

PART III: DETERRENCE PRACTICE –
THE FIVE ESTABLISHED NUCLEAR
WEAPON STATES

United States Nuclear Strategy in the Twenty-first Century

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A revolutionary transformation is quietly occurring in US nuclear strategy and defence policy. It is quiet only because it is being overshadowed by the war on terrorism, by fundamental organizational changes in the US government that are flowing from the new requirements of homeland security, and by a chaotic international environment exemplified by the ongoing dispute between Israelis and Palestinians. It is revolutionary because it reflects a fundamental change in the threats, capabilities, philosophy and strategy that have preoccupied US nuclear planners since the 1950s. It also highlights significant changes in the way the US military is organizing to fight future wars. Like all revolutions, such fundamental change is bound to disturb both supporters and critics of the *status quo*. But at least from the perspective of realism, the transformation reflects a rational response to a changing threat environment, especially the end of the Cold War. The Bush administration has launched the first significant departure in US nuclear policy since the demise of the Soviet Union.¹

The Bush administration's vision of the American nuclear future, recently articulated in its Nuclear Posture Review (NPR),² is part of a broader effort to restructure US defence policy. The NPR thus reflects the key concepts of dissuasion, deterrence, defence, and denial articulated in the Quadrennial Defense Review, which was released in the autumn of 2001. The NPR and QDR establish new priorities for US defence and foreign policy, turning the proverbial 'ship of state' onto a new course. The NPR incorporates a new framework for Russian-American strategic relations and a response to the ongoing proliferation of nuclear, chemical and biological weapons and long-range ballistic missiles. It also contains several paradoxes, not unlike earlier nuclear strategies. It reduces the overall number of deployed nuclear forces, while at the same time it places a renewed emphasis on US nuclear systems as weapons to be used in battle. It identifies the potential need for new types of nuclear weapons and delivery systems, while at the same time it suggests that precision-guided conventional weapons can accomplish many existing nuclear missions. It downplays the threat posed to the United

States by the largest nuclear arsenal in the world and instead highlights the threat posed by weak states or non-state actors armed with rudimentary nuclear, biological and chemical capabilities. It is a nuclear policy that makes a concerted effort to consign the defining feature of the Cold War – the Soviet–American strategic relationship of Mutual Assured Destruction (MAD) – to the history books.

To illustrate the Bush administration's new nuclear thinking, the article will first identify the factors that have led to the reassessment of US nuclear policy and strategy. It then describes the recent changes in US strategic thinking outlined by the Bush administration's Nuclear Posture Review. The article concludes with some thoughts on the NPR not as a cause, but as a response to a changing strategic landscape.

New Threats, New Opportunities

The Bush administration's nuclear policy reflects strategic, technological and political trends that have emerged and converged over the last decade. The collapse of the Soviet Union created the opportunity to foster a new strategic relationship between Russia and the United States. Administration officials believed that massive nuclear arsenals, which produced the situation of MAD, Cold War arms control agreements and a 'Cold-War mindset' were no longer relevant in Russian–American relations, especially as democracy and a market economy slowly emerged in Russia. Political disagreements no longer motivated the maintenance of large nuclear forces, and both Russia and the United States could benefit from savings generated by scaling back Cold-War nuclear arsenals. During the 2000 Presidential campaign, Bush supporters noted that even the existing arms control regime between Russia and the United States was counterproductive because it was intended to manage an adversarial situation and was preventing both sides from adjusting their force structures and doctrine in response to fiscal realities and new threats. In their minds, arms control was actually producing acrimony in an otherwise increasingly cooperative relationship.³ For administration officials, the time had arrived to stop treating Russia as a potential adversary and to find a more cooperative way to manage strategic relations.

While many observers marvelled at the effectiveness of precision-guided air strikes during the 1991 Gulf War, advances in weapons technology did not stop there. The information revolution that occurred in commercial and social life in the 1990s continued to transform US military capabilities. Sometimes referred to as the Revolution in Military Affairs (RMA), the application of the information revolution to the realm of warfare is creating a precision-strike complex that integrates surveillance and reconnaissance sensors, information processing capabilities, tactical and operational communications, and

long-range precision guided munitions. In real time, operational commanders can now use multiple data feeds from a variety of sensors (generically called the global command and control system, or GCCS) to create a coherent operational picture of the battle space that can be used to target everything from lone individuals to armoured divisions. This real-time capability to target precision-guided munitions did not exist ten years ago. Breaking a long-standing divide between conventional and nuclear forces, the Bush administration is interested in incorporating these new conventional capabilities into US strategic doctrines and force structures.

Over the last decade, official concern about the proliferation of chemical, biological and nuclear weapons and associated long-range delivery systems has grown. The Gulf War highlighted the new threat posed by long-range missiles and provided a hint of the changing threat environment that would be produced by the proliferation of chemical, biological and nuclear weapons. The 1995 National Intelligence Estimate 'Emerging Missile Threats to North America during the Next Fifteen Years', which depicted a relatively benign threat environment, was discredited by the 1998 Rumsfeld Commission Report and the August 1998 North Korean launch of a three-stage Taepo-Dong missile. The 1996 Aum Shinryko sarin attack in the Tokyo subway, the 1998 Indian and Pakistan nuclear tests, the end of the UNSCOM inspection regime in Iraq, the 9/11 terrorist attacks on the Pentagon and the World Trade Center, and the anthrax attacks in the north-eastern United States have made the proliferation of weapons of mass destruction (WMD) a salient threat to the American public and US officials. In its report to Congress on 30 January 2002, the Central Intelligence Agency identified nine countries that are developing or seeking to acquire weapons of mass destruction.⁴ Three of these countries, Iran, Iraq and North Korea, identified as an 'axis of evil' by President Bush in his 2002 State of the Union Address, were said to represent a particular threat to the United States. President Bush also has stated that he will not allow 'a nation such as Iraq to threaten our very future by developing weapons of mass destruction'.⁵ The Nuclear Posture Review echoes this concern and increases the number of countries that represent a threat to the United States: 'North Korea, Iraq, Iran, Syria and Libya are among the countries that could be involved in immediate, potential, or unexpected contingencies'.⁶ Various non-state actors and terrorist organizations, such as Al Qaeda, which are rumoured to be trying to acquire chemical, biological, nuclear and radiological weapons, also are depicted as posing a serious threat to the United States.

When combined, the trends that have emerged over the last decade have created a challenging set of circumstances for US elected officials and defence planners. On the one hand they have a strategic nuclear capability that has been optimized to deal with a threat that no longer exists and

which is now viewed as a stumbling block to improved Russian–American relations. On the other hand, the failure of non-proliferation efforts during the 1990s now confronts US planners with a host of relatively small-scale threats (when compared to the Cold War challenge posed by the Soviet Union) that with little warning might become serious civil, political and military problems. Compared to at least the latter years of the Cold War, it now appears more likely that the US military might encounter opponents willing to use chemical, biological or nuclear weapons. At the same time, the RMA has provided planners with new ways to use conventional weapons to undertake missions once reserved for US nuclear forces.

The operational history of the US military since the early 1990s reflects these trends. Desert Storm, containment of Iraq, a commitment to transformation, war in the Balkans, counter-proliferation and now the war on terrorism, have slowly moved the Defense Department away from its traditional planning benchmark, the ability to fight two major theatre wars simultaneously. Instead, US forces have been continuously engaged somewhere over the last decade containing a crisis, responding to a disaster or actually engaged in open hostilities. The transition has been almost imperceptible, but now conflict is continuous and without borders. It is not true global war in the Cold-War sense of the term, but it is not without strategic objectives or risks. The challenge facing US planners is to develop policies that respond to this new strategic, technological and political landscape.

The End of Mutual Assured Destruction: The 2002 NPR

The Bush administration's NPR and the Quadrennial Defense Review indicate that Mutual Assured Destruction is no longer considered an acceptable basis for the strategic relationship between Russia and the United States. Assuring destruction of Russia under any circumstances is no longer viewed as the primary strategic concern that should preoccupy US nuclear planners. In his briefing to announce the unclassified summary of the Nuclear Posture Review, Assistant Secretary of Defense J.D. Crouch stated that the United States was now 'ending the relationship with Russia that is based on mutual assured destruction', adding that 'this seems to be a very inappropriate relationship given the kinds of cooperation, for example, that have been evinced in the last few months in the campaign against global terrorism'.⁷ The actual NPR is even more unequivocal: 'As a result of this review, the United States will no longer plan, size or sustain its forces as though Russia presented merely a smaller version of the threat posed by the Soviet Union.' In other words, since Russia and its nuclear forces are viewed as a waning threat to the United States, deterring Russia will no longer dominate US nuclear doctrine and targeting.

Although administration officials never clearly articulated their plan to transform the Russian–American strategic relationship and it remains unclear whether any plan actually exists, changes in US policy are beginning to create a new strategic framework between the United States and Russia. Initiatives by administration officials to eliminate the last vestiges of this enduring rivalry are important in both a theoretical and practical sense. Unilateral US efforts to overcome lingering mistrust entail risk, which increases their credibility, and signals a commitment to eliminating the security dilemma that continues to plague Russian–American relations.⁸ In other words, US officials recognized that nuclear doctrine and capabilities, not underlying political grievances or aggressive impulses, stand in the way of more cooperative Russian–American relations. They therefore undertook a series of unilateral initiatives – announcing a change in nuclear doctrine, negotiating reductions in strategic forces, introducing confidence-building measures – that they apparently hoped would reduce tension and foster better Russian–American relations. When viewed in this light, even withdrawing from the ABM Treaty becomes an extremely important and positive initiative by delivering a potentially lethal shock to the Cold War strategic framework that continues to govern Russian–American strategic relations. As Bush officials have repeatedly noted, the ABM Treaty was an outmoded document that stood in the way not only of US missile defence programs, but also in the way of a more cooperative strategic relationship with Russia. The United States–Russian arms control agreement signed by Presidents Bush and Putin in Moscow in May 2002 is also part of this new strategic framework. Even though the treaty limits the number of deployed nuclear warheads to a maximum of 2,200 by 2012, it is more of a political document than a mechanism for arms control and strategic stability. The treaty reflected changes in force structure already mandated by the NPR and may have been concluded to satisfy President Putin’s political requirements for concrete evidence of his new partnership with Washington.

The ultimate challenge faced by administration officials in their effort to end the situation of MAD is that the nuclear balance between Russia and the United States is a strategic relationship, i.e., a relationship shaped by the actions and interactions of at least two parties. Avoidance of Armageddon during the Cold War, for instance, really required cooperation on the part of both superpowers since neither, by definition, had the capability to protect itself unilaterally from nuclear destruction.⁹ Similarly, just because US policy-makers believe that concerns about nuclear weapons should no longer dominate Russian–American relations does not guarantee that Russian officials will go along with their American counterparts. Russians, after all, cling to their nuclear arsenal as the last vestige of their superpower status; dire warnings are heard in Moscow about Russia’s potential vulnerability if

the nuclear *status quo* changes, even as the Russian government struggles to find the money to maintain a shrinking nuclear force.

Bush officials' hopes of positively influencing Russian-American relations were in fact achieved by practical politics. By declaring peace, and taking concrete steps to back up their words, they undermined the strategic reasoning of all those who favour the military, institutional and diplomatic *status quo*. US policymakers are presenting their Russian counterparts with a difficult political challenge: How can hard-line Russians officials preserve a 'Cold-War' approach to Russian-American relations when US policymakers are clearly willing to reciprocate Russian concessions? The Putin government apparently has found it possible to live with a light US ABM system in return for a US agreement to further reduce the size of its nuclear arsenal to Russian levels, which are governed not by doctrine, but by a weak Russian economy. The administration's approach to dealing with Russia also challenges those who advocate traditional approaches to arms control and disarmament. When a disarmament advocate complained recently that the informal cooperation emerging in Russian-American relations lacked transparency because of the absence of formal agreements that could be vetted by the international arms control community, the audience broke out laughing.¹⁰ It is possible that many existing arms control agreements will become increasingly obsolete as Russian-American strategic relations improve. Cooperative efforts among potential allies to foster peace, reduce nuclear forces and safeguard hazardous nuclear materials do not pose much of a threat to other nations; they do not need to be codified in formal treaties to reassure the international community. What is surprising is that the international community has failed to acknowledge the recent success of both Moscow and Washington in making further progress toward eliminating the hazardous legacy of the Cold War.

A New Triad

The NPR unveiled a new strategic triad, consisting of nuclear weapons and non-nuclear precision-strike capabilities, passive and active defences and a revitalized nuclear infrastructure. The Review's authors consider nuclear weapons to be only one element of an array of capabilities designed to address threats posed by the proliferation of chemical, biological and nuclear weapons and long-range ballistic missiles. Although the new strategic framework advanced by the Bush administration might be viewed as a logical outgrowth of policy since the end of the Cold War (i.e., further reductions in strategic forces and incremental movement toward a US-Russian relationship based on cooperation), the new triad concept represents a major departure in US strategic doctrine. Deterrence, defence and counter-force are now acknowledged components of US strategic (nuclear) doctrine. This doctrine

will eventually be reflected in a new force structure, although the concepts and planning for this force structure do not yet exist.

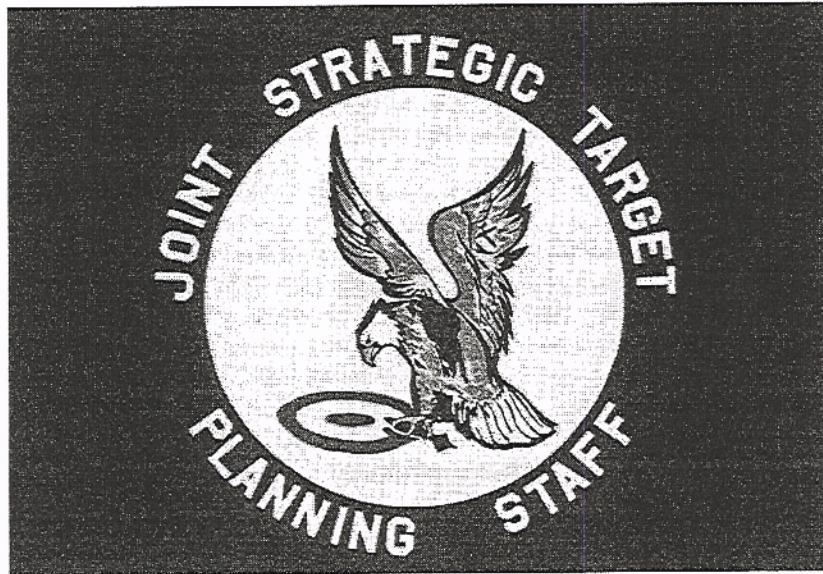
The Bush administration's new strategic triad is intended to integrate defences (i.e., missile defence), nuclear weapons and 'non-nuclear strike forces'¹¹ into a seamless web of capabilities to dissuade potential competitors from mounting a military challenge to the United States,¹² to deter adversaries and to fight and win wars if deterrence fails. The NPR notes that the strike elements

can provide greater flexibility in the design and conduct of military campaigns to defeat opponents decisively. Non-nuclear strike capabilities may be particularly useful to limit collateral damage and conflict escalation. The NPR emphasizes technology as a substitute for nuclear forces that are withdrawn from service. Global real-time command and control and reconnaissance capabilities will take on greater importance in the new strategic triad. Nuclear weapons could be employed against targets able to withstand non-nuclear attack, (for example, deep underground bunkers or bio-weapons facilities).¹³

The new triad will rely on 'adaptive planning' so that it can meet quickly emerging threats and contingencies. Advanced command, control and intelligence capabilities will integrate the legs of the triad, facilitating flexible operations. This emphasis on adaptive planning differs from the traditional approach taken to the development of the US nuclear war plan, the Single-Integrated Operations Plan (SIOP). The SIOP reflected a deliberate planning process that often took months or even years to complete and which generated a finite number of nuclear employment options for consideration by the President in his capacity as Commander in Chief.

Administration officials have suggested that the new triad would allow reductions in operational nuclear forces from the current START I levels of approximately 6,000 warheads each deployed by the United States and Russia. The Treaty of Moscow, signed on 24 May 2002, made this intention a reality as both Washington and Moscow agreed to reduce the number of their strategic operational warheads to between 1,700 and 2,200 by 2012.¹⁴ In the US arsenal, the warhead reductions will come from the retirement of the MX Peacekeeper ICBM starting in 2002, the removal of four Trident submarines from strategic service and the elimination of the requirement that the B-1 bomber maintain a nuclear capability. Like the Clinton administration, the Bush administration will maintain a 'responsive' force (sometimes referred to as a reserve force) of warheads that could be brought back into service if necessary. Military planners probably have not finalized the size of the 'responsive' force, but in all likelihood it will number in the thousands of warheads.¹⁵ Both the Bush and Clinton administrations maintained that it

FIGURE 1
JOINT STRATEGIC TARGET PLANNING STAFF EAGLE PATCH



This patch, worn by members of the JSTPS who worked at the Strategic Air Command (SAC), is now a symbol of a bygone era. JSTPS was the Joint Staff organization at SAC charged with generating the Single Integrated Operations Plan. Today their functions have been transferred to J5, US Strategic Command.

only makes sense to count warheads actually deployed or warheads that are available for battlefield use within a matter of days. In contrast, this response force (read 'hedge force') would only become available after an extended period of regeneration and redeployment – a process that could take months or even years.¹⁶ The existence of this response force, however, has prompted concerns in some quarters. Critics charge that the reductions mandated by the Treaty are ephemeral because only counting operational warheads masks the true size of the strategic forces maintained by the United States. But these critics fail to recognize that the response force can serve as an important US bargaining chip in the effort to find a negotiated settlement to an increasingly important problem, eliminating the thousands of Russian tactical nuclear weapons that are not addressed by the Moscow Treaty.

The reduction in operational nuclear warhead level will be accompanied by the development of new capabilities. The centrepiece of these new capabilities will be missile defence. The Bush administration wants to spend \$7.8 billion in fiscal year 2003 for a missile defence research and testing program that will

eventually create a multi-layered defence against accidental missile launches and the relatively limited missile attacks that can be launched by America's likely adversaries. No longer constrained by the ABM Treaty after June 2002, the administration has launched a robust missile defence program that builds on the programs initiated by the Clinton administration nearly a decade ago. The current program includes boost-phase interceptors to attack enemy ballistic missiles while they are still over the opponent's territory. Because warhead debris would likely fall on the country launching the missile attack, these defences would serve to deter an adversary's use of nuclear, chemical or biological weapons. Administration officials want to allocate \$598 million for the Airborne Laser (ABL), a speed of light 'directed energy' weapon, and \$797 million for research on sea, air and space-based boost phase systems to defeat missiles while they are in the highly visible and vulnerable initial stage of flight. The administration also has bolstered the Clinton administration's mid-course ground-based interceptor program by proposing \$534 million for an expanded test-bed for missile intercepts. \$623 million for the Patriot PAC III will bolster terminal and point defence of critical facilities and forces. Patriot is primarily intended to be used by US ground forces to protect themselves from cruise missile and tactical ballistic missile attack. The administration has further earmarked \$3.5 million for the Mobile Tactical High-Energy Laser that will give ground forces a directed energy weapon for use against enemy rockets, cruise missiles, artillery and mortar munitions.

The new triad concept highlights three profound changes in US strategic doctrine. First, it makes clear that deterring an all-out nuclear war between Russia and the United States is no longer the central feature of US war plans. US policymakers believe that a nuclear war between Russia and the United States is an extremely remote possibility and US nuclear policy and strategy now reflect this changing threat perception. Second, like the old triad concept, the new triad embodies an effort to increase the credibility of US strategic deterrent threats by increasing the range of options available to US officials. The old triad concept was intended to guarantee the availability of a massive response to nuclear attack, while the newly reconfigured triad is intended to guarantee that US policymakers will have an appropriate way to respond to different forms of aggression, thereby bolstering deterrence. Third, the new triad concept provides a way to sidestep bureaucratic resistance to changing what constitutes one of the most respected elements of the nuclear creed that shaped US nuclear doctrine: the sanctity of the old triad of forces and the focus on guaranteeing a massive nuclear response under any circumstances. The new strategic triad thus paves the way for further reductions in US strategic nuclear forces because it clears a path for the possible elimination of one of the legs of the old nuclear triad. The Bush administration's new triad concept thus constitutes an important facet of the quiet revolution taking place in US strategic nuclear doctrine.

Counter-proliferation, Conventional Counter-force and Nuclear War

Although there is little doubt that the Bush administration wants to eliminate nuclear deterrence as the basis of the Russian–American strategic relationship, it is clear that the NPR is not a blueprint for international disarmament. Reductions in operational warhead levels, deployment of missile defences, a shift to adaptive nuclear planning and new conventional precision-strike capabilities augur a new era in thinking about nuclear strategy and the relationship between nuclear weapons, deterrence and nuclear war. The NPR identifies new targeting priorities for nuclear weapons: hardened underground facilities housing command centres, underground facilities associated with chemical, biological or nuclear weapons, and mobile targets (such as missiles armed with WMD). The NPR states that there are nearly 1,400 underground sites worldwide that require targeting by the nuclear force because conventional weapons cannot destroy them. Thus there is a need to develop an earth penetrating capability to place these targets at risk. The NPR also calls for ‘additional yield flexibility’ for weapons in the stockpile and for ‘warheads that reduce collateral damage’.¹⁷ By identifying new targets and missions for nuclear weapons, it would appear that the United States would eventually have to design and build new weapons – a process that is made difficult if not impossible by the continued observance of the moratorium on nuclear weapons testing. To build new weapons, however, US weapons designers would have to conduct nuclear tests to certify that the weapons would actually work as advertised. Given that it is unlikely that the United States will abandon the testing moratorium if current circumstances continue, it is unclear how officials will overcome this fundamental inconsistency in the policies and capabilities advocated by the NPR.

One observer has noted that the NPR moves US strategy away from the idea of mutually assured destruction toward the concept of ‘unilateral assured destruction, so that no dictator could seek safety for himself or his weapons of mass destruction in some deep bunker where no conventional weapon could destroy them’.¹⁸ This description of the new nuclear strategy, however, is regrettable because it probably overemphasizes the degree to which officials are contemplating first use, let alone massive first use, of nuclear weapons. Much like criticism levelled against the Eisenhower administration’s policy of massive retaliation, Bush officials were apparently concerned that the availability of only relatively large nuclear weapons reduced the credibility of the US nuclear deterrent because potential opponents might gamble that the United States would not respond with nuclear weapons to small-scale use of chemical or biological weapons.¹⁹

The NPR is intended to increase the range of options available to US officials to deal with adversaries armed with chemical, biological and nuclear

weapons and long-range delivery systems. Clearly, precision-guided weapons are the preferred option when it comes to conducting pre-emptive attacks against an opponent's WMD infrastructure and delivery systems.²⁰ While it is politically difficult to justify the use of nuclear weapons in a preventative attack to prevent the use of nuclear weapons, the US nuclear arsenal provides escalation dominance. US nuclear superiority makes standing by and being forcibly disarmed in a conventional counter-force attack the only rational response available to the opponent. A range of US nuclear options thus makes it more likely that opponents with small WMD arsenals will lose rather than use their nuclear, chemical or biological weapons capabilities. Significant use of nuclear, chemical or biological weapons might generate a massive nuclear response from the United States, a perception that reduces incentives for initial escalation by US adversaries. Theatre and national missile defences backstop conventional counter-force attacks by destroying incoming warheads launched if counter-force and nuclear escalation dominance fails. There is a reason why the reader might find this sort of analysis hair raising: what has just been described is a form of nuclear war fighting. Moreover, this scenario is not hypothetical. It has been played out repeatedly in the effort to disarm Iraq, although US officials, international observers and scholars, with one notable exception, have failed to pay much attention to the emergence of preventive war in US counter-proliferation strategy.²¹

The message to state and non-state actors seeking to acquire or use WMD is unambiguous – the United States recognizes that it cannot prevent proliferation. Instead, it is preparing to target emerging nuclear, chemical and biological arsenals with conventional and, if necessary, nuclear forces. Pre-emptive attack has not been ruled out. President Bush told the country during his address to West Point cadets in June 2002 that the US security 'will require all Americans to be forward-looking and resolute, to be ready for pre-emptive action when necessary to defend our liberty and to defend our lives'.²²

Does the NPR lower the nuclear threshold? The NPR explicitly mentions the idea of developing an earth-penetrating nuclear device to target underground facilities housing nuclear, chemical or biological weapons.²³ Secretary of State Colin Powell rejected this concern in testimony before the Senate Appropriations Subcommittee on Commerce, State and Justice and the Judiciary by stating: 'There is no way to read that document and come to the conclusion that the United States will be more likely or will more quickly go to the use of nuclear weapons'.²⁴ But critics find these sorts of statements disingenuous. During the Cold War, flexible, adaptive planning that integrated conventional and nuclear forces and operations was always criticized as lowering the nuclear threshold. And, when integration of conventional and nuclear operations was not criticized as a matter of deliberate policy, observers raised the possibility of inadvertent escalation. In other

words, as the chaos and the fog of war grip the battlefield, nuclear forces inevitably will be used even if the order to use them is not given by national authorities.

Alternatively, the NPR's emphasis on conventional counter-force operations against a rogue's arsenal might lower the threshold at which an adversary will use WMD, especially if the adversary perceives its chemical, biological or nuclear weapons as a 'strategic' asset that guarantees national or regime survival. Such a scenario is not all that difficult to imagine in Iraq. Saddam Hussein views his WMD program as an instrument of regime and personal security, which is one reason why he has gone to such great lengths to avoid meeting his obligations to the international community. US nuclear escalation dominance might not stop Iraqi use of WMD in response to conventional counter-force attacks because Saddam might rationally believe that WMD could save his regime or guarantee his personal security. Disarmament by force thus becomes extraordinarily risky when dictators perceive it to be part of a larger attack directed against regime survival.

What critics fail to realize, however, is that the United States finds itself in a different situation when it comes to the use of nuclear weapons in likely contingencies. Unconstrained by the threat of retaliation in kind, it faces enormous incentives to pre-empt its opponents' use of chemical, biological or nuclear weapons. After all, the only realistic way of winning a nuclear war is to use nuclear weapons first (or at least prevent your opponent from using nuclear weapons). What incentives do US officials have to allow their opponents to be the first to use chemical, biological or nuclear weapons, especially if they have the means to disarm them before they have a chance to use their arsenals? One could argue that suffering a WMD attack would generate enormous political support for retaliation. One could also argue that no elected official is that cynical; leaders will take desperate action to avert disaster. Increasing the range of options available to the United States and its allies thus raises the nuclear threshold by creating ways to disarm opponents without using nuclear weapons.

Negative Security Assurances

An issue that has generated commentary is the relationship between the NPR and 'negative security assurances', i.e., the US policy of not using nuclear weapons against non-nuclear weapons states that are also signatories of the Non-proliferation Treaty (NPT). This policy was restated in a November 1997 Presidential Decision Directive:

The United States reaffirms that it will not use nuclear weapons against non-nuclear-weapon States Parties to the [NPT] except in the case of an invasion or any other attack on the United States, its territories, its armed

forces or other troops, its allies, or on a State toward which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State.²⁵

Critics allege that these so-called negative assurances have been called into question by some of the states identified as potential nuclear targets by the NPR. But the relationship between the NPR and negative security assurances is more complex than many critics suggest because it highlights the interaction between disarmament, deterrence and counter-proliferation policies.

The NPR names five states – Iran, Iraq, Syria, Libya and China – that could be involved in ‘immediate’ or ‘potential’ contingencies involving nuclear weapons. These countries, however, cannot be placed in the same category when it comes to the negative security assurances associated with the NPT. China is an acknowledged nuclear power that actually has a small force of intercontinental ballistic missiles capable of striking the United States. Negative security assurances offered by the United States were never intended to apply to China. Iraq and North Korea are signatories of the NPT, but both countries are not considered in ‘good standing’ when it comes to their obligations under the treaty. Iraq and North Korea are suspected of developing clandestine nuclear arsenals. US officials thus have little alternative but to treat Iraq and North Korea as *de facto* nuclear weapons states. Iran, Syria and Libya are believed to have significant chemical weapons arsenals.

Critics of the NPR state that the US use of nuclear weapons against non-nuclear countries would constitute a US violation of its pledge not to use nuclear weapons against states that lack a nuclear arsenal. The Bush administration has stated publicly that it intends to continue abiding by its policy of negative security assurances, but, like previous administrations, it has suggested that ambiguity exists in situations where the United States or its military forces have been subjected to an attack by weapons of mass destruction (WMD). In other words, significant use of chemical, biological or radiological weapons against the United States or its forces undermines the policy of offering negative security assurances. Because the United States abides by its treaty commitments to forego developing or employing chemical or biological weapons, it cannot respond in kind in the aftermath of chemical or biological attacks that inflict thousands or even millions of casualties. If the United States is going to respond to a mass casualty attack using weapons of mass destruction, it only has nuclear weapons in its arsenal to use in a retaliatory attack.

What critics of the NPR fail to understand is that the inability of disarmament institutions and agreements to stop the proliferation of significant

chemical, biological and nuclear capabilities – not the NPR itself – lies at the heart of the debate about negative security assurances. The negative security assurances offered by the United States were made in the context of the NPT to foster non-proliferation efforts and to reward states that agreed not to acquire nuclear weapons. These negative security assurances were not intended to undermine similar efforts to block the spread of chemical and biological weapons (i.e., the Chemical Weapons Convention and the Biological Weapons Convention). If one follows the logic of critics of the NPR, states that employ chemical or biological weapons need not fear retaliation in kind (because these weapons are banned by international agreement) or nuclear retaliation because of negative security assurances associated with the NPT. States that violate international agreements would thus be given a 'free ride' when it comes to threatening to use or actually using chemical or biological weapons. Giving free rides to states that violate international non-proliferation norms and agreements is not conducive to bolstering global efforts at disarmament. Additionally, the principle of reprisal could justify a US nuclear response to the use of nuclear, chemical or biological weapons. Under reprisal theory, the United States would be allowed to respond to illegal and illicit acts in any way deemed appropriate to stop such acts, even if the US response also involved actions that under normal circumstances might be considered to be illegal acts. Certainly the massive use of chemical or biological weapons against the United States or its allies would be catastrophic, prompting US officials to take extraordinary steps to protect US interests. Once the illicit actions have ceased and other nations once again abide by their legal, political and moral duties, then the practices and pledges associated with normality also resume.

The whole issue of negative assurances has arguably been subsumed by the new threat environment, which in turn underlies a major premise of the NPR: that nuclear weapons could be used in a wider number of circumstances on different kinds of targets than had previously been the case. States that have signed the NPT are offered no potential 'relief' from being targeted due to negative assurances, and the NPR in fact identifies a number of so-called NPT states (Iran, Iraq, Syria, Libya and China) as targeting priorities due to their own actions. One could also argue that the negative assurance issue has been subsumed by the new targeting requirements to hit underground facilities and mobile relocatable targets. With the movement of WMD facilities and storage bunkers underground to avoid being targeted by conventional means, a new nuclear targeting requirement has been created that the United States cannot ignore if it is to maintain a credible deterrent. Conventional munitions cannot destroy hardened underground facilities, hence the efforts identified by the NPR to modify the B-61 nuclear bomb to give it an earth-penetrating capability.

Concerns that the United States will violate its NPT negative security assurances are being blown out of proportion. Critics seem to extend these assurances to states that have overt or clandestine nuclear arsenals and to states that violate international norms and treaties against developing, stockpiling or using biological and chemical weapons. Clearly the Bush administration has voiced no intention to be the first to use nuclear weapons against states that lack weapons of mass destruction. The administration's preference is not to use nuclear weapons – hence the stated intention in the NPR to use conventional weapons in a 'strategic' context. The NPR debate, however, does focus attention on a disturbing international trend. Even as the United States and Russia reduce their strategic nuclear arsenals, other state and non-state actors continue in their quest to bolster their nuclear, chemical and biological weapons capabilities. Whenever policies that are intended to foster disarmament – such as the negative security assurances associated with the NPT – confront flagrant efforts to obtain weapons of mass destruction, the connection between policy and reality will be strained. The inability of disarmament policies to cope with these circumstances has more to do with bad situations, not the bad intentions of the policymakers involved.

Conclusion

Some readers might object to the idea that the NPR represents something fundamentally 'new' in US nuclear strategy because the NPR draws on ideas and policies that have emerged in US strategic thinking over the last fifty years. They have a reasonable point: the NPR did not emerge from a strategic or historical vacuum. Since the late 1960s, for example, planners have suggested that the United States should seek flexible response options to deter attacks against members of the North Atlantic Treaty Organization so that nuclear weapons use would not automatically lead to a massive nuclear exchange with the Soviet Union. As the Cold War continued, the SIOP also offered more nuclear options short of an all-out attack. Many observers also have been uncomfortable with MAD and the fact that the threat to kill millions of people was used as an instrument of strategic stability. Others have championed the idea that active and passive defences should play a larger role in nuclear strategy and that the ABM Treaty should be scrapped. A Defense Department report published in 1988, 'Discriminate Deterrence: Report of the Commission on Integrated Long Term Strategy', for instance, identified emerging threats that needed to be addressed by more closely integrating offensive and defensive capabilities into US nuclear and conventional strategy.²⁶ Much like the NPR, the report urged the Defense Department to start looking at broadening the targets that could be hit by conventional means and more closely integrating conventional and

nuclear forces as part of the nation's 'strategic' deterrent. Thus, in terms of offence-defence integration, turning away from MAD and better integrating nuclear and conventional forces and strategy, the Bush administration is implementing ideas that are not without historical or policy precedent.

The NPR, however, does represent a fundamental departure in US thinking about deterrence. First, it abandons MAD as the basis of the Russian-American strategic relationship and it eliminates Russia as the benchmark for sizing US nuclear forces. Second, it seeks to substitute conventional forces for nuclear capabilities to serve as a strategic deterrent; in the past the goal of strategy was to find ways to couple conventional and nuclear force structures so that they could function in a mutually supportive way to bolster conventional and nuclear deterrence. Third, the formal integration of offence and defence to bolster deterrence by denial is a departure from the past, even if the mechanisms and organizations to integrate these forces are still on the drawing board.

Despite what critics charge, the real paradox inherent in the NPR is that even though it appears to make nuclear use more likely, it actually reflects the tradition of nuclear non-use that has emerged since the end of the Second World War. Clearly some factor other than cost-efficiency or military utility has shaped US policy when it comes to weak states that brandish nuclear, chemical or biological weapons. US officials could have responded to the proliferation of nuclear, chemical and biological arsenals and long-range delivery systems with a simple threat. They could have stated that any use of WMD, any conventional strike or any unconventional attack would be met with a massive use of nuclear weapons.²⁷ Instead of relying on this nuclear threat, they are searching for options to deter and defeat WMD armed adversaries with significantly less force than an all-out nuclear attack.

Disarmament advocates will decry the NPR as a disaster because in their eyes it undermines efforts to delegitimize the possession and use of nuclear weapons. But they fail to acknowledge the fact that the document declares a historic end to the Russian (Soviet)-American strategic relationship based on the threat of nuclear annihilation. They also do not seem to understand that despite much effort, good intentions and hope, the failure of the non-proliferation regime in the 1990s was the necessary condition for the Bush administration's NPR. Sadly, the United States must prepare to deal with several adversaries that are equipping themselves with weapons of mass destruction.

The potential for overwhelming retaliation in kind no longer restrains US defence planners as they contemplate the potential use of nuclear weapons to disarm likely adversaries. But observers also need to keep in mind that outside of a few pockets of support, US military officers have never been fans of nuclear weapons. They generally have been considered to be little more

than a maintenance, security and administrative nightmare. And because they tend to eliminate technical, numerical, organizational and professional disparities between forces, US military planners probably see little military advantage in being first to use nuclear weapons in a conflict. The NPR reflects this bias against nuclear first use and nuclear weapons generally, while suggesting that American planners have been asked to devise ways to deter, fight and win nuclear, chemical and biological war.

One immediate result of the NPR appears inescapable. A negotiated or unilateral reduction in nuclear warheads to less than one-third of today's levels will force a profound change in the way US officials and planners think about the role of nuclear weapons in defence strategy. With a Cold War arsenal numbering approximately ten thousand warheads, planners were afforded the luxury of nearly endless redundancy in systems and the ability to place multiple weapons on priority targets. But the NPR's dramatic reduction in numbers will first force planners to make harder choices in targeting decisions – possibly even causing a return to counter-value targeting. One can only hope that these reductions will evolve into a healthy exercise that produces a rational reassessment and integration of strategy, doctrine and force structure.

NOTES

This article represents the views of the authors, not the views of the Department of the Navy, Office of the Secretary of Defense or the US Government. The authors would like to thank Elizabeth Skinner for her editorial contributions.

1. The last significant departure in US nuclear policy, strategy and doctrine occurred on 27 September 1991 when President George H.W. Bush announced a series of unilateral initiatives: (1) eliminating tactical nuclear weapons deployed with US military units; (2) ending strip alert for the US strategic bomber force; (3) accelerating force reduction called for by START I; and (4) canceling several strategic systems (e.g., rail-mobile MX, Midgetman and the short-range-attack missile II). These initiatives virtually ended the US nuclear force modernization program and were a significant first step in a decade of force reductions. See Ronald E. Powaski, *Return to Armageddon* (New York: Oxford University Press, 2000), pp.130–33.
2. Excerpts from the classified version of the report were first reported in the *New York Times* and the *Los Angeles Times*. Most of the NPR text has been posted on the *globalsecurity.org* website at (<http://globalsecurity.org/wmd/library/policy/dod/npr.htm>). This quotation is taken from that text cited as the NPR's Executive Summary on p.1, which was released by the Department of Defense. Other quotations come from the *global security* website, although the authors have no way to confirm whether this is the actual report.
3. Robert Joseph, 'The Changing Political–Military Environment', in James J. Wirtz and Jeffrey A. Larsen (eds), *Rockets' Red Glare: Missile Defenses and the Future of World Politics* (Boulder, CO: Westview, 2001), pp.55–78; and Bradley Graham, *Hit to Kill* (New York: Public Affairs, 2001).
4. Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions (1 Jan.–30 June 2000, Central Intelligence Agency).
5. News transcript from the White House; President Bush press conference transcript from 13 March 2002.

6. Nuclear Posture Review, p.16. By contrast, the NPR does not depict Russia as a country of immediate or even potential concern.
7. News transcript from the United States Department of Defense, J.D. Crouch, Assistant Secretary of Defense, International Security Policy, Wednesday, 9 Jan. 2002, p.3.
8. For a discussion of how risk communicates commitment see Robert Jervis, *The Logic of Images in International Relations* (New York: Columbia University Press, 1989); and Deborah Larson, 'Crisis Prevention and the Austrian State Treaty', *International Organization*, Vol.41, No.1 (Winter 1987), pp.27-60.
9. Richard Harknett, 'State Preferences, Systemic Constraints, and the Absolute Weapon', in T.V. Paul, Richard Harknett and James J. Wirtz (eds), *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order* (Ann Arbor, MI: The University of Michigan Press, 1998), pp.47-72.
10. James Wirtz notes taken at the 12th Annual International Arms Control Conference, Sandia National Laboratories, Albuquerque, New Mexico, 18-20 April 2002.
11. Department of Defense news transcript, 9 Jan. 2002, p.6.
12. The concept of dissuasion is a new term in US doctrine. It apparently suggests that US military forces will be so technologically and operationally superior, that potential competitors will abandon efforts to challenge the United States. We would observe that the efforts at dissuasion might simply channel the military strategies and capabilities of potential competitors away from US strengths to attack US vulnerabilities, i.e., to adopt asymmetric strategies.
13. Nuclear Posture Review, pp.12-13.
14. Department of Defense news transcript, 9 Jan. 2002, p.8.
15. The Nuclear Posture Review states (p.32) that there are 8,000 warheads in the active nuclear stockpile. Presumably, these warheads form the backbone of the responsive force. The Natural Resources Defense Council estimates the hedge force may total as many as 15,000 warheads. See NRDC Backgrounder, 'Faking Nuclear Restraint: The Bush Administration's Secret Plan for Strengthening US Nuclear Forces', 13 Feb. 2002.
16. Statement of the Honorable Douglas J. Feith, Undersecretary of Defense for Policy, Senate Armed Services Hearing on the Nuclear Posture Review, 14 Feb. 2002, p.4.
17. Nuclear Posture Review, pp.46, 34-5.
18. John H. Cushman, Jr., 'Rattling New Sabers,' *New York Times*, 10 March 2002.
19. Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St Martin's Press, 1989), pp.76-169.
20. The NPR, however, explicitly mentions the idea of developing an earth-penetrating nuclear device to target underground facilities housing WMD. This idea probably is a reflection of simple operational necessity rather than strategic choice. Some bunkers are so well constructed and deeply buried, they require enormous explosive energy to be efficiently coupled to the ground to destroy them; i.e., a relatively large earth-penetrating nuclear warhead is needed to guarantee their destruction.
21. James J. Wirtz, 'Counterproliferation, Conventional Counterforce and Nuclear War', *Journal of Strategic Studies*, Vol.23, No.1 (March 2000), pp.5-24.
22. For President Bush's West Point speech see (<http://www.whitehouse.gov/news/releases/2002/06/20020601-3.html>).
23. Nuclear Posture Review, pp.12-13.
24. Phillip Bleek, 'Nuclear Posture Review Leaks; Outlines Targets, Contingencies,' *Arms Control Today*, Vol.32, No.3 (April 2002), p.1.
25. Powaski, *Return to Armageddon*, pp.207-8.
26. *Discriminate Deterrence: Report of The Commission on Integrated Long-Term Strategy*, co-chairmen Fred C. Ikle and Albert Wohlstetter, Washington, DC: US Government Printing Office, Jan. 1988.
27. Russian officials have apparently adopted this sort of nuclear doctrine.