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# Nuclear Security 2012

**: Challenges of Proliferation and  
Implication for the Korean Peninsula**

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Korea Institute for  
National Unification



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# **Nuclear Security 2012**

## **: Challenges of Proliferation and Implication for the Korean Peninsula**

The analyses, comments and other opinions contained in the this monograph are those of the authors and do not necessarily represent the views of the Korea Institute for National Unification.



## II . The Evolution of U.S. Nuclear Strategy: From Massive Retaliation to the Nuclear Posture Review

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# 1. Introduction

Nuclear weapons, as Henry Kissinger often remarked during the Cold War, are weapons continually in search of a doctrine. The history of the evolution of nuclear strategy in the United States - as in the other nuclear powers - is a story of the ongoing attempt to find military meaning and political relevance in weapons so fantastically destructive that they defeat traditional notions of strategy. As early as 1946, Bernard Brodie was already writing that nuclear weapons represented the end of strategy, since any attempt at strategic reasoning collapsed in the face of the twin facts that nuclear weapons existed and were unimaginably powerful.<sup>1</sup> Thirty-five years later, as the United States embarked on yet another attempt to create a nuclear strategy that could actually be executed in time of war, Robert Jervis was to echo Brodie: "A rational strategy for the employment of nuclear weapons is a contradiction in terms. The enormous destructive power of these weapons creates insoluble problems;" accordingly, the history of nuclear strategy "has been a series of attempts to find a way out of this predicament and return to the simpler, more comforting prenuclear world."<sup>2</sup>

This anxiety was keenly felt by policymakers during the Cold War. They had never experienced an actual nuclear exchange, and had difficulty grasping the enormity of the kind of war they were

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<sup>1</sup> See Bernard Brodie, *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt Brace, 1946).

<sup>2</sup> Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984), p. 19.



contemplating. They had seen the devastation wreaked upon Hiroshima and Nagasaki, but these were one-sided attacks that had taken place in the wake of four years of grinding war and hundreds of thousands of U.S. casualties. (And even in the 21<sup>st</sup> century, only 59% of Americans still think the bombings were an acceptable act of war.)<sup>3</sup> These relatively small weapons had inflicted a huge amount of destruction in a day, but it was still comparable to the ruin inflicted in slow-motion over weeks of relentless firebombing. It was a different thing entirely, however, to contemplate the instant destruction of dozens of major cities from long distances, especially once ballistic missiles entered the equation. American leaders then, as now, could not fully absorb the sheer magnitude of a nuclear exchange. “You can’t have this kind of war,” President Dwight Eisenhower said in private in 1957. “There just aren’t enough bulldozers to scrape the bodies off the streets.”<sup>4</sup>

And yet, for 65 years, right up through the most recent Nuclear Policy Review released by the administration of U.S. President Barack Obama in 2010, the United States and its allies (and, one hopes, the Russians and Chinese as well) continue to struggle with just what kind of war can be had with nuclear weapons and what purpose they serve - if any. The world-destroying strategies conjured by “The Wizards of Armageddon,” in Fred Kaplan’s famous phrase, are largely relics of the past, relegated to history by the generation who lived through

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<sup>3</sup>- The poll was taken by the Rasmussen organization. “59% Say A-Bombing of Hiroshima, Nagasaki was a Good Decision,” *Rasmussen Reports* (10 August, 2010), <<http://www.rasmussenreports.com/>>.

<sup>4</sup>- Quoted in John Newhouse, *War and Peace in the Nuclear Age* (New York: Vintage, 1988), p. 120.

the Cold War and regarded as curiosities by younger generations who did not.<sup>5</sup> But even though the Cold War is gone, the weapons remain: the global count in 2010 stands at roughly 22,000 nuclear devices, most of them Russian and American. The questions that arose as soon as the first bomb exploded in the New Mexico desert in 1945 remain as well: What do these weapons actually do?

The answer, over seven decades, has vacillated between two basic positions: nuclear arms exist to fight wars, or they exist to prevent wars. There was little clarity on this issue after World War II, and there is arguably even less such clarity today. This chapter will examine how U.S. nuclear strategy evolved since World War II, and how it is being reinterpreted in the current security environment.



## 2. “At Times and Places of Our Own Choosing”

For the first few years after the attacks on Hiroshima and Nagasaki, America did not have a nuclear “strategy” so much as it had a nuclear “problem.” Until 1950, the U.S. arsenal was less than a thousand weapons, and the strategic weapons aimed at the USSR would have to be delivered by bomber aircraft. The Soviet arsenal in this period was tiny, but would cross the 1,000 mark within a decade; Soviet weapons could not, however, reliably reach the United States until the development of a missile force in the late 1950s. The American

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<sup>5</sup>– Fred Kaplan, *The Wizards of Armageddon* (Stanford: Stanford University Press, 1983).

problem was that unarguable nuclear superiority did not seem to buy very much capability, especially with regard to the defense of Europe or other allies in the face of Soviet conventional superiority. Nuclear weapons had not prevented the invasion of South Korea, or thwarted Stalin's gambles in Berlin and elsewhere. The Americans felt that "The West was being forced into fighting the [Cold War] and would have to fight any future hot war according to ground rules laid down by the communists in order to exploit their tactical advantages."<sup>6</sup>

The solution was the strategy of Massive Retaliation, foreshadowed in a 1953 U.S. National Security Council paper and enunciated a year later in more detail by Secretary of State John Foster Dulles. Although President Dwight Eisenhower's initial "New Look" at strategy only affirmed that the United States would consider nuclear weapons to be a fundamental part of any repulse of a Soviet attack, Dulles went farther and warned that the utility of nuclear arms extended beyond the battlefield. Dulles, like many American strategists, saw no alternative to letting the Soviet bloc make the first move, and that Western moves would necessarily be reactive. "If the enemy," he said in 1954,

could pick his time and his place and his and his method of warfare — and if our policy was to remain the traditional one of meeting aggression by direct and local opposition — then we had to be ready to fight in the

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<sup>6</sup>— Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St. Martin's, 1983), p. 76.

Arctic and the tropics, in Asia, in the Near East and in Europe; by sea, by land, by air; by old weapons and by new weapons.<sup>7</sup>

The idea was not to match the USSR pound for pound, but to bring U.S. nuclear superiority to bear beforehand, and to warn Moscow that major offenses would result in America exercising its “great capacity to retaliate, instantly, by means and at places of our choosing.”<sup>8</sup> No longer would the West meet the East head-on; now, the Americans would destroy targets possibly unrelated to the conflict at hand, and on their own schedule rather than that of the enemy.

This was an asymmetric solution to an asymmetric dilemma. But there was a larger problem with the whole strategy: it was unclear and increasingly non-credible. The first logical question centered on what might trigger U.S. retaliation. An invasion of Europe, certainly, but beyond that? Aggression in Indochina? Soviet abuse of its own allies? Proxy warfare conducted by a third power? Massive Retaliation was a hammer, not a scalpel, and could not be tailored very well to anything less than a direct, punishing attack on the Soviet Union. The second question was obvious and inevitable: what happens to such a strategy once the USSR develops the ability, as it surely would, to retaliate in kind? In the end, “Massive Retaliation” was less a strategy than an expression of desperation, and it was not to last.

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<sup>7</sup>- Quoted in Newhouse, *War and Peace*, p. 95; for the full article, see J. F. Dulles, “Policy for Security and Peace,” *Foreign Affairs*, Vol. 32, No. 3 (April 1954).

<sup>8</sup>- Quoted in Newhouse, *Ibid.*, p. 95.



### 3. The 1960s and the Rise of the Strategists

As the Soviet arsenal grew in both size and capability, Massive Retaliation was quickly overcome as an option, if it ever was one, and the Americans were forced to rethink the purpose of their rapidly increasing arsenal in the face of a rising nuclear peer. The destruction of the USSR with impunity was now well out of reach; President John F. Kennedy was told in 1962 that even if the West launched everything it had at every target it could reach, some portion of the Soviet arsenal would survive and inflict ghastly damage on the United States.<sup>9</sup> U.S. Secretary of Defense Robert McNamara was instrumental in this period in seizing control of the nuclear question away from the military (whose primary approach was to match weapons to targets) and returning it to the civilians.<sup>10</sup> This set the stage for the rise of the U.S. nuclear strategists, who would generate the many scenarios and strategies that dominated American nuclear thinking well into the 1980s.

The first order of business was to give the President more options to deal with Soviet aggression than the single choice of incinerating the entire USSR. Initially, some thought was given to a “no-cities” strategy in which the United States would offer to keep a nuclear conflict from raging out of control by avoiding strikes on Soviet cities and limiting U.S. attacks to military targets. Such a strategy, however, relied on a cooperative adversary in the midst of a holocaust, and in any case could not account for the reality that many Soviet targets

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<sup>9</sup>– Newhouse, *War and Peace*, p. 162.

<sup>10</sup>– See *Ibid.*, pp. 162–164; Freedman, *Nuclear Strategy*, p. 228.

(and no small number of American assets) were located close to population centers. The real fear, as always, was war in Europe. Protecting the American and Soviet heartlands was not really the issue; any direct assault on North America or the Soviet empire would lead to the prompt destruction of the attacker and both sides knew it. But would the Americans risk their country for NATO? Once the Soviets had a secure ability to retaliate, the increasingly pressing question was whether a U.S. president would really trade Chicago for Bonn or New York for Paris.

Both superpowers continued to acquire nuclear arms at almost unimaginable rates, with the United States soon reaching levels topping over 30,000 weapons. Limiting a nuclear exchange to the battlefield was increasingly unlikely, and the strategic nuclear standoff meant that deterrence was now a matter of punishment, rather than denial; in other words, deterrence increasingly relied on the ability to inflict pain on an aggressor, rather than deny the enemy their goals or make their attack fruitless. This was an inevitable result of the inherently offensive nature of long-range strategic weapons, and it sharpened the dilemma of how to defend Europe - or anywhere, for that matter - when the USSR could always counter American nuclear threats.

After a period of extended debate (during which the 1962 Cuban missile crisis nearly rendered the whole nuclear problem moot), NATO in 1967 embraced “flexible response,” which NATO itself described as “a flexible and balanced range of appropriate responses, conventional and nuclear, to all levels of aggression or threats of



aggression.” (emphasis added)<sup>11</sup> Here, the Americans and their allies were trying to overcome the credibility gap between the defense of North America and the defense of the entire North Atlantic community. Rather than threaten either cold blooded retaliation at “times and places” of our choosing, or the senseless killing of millions of civilians, U.S. and NATO strategists were trying, through a strategy of deliberate escalation backed by a wider menu of military choices, to tie the first bullet fired in Europe to the last ICBM launched in the United States or the Soviet Union. At each level of violence, the West would escalate to the next, forcing the Soviets to escalate as well or risk defeat.

Accordingly, NATO made clear that it would not adopt any pledges of “no first use,” and Western strategy and instead accepted that the only way to hold back a Soviet advance would be to bring tactical nuclear weapons into play and thus risk general nuclear war. The practical effect, and the one with the most deterrent value, was that a strategic nuclear exchange would then become not only thinkable, but almost impossible to avoid. The Western use of nuclear weapons would be credible not because Washington or London or Paris had chosen to use them, but because they would be forced into such a choice by the Soviets themselves. A war in Europe could not be won, and was likely to lead to ghastly consequences; theoretically, deterrence by denial and deterrence by punishment had finally been united.

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<sup>11</sup>– Quoted in Freedman, *Nuclear Strategy*, p. 285.

## 4. Defenses and the Meaning of MAD

By the mid 1960s, ICBMs constituted the main Soviet and American deterrent forces, and it logically followed that each side began to consider defenses against nuclear missiles. If missile defense seems difficult in the 21<sup>st</sup> century, it was virtually impossible in the era before the ascension of the advanced microchip. The Americans grasped this quickly, especially since “defense” might well come down to exploding nuclear weapons over North American territory in a last-ditch attempt to stop incoming waves of Soviet warheads upon re-entry into the atmosphere. The Soviets, for their part, stubbornly insisted on their right to work on ballistic missile defenses, arguing that any state that did not protect its citizens was derelict in its duty—words that would later haunt them during the Reagan administration.

But there was more to the American rejection of defenses than technological impossibility. McNamara and his strategists were moving U.S. policy toward the idea that any sizable nuclear exchange with the Soviets would be mutually suicidal, no matter how it was conducted. This came after years of debates (which continue to this day) among the various schools of nuclear theology that blossomed in the 1960s. Theories about how nuclear arms deterred war ranged from “minimum deterrence,” in which an aggressor is deterred by almost any use of nuclear weapons, to “finite deterrence” (the attacker is deterred by the target’s ability to inflict some basic level of unacceptable destruction) through to parity and even superiority. The development of these theories was only possible, of course, once nuclear arms moved from



bombs being pushed out of airplanes to the plethora of more reliable weapons and delivery systems that finally existed by the late 1960s. But the development of these faster and more capable systems also meant that scenarios for nuclear use tended toward escalation, preemption, and a central exchange. This led to subsequent debates about nuclear “victory” and whether such a term was even meaningful.

McNamara and his analysts in Lyndon Johnson’s administration decided that the more direct and stabilizing approach was to avoid the question of victory and to stress to the Soviets the damage that both sides could do to each other. The Americans proposed, in effect, to enter into a mutual hostage arrangement with the Soviet Union, where each side would forego defenses, cap limits on strategic arms, and do their best to avoid all-out nuclear war. Failure would mean the extinction of both combatants. At first, this was called “assured retaliation,” and then later, “assured destruction,” and finally, the acronym that its founders believed best described it: “MAD,” or mutual assured destruction. Although MAD seemed like a simple idea, it was actually more complicated and even its various proponents did not fully agree on what it meant. There were competing notions of “MAD” during the Cold War, with some accepting the possibility of limited nuclear use, and the most pristine version assuming that nuclear war inevitably meaning the annihilation of the entire Northern Hemisphere, but in the end, MAD itself was a fact rather than a policy.<sup>12</sup> Even the

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<sup>12</sup>– Jervis, for one, identified at least four “MADs” during the late Cold War. Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, NY: Cornell University Press, 1989), Chapter. 3.

Soviets (or at least, their political leaders)<sup>13</sup> reluctantly accepted the implication of massive and matched levels of nuclear weapons between the superpowers.

The emergence of MAD and its putatively irresistible logic did not end the nuclear debate in either the United States or the Soviet Union. Strategists on both sides continued to look for ways out of the mutual destruction cage, and to find actual military uses for nuclear weapons. (Two critics of this approach rather sarcastically referred to this effort as “Nuclear Utilization Target Selection,” or “NUTS”) By the 1970s, however, MAD was inescapable, and U.S. strategy, regardless of the intricate scenarios generated in Washington and Moscow, would remain essentially one centered on the need to avoid nuclear war with the Soviet Union.



## 5. The Countervailing Strategy and the Collapse of MAD

The 1970s were not kind to the United States. From the defeat in Vietnam to the economic shock of an oil embargo, the Americans and their NATO allies were reeling from a loss of confidence at a time when it seemed the USSR was surging in power and influence. In part, this was due to the unholy bargain that came with MAD: the desire to avoid war at the strategic level encouraged mischief and

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<sup>13</sup>- Spurgeon M. Keeny, Jr. And Wolfgang K. H. Panofsky, “MAD Versus Nuts: Can Doctrine Or Weaponry Remedy The Mutual Hostage Relationship Of The Superpowers?” *Foreign Affairs*, Vol. 60, No. 2 (Winter 1981).

competition at lower levels of conflict. Glenn Snyder long ago famously dubbed this the “stability-instability paradox,” the vexing notion that frozen bipolarity at the strategic nuclear level, in which neither side would dare war, could open the door to more instability at lower levels of violence. By the late 1970s, critics of MAD could argue that the concept had done little more than self-deter the United States from confronting an increasingly aggressive Soviet Union, while supporters could claim that all MAD was ever supposed to do was to prevent a global catastrophe, and not to bring international peace.

President Jimmy Carter initially came to office believing both that the United States had too many nuclear weapons and that Americans themselves had “an inordinate fear” of communism.<sup>14</sup> During his briefing as president-elect, he even suggested that the United States could do with a submarine-deployed nuclear force of some 200 weapons, a proposal which reportedly left the Chairman of the Joint Chiefs “speechless.”<sup>15</sup> But before his first two years as president were out, Carter would ramp up several weapons systems in a vain attempt to catch up with the perceived American lag behind Soviet capabilities, including initiating the B-2 bomber project, the MX ICBM, and the Trident submarine program. By 1979, Carter would be a revived Cold Warrior, even to the point of accepting the deployment of improved U.S. nuclear arms in Europe.

In fairness to Carter, there was much that he inherited rather than

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<sup>14</sup>– Carter used the expression in a 1977 speech at Notre Dame University.

<sup>15</sup>– Newhouse, *War and Peace*, p. 294.



created. American foreign policy in general had gone adrift in the 1970s, and the Soviets took full advantage of the situation. In particular, the 1975 Soviet deployment of the SS-18 intercontinental ballistic missile - a “heavy” ICBM armed with at least ten highly-accurate warheads - generated the panicky mathematics of the so-called “window of vulnerability” debate in the United States: with over 3,000 warheads on the SS-18, the Soviets theoretically had acquired the ability to destroy all 1,054 U.S. land-based ICBMs using only a fraction of their forces, which subsequently would be used to coerce an American surrender. Whether the Soviets really believed they could do this and escape catastrophic retaliation from American submarines and bombers is doubtful, but to many of Carter’s critics the SS-18 and other Soviet nuclear improvements were symbolic of the unchecked growth of Soviet power and required a response.

In the summer of 1980, Carter upended nearly two decades of American policy by moving the United States away from MAD and toward a denial-oriented warfighting strategy. Presidential Directive (PD) 59, or the “countervailing strategy,” sought to deter the USSR by actually trying to convince Moscow that the United States, like the Soviet Union, was ready and willing to fight a nuclear war, and that America would not be self-deterred by the consequences of nuclear conflict.<sup>16</sup> More to the point, the countervailing strategy was predicated on two assumptions: that the United States could meaningfully deny

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<sup>16</sup>- For more on the rationale behind the countervailing strategy, see Walter Slocombe, “The Countervailing Strategy,” *International Security*, Vol. 5, No. 4 (Spring 1981). Jervis dissects its flaws in detail in *The Illogic of American Nuclear Strategy*.

the Soviets their goals - whatever those might be - and more important, that war would only deprive Soviet leaders of their control of Eurasia.

Here, the Americans were confronting a puzzle they would face again in the 21<sup>st</sup> century with ruthless regimes like North Korea: how can a state that does not value the lives of its own citizens be deterred? Rather than promising the retaliatory killing of millions of Soviet citizens, PD 59 instead created a kind of wish-list of targets that not only envisaged striking the Soviet political leadership in its bunkers, but a host of other locations ranging from military bases to important economic installations that would ensure that no matter what happened in a nuclear conflict, the outcome would not be the general destruction of the entire USSR, but rather the specific end of the Communist Party of the Soviet Union. The actual execution of the strategy in PD 59 was problematic almost to the point of absurd, since striking so many targets, and in the process decapitating the entire Soviet command structure, rendered the whole idea of a “limited” nuclear war contradictory. The goal, however, was to impress upon the Soviets that they were no longer alone in their blustery willingness to risk a nuclear exchange. The Soviet leadership was so alarmed by this turn in American strategy that by the 1980 U.S. election, they actually preferred Ronald Reagan over Carter, thinking that things could not possibly get worse.<sup>17</sup>

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<sup>17</sup>- As Soviet Ambassador Anatolii Dobrynin later recalled, “It had been quite impossible for me to imagine anything much worse than Carter.” Quoted in Thomas M. Nichols, *Winning the World: Lessons for America’s Future from the Cold War* (Westport, CT: Praeger, 2002), p. 143.

The Soviets misjudged Reagan, who not only accepted the fundamental logic of PD 59, but expanded upon it. Ironically, this was not because Reagan was enamored of nuclear weapons, but rather the exact opposite. Reagan's thinking about nuclear weapons was essentially binary: complete elimination or American superiority. Either nuclear weapons would be universally abandoned, or the United States would keep the peace by maintaining a qualitative and quantitative nuclear edge, coupled to strategies for the use of those weapons that would make it clear to Moscow that the days of MAD, and the reticence it bred in Washington, were over.

In early 1983, Reagan added a new complication to the East-West nuclear competition. Turning the Soviet arguments of the 1960s on their head, he completed the discarding of MAD and embraced the possibility of defenses against ICBM attack. The launch of the Strategic Defense Initiative opened a new frontier in U.S. strategic thinking; despite being declared dead in later years (notably by then-Defense Secretary Les Aspin in the early days of Bill Clinton's administration), ballistic missile defense has now survived as a key U.S. strategic goal for almost three decades, and it remains a concept unlikely ever to be abandoned by either U.S. political party. In part, this is because there is now a bureaucracy dedicated to creating missile defenses, and bureaucracies rarely surrender their own existence willingly. But it is also undeniable that the idea is popular with the American public, who understandably support the idea of knocking down incoming nuclear missiles, even if they rarely have the costs



and technical challenges explained to them.<sup>18</sup>

The Reagan administration's approach to nuclear strategy was, in a way, too successful. The old men of the Kremlin were soon convinced that the United States was determined to launch a nuclear first strike against the USSR. In late 1983, a NATO exercise code-named "Able Archer" triggered a Soviet nuclear alert in Eastern Europe, surprising Reagan and his advisors and serving as one of several incidents that convinced the president that he had to scale down tensions with the USSR.<sup>19</sup> When the Soviet leadership chose Mikhail Gorbachev as their new chairman in 1985, Gorbachev and Reagan both quickly and jointly affirmed that "a nuclear war cannot be won and must never be fought." By 1987, the denuclearization of Europe was underway, and it would fall to President George H. W. Bush after 1988 to complete large and unilateral reductions in U.S. nuclear inventories as the Americans stepped away from the pressures of the Cold War.

## 6. After the Cold War: "Ambiguity" and the Nuclear Posture Review

Current policy regarding the use of U.S. nuclear weapons, insofar as there is one, is still predicated on a notion of "ambiguity" that

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<sup>18</sup>– The U.S. public's fascination with missile defense is discussed in Joan Johnson-Freese and Thomas M. Nichols, "Space, Stability and Nuclear Strategy: Rethinking Missile Defense," *China Security*, Vol. 6, No. 2 (Summer 2010), pp. 4–7.

<sup>19</sup>– Reagan's change of heart, the cumulative effect of a series of scares during 1983, was detailed by Beth Fischer in *The Reagan Reversal* (Columbia, MO: University of Missouri Press, 1997).



dates back to the 1990s. The concept was designed primarily to deter chemical or biological attacks, but has become a kind of default answer to the general question of how Washington would react to anything less than an all-out strategic nuclear attack on the U.S. or its allies. “Ambiguity,” in its simplest exposition, is an intentionally vague threat to visit severe punishment on a small aggressor that may or may not include the use of nuclear arms. “We think that the ambiguity involved in the issue of the use of (U.S.) nuclear weapons contributes to our own security,” then Defense Secretary William Cohen said in 1998, “keeping any potential adversary who might use either chemical or biological (weapons) unsure of what our response would be.”<sup>20</sup> Presumably, a nuclear attack would in some way generate a nuclear response, but even this has become less clear in ensuing years, since by its very nature the policy is a minimalist construction that does not rule out, or rule in, specific courses of action.

Logically, the idea is sound. Why assure an enemy of anything, in any way, other than that bad behavior will bring about bad consequences? Uncertainty - the “threat that leaves something to chance,” in Thomas Schelling’s often-quoted expression - is the cornerstone of classical deterrence theory, and it makes no sense to lay out to an opponent the matrix of possible responses to an array of unrealized situations. In theory, “ambiguity” adapts the American nuclear deterrent to the vast changes in the international security environment after the Cold

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<sup>20</sup>- Dana Priest and Walter Pincus, “U.S. Rejects ‘No First Use’ Atomic Policy: NATO Needs Strategic Option, Germany Told,” *The Washington Post* (24 November, 1998), A24.

War. Likewise, as a practical matter, it solves the ongoing political problem of having to discuss thorny possibilities that do not neatly fit into previous Cold War thinking.

However, such a malleable policy has also allowed successive U.S. administrations to avoid clarifying important and specific questions about the use of nuclear force, including the fundamental question of why America's nuclear weapons exist at all. At first, the incoming Obama administration seemed more interested in these questions than its predecessors, and after several delays finally issued the official U.S. Nuclear Posture Review in April 2010.<sup>21</sup> This was the third such report since the mid-1990s, with the previous two issued by Clinton in 1994 and George W. Bush in 2002. Neither broke new ground in U.S. nuclear thinking; the 2002 review in particular was not only vague and confusing, and in places almost wincingly strident. In any case, it was all but forgotten in the wake of the 9·11 terror attacks.<sup>22</sup>

Unfortunately, the most recent NPR is not much of an improvement on its predecessors. While it reiterates Obama's goals for a nuclear-free future, it nonetheless codifies preexisting policies (in gentler language) for the near-term. In fairness, the report does back away from some

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<sup>21</sup>– The 2010 Nuclear Posture Review is available at <<http://www.defense.gov/npr>>.

<sup>22</sup>– Details of the report, including planning for nuclear strikes on several countries, were leaked to the *Los Angeles Times*. See William Arkin, “Secret Plan Outlines the Unthinkable,” *Los Angeles Times online* (22 March, 2002). Critics, such as the Union of Concerned Scientists, pointed out that the report was essentially a restatement of Cold War policies coupled to “a dangerous and destabilizing road map for U.S. nuclear forces.” See Stephen Young and Lisbeth Gronlund, “A Review of the 2002 U.S. Nuclear Posture,” (14 May, 2002), available at <[www.ucsusa.org](http://www.ucsusa.org)>.



of the most worrisome threats implied in the Bush 2002 review, which included a U.S. claim to a right to use nuclear weapons against almost any kind of nuclear, chemical, or biological attack from any quarter. Perhaps more important, the 2010 NPR directly acknowledged the existence of the great debate, dating from the dawn of the nuclear age, over whether nuclear weapons have actual military use or serve only to deter the use of similar weapons.

But in the end, the 2010 NPR retreated from any categorical determination on this and many other important questions. Much still remains unclear about U.S. policy, such as the role of the land/sea/air nuclear “triad” (and why anyone needs one anymore), the thresholds of nuclear use, the required size of the U.S. arsenal, the role of coercive nonproliferation, and a number of other questions. Indeed, despite changes in the size and disposition of U.S. nuclear forces, many traditional concepts and practices regarding the use of nuclear weapons, such as maintaining a significant proportion of U.S. strategic forces on high alert, seem to have remained inexplicably unchanged. American officials dispute this, even while some of their harsher critics claim that there has been no meaningful evolution of any kind in U.S. or Russian nuclear strategy since the Cold War. But even if such charges are not entirely accurate, they do raise the more salient question of why one of the most dramatic changes in modern international affairs - the end of the Cold War - has produced only incremental changes in strategy.<sup>23</sup>

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<sup>23</sup>- Analysts at The Center for Defense Information, for example, have argued that

## 7. The Purpose of Nuclear Weapons in the 21<sup>st</sup> Century

Over fifty years after the proclamation of Massive Retaliation, the tension between the deterrent and military uses of nuclear weapons remains unresolved. The 2010 NPR split the difference on this question and reiterated a goal, rather than advancing a policy. “The United States,” according to the NPR, “is … not prepared at the present time to adopt a universal policy that the “sole purpose” of U.S. nuclear weapons is to deter nuclear attack on the United States and our allies and partners, but will work to establish conditions under which such a policy could be safely adopted.”<sup>24</sup> The report, understandably, did not dwell on the details of those future conditions. Stephen Walt rightly points out that such careful language might be of some public relations value, but “from a purely strategic perspective,” the report itself is “largely meaning-less.”<sup>25</sup> Arms control analyst Bruce Blair put it more plainly: the NPR is a “status-quo document in every respect.”<sup>26</sup> The NPR, like all previous declarations about U.S. nuclear arms, is

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“The end of the Cold War did not lead the United States and Russia to significantly change their nuclear strategies or the way they operate their nuclear forces.” (emphasis original). See The Center for Defense Information, “A Rebuttal of the U.S. Statement on the Alert Status of U.S. Nuclear Forces,” (6 November, 2007), <[www.cdi.org](http://www.cdi.org)>.

<sup>24</sup>– 2010 *Nuclear Posture Review*, p. 16.

<sup>25</sup>– Stephen Walt, “Nuclear Posture Review(or Nuclear Public Relations?),” *Foreign Policy online*, (6 April, 2010).

<sup>26</sup>– Quoted in Jonathan Weisman and Peter Spiegel, “U.S. Keeps First-Strike Strategy,” *The Wall Street Journal online* (6 April, 2010).

admirably clear in only one area: the obvious case for a major nuclear exchange in response to an existential nuclear attack from a peer or near-peer. At this point, such a threat resides only in an all-out assault from Russia, or possibly China. The answer today, as it has been since the 1960s, is that an attack aimed at the crippling of U.S. military power and the subsequent eradication of the political and social system of the United State will result in a retaliatory strike and the utter devastation of the attacker. In the case of Russia in particular, a nuclear exchange of any serious size will certainly mean tens of millions of deaths and chaos throughout the Northern Hemisphere. This, as grisly as it sounds to say it, is the “easy case,” but also the one least likely to occur.

Unfortunately, the harder questions in the 21<sup>st</sup> century revolve around less dire but more likely scenarios. The Americans are now wrestling with a problem never seen before in the nuclear era: how to deal with asymmetric threats created by much smaller and less capable states that may nonetheless possess small arsenals of nuclear arms or other weapons of mass destruction. How should the United States respond to attacks from small actors that could inflict huge damage with deaths in the tens of thousands or more, but which do not threaten the very existence of America or its allies?

An attack from a small nation against the United States, its armed forces, or its friends overseas is more likely than a major nuclear exchange between the established nuclear powers. While it is a refrain that has been heard before, it is difficult to disagree with Kissinger’s 2006 observation that “contrary to historical experience … what used



to be called the ‘great powers’ have nothing to gain by military conflict with each other. They are all more or less dependent on the global economic system.”<sup>27</sup> The imbalance of interests between the United States and a smaller aggressor, however, could mean that an issue that is only of limited value to the U.S. could be considered a matter of life or death to new opponents, potentially including the collapse of their regimes, and thus lead to a catastrophic choice by desperate, delusional, or even suicidal leaders. As Richard Betts has put it, “a threat to destroy the downtown of one or two American cities would be puny, indeed infinitesimal, by comparison to the old standard of Soviet capabilities. It could, however, more than offset whatever is at stake in a confrontation with some Third World trouble maker or non-state actor.”<sup>28</sup>

So far, Washington’s answer is much like the one heard often in Moscow and Paris: nuclear weapons are the final trump card, the ultimate punishment, to be inflicted on unrecalcitrant or undeterrable opponents. The Obama administration included a “negative assurance” in the NPR, a vow not to use nuclear weapons against states that observe the Non-Proliferation Treaty, but pointedly excludes North Korea and Iran from any such promises. Although the 2010 Nuclear Posture Review and subsequent statements by the U.S. have tried to carve out a safe space for law-abiding, status-quo nations, these are

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<sup>27</sup>– Henry Kissinger, “The Rules on Preventive Force,” *The Washington Post* (9 April, 2006), B7.

<sup>28</sup>– Richard K. Betts, “What Will It Take to Deter the United States?” *Parameters*, Vol. 25, No. 4 (Winter 1995–1996). p. 72.



not the states that are threatening to make a sudden leap to nuclear status or to commit mass murder against the West.<sup>29</sup> And while the NPR does make reference to some sort of highly damaging, even “devastating,” conventional response should WMD be used against America or its allies, what form that response might take, whether it would be coupled to eventual nuclear use, or even the what the object of such attacks beyond inflicting punishment would be, is unstated.<sup>30</sup> Also left in question is what action the United States might take if the enemy regime and its leaders survive (as Saddam Hussein so often did) after some unspecified U.S. retaliation.

The indeterminate nature of this punishment reflects ongoing confusion over far more than how to deter threats from small states. Rather, it stems from a more general problem: that the United States does not have a coherent nuclear doctrine, a set of overarching beliefs and assumptions about nuclear arms and their purpose that guide nuclear strategy, planning, and forces.

One rejoinder to this observation might be to note that the United States and the other major nuclear powers, including China, have adopted a fairly clear view on the role of nuclear weapons, with all accepting the minimum deterrent position that nuclear war is

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<sup>29</sup>– The “negative assurance” is not that significant a change; it expands on a similar promise put forward by the United States over fifteen years ago. See Scott D. Sagan, “The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks,” *International Security*, Vol. 24, No. 4 (Spring, 2000), p. 86; George Bunn, “The Legal Status of U.S. Negative Security Assurances to Non-Nuclear Weapon States,” *The Nonproliferation Review* (Spring/Summer 1997), p. 9.

<sup>30</sup>– *2010 Nuclear Posture Review*, p. viii.

prevented by the reality that even the smallest nuclear attack would produce grievous and unacceptable damage.<sup>31</sup> A group of Russian and American scholars, for example, have argued that deterrence “would remain stable even if retaliation against only ten cities were assured,” rather than the 150 to 300 targets that many planners currently seem to assume they must be able to destroy, and which subsequently formed the basis for the numbers in the 2010 START Treaty.<sup>32</sup> Smaller powers are implicitly part of this doctrine, since they would face near-complete nuclear destruction as punishment for a nuclear attack on the U.S or its allies. Whether by design or default, the outcome is the same: massive reductions in the U.S. arsenal mean that Washington has drifted away from the bizarre warfighting scenarios of the past and adopted a much leaner approach that warns potential attackers that a nuclear strike on the United States means instant and catastrophic retaliation. Moreover, these large reductions show that the former superpowers are finally acting in the spirit of the Non-Proliferation Treaty, and that the United States in particular has at last gained the moral high ground from which to threaten even the smallest proliferators with the most dire consequences.

In theory, then, nuclear doctrine in the current era should be simple.

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<sup>31</sup>– The Chinese arsenal is so small it is not capable of a protracted or massive exchange, but the Chinese seem to have settled -for now- on a small force as a sufficient deterrent. See Jeffrey Lewis, *The Minimum Means of Reprisal: China’s Search for Security in the Nuclear Age* (Cambridge, MA: American Academy of Arts and Sciences, 2007).

<sup>32</sup>– Bruce Blair, Victor Esin, Matthew McKinzie, Valery Tarynich and Pavel Zolotarev, “Smaller and Safer: A New Plan for Nuclear Postures,” *Foreign Affairs*, Vol. 89, No. 5 (September/October 2010), p. 10.

Where once the United States and the Soviet Union employed armies of analysts to game out unrealistically complicated scenarios, the Russians, Americans, and Chinese can now rest assured that they are safer in a more transparent world. Smaller proliferators must accept that they will never be able to threaten unrecoverable damage to the United States, while themselves remaining vulnerable to exactly such a possibility. The arcane intricacies of brinkmanship would then be replaced by an attempt by all of the major powers not only to somehow get along with each other, but to get to lower numbers of nuclear weapons and keep them there. Indeed, since President Obama's April 2009 speech in Prague, the official U.S. position goes even further and now echoes the hopes of Ronald Reagan three decades ago: to reach "zero," a future world where nuclear weapons have been negotiated out of existence.

But even if we accept the arguable proposition that something like the classical model of nuclear deterrence will operate at minimum levels of weapons among the established nuclear powers, simply to leave it at that is to seize the easiest part of the nuclear dilemma and then declare the issue solved. North Korea, as of this writing, is possibly preparing a third nuclear test, and it is unclear what Pyongyang (or Tehran, should they cross the nuclear line) think about the utility of nuclear arms. It is here that the lack of a coherent U.S. nuclear doctrine becomes so problematic, because Washington's implicit assumption seems to be that small powers are subject to the same putatively iron laws of deterrence that constrain large powers. Missiles, and perhaps even bombs, have a return address, the reasoning goes,



and so no leader would ever invite certain nuclear retaliation. While that might be clearly understood in the halls of the Kremlin or around the table in the Chinese Politburo, is nuclear retaliation so firmly assured as a universally credible threat that Western security should rest upon it? Conversely, would opponents of the liberal international order that the West seeks to protect be deterred by anything less than nuclear force?<sup>33</sup>

Although the current Nuclear Posture Review notes the existence of large-scale U.S. conventional options, other analysts have suggested going further toward major nuclear reductions, “no-first-use” pledges, and even stronger threats of conventional retaliation.<sup>34</sup> These moves seem unlikely in the near future; the United States and its NATO partners cannot yet agree even to complete the removal of tactical nuclear weapons from Europe, arms scattered about Western Europe which now have no obvious purpose other than to reassure newer members of the Alliance who still are haunted by the recent memory of Soviet domination. Even the Germans, as of late 2010, have reversed their position on nuclear disarmament in Europe.<sup>35</sup> And should the U.S. Senate finally ratify the renewed START Treaty, the price might

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33– “Can one believe,” French analyst Bruno Tertrais asks, “that Tehran or Pyongyang would feel reassured by Western no-first-use statements?” Tertrais then repeats Margaret Thatcher’s famous quip that “there is a monument to the failure of conventional deterrence in every French village.” Morton Halperin, Bruno Tertrais, Keith Payne, K. Subrahmanyam and Scott Sagan, “Forum: The Case for No First Use: An Exchange,” *Survival*, Vol. 51, No. 5 (April/May 2010).

34– See, for example, Michael S. Gerson, “No First Use: The Next Step for U.S. Nuclear Policy,” *International Security*, Vol. 35, No. 2 (Fall 2010).

35– “Merkel Shifts Stance to Say NATO Must Keep Nuclear Defence,” *Deutsche Presse-Agentur* (22 October, 2010).

well be high. Opponents of the Treaty believe it should be coupled to tens of billions of dollars in funding for a 21<sup>st</sup> century warhead to replace the 1970s-vintage strategic nuclear weapons now crowning U.S. missiles. Critics argue this modernization would undercut American attempts to extend the Non-Proliferation Treaty and will complicate U.S. relations with Russia and China; supporters argue that it would strengthen a smaller but more reliable deterrent. In either case, major reductions of the U.S. arsenal (to say nothing of “zero”) are not probable in the coming decade, and as long as the conventional options remain costly in lives and treasure, there is no reason to think that the Americans or any of the other major nuclear powers are going to cancel their nuclear insurance policies just yet.



## 8. Conclusions: “What is This War About?”

The United States at the end of the first decade of the 21<sup>st</sup> century still faces the unanswered questions left over from the struggles of the previous six decades. With the collapse of the Soviet threat, there is a clear urge in the West, reflected in the 2010 Nuclear Posture Review, to move toward proclaiming that deterring the use of other nuclear weapons is the only role of nuclear arsenals. Proliferators, however, recognize the asymmetries of power in the new century, and do not seem eager to be bound by rules made by larger and more capable nations. In a sense, the Americans are victims of their own military superiority; small states who cannot prevail against any other form of Western power will disingenuously claim that their only hope

of deterring the United States is to possess nuclear arms. It is instructive to recall that when the dust had settled from the 1991 Gulf War, the chief of staff of India's armed forces was asked what lessons smaller powers might take from the conflict. "Never fight the U.S. without nuclear weapons," he answered.<sup>36</sup> For now, North Korea and Iran seem to be taking that advice seriously: North Korea has conducted two nuclear tests since 2006, and the Iranians are rebuking even their Russian friends in their apparently unstoppable quest for nuclear weapons.<sup>37</sup>

During the Cold War, the Americans faced a known opponent and a relatively straightforward nuclear challenge. The scenarios were more complicated, in part because it was difficult to foresee exactly which stray spark might ignite a nuclear war. Still, both sides understood the overall ramifications of a nuclear exchange between them, and the two rivals communicated with each other in ways both understood. But while the collapse of the bipolar regime between the U.S. and USSR has reduced the chance of a global thermonuclear conflict - which was improbable in any case - it has consequently increased the possibilities for some sort of nuclear event, whether by

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<sup>36</sup>- This comment was first recounted in a 1992 speech by then-Defense Secretary Les Aspin. See T. V. Paul, Richard J. Harknett and James J. Wirtz, *The Absolute Weapon Revisited* (Ann Arbor: University of Michigan Press, 2000), p. 271.

<sup>37</sup>- In July 2010, Iranian President Mahmood Ahmadinejad called Russian President Dimitry Medvedev the "mouthpiece for the plans of Iran's enemies" after Medvedev warned the Iranians that they do not "live in space" and that Russia cannot be "indifferent to how Iran is developing its nuclear program." See, "Medvedev 'mouthpiece' of Iran enemies: Ahmadinejad," *Associated Press online* (26 July, 2010).

accident or design. Neither U.S. strategy nor U.S. forces emerged after the Cold War configured, conceptually or intellectually, for a new era, and American strategy today is still seeking to situate itself in some sort of doctrine that makes sense in a world without the Soviet Union.

Part of the problem, of course, is that we are groping in the dark when it comes to scenarios. As Michael Howard once famously asked in exasperation, faced with the multitude of nuclear options being debated in the 1980s: “What is this war about? How do we know when we win?” Communism, for all of its bizarre rhetoric, was essentially a Western ideology, and containing its Soviet avatars was a difficult but comprehensible task. The Western alliance knew, in the grandest sense, what the war would be about, even if the exact form it would take was less clear. Today’s nuclear threats, however, are more diffuse. From a paranoid, paleo-Stalinist Korean regime in one theater, to a determined Islamic extremist regime in another, the paths to nuclear war are so numerous that it seems fruitless to try to trace each one of them. In the meantime, the shadow of nuclear terrorism hangs over all of the major powers, including Russia, and in time, the differences between Russia, China, and the West may pale in comparison to the threats that all of these great powers collectively face.

How the United States and its allies will meet these new challenges is the central question for nuclear strategy in the coming decade. So far the answers have been reflexive imitations of Cold War strategies, including notions of classical deterrence and an outdated force structure based on the traditional nuclear triad. For twenty years, “ambiguity”



has allowed the Americans to avoid confronting this lack of innovation in nuclear strategy. But as previous threats recede and new, more intricate problems arise, the inertia of the Cold War will have to be overcome, and U.S. strategy and forces will have to change to contend with the chaotic and unpredictable world left after the peaceful end of the conflict between the Eastern and Western nuclear titans.

## ■ References ■

### 1. Books

Brodie, Bernard. *The Absolute Weapon: Atomic Power and World Order*. New York: Harcourt Brace, 1946.

Fischer, Beth. *The Reagan Reversal*. Columbia, MO: University of Missouri Press, 1997.

Freedman, Lawrence. *The Evolution of Nuclear Strategy*. New York: St. Martin's, 1983.

Jervis, Robert. *The Illogic of American Nuclear Strategy*. Ithaca, NY: Cornell University Press, 1984.

\_\_\_\_\_. *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*. Ithaca, NY: Cornell University Press, 1989.

Kaplan, Fred. *The Wizards of Armageddon*. Stanford, CA: Stanford University Press, 1983.

Lewis, Jeffrey. *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age*. Cambridge, MA: American Academy of Arts and Sciences, 2007.

Newhouse, John. *War and Peace in the Nuclear Age*. New York: Vintage, 1988.

Nichols, Thomas M. *Winning the World: Lessons for America's Future from the Cold War*. Westport, CT: Praeger, 2002.



Paul, T. V., Richard J. Harknett and James J. Wirtz. *The Absolute Weapon Revisited*. Ann Arbor, MI: University of Michigan Press, 2000.

## 2. Articles

Betts, Richard K. "What Will It Take to Deter the United States?" *Parameters*. Vol. 25, No. 4, Winter 1995–1996.

Blair, Bruce, Victor Esin, Matthew McKinzie, Valery Tarynich and Pavel Zolotarev. "Smaller and Safer: A New Plan for Nuclear Postures." *Foreign Affairs*. Vol. 89, No. 5, September/October 2010.

Bunn, George. "The Legal Status of U.S. Negative Security Assurances to Non-Nuclear Weapon States." *The Non-Proliferation Review*. Spring/Summer 1997.

Dulles, J. F. "Policy for Security and Peace." *Foreign Affairs*. April 1954.

Gerson, Michael S. "No First Use: The Next Step for U.S. Nuclear Policy." *International Security*. Vol. 35, No. 2, Fall 2010.

Halperin, Morton, Bruno Tertrais, Keith Payne, K. Subrahmanyam and Scott Sagan. "Forum: The Case for No First Use: An Exchange." *Survival*. Vol. 51, No. 5, April/May 2010.

Johnson-Freese, Joan and Thomas M. Nichols. "Space, Stability, and Nuclear Strategy: Rethinking Missile Defense." *China Security*. Vol. 6, No. 2, Summer 2010.

Keeny Jr., Spurgeon M. and Wolfgang K. H. Panofsky. "MAD Versus Nuts: Can Doctrine or Weaponry Remedy The Mutual Hostage Relationship of The Superpowers?" *Foreign Affairs*. Vol. 60, No. 2, Winter 1981.

Sagan, Scott D. "The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks." *International Security*. Vol. 24, No. 4, Spring 2000.

Slocombe, Walter. "The Countervailing Strategy." *International Security*. Vol. 5, No. 4, Spring 1981.

Walt, Stephen. "Nuclear Posture Review(or Nuclear Public Relations?)." *Foreign Policy online*. 6 April, 2010.



### 3. News Articles, Electronic Resources, etc.

Arkin, William. "Secret Plan Outlines the Unthinkable." *Los Angeles Times online*. 22 March, 2002.

Center for Defense Information. "A Rebuttal of the U.S. Statement on the Alert Status of U.S. Nuclear Forces." 6 November, 2007. <[www.cdi.org](http://www.cdi.org)>.

Kissinger, Henry. "The Rules on Preventive Force." *The Washington Post*. 9 April, 2006.

"Medvedev 'mouthpiece' of Iran enemies: Ahmadinejad." *Associated Press online*. 26 July, 2010.

"Merkel Shifts Stance to Say NATO Must Keep Nuclear Defence." *Deutsche Presse-Agentur*. 22 October, 2010.

Priest, Dana and Walter Pincus. "U.S. Rejects 'No First Use' Atomic Policy: NATO Needs Strategic Option, Germany Told." *The*

*Washington Post*. 24 November, 1998.

The Rasmussen Organization. “59% Say A-Bombing of Hiroshima, Nagasaki was a Good Decision.” *Rasmussen Reports*. 10 August, 2010. <<http://www.rasmussenreports.com>>.

U.S. Department of Defense. *The 2010 Nuclear Posture Review*. <[www.defense.gov/npr](http://www.defense.gov/npr)>.

Weisman, Jonathan and Peter Spiegel. “U.S. Keeps First-Strike Strategy.” *The Wall Street Journal online*. 6 April, 2010.

Young, Stephen and Lisbeth Gronlund. “A Review of the 2002 U.S. Nuclear Posture.” 14 May, 2002, <[www.ucsusa.org](http://www.ucsusa.org)>.

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# Nuclear Security 2012

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