deterrence strategy evolved throughout the Cold War and changes in the composition of nuclear arsenal helped drive this evolution - increased number, type, and yield and the improved methods of delivery. This paper will assess the Cold War deterrent strategy using the U.S. Army War College (USAWC) common framework for developing strategy - the relationship of ends, ways, and means. Robert Dorff and Joseph Cerami, both USAWC instructors, gave the following interpretation:

> ...Strategy is the relationship of ends (objectives), ways (concepts), and means (resources). How do we best use the available means to pursue our objectives? [Of late, we are]... confusing a strategic concept (deterrence) with the means (nuclear weapons). We deter an actor from undertaking a specific action in order to achieve a specific objective (non-use of nuclear weapons, preservation of peace, avoidance of war, etc.). Deterrence is not an objective ..., although it was spoken as such during the Cold War... Rather, deterrence is one way of achieving the objective. Strategic nuclear deterrence, especially MAD [mutually assured destruction], was a specific way of using a specific means (nuclear weapons) to achieve a larger strategic objective. Viewed in this way, it then even more apparent that there must be different means we can use in different ways (including in combination) against different actors to deter different actions.[8]

Table 1 is my analysis of the ends, ways, and means used by the U.S. during the Cold War.

ENDS	WAYS	MEANS
U.S. Security European Security Stop Soviet Aggression	Massive Retaliation Mutually Assured Destruction Treaty Diplomacy: SALT, START I, and ABM Treaty	Atomic and Thermonuclear Weapons Delivery Triad: Bombers, ICBMs and Submarines

TABLE 1 COLD WAR STRATEGY: ENDS - WAYS - MEANS

POST-COLD WAR – THE CLINTON-ERA

In the decade after the Cold War, the nuclear deterrent posture of the U.S. changed little under the Clinton Administration. The Administration came into office at a time of great strategic uncertainty regarding the status of nuclear forces of Russia and the former Soviet states. The Clinton-era was marked by the first post-Cold War nuclear weapons review and the continued reliance on strategic arms control treaties.[9]

The Administration started a comprehensive nuclear review process in 1993 that attempted to revamp U.S. forces to deal with Russia in the post-Soviet era. The 1994 Nuclear Posture Review reviewed the U.S. strategic nuclear forces (SNF) against the uncertainty of where Russia and the former Soviet states might go regarding their own nuclear stockpiles. The 1994 NPR was faced with the dilemma of finding a balance between reducing nuclear forces and hedging against a resurgent and belligerent Russia. The Pentagon rejected radical cuts in the arsenal and instead, kept a slightly downsized triad within the confines of the existing strategic arms control treaties. In the end, the 1994 NPR called for reducing some forces. It retired one quarter of the Ohio-class Trident submarines, removed the nuclear capability from a third of the B-52s and from all of the B-1s bombers, and capped the production of B-2 bombers at twenty. It also preserved the option to rebuild from an active reserve of semi retired nuclear warheads.[10]

President Clinton continued the course established by his Cold War predecessors and negotiated additional strategic arms control treaties. The Administration implemented the first Strategic Arms Reduction Treaty (START I) that was signed by the President Bush senior and then negotiated and signed its successor treaty, START II. Both treaties were formal structures that focused on the bipolar relationship of Russia and the U.S. and establishing upper limits for both strategic delivery vehicles and warheads. The Administration started to move toward a START III treaty in 1997 when Presidents Clinton and Yeltsin negotiated the "Helsinki Accords" that called for further reductions in warheads for each nation. The "Accords" would have become the basis for START III and further evidence of continued reliance on bilateral negotiations to reduce nuclear stockpiles. [11]

In November 1997, President Clinton issued a Presidential Decision Directive (PDD) that explained the purposes of U.S. nuclear weapons and provided broad guidance for developing operational plans for their use. The 1997 PDD, the first since the Carter Administration, outlined U.S. policy for the use of nuclear weapons. The PDD was notable for two way, though it continued to define deterrence in Cold War terms. First, it abandoned a previous tenet that the U.S. must remain prepared to fight a protracted nuclear war. And second, it stated that nuclear

weapons would play a smaller but vital role in the future and hedge against an uncertain future. The PDD continued to link U.S. deterrence to "a wide-range of nuclear retaliatory options," an "all-or-nothing response" and "sufficient ambiguity" regarding counter-attack. President Clinton's PDD was a sharp reminder that the purposes of nuclear weapons had changed little since the end of the Cold War.[12]

In December 2000, President Clinton published his last National Security Strategy (NSS), just weeks before he left office. It summarized his vision for the posture of the SNF and his policy for BMD. Like his 1997 PDD, the 2000 NSS emphasized the retaliatory nature of the SNF. It detailed the roles of nuclear weapons as the guarantor of U.S. security commitments and as a disincentive to those with WMD. It stated that any use of WMD would be met with an overwhelming and devastating response. It spelled out the employment of U.S. strategic nuclear weapons that focused on deterring a nuclear war and it emphasized the survivability of the nuclear systems, infrastructure, and C3 systems. It maintained the ability to survive a preemptive attack in order to deliver an overwhelming response. It further bolstered the maintenance of a robust triad of SNF that was sufficient to deter all potential adversaries seeking to develop nuclear forces and thus convince them the pursuit was futile. Lastly, the NSS addressed the Stockpile Stewardship Program as the means to maintain high confidence in the safety and reliability of nuclear weapons due to the limits imposed by the Comprehensive Nuclear Test Ban Treaty. The nuclear posture remained focused on deterring the primary Russian nuclear threat and it linked nuclear retaliation to the use of WMD.[13]

The NSS and Administration efforts showed tepid support for BMD. The NSS touted the development of a limited National Missile Defense (NMD) system designed to counter emerging ballistic missile threats from rogue states that might threaten the continental U.S. The NMD architecture included: 100 ground-based interceptors deployed in Alaska, one ABM radar in Alaska, and five upgraded early warning radars. The NSS alleged this approach would provide a limited protection to all fifty U.S. states that was the fastest, most affordable, and most technically mature approach. On 1 September 2000, however, President Clinton announced he would not make a deployment decision and instead passed it to his successor. He deferred his decision to delay based on technical immaturity and unproven capability of NMD. President Clinton continued to recognize a relationship among the ABM Treaty, strategic stability, and the START process. He was publicly committed to working with the Russians on any modifications to the ABM Treaty. He firmly subordinated NMD to the treaty and tied the deployment of any limited system to existing arms control and nuclear nonproliferation objectives.[14]

The Clinton strategy relied on the fundamental precepts of the Cold War - mutual assured destruction, retaliation, and vulnerability. This era remained focused on a threat from Russia and the series of treaties that were designed to reduce nuclear stockpiles and limit U.S. development of defenses. The weakness of this strategy was that it ceded the initiative to the Russians and left the U.S. in a position of reaction. The Cold War paradigm continued. Table 2 is my analysis of the ends, ways and means used by the U.S. in the decade immediately following the Cold War.

ENDS	WAYS	MEANS
U.S. Security European Security Stop Proliferation of WMD	Massive Retaliation Mutual Vulnerability Engagement Treaty Diplomacy: START II ABM Treaty	Nuclear Weapons Delivery Triad: Bombers, ICBMs, and Submarines

TABLE 2 CLINTON ERA STRATEGY: ENDS - WAYS - MEANS

GLOBAL THREATS AND ACTORS

In 1999, the Defense Intelligence Agency (DIA) summarized the global threats for the Senate Armed Services Committee. The DIA assessed the current strategic nuclear environment as considerably more diverse and complex with significant implications for strategic force and deterrence planning. They assessed an enduring strategic nuclear threat from Russia, China and some rogue states. Russia continued to rely almost entirely on its strategic nuclear forces (SNF) to help offset the decline of its conventional forces. Russia had prioritized its strategic force and invested scarce resources to develop only one new missile and to improve command, control, and communications (C3) capabilities. China's SNF, though small and dated, received a top priority for strategic nuclear modernization. China invested in several new missile programs and upgraded its existing systems with associated C3 capabilities. Though China's modernization did not give it a 'first strike' capability, China planned to field large numbers of ICBMs capable of reaching the U.S.[15]

The DIA assessment of rogue nations was telling. North Korea and Iran were expected to have a rudimentary ICBM capability in a few short years. The enablers for this included the proliferation of missile components, technology and expertise; the desire for long-range ballistic missiles; and a crash course missile development program. The DIA assumed all hostile missiles would be armed with WMD but admitted it had only a limited ability to track the progress of these hostile programs.[16]

In 2001, the Central Intelligence Agency (CIA) provided an updated assessment before the Senate Intelligence Committee. The CIA's update expressed added concern with the growing number of state and non-state actors pursuing WMD and ballistic missiles. The threat from nuclear weapons had grown. Along with Russia and China, the CIA added North Korea, Iran, and Iraq to the list of potential nuclear states. The CIA believed these programs were indigenously developed with the help of some direct foreign assistance. The CIA further warned that while these programs produced far fewer missiles with less accuracy, yield, survivability, and reliability than those of Russia or China, they still posed a threat to U.S. interests.[17]

The CIA chronicled a list of rogue state motivations to develop WMD and ballistic missiles. For some, they were warfighting tools to augment conventional forces and for others, they were weapons of prestige, deterrence and blackmail. Many states developed them to complicate U.S. decision making in a crisis or to prevent, through blackmail, U.S. forces from coming to the aid of allies. Rogue states view their ICBM stockpiles as tools of coercive diplomacy. They see one or two long-range missiles as sufficient to project a credible threat. The CIA emphasized that the strategic value of ICBMs comes primarily from their mere possession and possibility of use. The CIA conclusion: "[T]he possibility that a missile bearing a weapon of mass destruction will be used against the US forces or interests is higher today that it was during the Cold War."[18]

The remarks by the Secretary of Defense before the Senate capped the 2001 assessment. Secretary Rumsfeld said, "...The number of countries that are developing nuclear, chemical and biological weapons of mass destruction is growing. The number of ballistic missiles on the face of the earth and the number of countries possessing them is growing as well."[19] Table 3 is a summary of the growing number of countries with WMD and ballistic missile capabilities over the last 30 years.

	Biological	Chemical	Nuclear	Ballistic Missiles
1972	Unknown	10	5	9
2002	13	16	12	28

TABLE 3 NUMBER OF COUNTRIES WITH WMD CAPABILITIES[20]

Though it is unlikely a Soviet-like aggressor will challenge the U.S. in the next 10-20 years, significant rogue threats exist today. It also is reasonable that others will join their ranks over time. President Bush said as much in his 2002 State of the Union Address. In it, he labeled three aggressors - North Korea, Iraq and Iran - the "Axis of Evil."[21] The Administration acknowledged the changed strategic environment and leaned forward in the certainty of needing to prepare for it.

RUSSIA

Rising from the ashes of the Cold War Soviet Union, Russia remains the only nuclear competitor to the U.S. In the decade since 1991, Russia has struggled through the transition of its economic and democratic systems. The turmoil has often placed the U.S. and Russia at odds with each other. Russian Presidents Gorbachev, Yeltsin and Putin have labored to resurrect Russia's status as a world power. An anemic economy and infant democracy complicated their labor. By 2001, Russian's relationship with the West seesawed between hot and cold. Russia initially resisted and undermined Western influence throughout the world. Russia railed against NATO's planned absorption of former Warsaw Pact states and its perceived eastward expansion. Russia cultivated diplomatic and economic relations with the anti-Western states of North Korea, Iraq, and Iran. Russia vehemently objected to U.S. discussions regarding pullout from the ABM Treaty. Russia offered to sell a Russian BMD system to Europe, which if serious, might have created a schism between the U.S. and its NATO partners. Russian antagonism appeared intransigent.[22]

The terrorist attacks on 11 September seemed to change everything. President Bush and President Putin found common ground in the "Global War on Terrorism." The cooperation between the U.S. and Russia was historic and appeared to break the Cold War paradigm of distrust and competition. President Putin reversed many of his earlier stands on East-West issues. He met with NATO leaders and announced that Moscow could accept further enlargement of NATO. He moderated his position on ABM and though still supporting the treaty, he did not grouse publicly when President Bush gave formal notice of U.S. withdrawal. He joined President Bush in calling for deep cuts in nuclear weapons. Through these efforts, President Putin appeared to shed the old Soviet recalcitrance and move forward in cooperation with the West.[23]

President Bush and President Putin embarked on new strategic relationship and the "Global War on Terrorism" helped forge closer ties between the two countries. Yet with all the euphoria, significant issues between the two countries remain. The Russian economy continues to struggle and continues to borrow, amassing a huge debt with the West. Though financially strapped, Russia plans to field a new ICBM and to retrofit its older ICBMs with multiple warheads in contravention with START I. Though U.S. and Russian relations are considerably warmer, a little of the Cold War chill may still remain.[24]

ALTERNATIVE PERSPECTIVE – THE DOMESTIC "NO NUKES" VIEW

Since the dawn of the nuclear age, there have been persons who adamantly oppose anything "nuclear" and who base their arguments on weighty convictions. Their moral arguments are hard to dispute and as in things Utopian, most would agree with the theoretical argument against nuclear weapons. The reality differs from the theory. We cannot un-invent nuclear weapons and like it or not, they are necessary and relevant for the foreseeable future.[25]

Many nay-saying organizations continue to debunk U.S. nuclear deterrence and BMD policies. To many in those organizations, the end of the Cold War foretold the beginning of the end of nuclear weapons and heralded a call for their complete elimination. Their positions reflect a moral uneasiness about a U.S. dependence on nuclear weapons to deter aggression and a nagging fear that something could go terribly wrong. The reaction against nuclear deterrence argues either for radical disarmament or a technical fix to reduce nuclear danger or even a combination of the two. [26]

The Bulletin of Atomic Scientists summarized many of the arguments against nuclear weapons. In a recent *Bulletin*, Hugh Gusterson lambasted President Bush and alleged he prostituted the normal and routine nuclear discourse into a justification for BMD. In it, he says:

> [Contrary] to the Clinton Administration...Bush... has attempted to use the debate about [BMD] to transform the official discourse on nuclear weapons and arms control. ...What we see here - aided and abetted by a striking lack of skepticism in the media - is the creation of a new axiom ... called the "second nuclear age." ...Although Bush ... speaks of missile defense as a purely defensive technology... I have it on good authority ... from former Clinton sources ... that ... Pentagon planners are very interested ... to neutralize the 20 single-warhead missiles in China... The new discourse ... has been hijacked by today's superannuated Cold Warriors as a way of justifying the abrogation of old arms control treaties, the construction of new weapons, and the militarization of space. [BMD] is the armed wing of globalization. It is a euphemism for plans to ensure U.S. military and economic domination of the planet.[27]

It is difficult to see how either side might ever reconcile the differences short of complete elimination of nuclear weapons – a position, that absent a threat, both sides would most likely agree with the complete elimination of nuclear weapons.

EMERGING BUSH DOCTRINE - THE THIRD MILLENNIUM

As the "Global War on Terrorism" unfolded, the Bush Administration continued to develop its National Security Strategy (NSS) and National Military Strategy (NMS). Though neither document is yet published, President Bush's defense strategy is detailed in the rhetoric of Administration officials and from two Administration Reports to Congress - the 2001 Quadrennial Defense Review and the 2002 Nuclear Posture Review. Both reports provide the

best insight into how President Bush and Secretary of Defense Rumsfeld plan to move forward on national and military security strategy.

2001 QUADRENNIAL DEFENSE REVIEW

The 2001 QDR replaced its 1994 predecessor and put the Department of Defense (DoD) on "a path for transforming America's defense." The new QDR used a new policy framework centered on four new policy goals - *Assuring, Dissuading, Deterring, and Defeating*. The 2001 QDR was the first written defense policy document of the Bush Administration and it was revised to incorporate the security implications from the 11 September terrorist attacks. The 2001 QDR provided the best look at the planned way ahead for DoD transformation, the new deterrence strategy, and the renewed emphasis on BMD deployment. [28]

The 2001 QDR moved the defense strategy from a threat-based approach to a capabilities-based approach in order to develop and realign U.S. forces. The 2001 QDR asserted the shift was necessary due to the increased number of non-state and rogue actors and the changing nature of conflict. It outlined a capabilities-based model that broadened the U.S. strategic perspective and better postured the U.S. against emerging asymmetric threats. Further, it stressed that capabilities-based planning would be required to mitigate risks associated with long- term challenges and to hedge against strategic surprise in near future. The Administration recognized that capabilities-based planning was difficult in describing future threats with any precision and shifted instead to an approach that described the desirable capabilities. [29]

For BMD, the 2001 QDR shifted from President Clinton's single-site, ground-based system to a broad-based research effort. The 2001 QDR outlined development of a comprehensive multi-layered missile defense that could include sea, air and space-based systems that was not bound by the ABM Treaty. Though the details remained unclear, the envisioned U.S. BMD system would defend against a varied threat - from the sophistication of Russian ICBMs to the crude multi-stage and indigenously produced rockets of Iraq, Iran and North Korea. The 2001 QDR recognized the continued proliferation of WMD and the ballistic missiles that deliver them posed a direct and immediate threat to U.S. interests, both at home and abroad.[30]

The 2001 QDR guidance became reality in January 2002 when Secretary of Defense Rumsfeld announced major changes for BMD. He codified BMD into a full fledged research, development, and testing effort with the aim to deploy a layered missile defense system as soon as possible. He reorganized the BMD Acquisition Headquarters, formerly designating the

Ballistic Missile Defense Organization (BMDO), and designated it a DoD Agency – renamed as the Missile Defense Agency (MDA). The change recognized the renewed importance of BMD by the Administration and better organized the diverse mission area.[31]

The 2001 QDR made a strong case for BMD. It reaffirmed the defense of the Nation as the foundation of U.S. defense strategy. Homeland defense became the preeminent tenet, shown by the recent terrorist attacks, and emphasized the greater likelihood of future attacks on the U.S. homeland. It identified ballistic missiles among the most significant threats to U.S. security and declared the Nation's way of life, its political institutions, and its capacity to project military power as key and essential.[32]

The 2001 QDR acknowledged a changed post-Cold War world that required new and different approaches to emerging threats. It reaffirmed an era of increased regional instability and threat posed by ballistic missile capable rogue and failed states. It recognized the presence of hostile international organizations and traditional competitors who possessed the means and the will to employ WMD or coerce others with the threat of their use. It countered the old view that longstanding international agreements and nuclear deterrence regimes would prevail in dealing with small scale contingencies, non-state actors or instances of regional conflict that do not threaten our vital national interests. It presented a comprehensive assessment and enlightened understanding of the new world situation that departed significantly from the Cold War era and it provided a new approach of U.S. engagement throughout the world.[33].

2002 NUCLEAR POSTURE REVIEW

The 2002 NPR recommended significant changes to the nuclear force structure and it foretold the likely course of President Bush's emerging strategic nuclear deterrence policy. The 2002 NPR outlined a major shift in the approach to how offensive nuclear forces would be restructured and used in future deterrent strategy. The 2002 NPR detailed a new blueprint that transformed the traditional nuclear triad of land-based ICBMs, bombers, and submarines into a subset of a "New Triad." This "New Triad" consisted of a larger collection of strike forces, missile defenses, and revitalized nuclear weapons facilities. The "New Triad" would offer U.S. leaders a broader array of options for ensuring national security. It would require fewer warheads and would allow major cuts to the nuclear arsenal.[34]

The "New Triad" would consist of offensive nuclear and non-nuclear strike weapons; active and passive defenses; and a revitalized defense infrastructure postured to create new capabilities in anticipation of emerging threats. This new structure would be wired together with enhanced command, control, communications and intelligence (C3I) systems. The 2002 NPR

postulated the new structure would create the conditions for reduced dependence on nuclear weapons and improved deterrence against WMD by providing improved defensive and non-nuclear capabilities. [35]

The 2002 NPR changed the fundamental force structure construct of the last decade whereby U.S. forces had been planned and sized based on a smaller version of the former Soviet Union threat. The 2002 NPR repeated the 2001 QDR's defense strategy and advocated switching from a threat-based nuclear deterrent to one that is capabilities-based. The ultimate aim of this new approach was to provide a credible deterrent at the lowest level of nuclear weapons consistent with U.S. and allied security. The NPR called for reducing the U.S. nuclear arsenal from 6000 to 3800 warheads over the next five years with further reductions to 1700-2200 warheads in an unspecified timeframe. The 2002 NPR augmented the smaller nuclear force with conventional precision guided munitions (PGMs). This new approach better postured U.S. forces for the uncertain future threat and recognized great advances in technology and improved munitions. [36]

The 2002 NPR discounted a strategic policy that rested solely on offensive nuclear weapons in light of the 21st Century threat. "The [U.S.] must stop measuring the value of its deterrent against the known, Soviet-built nuclear arsenal of Russia and instead focus on the weapons and policies that will be required to deal with the unknown threats and pressures of the new world." Secretary of Defense Rumsfeld emphasized this point further, "A broader array of capability is needed to dissuade states from undertaking political, military, or technical courses of action that would threaten U.S. and allied security." The 2002 NPR proposed a U.S. force that posed a credible threat to any would-be aggressor - particularly those developing WMD and it reaffirmed the role of the existing nuclear triad as a subset of a robust Offensive Strike capability in a "New Triad." [37]

ABM TREATY AND BMD

In December 2001, President Bush gave notice to Russia that the U.S. planned to abrogate the ABM Treaty. Though President Putin did not support this position, he relented and did not protest. With the treaty gone, the U.S. was postured to fully develop BMD unhampered and unrestrained. Not all were satisfied by unilateral withdrawal from the ABM Treaty. Several U.S. allies initially expressed alarm because they believed it threatened the existing webs of treaties that controlled nuclear weapons without providing a substitute for it. Further, they believed a withdrawal might touch off an arms race that could spread beyond Russia to China and other aspiring nations. To President Bush's credit, it appeared that the intensive diplomacy

wielded by him to President Putin mitigated that risk and dispelled most of the allied concerns. Further, President Bush further assuaged President Putin by agreeing to codify the reductions spelled out in the 2002 NPR and signing a major reduction agreement within six months to offensive nuclear weapons. [38]

The 2001 QDR and 2002 NPR outlined U.S. plans for development of the BMD system. Unencumbered by the ABM Treaty, DoD has embarked on developing a multi-layered missile defense that could include sea, air and space-based components in a comprehensive system. In February 2002, DoD instructed MDA to streamline the BMD acquisition process and field a capability as soon as possible. This direction was unprecedented amongst DoD acquisition programs and acknowledged the importance of BMD to the Administration. The action empowered MDA to do everything necessary, "...to establish effective, layered defenses against ballistic missiles and established the Department's missile defense program a top priority." The Secretary of Defense assigned full responsibility to MDA and tasked all Departmental components with helping to ensure the program's success. For the first time, the success or failure of fielding BMD rested on DoD.[39]

The Bush Administration continues to develop its NSS and NMS as it prosecutes the "Global War of Terrorism." As shown above, President Bush's actions, words, and deeds show how he plans to take the U.S. forward into this new millennium.

ANALYSIS - THE FOUR "D's"

> [D]eterrence alone won't suffice in this unpredictable, multi-polar world... How do you deter a non-state actor who has no return address? ... How do you deter or dissuade someone whose reward is in the after-life. Admiral Richard Mies [40]

As the former Commander-in-Chief of U.S. Strategic Command, Admiral Mies proposed a four-step model in 1999 for broadening the concept of deterrence in the post-Cold War era. His "4-Ds" model included policies and actions not previously considered part of the military posture of deterrence. In ADM Mies' model, he postulated that the components (mutual vulnerability and assured retaliation) of his first "D," *deterrence,* be broadened to include *dissuasion, defense, and denial.* Additionally, he included incentives as well as penalties in his model. [41]

Assessing the Bush Doctrine using this model will identify strengths and weaknesses of the course begun by the Administration and DoD. *Deterrence* is assessed using the prevailing concepts of mutual vulnerability and assured retaliation with some augmentation of conventional forces. *Dissuasion* refers to prevention of aggression through engagement. *Defense* illustrates that strategic defense is both appropriate and inevitable. *Denial* prevents aggression by offensive means using diplomatic, economic and military means and also includes the concept

of preemption. As the analysis below will show, the "4-Ds" encompass the solution set for dealing with Third Millennium threats and can be used to grade the Bush Doctrine for meeting that threat.[42]

DETERRENCE

For the foreseeable future, deterrence will continue to require capabilities and forces that provide the President with the widest range of options to prevent aggression and to ensure that in the mind of a potential aggressor, the risks of aggression will far outweigh the potential gains. In the future, both offensive and defensive deterrence will apply. Offensive deterrence consists of conventional and nuclear means. Both increase the potential risks to a potential aggressor by holding at risk what they value. Defensive deterrence forces will decrease potential gains by denying an aggressor's ability to hold the U.S. at risk. The combination of offense and defense capabilities makes an attack and coercion less likely. The crux of nuclear deterrence will remain a credible response that contains both the means and the will to use it. The key component of U.S. deterrence strategy against other nuclear powers will remain offensive nuclear weapons and the concepts of assured destruction and retaliation will remain the relevant concepts. [43]

Though conventional weapons have become much more lethal and accurate, nuclear weapons retain a significant psychological value and are the only current means of holding several classes of targets at risk - mobile, fixed hardened, and distributed targets. Hardened facilities are designed to withstand conventional and nuclear weapons effects. Hardened targets built underground or deeply buried facilities are the most difficult to destroy and influences the number and characteristics of nuclear weapons used. Examples include: missile silos, control centers, concrete shelters, deeply buried command posts and WMD production facilities.[44] Against non-nuclear threats, nuclear weapons lose credibility due to the question of will. It is reasonable to say the U.S. would not resort to using nuclear weapons in most non-nuclear circumstances unless under some dire circumstance -- most likely those involving chemical and biological weapons. [45]

Deterrence requires accurate intelligence. It works if, and only if, the adversary or potential adversary wants to be deterred. Deterrence implies several things: knowing or anticipating and adversaries capabilities and intentions, identifying the adversary's center of gravity, determining how to hold him convincingly at risk, and having the capabilities and willingness to employ them to ensure compliance with U.S. strategic objectives.[46]

DISSUASION

Dissuasion requires the prevention of action through engagement. In the 2001 QDR, the Bush Administration defined dissuasion as preventing competition through strength and superior technology. The 2001 QDR contended the U.S. could dissuade other countries from initiating future military competition by maintaining and enhancing U.S. advantages in key areas of military capabilities. Additionally, the Bush Administration enhanced engagement with new approaches to arms control. The Administration argued the outdated Cold War approach to arms control was too focused on specific limitations and designed to codify MAD. They believed it contributed to U.S. and Russian political animosity and ignored the geopolitical realities of the post-Cold War era. In their minds, the Cold War approach hampered U.S. efforts to develop strategies that better deter and defeat emerging and adaptive threats of the future.[47]

Keith Payne best summarized the Bush approach. Payne identified uncertainty as the common difficulty for developing cohesive defense and arms control policy in new world political environment - complex, non-linear, and surprising. He succinctly identified the problems of the Cold War approach to strategic arms control as too rigid and complex, ".... With its heavy focus on formal treaties, competitive strategies, rigid, codified warhead and launcher ceilings, and immense, detailed verification regimes - in practice cannot meet this basic requirement." Payne further explained his claim as, "The key reason that this Cold War approach is incompatible with the U.S. requirement for adaptability is historically demonstrated fact that liberal democracies in general, and the United States in particular, are hard pressed to withdraw from or revise established agreements as may be necessary to adjust their armed forces in a timely fashion as the threat context changes. ... Consequently, for Washington to modify or withdraw from, treaties that are overtaken by events becomes politically impossible, even if technically legal." [48]

The political gyrations over the last few years regarding the ABM Treaty debate illustrated many of Payne's points. The contentious and seemingly endless debate over the ABM Treaty was finally put to rest after President Bush entered office and declared he would unilaterally withdraw from the ABM Treaty in order to pursue BMD. His stated desires follow:

> The immediate goals in this new post-Cold War arms control process would be: to promote mutual consultation and coordination, while providing each side with the prerogative to adapt its strategic force posture according to its respective requirements in a dynamic strategic environment; to reduce the prospect for misunderstanding and surprise; and to improve the basis for confidence and mutual trust and thus reduce the MAD-inspired level of mutual animosity and suspicion. The long term goal in reestablishing arms control along these lines would be to facilitate more amicable U.S.-Russian political relations, and thus greater security for each. ... [A] new approach ... without the Cold War anchor of

a competitive and highly legalistic negotiating process keyed to MAD.[49]

This new approach to arms control is intended to help reorient U.S.- Russian relations away from the post-Cold War era. The old approach contributed to an adversarial relationship that was based on MAD and was counterproductive and dangerous. In the Administration's view, this new approach to U.S. and Russian nuclear reductions did not need to be linked to treaty mechanisms nor codified. Their underlying premise was the two largest nuclear powers did not need to be engaged in a nuclear competition. They contended that negotiations could focus on establishing "full disclosure" of each side's nuclear and missile defense programs; their intentions, goals and rationale; as well as strengthen the transparency and predictability in their respective programs.[50]

DEFENSE

The U.S. does not have a strategic defense against the threat of enemy ICBMs launched against it other than by retaliation. Missile defenses are intended to destroy threat ICBMs before they reach the continental U.S. These statements are the crux behind the BMD deployment debate. Missile defenses could reduce U.S. dependence on retaliatory offensive nuclear weapons and might help reinforce deterrence. The Administration's position on BMD were best said by Secretary of Defense Rumsfeld, "By denying or reducing the effectiveness of limited attacks [on U.S. territory or forces], defenses can discourage attacks, provide new capabilities to manage crises, and provide insurance against failure of traditional deterrence." [51]

The opposing sides in the BMD debate hold galvanized positions with distinct opposing views. Those for BMD believe that U.S. BMD will not threaten the strategic nuclear balance between the U.S. and Russia. They recognize that the number and sophistication of Russian weapons would render any U.S. BMD system ineffective. Those for BMD also assume a growing and immediate ballistic missile threat to the continental U.S. and they question the uncertainty of relying on traditional Cold War nuclear deterrence theory in a changed world. At the other end of the debate, those against BMD assume the ballistic missile threat will not emerge in the near-term but in a distant future. They couch their prediction, in part, on a successful nonproliferation effort. Those against BMD rely on traditional nuclear deterrence strategy to deter a foe. This "no BMD" position is undermined by recent world events and the continued proliferation of ballistic missiles and WMD. Both missiles and WMD are more prevalent today and they are becoming more capable with each passing day. Further, the "no BMD" position fails to take the varied intentions and motivations of rogue leaders into account and assumes the certainty of continued deterrence through traditional means.[52]

A strategic defense against ballistic missiles appears appropriate and prudent. The CIA and DIA assessments of the emerging ballistic missile threats clearly show the inevitability of a direct threat to the continental U.S. and its interests abroad. Further, the U.S. cannot be confident that traditional nuclear and conventional offensive deterrence will be effective or sufficient.[53] Michelle Flournoy, the Principle Deputy Assistant Secretary of Defense for Strategy and Threat Reduction, best sums the dilemma, as follows.

> ...it is difficult to know how leaders such as Kim Jong Il or Saddam Hussein calculate risks and gains... Even without actual use of ballistic missiles against the [U.S.], the threat of use by rogue states might be able to keep the [U.S.] from intervening or reinforcing deployed forces. This worldview sees an inherent connection between U.S. involvement in the world and power projection with that, and the resultant need for NMD. ...A proliferant's threat of use of ballistic missiles - and the prospect of massive deaths of noncombatants on U.S. soil because of potential U.S. involvement in a far-away situation - could be a powerful deterrent to U.S. involvement. In this view, it may be that a "good enough" U.S. ballistic missile defense is a small deployment that deflects the threat of use, reassuring the U.S. public that it not risking Chicago or Los Angeles to an angry proliferant if the [U.S.] projects power into the proliferant's neighborhood.[54]

A "good enough" BMD system provides the President with options other than nuclear retaliation to respond in times of extreme crisis. Existing nuclear and conventional offensive deterrence capabilities would complement a BMD capability. These overlapping deterrent capabilities provide a dilemma for the would-be aggressor and a reinforcing and complementary capability to the U.S. deterrence strategists[55].

DENIAL

Denial requires convincing an opponent that he will not attain his goals on the battlefield. Often, denial is achieved through preemption and preemptive strikes. Denial differs from deterrence in how it prevents aggression. The distinction is key because deterrence is often based on punishment that threatens to destroy an opponent's population and industry. Denial uses all the tools of national power - diplomatic, economic, informational and military. With the growing phenomenon of globalization and the increased sophistication of weapon systems, the concept of denial becomes very important.[56]

The most apparent military tool of denial is preemption and preemptive strikes. Preemptive strikes attack known threat targets that are poised to strike and done so before an the adversary uses them to do harm. The Bush Administration has openly advocated the use of preemptive strikes against adversaries with WMD. President Bush's stated this case in his 2002 State of the Union Address, "... the axis of evil ... threaten[s] the peace of the world. By

seeking [WMD], these regimes pose a grave and growing danger. ...I will not wait on events, while dangers gather. I will not stand by, as peril draws closer and closer. The United States will not permit the world's most dangerous regimes to threaten us with the world most dangerous weapons." [57] The nature of the threat and the magnitude of devastation wrought by WMD make timeliness critical and preemption essential.

One of the most innovative parts the "New Triad" espoused in by President Bush in the 2002 NPR is the strike force leg of the triad. In it, the Administration makes a case for a more robust and capable conventional strike capability that could bolster deterrence of rogue nations or terrorists. The Administration believes that those who think the U.S. would not respond with nuclear weapons for chemical or biological attacks would be deterred by improved conventional attacks - strategic ends achieved using conventional means. As they proposed, the strike forces would be composed of both nuclear and non-nuclear weapons. The conventional arm would be made possible with recent improvements in precision guidance, miniaturization and explosives that are capable of defeating hard and deeply buried targets.[58]

CONCLUSION

This review of U.S. deterrent strategy and theory points to the need for a more adaptable and flexible nuclear deterrent strategy - one that sheds the trappings of the Cold War and adjusts to the more complex and multi-polar world in this Third Millennium. It appears that traditional approach to strategic nuclear deterrence is incomplete in a changed world that is no longer dominated by a monolithic threat. With a changed threat comes a changed approach. In the Third Millennium, a deterrent policy based on nuclear retaliation of massive proportions is outmoded and most likely doomed to fail – with catastrophic consequences for the U.S.

This review of U.S. nuclear deterrent strategy explored the fundamentals of deterrent theory, the strategies used in the Cold War period, the strategy of Clinton in the post-Cold War, the emerging threats, the issues with Russia (the sole nuclear peer), the domestic counter-perspective, and lastly the emerging doctrine of President Bush in the Third Millennium. The review showed a changed world and made the case of a compelling need for a more adaptable and flexible nuclear deterrent policy like the one proposed by the Bush Administration.

The review described the success of nuclear deterrence in the Cold War against a monolithic threat posed by Russia. It showed evidence, in this post-Cold War era, that the threat posed by non-state and rogue actors complicates the situation. It showed the propensity of rogue nations to acquire WMD and also the capability to deliver them in the not-too-distant future. The review showed that several states will be in a position to threaten the continental

U.S. and U.S. interests abroad sooner rather than later. The review left the clear impression that developing strategies for deterring and/or eliminating these asymmetric threats will remain a significant challenge.

The review showed the new strategic relationship between the U.S. and Russia. It showed a completely new approach to dealing with the Russia and arms control treaties. The Bush approach took advantage of a changed world after the events of 11 September 2001 and a "Global War on Terrorism" to forge new agreements and relationships with Russia. President Bush skillfully mustered political momentum after the catastrophe and to address the implications of global terrorism. He started the DoD on the road of transforming the SNF.

The review showed the efforts of the Bush Administration to transform DoD and with it, the U.S. security posture and warfighting strategies. The review highlighted the emerging national military and security strategies as encompassed in the 2001 QDR and 2002 NPR. It described the Herculean diplomatic efforts being used by the Bush Administration to develop a new strategic relationship with Russia. It showed how the U.S. is breaking new ground with its strategic partner to move forward and fundamentally change the strategic environment. It showed how the approach to engagement used by the Bush Administration differs fundamentally from its predecessor. The review showed how this novel approach has dramatically changed geopolitical relationships and lifted the shackles of the ABM Treaty in order for the U.S. to develop a strategic ballistic missile defense.

The transformation plan unveiled by the Bush Administration appears prudent and comprehensive. It first streamlines and retains some of the "Cold War triad" of ICBMs, strategic bombers and submarines. It then creates a "New Triad" that relies more on capabilities than on platforms. The "New Triad" slims-down the nuclear triad and then adds conventional strike weapons and strategic ballistic missile defenses while simultaneously bolstering the infrastructure necessary for improved information operations. This plan gives the President a large portfolio of options and responses to deal with an uncertain future. It augments nuclear deterrence strategy with both offensive and defensive forces. And, the smaller offensive nuclear force maintains a potent capability and creditability to deter the existing nuclear powers.

Using the strategy formulation model of ends, ways, and means used earlier for the Cold War and Clinton Era, Table 4, is my analysis of the emerging Bush Doctrine for strategic nuclear defense in the Third Millennium.

ENDS	WAYS	MEANS
Defense of U.S. Homeland Defense of U.S. Forces Abroad Security of U.S. Allies Deter Use of WMD Stop Proliferation of WMD and Ballistic Missiles	Engagement -New US-Russia Strategic Relationship -Bilateral Agreements U.S. Unilateral Action Nuclear Retaliation Preemptive Strikes	"New Triad" Offensive Strike Systems Smaller Nuclear Triad Non-Nuclear PGMs Defenses Ballistic Missile Defense Revitalized Infrastructure

TABLE 4 THE THIRD MILLENNIUM: ENDS - WAYS - MEANS

The former British Prime Minister, Margaret Thatcher, may have said it best in 1987 when she spoke of the enduring utility of nuclear weapons. As a proven Cold War leader, she professed, "A world without nuclear weapons would be far less stable and more dangerous for all of us."[59] And for more than 40 years, nuclear deterrence worked. It did something once thought impossible - it deterred war in Europe. Nuclear weapons remain relevant in the post-Cold War era and President Bush has developed a plan for bringing the U.S. into the Third Millennium.

WORD COUNT = 8300

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GLOSSARY

ABM – Anti-Ballistic Missile

BMD – Ballistic Missile Defense

BMDO – Ballistic Missile Defense Organization

C3 – Command, Control and Communications

CIA – Central Intelligence Agency

DIA – Defense Intelligence Agency

DoD - Department of Defense

ICBM – Intercontinental Ballistic Missile

MAD – Mutually Assured Destruction

MDA – Missile Defense Agency

NATO – North Atlantic Treaty Organization

NMD – National Missile Defense

NMS – National Military Strategy

NPR – Nuclear Posture Review

NSS – National Security Strategy

PDD - Presidential Decision Directive

PGM - Precision Guided Munitions

QDR – Quadrennial Defense Review

SNF – Strategic Nuclear Forces

START – Strategic Arms Reduction Treaty

USAWC – United States Army War College

WMD – Weapons of Mass Destruction

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