

## Introduction

### *Investigating Nuclear Weapons in a New Era*

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Nuclear forces continue to play a critical role in the defense of the United States, its allies, and friends. They provide a credible deterrent [against] a wide range of threats . . . [and] give the United States options . . . to achieve strategic and political objectives.

*U.S. Nuclear Posture Review, 2002*

Russia [considers] nuclear deterrence as the main element guaranteeing its security. Maintaining a minimally sufficient number of nuclear weapons to ensure nuclear deterrence remains one of the most important policy priorities.

*Vladimir Putin, 2006*

China maintains a small but effective counterattacking nuclear force in order to deter possible attacks by other countries. Any such attack will inevitably result in a retaliatory nuclear counterstrike.

*PRC Defense White Paper, 2000*

India seeks to develop a “credible minimum deterrent” nuclear capability and adheres to a no first use policy . . . Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage.

*Indian Cabinet Committee on Security, 2003*

We were compelled to show then, in May 1998, that we were not bluffing, and in May 2002 we were compelled to show that we do not bluff.

*Pervez Musharraf, 2002*

Israel won't say . . . whether we have nuclear weapons. It suffices that one fears that we have them and that fear in itself constitutes an element of dissuasion.

*Shimon Peres, 2006*

North Korea has built nuclear weapons to cope with the U.S. nuclear threat and is prepared to counter any U.S. pre-emptive strike.

*Minju Josen, March 2006*

To cope with the threat of nuclear weapons, Japan continues to rely on the nuclear deterrent provided by the United States . . . [It] will . . . introduce ballistic missile defense systems to cope effectively with ballistic missile attacks.

*National Defense Program Guidelines, 2005*

Leaders and governments in nuclear weapon states, their allies, and aspirants to the nuclear club believe that their nuclear forces or those of their allies can advance national security by providing a capability to counter specific threats; to achieve certain policy priorities; to demonstrate national power; to preserve freedom of action; or as insurance against uncertainty and risks in a changing international environment. Nuclear weapons, ballistic missiles, and strategic defense have entered or reentered the security thinking of the old, new, and prospective nuclear weapon states and their allies in a fundamentally different strategic environment and in a nuclear era that is substantially different from that of the Cold War. This study investigates the purposes and roles of nuclear weapons in the new security environment, the nature and content of the national nuclear strategies of relevant states, and their implications for international security and stability in the new era with the focus on the Asian security region. The latter is now a core world region and could become the geopolitical center of the world in the twenty-first century.

### Persistence of Nuclear Weapons

Nuclear weapons played a central role in defining the strategic relations between the two superpowers—the United States and the former Soviet Union—and their key allies during the Cold War. At times, considerations relating to the strategic balance even eclipsed the underlying political struggle. Nuclear weapons and ballistic missiles dramatically elevated the importance of the strategy of deterrence (dissuasion by threat of enormous destruction known in the nuclear jargon as deterrence by threat of punishment) and downgraded strategies of defense (known as deterrence by denial) and offense.<sup>1</sup> From an “occasional stratagem” deterrence became an elaborate and comprehensive strategy that shaped all aspects of the national security policies of the two superpowers and a cornerstone of international politics (Morgan 2003: 3–4). After the 1962 Cuban missile crisis, avoiding war between the United States and the former Soviet Union became a central strategic goal of the two adversaries. Most political, strategic, and technological developments were evaluated in terms of their consequence for the stability of deterrence between the two superpowers, often associated with a set of strategic circumstances referred to as “mutual assured destruction” (MAD). Beginning in the 1970s, arms control agreements were designed to preserve strategic stability through mutual deterrence, and to prevent war. Nuclear weapons were credited for the “long peace” among the major powers during the Cold War (Gaddis 1987; Jervis 1989: 23–24; Morgan 2003: 27–28).<sup>2</sup>

Termination of the Cold War, which coincided with the dawn of the information age, raised doubts about the relevance and role of nuclear weapons in the new era. For reasons discussed below, initially there was a marked lack of interest in nuclear weapons in the so-called first and second worlds. The heyday of nuclear

weapons was deemed over; nuclear weapons were expected to play only a limited security role in the new era. This was reflected in the U.S. Department of Defense 1994 Nuclear Posture Review (NPR), which stated “nuclear weapons are playing a smaller role in U.S. security than at any other time in the nuclear age.” A concerted effort was made in the 1990s to freeze the nuclear order and move toward a comprehensive ban on testing in the hope of ridding the earth of nuclear weapons. In Asia, however, interest in nuclear weapons was undiminished by the termination of the Cold War. In fact the U.S.-dominated new international order combined with developments in the Asian security region and the international attempt to freeze the nuclear order, increased the incentives for certain countries to openly declare their nuclear weapon status and for others to accelerate acquisition and modernization of their nuclear arsenals. These developments, together with concerns over new security challenges and strategic uncertainty, contributed to renewed interest in nuclear weapons in the West as well. The net result has been increased attention to nuclear and missile forces in national security strategies.

#### *Initial Disinterest in the West*

Termination of the Cold War and the collapse of the Soviet Union quickly ended the centrality of nuclear weapons in national and international security in the first and second worlds. For about a decade there was a marked lack of interest in the security role of nuclear weapons. The lack of interest may be traced most fundamentally to the disappearance of the security rationale brought about by two interrelated transformations: change in the structure of the international system from bipolarity to unipolarity and the development of cordial relations between the Western powers and Russia. Demonstrating that arms, including nuclear weapons, are in large measure symptomatic and a consequence of political conflict, the two transformations quickly eliminated the centrality of nuclear weapons in relations among these countries. This, however, did not lead to the abandonment of nuclear weapons. Both inertia and concern over uncertainty caused the United States, Russia, France, and Britain to retain sizable nuclear arsenals.

A second reason for neglect of the security role of nuclear weapons was the changed international security situation and the focus on “new” threats like terrorism, rogue states, ethnic and religious conflicts, and pandemics (avian flu, HIV/AIDS, etc.). Such concerns redirected scholarly and policy community attention to “nontraditional” security threats arising from intrastate conflicts, “failed states,” transnational terrorist networks and organizations, and rogue states. In this context, work on nuclear weapons and traditional interstate security seemed irrelevant and unfashionable. Concern with nuclear proliferation and nuclear terrorism, however, was an exception. Although proliferation was always a concern, the difference was that during the Cold War it ranked below the nuclear threat the

two superpowers posed to each other. In the post-Cold War era, nuclear proliferation moved up the security agenda to become the primary concern for the United States and the Western international community. Nuclear proliferation became an even more acute concern in the post-9/11 era. President George W. Bush identified “the gravest danger” confronting the United States as lying “at the crossroads of radicalism and technology.”<sup>3</sup> The states of concern for him were Iraq, North Korea, and Iran, which he collectively termed the “axis of evil.”<sup>4</sup> Religious terrorist groups also became a concern. Though the probability is low that religious terrorist groups will be able to acquire nuclear weapon capabilities, their interest in doing so and the belief that traditional deterrence will not work against those groups underscore the concern with nuclear terrorism.

A third reason for the disinterest in the security roles of nuclear weapons was rooted in a reading of the Cold War as a highly dangerous era in which peace rested on a “delicate balance of terror” and threat of mutual annihilation that should never be repeated. In this view, nuclear weapons were dangerous and immoral and should be delegitimized and denaturalized. The proper focus should be on “cooperative nuclear threat reduction” that includes securing weapons and fissile material, especially in Russia and the former Soviet republics, preventing nuclear proliferation, and moving toward comprehensive disarmament. The world would be safer without nuclear weapons. Nonproliferation became the dominant lens for viewing nuclear weapons and security. It came to be seen as an end in itself rather than one of several approaches to a safer world. Downplaying or disregarding the changing strategic environment and national security imperatives, all proliferation was condemned.<sup>5</sup> A strong effort was made to indefinitely extend the Non-Proliferation Treaty (NPT).

Fourth, the antinuclear vision was reinforced by uncertainty over the role of nuclear weapons in the information age. Warfare was believed to be on the cusp of a new revolution in which the acquisition or denial of information was the key to victory (Gray 2001). The anticipation was that emphasis on surveillance and information (a presumed consequence of the revolution in military affairs [RMA]) combined with new, more accurate, long-range, and lethal conventional weapons would bring about a revolution in the conduct of warfare that would reduce the significance of nuclear weapons. This belief was due in part to the uncertainty over the role of nuclear weapons in a profoundly altered world. Conventional military capability was seen as the more relevant and useable instrument of policy in the new security environment.

A final reason for the lack of interest in the security role of nuclear weapons after the Cold War ended was the unwillingness to recognize the security rationales of the new and aspiring entrants to the club and the consequent labeling of these countries as “illegitimate” nuclear weapon states or “rogue” states with irrational leaders who cannot be deterred.<sup>6</sup> Contesting, downplaying, or disregarding the

security imperatives of the new entrants and aspirants, Western scholarship in the “proliferation pessimism” mode emphasized the prestige that poor countries were apparently seeking through the acquisition of nuclear capability and the negative security, safety, and proliferation consequences that would flow from the spread of nuclear weapons to these states. Nonproliferation advocates, for example, argued the incompatibility of the third world states’ logic and behavior patterns with Western rational deterrence concepts and stressed the possible negative safety consequences arising from the technological and organizational deficiencies of new nuclear forces (Sagan 1994). Though not unimportant, undue focus on the spread of nuclear material and weapons to “rogue” states and nonstate actors has hindered serious investigation of larger geopolitical issues; it has reduced attention to the salience and role of nuclear weapons in national security policies and strategies and their implications for regional and global interstate security and stability.

#### *Continued Interest in Asia*

Instead of diminishing interest in nuclear weapons, termination of the Cold War and regional developments stimulated interest in the acquisition of nuclear weapons and modernization of existing nuclear arsenals in Asia. The emergence of the United States as the sole superpower and its unilateral effort to construct a world order based on its unmatched military capability created apprehensions in several Asian countries, including China and especially in those countries that Washington labeled as “rogue” states. These concerns became a key driver of nuclear modernization in China and the quest for nuclear weapons by North Korea and Iran. Developments in Asia, such as the rise of China and India, intensified the security apprehensions of India and Pakistan, respectively, strengthening the case for nuclear weapons.

India’s interest in nuclear weapons was grounded in security considerations relating to China and Pakistan and its vision of itself as a major power. These considerations were unaltered by the termination of the Cold War. In fact a rising China increased anxieties in India. Further, the proposed indefinite extension of the NPT and movement toward concluding a Comprehensive Test Ban Treaty (CTBT) increased the incentive for India to overtly declare its status as a nuclear weapon state. Likewise, Pakistan’s perception of an existential threat from India remained unaltered. A rising India and improvement in U.S.-India relations were seen as further tilting the balance of power against Pakistan. Consequently Pakistan followed India in testing and declaring itself a nuclear weapon state. Similarly the termination of the Cold War did not affect Israel’s rationale for its nuclear force, which is grounded in its view of history and the existential threat it perceives in the Middle East. The belief that Iran is seeking a nuclear weapon capability provides a new and in some ways regionally more palatable rationale for Israel’s nuclear force.

Unilateralism on the part of the United States; demonstration of its might in the First Gulf War, Kosovo, Afghanistan, and the invasion of Iraq; and its emphasis on developing strategic defense (ballistic missile defense [BMD] and counterforce capabilities) to make the use of force a more effective instrument of U.S. foreign policy created apprehensions even in major powers like China and Russia, contributing to modernization of their nuclear arsenals. U.S. military action in Afghanistan and Iraq to oust hostile and “despicable” regimes created fear and concern in North Korea and Iran that were identified by President Bush as possible military targets for regime change and destruction of their nuclear facilities. Along with other considerations, fear of the United States has been a key factor accelerating the nuclear weapon programs of North Korea and Iran. North Korea views its missile and nuclear weapon programs as key elements in developing a self-reliant capability to deter the United States.

The rise of China, its nuclear modernization program, and the North Korean missile and nuclear programs also raised security concerns in Japan, contributing to further strengthening of the U.S.-Japan security alliance and reiteration of the U.S. extended deterrence commitment to Japan. A rising China reinforced Indian apprehensions and raised concerns in Washington as well about Chinese military power, including nuclear modernization. Concern with China is an important factor in the budding strategic relations among the United States, India, and Japan. The North Korean nuclear and missile programs raised security concerns in Northeast Asia, particularly in Japan and to a lesser degree in South Korea. In addition to seeking a more substantive demonstration of U.S. extended deterrence commitment, Tokyo became more committed to the development of BMD to protect Japan from North Korean missile threats. Likewise, Iran’s nuclear weapon quest created apprehensions in Israel and certain Arab states. The basic point is that the interest in nuclear weapons in Asia and the Middle East was not diminished by the termination of the Cold War. The new strategic environment, with a dominating United States and a rapidly rising China, provided additional or new impetus for the acquisition and development of nuclear weapon capability.

#### *Renewed Interest in Recognized Nuclear Weapon States*

Beginning sometime around the turn of the twenty-first century, the five recognized nuclear weapon states began to rethink the purpose, roles, and strategies for the employment of nuclear weapons in a new strategic era. That rethinking was linked to several developments but three were particularly important. First, after a decade of post-Cold War experiences the outlines of the new strategic environment were becoming more visible. Countries were in a better position to assess “new” security challenges and their strengths and weaknesses in coping with them. It was evident that despite and, in some ways, because of the

fundamental change in the security environment, nuclear weapons continued to be relevant although there was still uncertainty about specific roles and suitable nuclear postures. The United States, Russia, Britain, and France began to review and redesign their national nuclear postures for the new era. The second development was the perceived unraveling of the Cold War nuclear order with the Indian and Pakistani nuclear tests in 1998, the nonratification of the CTBT by the Bush administration, Iraq's expulsion of the United Nations Special Commission (UNSCOM) inspectors in 1999, the gradual erosion of the 1994 Agreed Framework with North Korea, and revelations of the A. Q. Khan proliferation network. The de facto expansion of the nuclear club, prospect of further increase in the number of nuclear weapon states, and the heightened prospect that nonstate actors may acquire weapons of mass destruction (WMD) capability stimulated interest in how to cope with the new nuclear situation and threats. The third development was the Bush administration's geopolitics-oriented worldview, its attempt to unilaterally construct a world order based on U.S. predominance and values, and its heavy handed prosecution of the global war on tyrants and terrorists in the wake of 9/11. Set out boldly in several reports and speeches, these policies and especially their manifestation in the various military actions became a key driving force in the review of the U.S. nuclear posture as well as that of other countries.

Of particular relevance to this study is the 2002 NPR, which is the first sweeping reappraisal of U.S. nuclear posture since the termination of the Cold War. Mandated by Congress, the 2002 NPR maintains that nuclear weapons play an important role in the defense of the United States and that they provide credible military options to deter a wide range of threats, including WMD and large-scale conventional military attacks. The new capability-based posture, it posits, should be capable of dealing with immediate contingencies (e.g., an Iraqi attack on Israel or its neighbors, a North Korean attack on South Korea, or a military confrontation over the status of Taiwan) as well as potential and unexpected contingencies. It identifies North Korea, Iraq, Syria, and Libya as countries that could be involved in all three types of contingencies. North Korea and Iraq are identified as chronic military concerns. China is identified as a country that could be involved in an immediate or potential contingency. Although the United States seeks a cooperative relationship with Russia, the NPR states that that country maintains the most formidable nuclear forces aside from the United States, and because it confronts many instabilities Russia remains a country of concern. The NPR downgrades deterrence by punishment and high profiles strategies of offense (preemption and prevention) and strategic defense (preemption, ballistic missile defense, counterforce, and passive defense). It seeks to build a new strategic triad with a mix of nuclear and nonnuclear capabilities to make military force a more useable instrument of policy. The goal is to develop a credible multipurpose

force with a broad array of capabilities, including a significant nuclear component, to provide a spectrum of options in the pursuit of deterrence, assurance, offense, and defense. Although the programs envisioned in the NPR have not mustered the necessary political and funding support in the United States, and its future in the post-George W. Bush presidency remains uncertain, it remains official policy. The contents of the NPR combined with the statements and actions of the Bush administration, including the military action in Iraq, created apprehensions in several countries, forcing them to rethink their own policies and postures.

Russia's reappraisal of its nuclear policy is a function of several developments: the dramatic decline in its conventional military capability and more generally its descent from the position of great power; its perception that the unipolar structure, the growing power and influence of the United States, its unilateral approach to international governance, and the eastward expansion of the North Atlantic Treaty Organization (NATO) are marginalizing Russia and threatening its interests in Europe, the Middle East, Central Asia, and the Pacific region; and the belief that America's development of counterforce capability and BMD will negatively affect its strategic deterrent (Fedorov 2006; Sokov 2004). The reappraisal is also linked to the rise of China. Although Russia cooperates with China on several international issues and supplies advanced military technology to that country, a rapidly rising China is viewed in certain quarters as a long-term security concern. After much debate in the 1990s, Russia articulated a military doctrine in 2000 that emphasized nuclear deterrence as the major element that will guarantee its international security and underscore its status as a powerful nation. Russia's strategic posture appears to be shifting from its Cold War orientation to national defense, although the specific threats that Russian nuclear forces are supposed to deter remain unclear.

Though they are not in the Asian security region, it is pertinent to observe that Britain and France also reviewed and reiterated their commitment to retain their nuclear forces in the first decade of the twenty-first century. The British government tabled a white paper in Parliament in December 2006 arguing that it sees "an enduring role for the UK's nuclear forces as an essential part of our capability for deterring blackmail and acts of aggression against our vital interests by nuclear-armed opponents" (Secretary of State for Defense and the Secretary of State for Foreign and Commonwealth Affairs 2006). It proposes building a new class of submarines, participating in the U.S. life extension program for the Trident D5 missile, and developing a replacement warhead, all with a view to maintaining an effective submarine and ballistic missile-based deterrent system. In March 2007 the British House of Commons supported the plan to renew Britain's nuclear submarine system. French nuclear doctrine and capability have also evolved substantially. President Jacques Chirac indicated the changes in January 2006 when he announced a "new" nuclear deterrence doctrine (Chirac 2006). In addition



to deterring threats from major powers, the doctrine posits that state sponsors of terrorism risk nuclear retaliation, that regional powers armed with WMD and threatening European territory would face “absolutely unacceptable damage,” and that France has the right to “employ final warning to signify our determination to protect our vital interest” (Yost 2006). France has acquired or is seeking to acquire new air and sea capabilities for more discriminatory and controllable options in employing its nuclear weapons.

Although less explicit and less transparent, China has emphasized modernization and further development of a survivable nuclear deterrent capability as an integral part of its defense modernization program (State Council Information Office 2000). A primary purpose of nuclear modernization is to make China’s deterrent capability more effective in the context of “new” security challenges, including a shift in U.S. nuclear posture, U.S. development of a BMD system, and the entry of new nuclear powers in Asia. Deterring possible U.S. military intervention in the event of a conflict across the Taiwan Strait is a major purpose of Chinese military modernization; the role of nuclear weapons in this conflict, however, seems more implied than explicit. Chinese scholars and officials are beginning to engage in more explicit discussion of nuclear doctrine, force posture, and operational planning. Arguing the case for using nuclear weapons in limited conflicts for escalation control and damage limitation, some Chinese officials and scholars advocate abandoning the policy of no first use (NFU) or at least making it conditional.<sup>7</sup> The *2006 China Military Power* report published by the U.S. Department of Defense suggests that the pace and scope of the modernization of China’s strategic nuclear forces has exceeded expectations and has the potential to alter the regional military balance. China’s success in destroying a defunct weather satellite in space with an antisatellite missile has raised concerns in the United States about the security of its space-based surveillance systems, with certain analysts arguing that it could stimulate military competition in space (e.g., Johnson-Freese 2007). Ashley Tellis (2007) asserts that China has surpassed the Soviet Union in its heyday by demonstrating a “unitary hit-to-kill payload” capability and that the Chinese purpose is not to compete in space-based weapons or compel the United States to negotiate space arms limitation agreements but to blunt the massive U.S. conventional superiority by threatening its “eyes and ears” in space. In his view Beijing’s investment in space denial technologies is driven by strategic concerns, with China preparing for a prospective geopolitical rivalry with the United States.

### *“New” Nuclear Weapon States*

Concurrent with the reorientation of national postures and the modernization of the arsenals of the five recognized nuclear weapon states, two (India and Pakistan) of the three undeclared nuclear weapon states that had remained outside

the NPT became declared nuclear weapon states after May 1998. International efforts to freeze and roll back their nuclear weapon programs have not been successful. The international community appears to have accepted them as nuclear weapon states. Both countries view nuclear weapons as essential for national security and strategic autonomy, and they are in the process of developing doctrines and capabilities for an operational deterrent force. A series of crises between 1999 and 2002 compelled the two countries to recognize the possible roles and limitations of nuclear weapons in their security interaction. New Delhi also seeks to develop a deterrent capability against China. Israel is now the only undeclared nuclear weapon state, but it is believed to possess a substantial nuclear force that is comparable in numbers (though not in delivery vehicles or range) to China, Britain, or France. The Israeli government continues to be committed to an opaque status and existential deterrence, but a nuclear Iran may compel a reappraisal of the opaque nature of its nuclear arsenal and the nature of its deterrence strategy. Despite the assertion that it only seeks nuclear energy, the Iranian government's ultimate goal is widely believed to be the acquisition of nuclear weapons, or at least the development of the necessary infrastructure to realize such a capability on short notice (Chubin 2006).

North Korea is possibly the latest entrant to the nuclear club. The government in Pyongyang declared North Korea a nuclear weapon state after a partially successful low-yield atomic test on October 9, 2006. Producing widespread international condemnation, the test has been depicted as a threat to the national security of the United States and Japan, as increasing the prospects for the spread of nuclear weapons and material to additional states and nonstate actors, and generally as a threat to international peace and security with far-reaching strategic consequences for Northeast Asia. Pyongyang, however, sees the test, and more broadly its nuclear and missile programs, as a vital element in developing a self-reliant deterrent capability focused in the short to medium term against a perceived U.S. threat, including preemptive action.<sup>8</sup> In the long term, the capability may be seen as insurance to reduce North Korea's vulnerability and increase its options toward China, Japan, and Russia.

North Korea's nuclear test has reinforced apprehensions among U.S. allies in Northeast Asia, particularly in Japan. Although Japan has since reaffirmed its nonnuclear stance, certain political leaders and influential opinion makers have called for an open debate on Japan's nuclear future. Tokyo also sought reaffirmation of Washington's extended nuclear deterrence commitment. And support for Japanese participation in the American BMD effort has solidified. Though less concerned about North Korea's nuclear program, South Korea too sought reaffirmation of Washington's extended nuclear deterrence commitment in the wake of the test.